Using Game-based Learning in Teaching Chinese for Thai Students with Basic Chinese Level: A Case Study of Primary School Students in Thailand

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Abstract: This research study examined game based learning in Chinese vocabulary learning. The research objectives included: (1) To study students' interest in learning Chinese vocabulary through game based learning. (2) To investigate the effectiveness of game-based learning. A pre-test and post-test and a questionnaire were employed with. This paper takes 400 students for population and take 76 students. The research finding revealed that: (1) Students had a significant interest in learning Chinese vocabulary through the use of game-based learning; (2) Students performed better after using game based learning in learning Chinese vocabulary. Finally, the paper discuss and recommendation for teaching and learning. After learners adopt the game teaching method, their learning results will be better than before, so teachers or researchers should conduct the comparison of game teaching and research. It is also found in the research that teaching games are a complicated teaching method of design, creation and application.

Key words: game, interest, learning, achievement

1. Introduction

With the opening of the international Chinese fever, Chinese has become one of the most important languages in the world. In order to encourage Chinese learning, Thailand government has focused on the development of Chinese language teaching. Many schools throughout the country, from infants to universities, have opened Chinese courses, especially in the recent 50 years. According to Zhu Pengde's research (2017), after 1999, Thailand government has been supporting primary and secondary schools by openning more Chinese lessons. It has also begun to set Chinese class examination of the university entrance examination. Thai government has also opened actively cooperate with China's activity. The government sends the Thai Chinese teaching training for teachers in China, and invites the Chinese teachers to teach in Thailand.

Although the Thai government has been supporting Chinese teaching, there are still problems in the language teaching, which lead to low efficiency of Thai Chinese teaching. To solve the problems, the game-based learning in Chinese teaching, to improve Chinese interests, to create an efficiency learning environment, to increase the learners' motivation, confidence, interest in learning Chinese. I hope game-based learning can improve learners' learning ability in Chinese teaching and Chinese level, enhance the communication between teachers and students.

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2. Research Objectives

1) To study students' interest in learning through game based learning.
2) To investigate the effectiveness of game-based learning.

3. Review of Literature

Although a lot of teachers have research on game-based learning, but they have different definitions and conceptions about game-based learning. Xu Guoping (2010) indicated that game-based learning is starting from the psychological state and age characteristics of students. Pan Hong (2012) believes that game teaching method is to transform boring language knowledge into vivid and interesting game forms that students are willing to accept as much as possible in class. To achieve the goal of "teaching through lively activities". I think that game teaching method is to combine "game" and "teaching" skillfully. Teachers teach in the form of game and students learn in the way of game.

Many scholars and teachers have analyzed the role of game teaching. Among them, He Jie (2011) believes that game teaching can promote the development of intelligence, develop non-intelligence factors, reduce the difficulty of learning, and break through the heavy and difficult points. Gao Caizhen (2015) believes that game teaching can stimulate students' interest in learning, enhance students' confidence in learning and improve the quality of primary school Chinese teaching. The role of game teaching can be summarized into the following two aspects: (1) Helping students to learn better, develop intelligence and non-intelligence factors, improve interest and enhance confidence. (2) It helps teachers to teach better, reduces the difficulty of Chinese vocabulary learning, and also makes it easier for students to have fun in learning.

In recent years, with the vigorous development of Chinese education undertakings in countries, Thailand's Chinese language teaching research has also been popular. Cheng Zhu (2006) discussed the Thai students Chinese and Thai measure words by mistake. From the aspects of surface, it is pointed out that professor in Thailand students of quantifier matters, Shu Qinsun (2005) in Thailand Chinese vocabulary characteristics are discussed. This paper discusses the general situation of Thai Chinese vocabulary influenced by local culture and foreign culture, and points out that there are three characters of Thai Chinese vocabulary. The first part is the Thai parliament language reflects the King's and the royal family's vocabulary is very active. Secondly, the words reflecting Buddhism and related buddhist things are very active. Thirdly, there are a large number of loanwords in the Chinese language. On this basis, Shu Qinsun (2005) points out that Thai Chinese vocabulary teaching should pay attention to these aspects, and she likes to pay attention to the selection and teaching of these words.

4. Research Methodology

This chapter presents a description of the methods and procedures used to investigate the effectiveness of game-based learning in learning Chinese. In this study, a pre-test, post- test and questionnaires were employed.

5. Research Design

This study applied game-based teaching method in Chinese teaching in Thailand through questionnaire survey. Firstly, in terms of questionnaire design, targeted design is carried out according to research objectives. Secondly, the research results on the application of game teaching method in Chinese teaching at home and abroad

are referenced. A total of 76 questionnaires were distributed in this study. The questionnaire recovery rate is 100%. As one of the purposes of this study is to investigate the views and expectations of primary school Chinese learners on the application of game teaching method in Chinese teaching. For pre-test and post-test, I took 20 students for sample to do the tests.

The questionnaire questions mainly investigate the satisfaction and intensity of Thai learners on the application of game teaching method in Chinese teaching. The results of pre-test and post-test collected from two Chinese tests.

6. Population

This research study was conducted with six graders from Beaconhouse Yamsaard School in Thailand. The population of the questionnaire is from grade 6. Two classes of 76 students each were selected. The sample used 76 students from grade six because primary students are young age children and most of them are interested in games, which are easy to research the effect of game-based learning. In Pre-test and post-test, researcher took 20 students as sample because they have a same medium level on Chinese.

7. Research Instruments

There were two quantitative research instruments used to gather the data. These were pre-test and post-test, achievement questionnaire.

7.1 Pre-test and Post-test Chinese Vocabulary

Pre-test and post-test Chinese vocabulary were implemented. The test consisted of two items. Finally, I summarize test scores effect after analysis.

7.2 Questionnaire

The questionnaire is divided into two parts: pre-school questionnaire. The first part is the basic information of Chinese, the second part is the questionnaire after teaching. A total of 76 copies of the questionnaire are distributed, and 100 percent of the valid questionnaire are collected, with the recovery rate of 100%.

7.3 Lesson Plan of Game-based Learning

I design one lesson plan before researching and teach in class follow with the lesson plan.

8. Results and Discussion

The results are divided into two parts: 1 questionnaire and test score. I collect the data then using SPSS to calculate and make some charts for easy review.

8.1 Results Analysis of the Questionnaire Survey

The first part of this questionnaire mainly investigates the class of learners, gender, time of learning Chinese, whether they are Chinese americans and whether they have passed the HSK. From the analysis of the results of the questionnaire, it can be seen that:

Table 1   Gender of Two Classes

Gender/Class	Class one		Class two		Class three		N	%
	population	%	population	%	population	%		
Male	9	45%	6	32%	6	35%	21	37.5%
Female	11	55%	13	68%	11	65%	35	62.5%
Total	20	100%	19	100%	17	100%	20	100%

It can be seen from the table that most of the high school Chinese language learners were 35 female students (62.5%), 21 male students (37.5%). It can be seen from the percentage counting the thorough analysis, three Chinese arts class most learners have women, to 68%, the study also concluded that female learners learners more than men. This reflects that in the number of foreign learners, female learners are more than male learners, which also plays a great role in teaching.
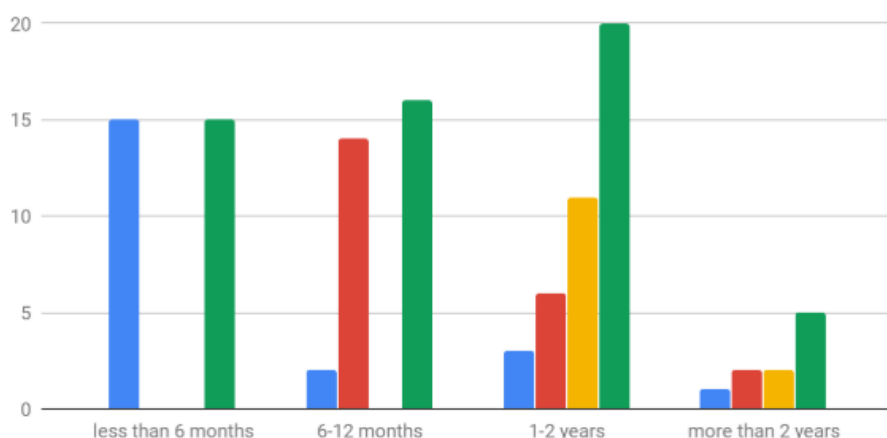

Figure 1   Students Learning Chinese Time

It can be seen from Figure 1, students have learned Chinese for a year to two years of the learners, most have 20 people, accounted for 36% of the total who have studied Chinese for two years or more, at least 5 people, accounted for 8% of the total reflected most Chinese learners of Chinese level is the primary school Chinese, the school less than 10% of the Chinese learners can achieve similar intermediate Chinese or intermediate Chinese level.

Through in-depth analysis, the author finds that the most of the first-year Chinese learners in this school have not learned Chinese or have learned Chinese for less than six months, with a total of 15 students, accounting for 75% of the total. Only 5 students in this class have learned Chinese for more than six months to two years, accounting for the majority

The total number is 25%. It can be expressed that most of the learners in the Chinese liberal arts class of high school in the first grade are learners at the beginning or learners with the lowest level of Chinese.

8.2 Results Analysis of Pre-test and Post-test Chinese Vocabulary

From the research of pre-test and post-test, researcher got the result that students' scores are improved after game-based teaching. Compare the data of the below charts, it's easy to indicate that using mobile Application in teaching Chinese has a significant effect for improving students' learning.

	st 1	st 2	st 3	st 4	st 5	st 6	st 7	st 8	st 9	st 10	st 11	st 12	st 13	st 14	st 15	st 16	st 17	st 18	st 19	St 20
Pre Test	3	2	4	1	6	8	5	3	3	5	1	1	2	1	4	2	5	7	3	1
PostT est	13	15	19	15	20	19	17	10	13	12	16	10	8	17	14	18	13	19	18	9

T-Test

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 PreTest	3.35	20	2.110	.472
PostTest	14.75	20	3.669	.820

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 PreTest & PostTest	20	.474	.035

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PreTest – PostTest	-11.400	3.251	.727	-12.921	-9.879	-15.682	19	.000

Statistics

PreTest

N	Valid	20
	Missing	0
Mean		3.35
Std. Deviation		2.110

PostTest

N	Valid	20
	Missing	0
Mean		14.75
Std. Deviation		3.669

9. Conclusions and Recommendations

Game-based teaching is mainly based on the knowledge, ability of learning and teaching, the teaching rules and teaching objectives. Its purpose is to make learners' interest, improve knowledge, reduce the class boring or depressive mood. This paper mainly chooses teaching games as the research tool. Firstly, teaching games are used to study and do experiments in the primary Chinese learning of Thai high school classes. Then, questionnaire survey, observation and pre-test, post-test are used to investigate. Then the results are analyzed.

After learners adopt the game teaching method, their learning results will be better than before, so teachers or researchers should conduct the comparison of game teaching and research. It is also found in the research that teaching games are a complicated teaching method of design, creation and application. In order to perfect and effectively apply games to future teaching or research, the author needs to put forward some suggestions as follows.

1) Before carrying out the game teaching method or game-related activities, teachers should clearly understand the characteristics of learners, learning advantages and disadvantages.

2) Comparative analysis and research should be carried out among different genders, ages and knowledge levels so as to see the difference in effect more clearly.

3) The research should be carried out to each grade, so that the research can have diversity and correspond to learners in each grade.

4) The purpose, rules, conditions and methods of game activities must be clearly and completely defined so as to reduce the chance of problems.

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