

The Study of Reading Skill and Satisfaction on Chinese Course by using Jigsaw II Cooperative Learning Technique for Grade 5 Students

Ruifang Xie¹ Tidarat Samanpan²

Abstract

The objectives of this research were to: (1) compare students' Chinese reading skills before and after learning through the Jigsaw II Cooperative Learning Technique; (2) compare the students' post-test scores with the criterion score of 80% of the total score; and (3) investigate students' satisfaction with learning Chinese reading skills through the Jigsaw II Cooperative Learning Technique. This study employed a one-group pretest-posttest design. The sample consisted of 30 fifth-grade students from Xincheng Primary School, selected through cluster random sampling. The research instruments included: (1) Chinese reading skill lesson plans based on the Jigsaw II Cooperative Learning Technique; (2) a 30-item multiple-choice Chinese reading achievement test; and (3) a 15-item satisfaction questionnaire using a five-point rating scale. The statistical methods used for data analysis were mean, percentage, standard deviation, and t-test.

The research findings were as follows:

1. The students' post-test scores were significantly higher than their pre-test scores at the .01 level of significance.
2. The students' post-test scores were significantly higher than the criterion score of 80% of the total score at the .01 level of significance.
3. The students' satisfaction with learning Chinese reading skills through the Jigsaw II Cooperative Learning Technique was at the highest level.

Keywords: Jigsaw II Cooperative Learning Technique, Chinese reading skill, satisfaction

¹A master degree student in curriculum and instruction, Faculty of education, Nakhonratchasima College
E-Mail: <xiemian05@gmail.com>

²A lecturer in curriculum and instruction, Faculty of education, Nakhonratchasima College

Introduction

Chinese Language is the most important communication tool and information carrier of human society, and an important part of human culture. The use of language, including listening, speaking, reading, writing and literary activities in life, work and study, exists in every field of human society. Chinese course is a comprehensive and practical course to learn the application of the national common language. The unity of instrumentality and humanism is the basic characteristic of Chinese curriculum. Chinese courses should guide students to love the common Chinese language, accumulate language experience, understand the characteristics and rules of language use, and cultivate language use ability through active language practice in real language use situations. (China's national compulsory education curriculum standards, 2022)

Chinese curriculum is committed to the formation and development of the core quality of all students, and lays a foundation for students to learn other courses well; For students to form a correct world outlook, outlook on life, values, to form a good personality and sound personality to lay the foundation; It lays a foundation for cultivating students' spirit of seeking truth and innovation, practical ability and cooperation and communication ability, promoting the all-round development of morality, intelligence, body, the United States and labor and students' lifelong development. Chinese courses have irreplaceable advantages in popularizing and popularizing the common Chinese language, enhancing cohesiveness, building the sense of community of the Chinese nation, building cultural self-confidence, cultivating new people of The Times, and realizing the great rejuvenation of the Chinese nation. The multiple functions and foundational roles of Chinese curriculum determine its important position in nine-year compulsory education. (China's national compulsory education curriculum standards, 2022,)

Language and culture have always been the "soul" of a nation and a country, and the symbol of a nation and a country's civilization. Language is the carrier and foundation of culture. China is a country with an ancient civilization. It has both a splendid and profound ancient culture and a modern culture in which various ethnic groups are intertwined and China and the rest of the world blend together (Yang Hongjie, 2024) Both

ancient culture and modern culture of our country are mainly recorded and inherited in Chinese, which fully shows the incomparable charm of Chinese.

According to an official notice of the final exam results of the 2023-2024 academic year from the Education and Sports Bureau of Nanchang Economic and Technological Development Zone in Jiangxi Province, the exam results of the Chinese reading course in primary schools were not satisfactory, with an average score of 70 out of 100, lower than the average performance based on analysis of students' past exams. When reading articles, some students do not understand the meaning of key words and sentences; Some students read blindly, without purpose and reading method, some students read but do not understand the meaning, resulting in low efficiency; Some students can understand the meaning, but use the words incorrectly in the process of answering the question. In short, primary school students have poor Chinese reading ability and can not understand the meaning of Chinese text well. (Wen RuMin, 2022)

Reading is one of the important means for people to obtain information, and it is also one of the main skills in language learning. The new curriculum standards require teachers to help students improve their reading skills and improve their reading level. According to an official notice of the final exam results of the 2023-2024 academic year from the Education and Sports Bureau of Nanchang Economic and Technological Development Zone in Jiangxi Province, the exam results of the Chinese reading course in primary schools were not satisfactory, with an average score of 70 out of 100, lower than the average performance based on analysis of students' past exams. When reading articles, some students do not understand the meaning of key words and sentences; Some students read blindly, without purpose and reading method, some students read but do not understand the meaning, resulting in low efficiency; Some students can understand the meaning, but use the words incorrectly in the process of answering the question. In short, primary school students have poor Chinese reading ability and can not understand the meaning of Chinese text well.

Given the above facts, we need to address these issues immediately. Teachers must consider other ways for students to improve their reading skills through skimming and skimming, and to engage students actively in the learning process. The government should actively advocate new curriculum standards for cooperative learning methods.

Many scholars in the field of education theory speak highly of foreign cooperative learning strategies and cases. Compared with the traditional teacher-centered teaching method, cooperative learning is considered to be an excellent teaching method and is now widely praised across China. More and more teachers try to adopt cooperative learning method in teaching practice. Some results have been obtained, and empirical papers have been published in various journals of curriculum reform.

The Jigsaw II cooperative learning technique, also known as the "block splicing method", is a teaching theory of group cooperative learning, which was originally proposed by the famous American educator and sociologist Aronson, E. It was proposed by Slavin, R. E. and Holliday, D. C. in 1978 and further developed and refined by Slavin, R. E. and Holliday. The Jigsaw teaching model can establish a learning atmosphere in which students rely on each other and cooperate with each other, so it is widely used in the teaching and research of various disciplines [2]. Jigsaw itself is a jigsaw puzzle in which a complete picture is cut into pieces, and then all the pieces are put together in the right way to form a complete picture, one piece of each piece must be missing. Similar to Jigsaw, Jigsaw teaching model requires teachers to divide learning tasks into different sections, and then assign different sections to different learning groups. Finally, students can share the information they have mastered through cooperative learning to complete the entire learning task. The lack of any section will affect the completion of the entire learning task (Cheng JiaoJiao, 2019)

Jigsaw II cooperative learning technique can not only exercise students' oral communication ability, but also promote the relationship between students. Through Jigsaw II, students can cultivate their logical thinking ability, give full play to imagination and creativity, and then improve their oral Chinese communication ability and hands-on practical ability.

The Jigsaw II cooperative learning technique originated in the United States in the 1970s, and its core idea is that students are the main body, through the form of group cooperation, so that students can learn and progress together in interaction and communication. Jigsaw teaching method can not only fully develop students' initiative and creativity, but also effectively promote communication and collaboration among students, and cultivate students' innovative thinking ability and logical thinking ability.

The Jigsaw teaching method changes the traditional teaching method in which the teacher only transmits knowledge. Students are organized into groups, and each group is responsible for learning different contents and then sharing them with other students. This kind of interaction and cooperation stimulates students' awareness of active learning. Through communication and learning, each student gradually splices knowledge points into a complete knowledge system, just like completing a puzzle. Jigsaw provides students with a personalized and efficient way to learn, puts learners in the driver's position, and promotes their overall literacy and teamwork.

To sum up, this study tries to adopt the cooperative learning model of Jigsaw II in the Chinese reading course to improve students' reading ability. Chinese reading courses are offered to improve students' reading ability.

Research objectives

1. To compare post-test and pre-test on Chinese reading skill using jigsaw II cooperative learning technique of Chinese reading for Xincheng primary school.
2. To compare the academic performance after reading with the 80% standard of full score
3. To study the students' satisfaction level of the cooperative learning by jigsaw II technique of Chinese reading for Xincheng primary school.

Research hypothesis

- 1). After using Jigsaw II cooperative reading skill, the reading skill on Chinese reading for 5st year students Xincheng primary school are significantly higher than the pre-test scores.
- 2) students' average score of posttest in Chinese reading is higher than 80% of the full score at 0.05 statistical significance level.
- 3). After using Jigsaw II cooperative learning technique, students' Satisfaction is at high level

Conceptual Framework

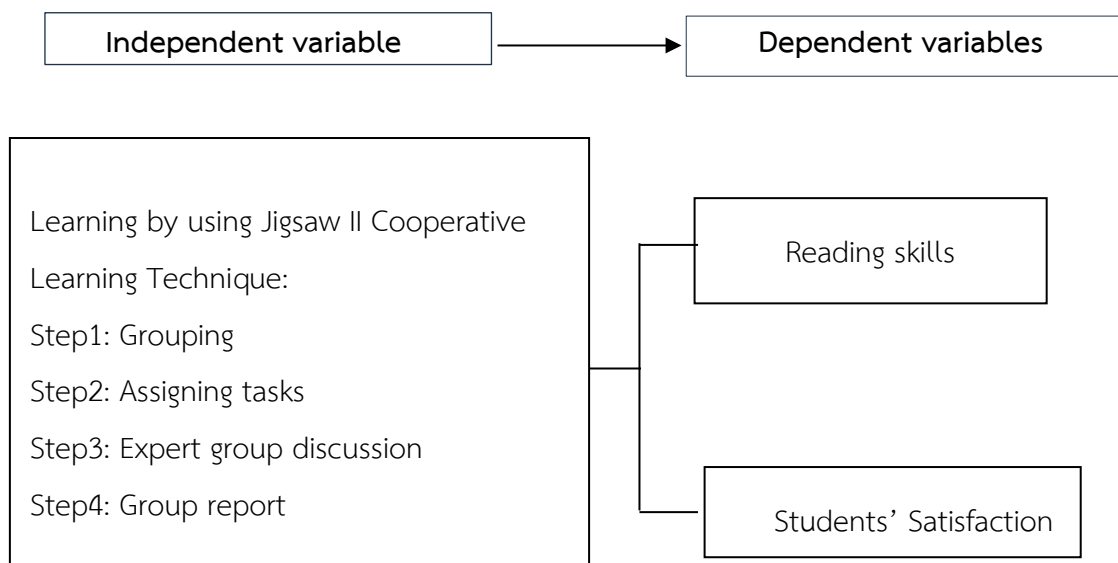


Figure 1 Conceptual Framework

Methodology

1. Research design

This research used one-group pre-test and post-test design (Cambell and Stanley,1969) model as shown in Figure 2 below.

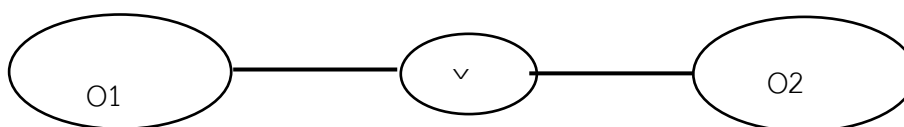


Figure 2 One-group pre-test and post-test design

- X is the Jigsaw II Cooperative Learning technique
- O1 is a pre-test
- O2 is a post-test

2. Population and sample

2.1 The population is students in the 5th grade of Xincheng primary school, under the Nanchang Economic Development District Education Bureau ,semester 2, academic year 2024, 60 students, 30 in each class

2.2 Sample group: The sample is Xincheng primary school is 30 students in the 5th grade, semester 2, academic year 2024, 30 students by cluster random sampling

3. Research instruments

3.1 Lesson Plan The lesson plan is written with reference to the Teaching Guide and Jigsaw II A curriculum designed for the Chinese reading class of Grade 5 students in Xincheng Primary School which consists of 5 plans for 3 hours. lasting for five weeks (3 hours a week, 15 hours in total). The quality was checked by 5 experts using a 5-level rating scale, resulting in an average quality score of 4.90 and a standard deviation of 0.06.

3.2 reading skill test Reading skill test on Chinese course for the fifth year students at jiangxi Xincheng primary school of Technology contains pretest and post-test, which was included multiple choice questions, short answer questions, true/false questions, and summary questions. the duration of the testing is 60 minutes. Quality control was performed using IOC values and reliability coefficients. IOC values ranged from 0.60 to 1.00, and the reliability coefficient was 0.93.

3.3 Satisfaction Assessment Form on Chinese Reading A questionnaire to measure the level of satisfaction of the Fifth-year students at jiangxi Xincheng primary school of Technology by Jigsaw II is a 5-level rating scale (Likert Scale). Scale 1 means very little; Scale 2 means little; Scale 3 means middle; Scale 4 means much; and Scale 5 means very much. Quality control was performed using IOC values and reliability coefficients. IOC values is 1.00, and the reliability coefficient was 0.71.

4. Data collection The researcher conducted the data collection with the sample group by the following steps:

Step 1: Prepare students by providing clarifications for students to know about the subject to be studied and the teaching methods.

Step 2: The students took the pre-test by using the achievement test created by the researcher. The duration of the test was 60 minutes.

Step 3: The researcher conducted Chinese reading teaching activities with Grade 5 Class 3 in the second semester of 2024 school year in XinCheng primary School. The total of students was 30 which was the sample group. The researcher taught according to the lesson plan on Chinese reading by using Jigsaw II Cooperative Learning. It took 15 hours to study, including pre-test and post-test time.

Step 4: After teaching all the lesson plans, a post-test was performed by using an achievement test that was created by the researcher. The duration of the test was 60 minutes.

Step 5: The researcher conducted a scoring of the learning achievement test on the Chinese reading for the four grade students as follows:- Correct answer was given 1 point. Wrong answer or no answer or answer more than 1 option gave 0 point.

Step 6 :The researcher gathered the scores of learning achievement for data analysis.

5. Data Analysis In this research, the researcher analyzed the data according to the following steps:

5.1 Jigsaw II Cooperative Learning Skills and Chinese Reading comprehension series activities Fifth grade students used formulas to determine efficiency 80% before setting standards. Data were analyzed using pre - and post-test percentages, mean values, and standard deviations.

5.2 Comparison of Chinese reading achievement of students through the use of collaborative learning techniques Jigsaw II with Chinese reading comprehension. between pre-test and post-test using t-test. The level of statistical significance was set at the .05 level.

5.3 Analysis of satisfaction., Jiangxi XinCheng primary School Of 5st year students on the Jigsaw II Cooperative Learning Technique and the activity series on reading comprehension. t-values with 80% criterion. Determine the criteria for interpreting the mean level according to the following criteria. (Boonchom Srisaard, 2023).)

4.51-5.00	means	satisfaction is at the highest level
3.51-4.50	means	satisfaction is at a high level
2.51-3.50	means	satisfaction is at a moderate level

1.51-2.50	means	satisfaction is at a low level
1.00-1.50	means	satisfaction is at the lowest level

Results

1. The post-test score on Chinese reading of Jiangxi NanChang XinCheng Primary school is significantly higher than that before the use of Jigsaw II at the level of 0.01.
2. The post-test score is significantly higher than that before the use of Jigsaw II, and is higher than the 80% full mark threshold at the level of 0.01.
3. The satisfaction of 5th year students of Jiangxi NanChang XinCheng Primary school on Chinese reading using Jigsaw II Cooperative Learning Technique is at the highest level ($\bar{x} = 4.58$, S.D. = 0.78)

Discussion and Conclusions

Through a study on the academic performance of 5th year students in Jiangxi NanChang XinCheng Primary school using Jigsaw II Cooperative Learning Technique in Chinese reading and their satisfaction with the performance using Jigsaw II, the researcher discusses the results as follows:

1) The post-test results of 5th year students of Jiangxi NanChang XinCheng Primary school who use Jigsaw II Cooperative Learning Technique to study Chinese reading are higher than the results in pre-test, which is statistically significant at the level of 0.01 and the average score in the post-test above the threshold of 80% full mark. As the teaching plan or teaching activities of the 5th year students in Jiangxi NanChang XinCheng Primary school adopt Jigsaw II Cooperative Learning Technique, it effectively improves students' academic performance, and encourages students to carry out independent learning activities, and enhances students' learning interest. Achievement tests and the teaching plan are designed by learning relevant principles, concepts, theories of related research.

Meng Fansheng (2023) studies the overview and activity process of Jigsaw II in his research on the mode and method of application of Jigsaw II in foreign Chinese teaching, and proves students' academic progress by comparing progress scores with basic scores. The results show that Jigsaw II is a teaching organization method of cooperative learning and provides a good way for students to participate in the learning process.

Gao Xianli (2022) uses tests and questionnaires in his study of reading instruction based on the Jigsaw II model, to find that while high achievers show a more positive attitude toward reading and self-awareness during the learning process, low achievers have a more pleasant experience of cooperative learning than high achievers.

Thus it can be seen that in the Chinese reading teaching of 5th year students in XinCheng Primary school, the use of Jigsaw II Cooperative Learning Technique plays a role in students' learning to help each other, cultivate students' self-recognition, strengthen students' knowledge, but also let students experience the fun of cooperative learning and see their own progress. As such, it is a kind of support and encouragement that makes students aware of their important place in the group and encourages them to mobilize their initiative. It can be said that group communication and cooperation can achieve the purpose of learning from each other. At the end of each activity, students can see their learning results and know their achievements immediately, which promotes students' motivation to learn. In the first semester, the Jigsaw II Cooperative Learning Technique is used to achieve success in Chinese reading. Students have a good academic record and a good learning attitude. There is statistical difference at 0.01 level before and after the use of Jigsaw II Cooperative Learning.

2) The 5th year students of Jiangxi NanChang XinCheng Primary school are quite satisfied with the use of Jigsaw II Cooperative Learning Technique. The satisfaction evaluation results are excellent. The Jigsaw II Collaborative Learning Technique encourages students to realize the learning objectives and work through communication and collaboration with other members of the groups. This is consistent with many studies on cooperative learning satisfaction with Jigsaw II technique. For example, Connie Wang's research shows that using Jigsaw II Cooperative Learning Technique is beneficial to improve students' Chinese reading ability. This study finds that the average progress score of students mastering Chinese reading is 18.36, and the baseline deviation is 3.68.

This means that this study has been completed, showing that the Jigsaw II Cooperative Learning Technique can improve students' Chinese reading ability, especially in understanding texts. This method helps students understand the learning materials easily.

It can be seen that the use of Jigsaw II Cooperative Learning Technique in

Chinese teaching of 5th year students in Jiangxi NanChang XinCheng Primary school can encourage students to learn more actively and gain greater satisfaction. Students' satisfaction level is assessed as the most satisfied and passes the criteria set by the researcher.

Recommendations

By studying the development of academic performance and student satisfaction of 5th year students in Jiangxi NanChang XinCheng Primary school after using Jigsaw II science Cooperative Learning Technique, the researcher makes the following recommendations:

Recommendations for Applying the Research Findings

1. When implementing learning activities with the Jigsaw II Cooperative Learning Technique, students need to engage in the activities continuously for a set duration. Therefore, teachers should prepare all necessary documents and materials in advance according to the teaching plan. This will ensure that students are well-prepared and have sufficient time for the activities.
2. For organizing learning activities for fifth-year students using the Jigsaw II Cooperative Learning Technique, teachers should consider the following points:
 3. Before starting the activities, teachers should explain the Foundational knowledge of the Jigsaw II Cooperative Learning Technique to the students to ensure they understand their roles and responsibilities.
 4. During the learning process, the Chinese reading activity should Be conducted as a group activity, in line with the Jigsaw II Cooperative Learning Technique.
 5. After completing the activities, teachers should administer post tests. If any student is absent, teachers must guide them to study the content from the teaching plan independently.
 6. Teachers should dedicate adequate time to lesson planning.

Recommendations for Future Research

1. Explore the application of the Jigsaw II Cooperative Learning Technique in other subjects to enhance learning outcomes. This will help determine whether this approach

is suitable for students at different grade levels and which subjects are best aligned with this learning style.

2. Conduct studies using data collection tools derived from learning management plans and other samples to ensure precise and reliable educational results.

3. Compare the effectiveness of the Jigsaw II Cooperative Learning Technique with that of other instructional methods.

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