



Effects of Learning Management as Flipped Classroom in Abilities the Reading and Writing Chinese on Eighth-Grade Students at Ivy League Middle School

Sun Lijuan¹, Mesa Nuansri², and Suwana Juithong³

¹Master student, Curriculum and Instruction Program, Valaya Alongkorn Rajabhat University under the Royal Patronage Pathum Thani Province, Thailand

^{2,3}Lecturer, Curriculum and Instruction Program, Valaya Alongkorn Rajabhat University under the Royal Patronage Pathum Thani Province, Thailand

E-mail: 2754319624@qq.com, ORCID ID: <https://orcid.org/0009-0007-2552-4475>

E-mail: mesa@vru.ac.th ORCID ID: <https://orcid.org/0009-0003-2449-3604>

E-mail: suwana@vru.ac.th ORCID ID: <https://orcid.org/0009-0002-1391-5819>

Received 21/03/2024

Revised 24/03/2024

Accepted 25/04/2024

Abstract

Background and Aims: In 2023, responding to national educational directives, this study demonstrates the impact of flipped classrooms on students' Chinese reading and writing ability. This research aims to: 1) compare the academic achievement scores in Chinese reading ability of students before and after participating in a flipped classroom teaching environment. 2) To examine the academic achievement scores in Chinese writing ability of students before and after participating in a flipped classroom teaching environment.

Methodology: There are 10 classes (50 students in each class) in the eighth grade of Ivy League Middle School, this study adopts a cluster sampling method and selects 1 class with 50 students as samples. The research tools were: (1) course lesson plans were used to organize and implement flipped classroom teaching, (2) students' reading ability achievements test paper, and (3) essay test with rubric scores of students' writing ability reliability. Conduct pre-test and post-test on the sample using students' reading ability test paper and essay test with a rubric score of students' writing ability, analyze the mean, standard deviation, and single sample t-test of the data using SPSS.

Result: 1) After using the flipped classroom method, students' scores in reading ability tests significantly improved, and the difference was statistically significant 0.05 ($t=20.122$, $p<0.05$). 2) After using the flipped classroom method, students' scores in writing ability tests significantly improved, and the difference was statistically significant at 0.05 ($t=19.104$, $p<0.05$).

Conclusion: Through flipped classroom teaching method practice, not only improved students' scores and achievements in Chinese reading and writing among students but also enhanced engagement and learning efficiency.

Keywords: Learning Management; Flipped Classroom; Abilities the Reading and Writing Chinese; Eighth-grade Students; Ivy League Middle School

Introduction

Tao (2022) pointed out that the so-called traditional classroom refers to the classroom for the knowledge system imparted. Teachers mainly teach students the accumulated knowledge and experience of human beings. Students learn in a receptive manner and cannot be skeptical about knowledge, let alone critical. However, with the advent of the knowledge-based economy and the development of information network technology, the traditional classroom is no longer adapted to the new educational situation. The flipped classroom has become a topic of exploration and attention in the education field, and it was believed by Bill Gates that it "predicts the future of education". Domestic academic circles believe that a "flipped classroom" reverses the traditional teaching order and content and is a revolution in learning and teaching. Based on this, it is necessary for us to fully analyze the



advantages of the "flipped classroom" and its challenges to the traditional classroom-based on recognizing the difficulties faced by traditional classroom under the new situation, to explore the path for the reform of traditional classroom and promote the development of classroom teaching. Zheng (2023) pointed out that compared with other subjects, junior high school students had to spend more time and energy learning Chinese, no matter in terms of word memory or grammar knowledge, and they had difficulty in accepting Chinese reading ability. In addition, the traditional teaching mode leads junior high school students to have no enthusiasm for Chinese reading and learning, as a result, teachers' teaching and junior high school students' learning had been unsatisfactory. The "Flipped classroom" teaching mode was a new teaching mode, which was very different from the traditional teaching mode. In the Chinese reading ability classroom, junior high school students were taken as the leader, and students' learning enthusiasm was stimulated. However, Guoliang (2023) believes that in the traditional teaching of Chinese writing ability in the eighth grade of junior middle school, teachers often stick to textbooks, so students' writing ability has not been fully explored. In the classroom, teachers often explain writing techniques more, and students have fewer opportunities to create practice. In addition, students tend to carry out mechanical imitation around the teacher's pre-set exercise ideas and choose a good exercise language, so students' expressive power was greatly affected, and the expression of students' internal observation ability and imagination ability were suppressed to varying degrees. Based on this, this study discusses the application of the "flipped classroom" teaching paradigm to improve students' writing ability.

To sum up, the application of a flipped classroom in the teaching of Chinese reading ability and writing ability in junior middle school is a reform and innovation of the traditional teaching mode of Chinese reading ability and writing ability. It has many advantages. Teachers and students exchange positions and make up for the shortcomings of the traditional teaching mode. It is of great significance for junior middle school students' interest in Chinese reading and writing, their active initiative in Chinese reading and writing, and the promotion of junior middle school students' Chinese reading and writing ability.

Objective

1. To compare the academic achievement scores in Chinese reading ability of students before and after participating in a flipped classroom teaching environment.
2. To examine the academic achievement scores in Chinese writing ability of students before and after participating in a flipped classroom teaching environment.

Literature Review

Improving students' Chinese reading and writing ability is an important task for Chinese education. For this reason, the Chinese education circle constantly explores the teaching mode which is conducive to improving the teaching quality. In recent years, as a representative blended teaching model, flipped classrooms have attracted wide attention in educational circles at home and abroad. It advocates that the content originally used for teaching should be completed by students in the form of videos before class, and the freed class time should be used for interactive activities such as discussion and questioning.

The research of flipped classrooms originated from abroad, mainly based on practical research, and formed several typical flipped classroom models, among which the Woodland Park High School model, Harvard University model, and Riverside Union School District model became the typical





research of flipped classrooms. The introduction of the flipped classroom into China, as a new teaching mode, has become a hot spot in the field of education research and has also become one of the important teaching methods in the information age. Flipped classroom refers to the classroom in which learning and teaching flip each other, and the ownership of learning is transferred from the teacher to the student through the reversal of the order of teaching and learning (Hongwei, et al., 2022). Teachers can make relevant teaching resources based on the content to be taught, and students can learn the teaching resources provided by teachers in advance during after-class time to realize knowledge transfer (Jinwu et al., 2023). Under the flipped classroom teaching mode, students' learning tasks are transferred to the pre-class, which brings two advantages: (1) Students can acquire some basic knowledge before class; There is more time to carry out a variety of collaborative and exploratory activities in class, which helps to cultivate students' advanced abilities. Social constructivism believes that students learn knowledge and construct meaning through cooperation, communication, and cooperation with their peers. Collaborative learning organizes students to learn in the form of groups and to cooperate and help each other to achieve the common learning goal and maximize the learning effect between individuals and others under a certain incentive mechanism. The essence of collaborative learning is to let multiple learners complete a certain task together (Levi, et al., 2024).

However, because most research activities are independently initiated by schools and carried out by schools in different regions, the overall research lacks systematization and is relatively scattered. Moreover, practical research focuses on the development and research of learning resources such as pre-class teaching videos, and the applied disciplines are mainly science and engineering. However, the concept introduction and discussion of flipped classrooms are more than research, theoretical research is more than practical research, and the research is mostly concentrated in science (information technology, natural science, physical chemistry) and other disciplines. While liberal arts classes (Chinese, English, etc.) involve relatively little, there is a lack of research on the specific teaching design and implementation strategy of flipped classrooms, and there is no research on the application of flipped classrooms in specific disciplines, and there is a lack of research on teaching design and implementation strategy. To have a systematic understanding of the connotation and characteristics of flipped classrooms and the effect evaluation of Chinese reading ability and writing ability, this study applied it to the course "Chinese reading ability and writing ability" of junior middle school students, conducted experimental research, built a flipped classroom teaching model for Chinese reading ability and writing ability, and analyzed the implementation process of flipped classroom. To provide a reference for Chinese language teaching reform.

Conceptual Framework

The educational and teaching reform carried out in this study based on flipped classrooms is not only to respond to the national advocacy of information technology implementation of mixed teaching mode but also to achieve accurate services for Chinese reading ability and Chinese writing ability. Under the guidance of Constructivist learning theory and Mastery learning theory, combining the teaching content of Chinese reading ability and Chinese writing ability courses, student's characteristics, and the existing research on the flipped classroom (Ying, 2023), Taking the eighth-grade Chinese reading ability and Chinese writing ability course as a case, this paper constructs the flipped classroom model of Chinese reading ability and Chinese writing ability course, and probes into whether this model can improve the eighth-grade students' Chinese reading ability and Chinese writing ability. This study

uses to flipped classroom teaching method as an independent variable, and discusses the impact of the flipped classroom teaching method on students' Chinese reading ability and Chinese writing abilities, as shown in Figure 1:

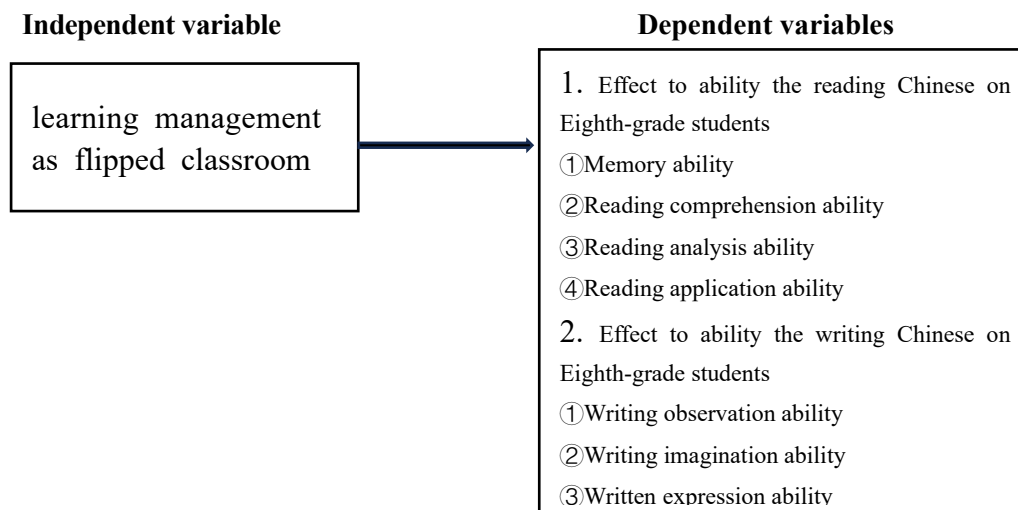


Figure 1 Research Conceptual Framework

Methodology

1. Population and samples

1.1 The population in this study was 500 eighth-grade students (in 10 classes) at IVY League Middle School in Taiyuan City, Shanxi Province, for the academic year 2023.

1.2 The sample of this study was 50 students (in 1 classroom) of IVY League Middle School in Taiyuan City, Shanxi Province which was selected by using the cluster random sampling method. The use of cluster random sampling to randomly select the same class can ensure that the tested students are teaching Chinese reading ability and Chinese writing ability in the same academic year and semester and that the teaching materials, teaching topics, and teaching duration are the same. The number of pre-test and post-tests, gender ratio, and professional background are similar, to ensure the appropriateness and accuracy of the test data.

2. Research instruments

Research instruments were the tools for collecting data. The research instruments which were used in this study were:

2.1 Instruments for Measuring Students' Chinese Reading Ability and Writing Ability

To evaluate the Chinese reading ability and writing ability courses of junior middle school using the flipped classroom teaching method, the researchers created a lesson plan evaluation table.

2.1.1 According to the concept and characteristics of the flipped classroom, this study defines the pre-class, classroom, and after-class teaching objectives of Chinese reading ability and writing ability in the flipped classroom according to the six levels of learning according to Bloom's learning classification, assigns teaching tasks and designs teaching strategies, and discusses and deduces from cognitive formation and learning rules. Based on this, Skimming and intensive reading, Summarize the central ideas of Chinese reading article, Grasp key words in Chinese reading, Chinese narrative reading, Chinese expository reading, Grasp key words in Chinese reading, Chinese narrative



reading, Chinese expository reading, Chinese argument reading: 6 teaching plans for Chinese argument reading; Chinese writing topic analyze, Junior high school composition material selection, Method of composition outline, Instruction in narrative writing, Instruction in expository writing, Instruction in argumentative writing. 6 teaching plans for Chinese writing ability.

2.1.2 The expert group composed of 1 expert in the field of teaching management, 2 experts in the field of education, 1 expert in the field of linguistics, and 1 expert in the field of literature evaluated the teaching plan table from the following aspects, using the five-point Likert system to make qualitative evaluation from a very high level, high level, medium level, low level and very low level. If the average score assessed by the expert panel is above 3.51, the teaching plan is considered appropriate; If it is lower than 3.51, the lesson plan needs to be modified according to the advice of experts. After the revision, the expert will re-evaluate the lesson plan until it meets the appropriateness. According to the curriculum standards for Chinese reading and writing ability issued by the Ministry of Education, the evaluation standards for teaching plans are formulated and revised after discussion by experts, as follows:

- 1) The teaching goal is clear, the thinking is clear, and it conforms to the curriculum standard.
- 2) The key points, difficulties, and key points are expounded, detailed, and slightly appropriate, and the knowledge points are arranged systematically.
- 3) The teaching content is accurate, the teaching process is complete and rigorous, the teaching links are properly arranged, and the time allocation is reasonable and scientific.
- 4) The flipped classroom teaching method is ingenious in design, novel, and unique, focusing on inspiration and research, reflecting the interaction between teachers and students.
- 5) Students make full use of flipped classrooms to learn basic knowledge before class, design hierarchical questions, and propose tasks of different difficulty for class discussion according to the characteristics of students.
- 6) Attach importance to the design and application of various teaching means, can combine the teaching content and subject characteristics, reasonable selection of teaching AIDS, multimedia and other teaching means to assist teaching.
- 7) There is an interactive design with students, questions and difficulties in tutoring and answering questions, and requirements for assignment and correction after class in a flipped classroom.
- 8) Embodies modern educational thought, teaching theory, and learning theory, and focuses on cultivating students' ability to acquire knowledge and solve problems independently.
- 9) The teaching plan is complete, rich in content, concise in text, and reasonable in format
- 10) Self-summary analysis after class is comprehensive, objective and comprehensive and correct.

2.1.3 After collecting data, analyze the collected data to determine the appropriateness and consistency of the lesson plans. If the average score of appropriateness and consistency assessed by a group of experts is higher than 3.51, it means that the components of the lesson plans have good appropriateness quality and internal consistency. After obtaining the expert evaluation results, the developed teaching model was revised and improved according to the expert's suggestions. To evaluate the adaptability of flipped classroom teaching methods to Chinese reading ability and Chinese writing ability, the researchers created a lesson plan evaluation table.

2.1.4 It was found that the mean score of appropriateness of all 12 lesson plans was



between 4.08 and 4.38, which means the lesson plans had quality at a very high level. Therefore, applying the lesson plans of the Chinese reading ability course and writing ability course to the teaching of students in the Ivy League high school language Chinese reading and writing ability can improve students' reading ability and writing ability.

2.2 Instruments for collecting data

An instrument for measuring: Test paper of students' Chinese reading ability and Chinese writing ability essay test with rubric score form.

2.2.1 The test paper on students' academic achievements in reading ability.

The test consists of 20 items of multiple-choice questions, each of which has four alternatives with one correct answer. The test items consisted of four types of ability domains: 1) memory ability, 2) comprehension ability, 3) analysis ability, and 4) application ability; The index of Item Objective Congruence (IOC) value of 20 items in the test paper was 0.80 at the lowest and 1.00 at the highest. The result of analyzing the IOC value showed that all test items were appropriate and could be used in the test. The test paper difficulty (p) was between 0.71-0.77, and item discriminability (r) should range from 0.62-0.85 and more than 0.20. The test paper reliability is 0.71 and more than 0.70 (Richardson & Kuder, 1939: 681-687).

2.2.2 Chinese writing ability essay test with rubric score form

The Chinese writing ability essay test with rubric score form is provided to 5 experts for content validity check and suggestions. The quality of the Chinese writing ability essay test with rubric score form is considered according to the Index of Item Objective Congruence (IOC) obtained from the Chinese writing ability essay test with rubric score form evaluation form. The IOC of each item of the Chinese writing ability essay test with rubric score form was between 0.8 and 1. The result of analyzing the IOC index showed that each item in the Chinese writing ability essay test with rubric score form was appropriate and could be used in the writing ability evaluation. The Cronbach's Alpha coefficient of the reliability of the student Chinese writing ability essay test is 0.72, which is greater than 0.70 (Cronbach, 1951). This showed that the internal consistency of the student Chinese writing ability essay test with rubric score form met the requirements.

3. Data collection

The procedures of data collection were as follows:

3.1 In the first week of school in September 2013, 50 students from Class 158 of Grade 8 were pre-tested for their Chinese reading and writing ability.

3.2 According to the teaching arrangement of Chinese reading ability and writing ability, complete 2 hours of Chinese reading ability teaching and 2 hours of Chinese reading ability teaching per week according to the teaching plan.

3.3 In the sixth week of December 2023, after the end of the course, 50 students from Class 158 Grade 8 will be tested for their Chinese reading ability and writing ability.

3.4 Clean and process the collected data to remove duplicates, errors, or incomplete data and ensure the quality of data.

In addition, this study also uses the classroom observation method to monitor students' performance in real-time. To ensure the reliability and validity of the observation, three observers observed at the same time, and only as onlookers, did not participate in the classroom activities. Finally, the observers negotiated the performance of each group of students in the flipped classroom learning.

4. Data analysis



This study adopts the experimental research method, first of all, the subject should be measured by the dependent variable, that is, the pre-test. Then, the experimenter receives the stimulus of the independent variable, and the subject is measured by the dependent variable, that is, the post-test. The difference between the before and after measurements of the variable is considered the influence of the independent variable. The behavior of teachers and students is as follows: Before class, teachers conduct resource analysis and send learning resources to students. At the same time, students are divided into different groups by sending previous knowledge and experience tests to students; Students prepare for class with the help of learning resources provided by teachers. In class, teachers focus on teaching the course content and assign collaborative discussion tasks and collaborative learning assignments after class. Students carry out collaborative learning activities according to heterogeneous groups. Students take groups as units to conduct collaborative discussions on the problems that still exist after the pre-class preview and the lecture in class. After class, students work in small groups to complete the homework assigned by the teacher through task assignment and role division. In this study, data were analyzed by using the statistical program according to the research objectives

There are 20 items in the Chinese reading ability test, and the standardized factor load coefficient and average variance sampling amount AVE of each item are greater than 0.5, so the questionnaire has good convergence validity. By comparing the standardized correlation coefficient of each item with the square root value of each item AVE, it is found that the former is smaller than the latter, and the questionnaire has good discriminant validity. According to the above verification, the validity of the questionnaire structure is good. In the Chinese writing ability test paper, the standardized factor load coefficient and average variance sampling amount AVE of each scoring item are greater than 0.5, and the questionnaire has good convergence validity. By comparing the standardized correlation coefficient of each item with the square root value of each item AVE, it is found that the former is smaller than the latter, and the questionnaire has good discriminant validity. According to the above verification, the validity of the questionnaire structure is good.

4.1 Compare students' scores in reading ability tests before and after receiving the flipped classroom teaching method by using t-tests for dependent samples.

4.2 Compare students' scores in reading ability tests before and after receiving the flipped classroom teaching method by using t-tests for dependent samples.

Results

The results were presented according to the research objectives as follows:

1. The result of comparing students' Chinese reading ability and the different scores of academic achievements before and after learning through the flipped classroom teaching method

Table 1 Paired Sample T-test Results for Students' Chinese Reading Ability

Group	n	Full score	Pretest scores		Posttest scores		<i>t</i>	<i>p</i>
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Experimental group	50	20	10.46	2.418	16.54	1.446	20.122*	.000

* $p < 0.05$

As presented in Table 1, the mean scores of the pretest students' Chinese reading ability were 10.46



($SD=2.41$) and the posttest students' Chinese reading ability was 16.54 ($SD=1.44$).

On average, post-test scores were 6.08 points higher than Pretest scores.

Moreover, it aimed to examine the mean score before and after using learning management using the flipped classroom method to enhance Chinese reading ability. The result of this table showed that after learning through learning management using the flipped classroom method in reading ability class, posttest scores of students' Chinese reading ability were higher than pretest scores at a .05 level of statistical significance ($t = 20.122$, $p < 0.05$). The flipped classroom teaching method can improve Chinese reading ability, stimulate students' learning interest, and improve the learning effect. A decrease in standard deviation, for instance, could indicate a more uniform improvement among students.

The result of comparing students' Chinese reading ability the different scores before and after learning through the flipped classroom teaching method

Table 2 Paired Sample T-test Results for Students' Chinese Reading Each Ability

Items	Full score	n	Pretest scores		Posttest scores		t	p
			M	SD	M	SD		
Memory ability	5	50	3.12	0.98	4.64	0.52	11.036*	.000
Reading comprehension ability	5	50	2.96	0.78	4.32	0.58	11.295*	.000
Reading analysis ability	5	50	2.50	0.83	4.06	0.58	11.870*	.000
Reading application ability	5	50	1.88	0.77	3.52	0.64	13.252*	.000
Overall Total	20	50	10.46	2.41	16.54	1.44	20.122*	.000

* $p < 0.05$

It aimed to examine the mean score of before-and-after using learning management using the flipped classroom method to enhance reading each ability. As shown in Table 2, we can state the following:

The mean scores of pretests of students' reading memory ability, reading comprehension ability, reading analysis ability, and reading application ability posttest scores were higher than Pretest scores. The result of this table showed that reading ability including memorization ability, comprehension ability, analysis ability, and application ability, after learning through the flipped classroom teaching method each ability the average scores of the study developed increasingly higher than pretest.

Especially in flipped classrooms, students use multimedia technology to share pre-class learning results in the unit of the project team, including the analysis of knowledge points, difficulties encountered and solutions, and unresolved problems, which greatly improves students' reading and analysis ability.

2. The result of comparing students' Chinese writing ability essay test with rubric score form before and after learning through the flipped classroom teaching method



Table 3 Paired Sample T-test Results for Students' Chinese Writing Ability

Group	Full score	n	Pretest scores		Posttest scores		<i>t</i>	<i>p</i>
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Experimental group	12	50	6.16	1.40	10.02	0.82	19.104*	.000

* $p < 0.05$

As presented in Table 3, the mean score of pretests of students' writing ability was 6.16 ($SD=1.40$) and the posttest of students' writing ability was 10.02 ($SD=0.82$).

On average, Posttest scores were 3.86 points higher than Pretest scores.

Moreover, it aimed to examine the mean score before and after using learning management using the flipped classroom method to enhance students' Chinese writing ability. The result of this table showed that after learning through learning management using the flipped classroom method in writing ability class, posttest scores of students' writing ability were higher than pretest scores at a .05 level of statistical significance ($t = 19.104$, $p < 0.05$). The average scores of the study developed increasingly higher than the pretest. The flipped classroom teaching method can improve Chinese reading ability, stimulate students' learning interest, and improve the learning effect. A decrease in standard deviation, for instance, could indicate a more uniform improvement among students.

To assess the students' Chinese writing ability with the flipped classroom teaching method, the below table shows descriptive statistics by statistical package program. This table aimed to answer the research objective about whether learning management using the flipped classroom method was able to enhance students' writing each ability.

Table 4 Paired Sample T-test Results for Students' Chinese Writing Each Ability

Item/question	Full score	Pretest score		Posttest score		<i>t</i>	<i>p</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Observation ability	4	2.14	0.63	3.42	0.64	12.911*	.000
Imagination ability	4	2.18	0.72	3.38	0.66	13.282*	.000
Expression ability	4	1.84	0.73	3.22	0.64	10.323*	.000
Overall Total	12	6.16	1.40	10.02	0.82	19.104*	.000

* $p < 0.05$

As shown in Table 4, the results show that students' Chinese writing ability includes writing observation ability, writing imagination ability, and writing expression ability. After learning through the flipped classroom teaching method, the average scores of all kinds of Chinese writing ability have improved compared with the pre-test. Especially in flipped classrooms, students use multimedia technology to share pre-class learning results with the project team as a unit, including the analysis of knowledge points, difficulties encountered and solving processes, and unresolved problems, which greatly improves students' expression ability. This also confirms previous research by scholars like Guoliang and Zheng.

Thus, it was concluded that eighth graders who received flipped classroom teaching improved their writing skills compared to those before the flipped classroom.



Discussion

1. Students' Chinese reading ability after using the flipped classroom teaching method

Flipped classroom teaching methods can improve students' Chinese reading ability. This is because the teaching method of the flipped classroom is based on the instructions of steps, which are analyzed as follows:

1) Pre-class Activities

Before class, teachers record teaching videos for a few minutes or ten minutes according to lesson plans, learning objectives, and learning tasks to show the specific tasks and contents of education and teaching, attract students' attention, and stimulate students' interest. Students can consolidate and expand knowledge by repeatedly watching flipped classroom teaching videos, to learn and review knowledge and improve reading memory ability. Students can also adjust the learning content and learning methods, first looking up the new words and understanding the whole reading content, or directly reading the content, or reading the reading questions first, effectively improve the comprehension of Chinese reading ability, and promote the improvement of students' Chinese reading ability.

2) In-class Activities

In class, when students encounter knowledge that cannot be solved before class, they can communicate and research with other students. For disputed and incorrect knowledge points, students can actively participate in learning and thinking through communication and discussion in class, which will greatly improve their analytical ability in Chinese reading and thus enhance their Chinese reading ability.

3) Post-class Activities

After class, the teacher will provide students with more extra-curricular extension and expansion of learning channels and resources on the platform. The teacher encourages students to do more exercises on the content of this lesson, and the students understand the content, thus consolidating and expanding their learning, improving their Chinese reading application ability, and further improving their Chinese reading ability.

Yan (2024) pointed out that by using the flipped classroom teaching method in the course of Chinese reading ability, teachers and students can provide more extra-curricular extensions and expand learning channels and resources after class, to improve students' interest in independent learning and Chinese reading ability.

Ruijuan (2024) proposed, in the course of Chinese reading ability, teachers should use a flipped classroom teaching mode in classroom teaching to transfer the learning time to students, and let students fully participate in the process of teaching design, knowledge learning, and problem exploration, to further highlight the teaching content, make teaching resources more targeted and the learning process more convenient. It promotes the improvement of Chinese reading ability.

Jialing & Weiguo (2024) pointed out that under the flipped classroom teaching mode, students already have a basic understanding of the main content and knowledge points of Chinese reading class through a preview before class. In class, teachers ask questions according to the previously set teaching objectives and collect students' questions. In the course of teaching, the detailed explanation will absorb, transfer, and use the Chinese knowledge, and thus improve the students' Chinese reading ability.

2. Students' Chinese writing ability after using the flipped classroom teaching method

Flipped classroom teaching methods can improve students' Chinese writing ability. This is because



the teaching method of the flipped classroom is based on the instructions of steps, which are analyzed as follows:

1) Pre-class Activities

Before class, the flipped classroom mode is applied. When training students' writing level, teachers can play videos prepared in advance for students, help students clarify the teaching objectives of writing training, help students find the key points and difficulties in writing, improve their observation ability, and guide students to develop rich associations around the composition subject. Improve students' Chinese writing ability.

2) In-class Activities

In class, we can provide more opportunities for students to communicate and exchange in class, and through the exchange and sharing of writing materials, it is convenient for students to learn from each other and achieve the goal of common growth. During class communication, students are guided to conduct self-exploration in class, and the charm of Chinese writing is brought into play, thus improving students' Chinese writing ability.

3) Post-class Activities

After class, based on the materials collected in real life, writing is taken as the design theme, and homework is completed to deepen the impression of writing knowledge in students' minds, to further consolidate and improve students' writing ability.

Yuejuan (2022) showed that the flipped classroom teaching mode breaks the limitation of time and space, and students can choose the time and place to learn independently after class. In class, students communicate with teachers and discuss with classmates in a targeted manner according to their actual learning situation, expand and deepen their knowledge, make it possible to truly become the leader of learning, and realize the improvement of students' Chinese writing ability.

Hongjun (2023) showed that pre-class videos could stimulate students' learning enthusiasm and guide them to read independently under the flipped classroom mode. In the process of independent reading, students are guided to recognize and master the layout and structure of the author's articles, find the most touching paragraphs, languages, and characters from the texts, perceive the beauty of artistic conception and language in the texts, and improve their Chinese writing observation ability. Through the class guidance, students are guided to participate in the exploration activities, so that students can have in-depth communication with the text in the process of finding, discovering, discussing, and solving problems, and improve their Chinese writing expression ability and imagination ability. Through after-class consolidation, it helps students to better absorb and use knowledge and effectively improves students' Chinese writing ability.

Yun's (2023) research points out that under the flipped classroom mode, students' learning mentality will subtly change, from knowledge receiver to communicator, and finally become the learning subject who actively participates in classroom activities. In this process, students' Chinese writing ability and Chinese literacy will also be improved, thus driving their Chinese scores, strengthening language communication, writing imagination, writing observation, and other abilities, and shaping a good personality.

In this study, the average score of Chinese writing expression ability using the flipped classroom learning method showed an upward trend, which was significantly higher than the score of pre-tests, and the results of this study were consistent with relevant literature. The application of flipped classroom mode can save a lot of class time and provide students with more opportunities for



communication and exchange in class. In class communication, teachers guide students to conduct self-exploration in class, and fully improve students' writing and expression ability. (Yun, 2023)

Conclusion

By comparing and analyzing the pre - and post-test results of the Chinese reading ability and Chinese writing ability course, the impact of the flipped classroom teaching method on students' Chinese reading ability and Chinese writing ability is obtained. The conclusion is as follows:

1) Students' Chinese reading ability using the flipped classroom teaching method in the Chinese reading ability course was higher than those in the pre-test, and the difference was statistically significant (0.05). ($t = 20.122$, $p < .05$).

Students will learn by themselves according to the learning videos provided by the teacher, learning materials, and learning tasks. They can communicate and research with other students when they encounter knowledge that cannot solve doubts. Then, the teacher will communicate with junior high school students during the explanation process to find controversial and incorrect knowledge points and communicate and discuss these disputed issues between teachers and students. It will make the classroom learning atmosphere more enthusiastic and stronger. If junior high school students focus their attention on this Chinese reading ability and take the initiative to participate in learning and think, junior high school students' Chinese reading ability and learning efficiency will be greatly improved.

2) Students' Chinese writing ability using the flipped classroom teaching method in the Chinese writing ability course was higher than those in the pre-test, and the difference was statistically significant (0.05). ($t = 19.104$, $p < .05$).

In the process of flipped classroom teaching of Chinese writing ability, teachers guide students to carry out creative practice through pre-class preparation of exercises, classroom communication, and cooperation, create a writing atmosphere for students, and prepare a writing activity for students. It is necessary to awaken students' consciousness of independent writing and strive to make students' writing become the perceptual manifestation of their essential power, to promote the improvement of Chinese writing ability.

Therefore, the flipped classroom teaching method is feasible for teaching in Chinese reading ability and Chinese writing ability courses, which helps to improve the learning of Chinese reading ability and Chinese writing ability of students. The experimental results validated the research hypothesis.

Recommendation

Recommendation for implication

Based on the findings from the study, the following recommendations are method:

1. Publish study guide: After students log in to the learning platform, they will see the study guide, which lists all the lesson plans of the course, so that students have a clear understanding of the teaching content and teaching sequence of each lesson, and provide help for watching videos and consulting materials in the future.

2. Select teaching resources: A flipped classroom requires students to learn independently before class, so teachers need to produce high-quality pre-class learning resources, such as videos, PPT, online courses, etc. These resources should have a clear structure, a clear focus, vivid cases, and rich interactive elements to stimulate students' learning interest and motivation.

3. Interactive classroom discussion: Classroom interaction in a flipped classroom is the key link to





knowledge internalization. In class, teachers can guide students to explore and discuss new knowledge in depth by organizing group discussions, question-answering, case analysis, and other forms. In this process, students need to actively participate, express their views and opinions, and communicate and collaborate with other students. In this way, students can further deepen their understanding of new knowledge and apply it to practical situations to achieve knowledge transfer and application.

Recommendation for further research

With the development of information technology such as artificial intelligence and big data, flipped classrooms have been applied more and more widely in the field of education. The future has research prospects in the following aspects:

1. Flipped classroom teaching has brought us a new educational idea. How information technology helps Chinese education still needs the attention of education researchers.

2. In our basic Chinese teaching, especially in the teaching of Chinese reading ability and writing ability in high school, the traditional teaching style makes it difficult to arouse students' interest. If the flipped classroom mode can be introduced into basic teaching, it can not only make up for the defects of traditional teaching but also bring the teaching of Chinese reading ability and writing ability into a new era, so that more students will have an interest in English learning. It can improve students' learning ability improve their learning effect, and provide a new vision for the reform and development of basic English teaching in our country.

References

- Guoqiang, F. (2023). Practical Strategies of Chinese teaching in junior middle school under Flipped classroom model. *Tianjin Education*, 24, 116-118.
- Hongjun, H. (2023). "Playing" flipped classroom in front, middle, and back middle. *Primary School Reading Guide (Senior Edition)*, 12, 79-81.
- Hongwei, C. (2022). Exploring the path of integrated Chinese reading and writing construction in middle school from the perspective of Internet. *China New Communications*, 8, 167-169.
- Jialing, C. & Weiguo, L. (2024). Application of flipped classroom in Chinese teaching in the context of the Internet. *Gansu Education*, 2, 92-95.
- Jinwu, M. (2023). On the life-oriented teaching strategies of junior middle school composition. *Education Field*, 25, 47-49.
- Levi, et al., 2023. An empirical study of Chinese flipped classroom teaching for high-level students. *Teacher research and professional development*, 24(1), 53-59.
- Ruijuan, Y. (2024). Reflections on Flipped classroom teaching in Middle School Chinese. *Middle School Chinese*, 5, 25-27.
- Tao, F. (2022). Analysis of integrated development of Chinese, Reading and writing in middle schools in the Internet era. *China New Communications*, 24(2), 171-172.
- Yan, J. (2024). "Flipped Classroom" strategy for advanced Chinese reading teaching. *Information Technology Education in primary and secondary schools*, 11, 75-76.
- Ying, G. (2023). The application of flipped classrooms in Chinese teaching in middle schools. *Chinese Culture*, 14, 114-116.
- Yuejuan, F. (2022). On the cultivation of creative ability of middle school students in writing teaching. *The road to Success in writing*, 17, 65-67.



- Yun, L. (2023). Do four points well, and let junior high school students fall in love with Chinese reading. *Reading and Writing*, 36, 98-100.
- Zheng, D. (2023). The cultivation of reading ability and writing ability in Chinese teaching. *Shanxi Education (Teaching)*, 10, 71-72.

