



# Development of Chinese Teaching Theory in Middle School Course Based on Lesson Study to Enhance Students' Teaching Skills in Chinese Reading and Writing

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## Abstract

**Background and Aims:** This study explores challenges in the Chinese teaching theory in middle school course education at Zhoukou Normal University. Key issues include a lack of course principles, broad objectives, excessive content, outdated instructional strategies, and limited evaluation methods. The aims of this study were: 1) to identify key challenges in the Chinese teaching theory in middle school courses based on Lesson Study. 2) Develop a Lesson Study-based course for middle school Chinese teaching. 3) Evaluate the effectiveness of the newly developed course in enhancing students' teaching skills in Chinese reading and writing, as well as their satisfaction with the criterion of 70%.

**Materials and Methods:** This experimental study involved 18 third-year students majoring in Chinese Language and Literature at Zhoukou Normal University. The population included 201 third-year students (6 classes), and the sample of 18 students was selected using a stratified random sampling method, with 3 students from each class. Students' teaching skills in Chinese reading and writing, along with students' satisfaction, were assessed using scoring rubrics. Data were analyzed using the one-sample Wilcoxon signed-rank test due to the small sample size (Siegel, 1956).

**Results:** (1) Students' post-test scores in Chinese reading ( $M=39.61$ ,  $SD=3.03$ ) exceeded the 70% criterion ( $t=171$ ,  $p=0.001$ ). (2) Students' post-test scores in Chinese writing ( $M=33.22$ ,  $SD=2.76$ ) exceeded the 70% criterion ( $t=171$ ,  $p=0.001$ ). (3) Student satisfaction ( $M=3.91$ ,  $SD=0.59$ ) was significantly above the 70% benchmark ( $t=161$ ,  $p=0.001$ ).

**Conclusion:** Implementing a Lesson Study-based approach in the Chinese teaching theory in the middle school course significantly improved students' teaching skills in reading, writing, and overall satisfaction.

**Keywords:** Chinese Teaching; Lesson Study; Teaching Skills; Reading; Writing

## Introduction

Chinese teaching theory in middle school is a compulsory course for Chinese Language and Literature majors at Chinese normal universities, aiming to cultivate students' theoretical knowledge, teaching skills, and professional values (Zhang, 2004). In 2016, the Chinese Ministry of Education issued the "Opinions of the Ministry of Education on Strengthening the Education Practice of Normal University Students", identifying issues such as unclear goals, insufficient content, limited teaching methods, and weak evaluation and guidance in teacher education. In 2022, the Chinese Ministry of Education issued the "Chinese Language Curriculum Standards for Compulsory Education (2022 Edition)", outlining specific reading and writing goals for middle school students, including independent reading, writing revision, and communication skills. In 2022, Zhoukou Normal University revised its "Talent Cultivation Plan" for the Chinese Language and Literature major to strengthen students' teaching abilities, focusing on classroom teaching skills, instructional design, and academic evaluation.

The researcher identified five key issues in the current Chinese teaching theory in the middle school course at Zhoukou Normal University based on the Chinese Ministry of Education documents and local middle school Chinese language teaching requirements: 1) Lack of course principles. 2) Broad objectives. 3) Excessive content. 4) Outdated instructional strategies and 5) Limited evaluation methods.

This study aims to develop a Chinese teaching theory in a middle school course based on Lesson Study to enhance students' teaching skills in Chinese reading and writing. Enhancing pre-service Chinese language teachers' reading and writing teaching skills is crucial for the reform of basic education in China, as well as for teachers' professional development and students' career confidence.





## Research Question

The research questions of this research were as follows:

1. What are the challenges in implementing the Chinese teaching theory in a middle school course based on Lesson Study?
2. How can the Chinese teaching theory in the middle school course based on Lesson Study be developed to enhance students' teaching skills in Chinese reading and writing?
3. To what extent does the developed Chinese teaching theory in the middle school course based on Lesson Study enhance students' teaching skills in reading and writing?
4. What is the impact of the Chinese teaching theory in middle school courses based on Lesson Study on student satisfaction?

## Research Objectives

The objectives of this research were as follows:

1. Identify key challenges in the Chinese teaching theory in the middle school course based on Lesson Study.
2. Develop a Lesson Study-based course for middle school Chinese teaching.
3. Evaluate the effectiveness of the newly developed course in enhancing students' teaching skills in Chinese reading and writing, as well as their satisfaction with the criterion of 70%.

## Literature Review

### 1. Information about the current Chinese teaching theory in the middle school course

The Chinese teaching theory in the middle school course is a compulsory course for Chinese Language and Literature majors at Zhoukou Normal University. It aims to build students' theoretical knowledge and teaching skills for middle school Chinese instruction, preparing them for teaching careers. The course is offered in the second semester of the third year, with 36 total class hours (22 theoretical and 14 practical), 2 credits, and 18 weeks of classes. Based on policy documents and students' performance, the researcher identified five issues with the course. Lack of course principles. 2) Broad objectives. 3) Excessive content. 4) Outdated instructional strategies and 5) Limited evaluation methods.

### 2. Curriculum development theory

Curriculum plays a crucial role in talent development and is seen as both a platform and a path for growth. It reflects the core technology of school education and is central to the competition between schools (Huang, 2017). According to Ornstein and Hunkins (2018), curriculum can be defined in multiple ways: as a plan to achieve educational goals, as dealing with learners' experiences, as a field of study with its foundations, research, and theories, and in terms of subject matter or content.

In this study, the curriculum refers to the Chinese teaching theory in the middle school course, structured through various components. These include course principles, objectives, content, instructional strategies, materials, and evaluation methods (Zohrabi, 2008). Curriculum development is a multi-faceted process that involves technical, humanistic, and artistic considerations to achieve specific educational goals (Ornstein & Hunkins, 2018). Several models of curriculum development, such as Tyler's Model (1949), Taba's Model (1962), and Doll's Model (1993), provide frameworks for the development process.

Tyler's model emphasizes determining school purposes, identifying related educational experiences, organizing those experiences, and evaluating the purposes. Taba's model extends this by focusing on needs assessment, formulating objectives, selecting and organizing content, and organizing learning activities, with a final focus on evaluation. Doll's model, on the other hand, introduces concepts of richness, recursion, relations, and rigor to enhance curriculum development.

In summary, this study aligns with these models by summarizing the development process into six steps: 1) Determining the school's purposes, 2) Formulating curriculum objectives, 3) Selecting curriculum content, 4) Identifying educational experiences, 5) Organizing learning activities, and 6) Evaluating the purposes. This approach ensures a comprehensive and effective curriculum design aimed at enhancing students' teaching skills in Chinese reading and writing.

### 3. Chinese teaching theory in the middle school course based on Lesson Study

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The Chinese teaching theory in middle school is a compulsory course designed to cultivate the teaching skills and professional abilities of students in the School of Liberal Arts at higher normal universities. It aims to teach the basic theory of middle school Chinese education, develop teaching skills, and instill high moral qualities in future teachers (Wang, 2003). Lesson Study, a teacher-centered, collaboration-based approach, originated in Japan and has become widely used for in-service teacher training (Fernandez & Yoshida, 2004). Defined by Lewis (2006), Lesson Study involves a cycle where teachers collaboratively plan, teach, observe, reflect, revise, and reteach a lesson to improve instructional quality. The method places teachers at the heart of professional development, encouraging them to discuss and refine their teaching based on student learning.

Lesson Study has expanded beyond in-service training to pre-service education in many countries, including Japan, China, Hong Kong, Singapore, and the United States (An, 2021). In this study, Lesson Study is defined as a group-based collaborative process where students: 1) work in groups to read books, literature, and documents, and determine the topic of Lesson Study. 2) Students collectively write a lesson plan. 3) Choose one student from the group and teach according to the lesson plan. Other group members and the researcher observe the teaching performance of the student teacher. 4) Group members and the researcher provide feedback and discuss the teaching performance of the student teacher. 5) Students write a new lesson plan based on the discussion results of group members and feedback from the researcher, and then choose another student to re-teach the lesson. 6) Students write the sharing report of the Lesson Study in groups in class. The researcher uses this method to develop and implement the Chinese teaching theory in a middle school course, focusing on enhancing students' Chinese reading and writing skills. The implementation process includes course development, lesson planning, teaching, and post-class evaluation through observation forms and questionnaires.

#### **Difference between Lesson Study and Traditional Instructional Strategies:**

##### **Collaboration vs. Individual Teaching:**

Lesson Study: Teachers (or students in pre-service education) work collaboratively in groups, planning lessons, observing each other, providing feedback, and revising teaching practices together.

Traditional Teaching: Teachers generally work individually, planning and delivering lessons without systematic collaboration or peer feedback.

##### **Focus on Student Learning:**

Lesson Study: The method focuses on making student learning visible through observation and discussion of how teaching impacts learning.

Traditional Teaching: The focus is often on lesson delivery, with less emphasis on actively discussing and analyzing the effects of teaching on student learning.

##### **Teacher-Centered Professional Development:**

Lesson Study: Professional development occurs through peer collaboration and shared insights, encouraging teachers to learn from each other's experiences.

Traditional Teaching: Professional development is often more passive, such as through lectures or workshops that are less focused on collaborative learning.

#### **4. Students' teaching skills in Chinese reading**

Chinese is a key subject in China's basic education curriculum, with students learning both classical and modern Chinese written works (Ren, 2006). In this study, Chinese refers specifically to the Chinese course in middle school, where reading is an essential part. Huang (1988) defined reading as a complex intellectual activity focused on understanding the meaning of texts. According to the Chinese Curriculum Standards for Full-time Compulsory Education (2022), reading plays a crucial role in collecting and processing information, developing thinking, and gaining aesthetic experiences. Reading teaching involves guiding students through reading practice activities to help them interact with the text, using skills and strategies to understand it (Zhou & Zhou, 2020).

Teaching skills are defined as the methods teachers use to promote student learning by applying professional knowledge, teaching theories, and principles. These skills may involve both operational and mental activities, combining them to complete teaching tasks effectively (Zhang, 1997). In this study, Chinese reading teaching skills refer to the abilities students gain from learning the Chinese teaching theory in a middle school course. These skills enable them to carry out reading instruction in middle school, including the mental and operational aspects of teaching reading. The study identifies



three components of Chinese reading teaching skills: 1) single text reading teaching skills, 2) group text reading teaching skills, and 3) whole book reading teaching skills.

### 5. Students' teaching skills in Chinese writing

The Chinese Curriculum Standards for Full-time Compulsory Education (Experimental Draft) (2001) describes writing as an essential way to express and communicate through language, as well as a process of understanding the world, self-reflection, and creative expression. The writing process is complex and involves multiple internal factors such as vocabulary, sentence structure, paragraph organization, knowledge, observation ability, emotional attitude, and value orientation. It also includes the stages of conception, drafting, revising, and finalizing (Sun, 1998).

Writing teaching refers to the guidance provided by teachers to help students select materials, organize ideas, and improve their writing skills. Broadly, writing instruction encompasses activities like observing life, collecting materials, and developing a writing style. More narrowly, it includes activities such as topic guidance, material selection, intention development, organization, revision, and feedback (Wang & Cai, 2020).

In this study, Chinese writing teaching skills refer to the abilities developed by students majoring in Chinese Language and Literature. After studying Chinese teaching theory in middle school, students are equipped with both the theoretical knowledge and practical skills needed for teaching writing in middle school. These skills include not only the mental skills to plan lessons but also the operational skills to effectively teach writing. The researcher identifies the following components of Chinese writing teaching skills: 1) writing proposition skills, 2) writing guidance skills, 3) writing correction skills, and 4) writing evaluation skills.

### The Effectiveness of Lesson Study in Enhancing Chinese Reading and Writing Instruction

Lesson Study is effective for Chinese reading and writing teaching because it provides a collaborative platform for pre-service teachers to engage with the practical application of reading and writing teaching skills. Through this method, students:

- Collaborate and Reflect: Lesson Study promotes collaborative planning, teaching, and reflection. This helps pre-service teachers refine their understanding of reading teaching strategies and improve their skills in real classroom settings.

- Focus on Student Learning: The iterative cycle of planning, teaching, observing, and revising lessons allows teachers to focus on how students interact with and understand the text, thus refining their ability to teach reading effectively.

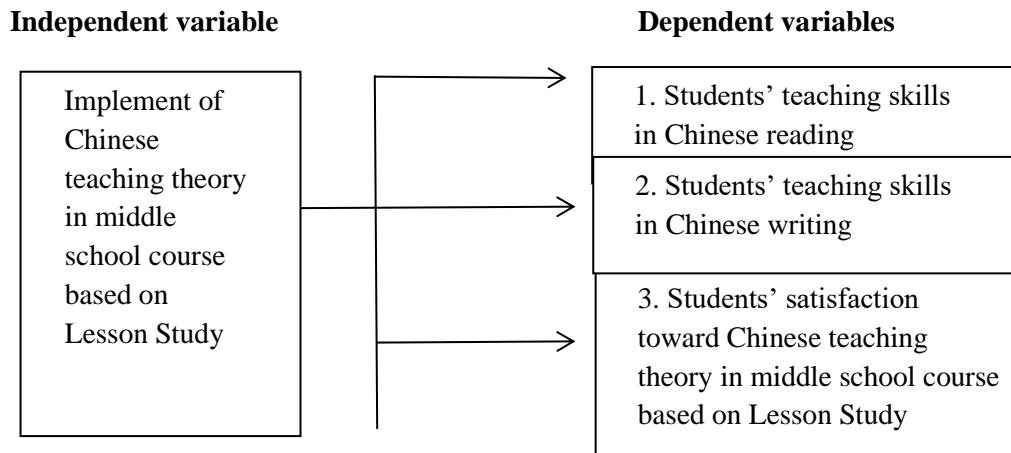
- Foster Comprehensive Skill Development: The different components of Chinese reading teaching (single text, group text, and whole book) can be practiced and developed in diverse teaching settings through Lesson Study, offering teachers a comprehensive view of reading instruction. Writing instruction involves guiding students through material selection, idea organization, and effective expression. Lesson Study allows students to practice these skills in real classroom settings, receive feedback, and refine their teaching methods. This improves key writing teaching skills such as writing propositions, guidance, correction, and evaluation.

### 6. Students' satisfaction with Chinese teaching theory in the middle school course based on Lesson Study

Student satisfaction is a short-term attitude resulting from an evaluation of educational experiences. It reflects a student's emotional response (happiness, pleasure, or disappointment) after comparing the outcomes of education with their expectations (Zeithaml, 1988; Yang, 2017). In this study, students' satisfaction refers to the feelings of 18 third-year Chinese Language and Literature students at Zhoukou Normal University after learning the developed Chinese teaching theory in a middle school course based on Lesson Study. It specifically pertains to their comparison of expected and actual learning outcomes regarding Chinese reading and writing teaching skills.

### Conceptual Framework

The research title "Development of Chinese Teaching Theory in Middle School Course Based on Lesson Study to Enhance Students' Teaching Skills in Chinese Reading and Writing" was designed as the conceptual framework as follows:



**Figure 1** Conceptual Framework of This Study

## Methodology

**Participants:** The population in this study was 201 third-year students (6 classes) in the undergraduate level majoring in Chinese Language and Literature at Zhoukou Normal University. The participants in this study were 18 third-year undergraduate students majoring in Chinese Language and Literature at Zhoukou Normal University, selected using a stratified random sampling method by choosing 3 students from each of the 6 classes.

**Research Instrument:** Research instruments were the tools for collecting data. In this study, 5 experts from China and Thailand validated the quality of the research instruments. Of these 5 experts, 2 experts from Zhoukou Normal University in China and 3 experts from Valaya Alongkorn Rajabhat University in Thailand. Among these 5 experts, 2 experts in the course development field, 2 experts in the Chinese instruction field, and 1 expert in the course evaluation field. The research instruments used in this study were:

### 1. Three interview questions

This study has 3 interview questions. Zhoukou Normal University teachers interview questions, 2) middle school Chinese teachers interview questions, and 3) Zhoukou Normal University students interview questions. The researcher want to know the opinions and suggestions of teachers who are currently teaching the course of Chinese teaching theory in middle school, those who have studied Chinese teaching theory in middle school course and are now Chinese language teachers in middle schools, and those who have studied Chinese teaching theory in middle school course but have not yet become Chinese language teachers on developing Chinese teaching theory in middle school course based on Lesson Study to enhance students' teaching skills in Chinese reading and writing, to help researcher develop new course.

### 2. The developed Chinese teaching theory in the middle school course is based on Lesson Study

The developed Chinese teaching theory in the middle school course based on Lesson Study consists of six course components: 1) course principle, 2) course objectives, 3) course content, 4) instructional strategy, 5) course materials, and 6) course evaluation. Five experts evaluated the developed course on the 11 items of the draft course evaluation form. It was found that the mean score was 4.90 (SD=0.49), which shows that the draft course is at a very high level.

### 3. Ten lesson plans

Five experts evaluated the ten lesson plans. According to the expert evaluation form, it was found that the mean scores ranged from 4.65 to 4.83, and the standard deviation ranged from 0.47 to 0.54, which shows that the lesson plans were appropriate at a very high level.

### 4. An observation form of students' teaching skills in Chinese reading

The observation form of students' teaching skills in Chinese reading and the evaluation of the observation form were offered to the 5 experts for the content validity check and suggestions. The IOC of the observation forms of students' teaching skills in Chinese reading was between 0.80 and 1.00. The reliability of the observation form of students' teaching skills in Chinese reading was 0.78, which met the criterion; it shows that the observation form can be used to collect data.

##### 5. An observation form of students' teaching skills in Chinese writing

The observation form of students' teaching skills in Chinese writing and the evaluation of the observation form were offered to the 5 experts for the content validity check and suggestions. The IOC of the observation forms of students' teaching skills in Chinese writing was between 0.80 and 1.00. The reliability of the observation form of students' teaching skills in Chinese writing was 0.81, which met the criterion it showing that the observation form can be used to collect data.

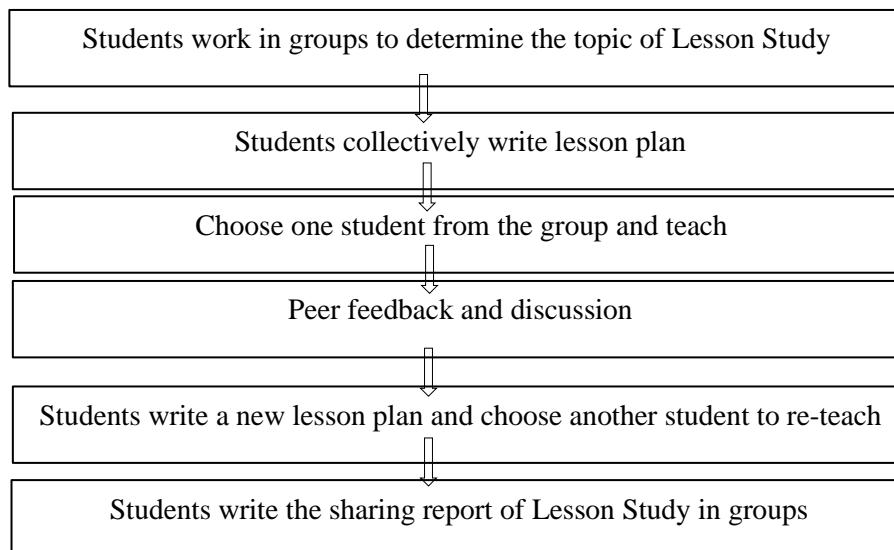
##### 6. A questionnaire on students' satisfaction with Chinese teaching theory in a middle school course based on Lesson Study

A questionnaire and the evaluation form of the questionnaire were offered to the 5 experts for the content validity check and suggestions. The IOC of the evaluation forms of the questionnaire was between 0.80 and 1.00. The reliability of the questionnaire was 0.87, which met the criterion; it shows that the questionnaire can be used to collect data.

#### Research Procedural:

The course was implemented for the participants in the second semester of the 2024 academic year. The research procedure of this study was as follows:

The participants assigned to the experimental group were taught using Lesson Study through Chinese teaching theory in a middle school course. The participants were taught through 10 lesson plans, 5 weeks, and the allocated time for instruction was 40 hours. Week 1-3, students' Chinese reading teaching skills training, 24 hours. Week 4-5, students' Chinese writing teaching skills training, 16 hours. Because reading teaching skills are more complex than writing teaching skills, the class schedule for reading teaching skills is 8 hours longer than writing teaching skills.



**Figure 2** Lesson Study Process

During the course implementation process, 18 students were divided into three groups, with 6 students in each group. Each group selected one student to give a lecture, while the peers observed and provided feedback to the student delivering the lecture. Based on the feedback, each group collaborated to write a new lesson plan, and then selected another student to teach the lesson again; each student lectured for 30 minutes. For students who are unable to finish in class, a video will be recorded and sent to the researcher after class.



After finishing the instruction, the samples received the post-test with 1) an observation form of students' teaching skills in Chinese reading, 2) an observation form of students' teaching skills in Chinese writing, and 3) a questionnaire on students' satisfaction with Chinese teaching theory in the middle school course based on Lesson Study. The researcher used a scoring rubric to measure students' scores on teaching skills in Chinese reading, teaching skills in Chinese writing, and satisfaction with Chinese teaching theory in a middle school course based on Lesson Study.

### Data Analysis

Before performing the one-sample Wilcoxon signed-rank test, a normality test (Shapiro-Wilk test) was conducted due to the small sample size ( $n = 18$ ). The results indicated that students' post-test scores in Chinese writing ( $W = .958$ ,  $p = .572$ ) did not significantly deviate from a normal distribution ( $p > .05$ ). In contrast, students' post-test scores in Chinese reading ( $W = .851$ ,  $p = .009$ ) and student satisfaction scores ( $W = .835$ ,  $p = .005$ ) significantly deviated from a normal distribution ( $p < .05$ ). Therefore, the assumption of non-normality was met, justifying the use of the one-sample Wilcoxon signed-rank test for data analysis. In this study, quantitative data were analyzed using appropriate statistical software according to the research objectives.

Statistics used to determine the different significance at the .01 level of scores on students' teaching skills in Chinese reading, writing, and students' satisfaction after learning through Chinese teaching theory in a middle school course based on Lesson Study, with the criterion of 70% by using a one-sample Wilcoxon signed-rank test. Moreover, qualitative data were analyzed and interpreted by content analysis and interpretation through an inductive method.

### Results

According to the research objectives, the results were as follows:

1. The result of comparing the different scores of students' teaching skills in Chinese reading after learning through Chinese teaching theory in a middle school course based on Lesson Study, with the criteria set at 70%.

**Table 1** compares the different scores of students' teaching skills in Chinese reading after learning through Chinese teaching theory in a middle school course based on Lesson Study

Group	n	Full score	Criteria score	M	SD	t	p
Experimental group	18	45	31.5	39.61	3.03	171**	.001

\*\*  $p < .01$

As presented in Table 1, the mean scores of 18 students' teaching skills in Chinese reading after learning through Chinese teaching theory in middle school course based on Lesson Study was 39.61 (criterion of 88%) from the full score of 45, and the standard deviation was 3.03, which was statistically higher than the criterion of 70% (31.5) at .01 level of statistical significance ( $t=171$ ,  $p=.001$ ).

Beyond statistical significance, the substantial improvement in reading teaching skills highlights the practical effectiveness of the Lesson Study-based approach in enhancing students' instructional abilities, which could lead to more effective teaching practices in real classroom settings.

2. The result of comparing the different scores of students' teaching skills in Chinese writing after learning through Chinese teaching theory in a middle school course based on Lesson Study, with the criteria set at 70%.

**Table 2** compares the different scores of students' teaching skills in Chinese writing after learning through Chinese teaching theory in a middle school course based on Lesson Study

Group	n	Full score	Criteria score	M	SD	t	p
Experimental group	18	40	28	33.22	2.76	171**	.001

\*\*  $p < .01$

As presented in Table 2, the mean scores of 18 students' teaching skills in Chinese writing after learning through Chinese teaching theory in middle school course based on Lesson Study was 33.22 (criterion of 83%) from the full score of 40, and the standard deviation was 2.76, which was statistically higher than the criterion of 70% (28) at .01 level of statistical significance.

( $t=171$ ,  $p=.001$ ).

Beyond statistical significance, the increase in writing teaching skills suggests that the Lesson Study-based approach effectively enhances students' ability to teach Chinese writing, demonstrating its practical value in improving instructional competence.

3. The result of comparing the different scores of students' satisfaction after learning through Chinese teaching theory in a middle school course based on Lesson Study, with the criteria set at 70%. **Table 3** compares the different scores of students' satisfaction after learning through Chinese teaching theory in a middle school course based on Lesson Study

Group	n	Full score	Criteria score	M	SD	t	p
Experimental group	18	5	3.5	3.91	0.59	161**	.001

\*\*  $p < .01$

As presented in Table 3, the mean scores of 18 students' satisfaction after learning through Chinese teaching theory in middle school course based on Lesson Study was 3.91 (criterion of 78%) from the full score of 5, and the standard deviation was 0.59, which was statistically higher than the criterion of 70% (3.5) at .01 level of statistical significance ( $t=161$ ,  $p=.001$ ).

Beyond statistical significance, the high satisfaction score indicates that the Lesson Study-based approach not only improved students' teaching skills but also enhanced their overall learning experience and engagement, suggesting its practical value in promoting a more positive and effective learning environment.

## Conclusion

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

1. *Findings of key challenges in the Chinese teaching theory in the middle school course based on Lesson Study.*

Chinese teaching theory in middle school is a compulsory course for Chinese Language and Literature majors in Zhoukou Normal University; this course shoulders the heavy responsibility of training Chinese teachers in middle school. Reading ability and writing ability are the two pillar abilities in middle school students' Chinese language learning (Zhang, 2022). Liu Yong proposed in 2017, the problems in middle school Chinese reading teaching are very difficult, such as using traditional teaching methods and inappropriate reading teaching methods, which, to some extent, affect the quality of middle school Chinese reading teaching. Lesson Study is a collaboration-based teacher professional development approach that originated in Japan (Fernandez & Yoshida, 2004). Lesson Study is a way of in-service teacher training. Lesson Study has a positive impact on students' deep learning (An, 2021). This background information provides solid theoretical support and practical guidance for developing



Chinese teaching theory in middle school courses based on Lesson Study to enhance students' teaching skills in Chinese reading and writing.

### 2. Findings of developing a Lesson Study-based course for middle school Chinese teaching.

Taba believed that a curriculum should be designed by its users. Teachers should begin by creating specific teaching-learning units for their students and then build to a general design (Lau, D. C.-M., 2001). Any curriculum consists of several components. Before setting up a program or course of study, these components should be determined and described in detail. These elements help to clarify various dimensions of the curriculum and consequently enhance its productivity. Practically, proper consideration of each aspect of these constructs can exert a tremendous influence on the richness of the program (Zohrabi, M. 2008). In this study, the Chinese teaching theory in the middle school course based on Lesson Study had 6 components. They were course principles, course objectives, course content, instructional strategies, course materials, and course evaluation.

### 3. Findings of the effectiveness of the newly developed course in enhancing students' teaching skills in Chinese reading and writing, as well as their satisfaction.

- The mean score of students' teaching skills in Chinese reading was 39.61 (88% of the full score of 45), SD=3.03, significantly higher than the 70% criterion (31.5) at the .01 significance level ( $t=171, p=.001$ ).

- The mean score of students' teaching skills in Chinese writing was 33.22 (83% of the full score of 40), SD=2.76, significantly higher than the 70% criterion (28) at the .01 significance level ( $t=171, p=.001$ ).

- The mean score of students' satisfaction was 3.91 (78% of the full score of 5), SD=0.59, significantly higher than the 70% criterion (3.5) at the .01 significance level ( $t=161, p=.001$ ).

The findings indicate that the Chinese teaching theory in the middle school course based on Lesson Study significantly improved students' teaching skills in Chinese reading and writing, as well as in their overall satisfaction. All results surpassed the 70% criterion, with results achieving statistical significance at the .01 level ( $p=.001$ ).

## Discussion

The following aspects, based on the research results, were discussed:

### 1. Discussion of the key challenges in the Chinese teaching theory in the middle school course based on Lesson Study.

In 2016, the Chinese Ministry of Education issued the Opinions of the Ministry of Education on Strengthening the Education Practice of Normal University Students. The document points out that there are still problems in teacher education practice for normal students; normal graduates cannot fully adapt to primary and middle school teaching work. In 2022, the Ministry of Education of China issued the Chinese Language Curriculum Standards for Compulsory Education (2022 Edition), the curriculum standards have put forward requirements for the reading and writing abilities of middle school students. In April 2023, the School of Liberal Arts of Zhoukou Normal University completed the Self-evaluation Report of Chinese Language and Literature for Professional Certification of Normal Colleges and Universities (Secondary Education Level II), which indicated that graduates from the School of Liberal Arts lacked basic teaching skills, particularly in teaching reading and writing. According to Lewis (2000), Lesson Study is a teacher-led cycle where teachers set learning goals, plan and teach a lesson, observe and reflect on the results, revise the lesson, and reteach it. It allows teachers to collaborate, plan, and improve their teaching based on their own experiences and understanding of student learning.

### 2. Discussion of developing a Lesson Study-based course for middle school Chinese teaching.

Curriculum serves as both a platform and a path for talent development, shaping the type of talent that can be cultivated (Huang, 2017). It is the core product of schools, reflecting the essence of school education and forming the basis of competition between schools. Curriculum is a vital part of education, constantly evolving and representing the overall learning students gain from schools (Song & Li, 2010). This study developed a Chinese teaching theory in a middle school course based on Lesson Study, consisting of six components: course principles, objectives, content, instructional strategies, materials, and evaluation. The principle of this course was Lesson Study. Lesson Study, which combines practical and theoretical elements to help pre-service teachers solve real teaching problems and improve their



subject knowledge and teaching skills (Wu, 2020). The course objective was that after learning the course, their Chinese reading and writing teaching skills, as well as course satisfaction, would be higher than the criteria of 70%. The course content focused on improving these teaching skills using Lesson Study strategies. After the course, a post-test was conducted to assess students' reading and writing teaching skills and satisfaction through observation and questionnaires. The data were analyzed using the SPSS statistical program.

3. Discussion of the effectiveness of the newly developed course in enhancing students' teaching skills in Chinese reading and writing, as well as their satisfaction.

The close integration of course design and instructional strategies was the key to achieving the research objectives of this study. In this study, the course design fully considers students' autonomous learning and exploration, encourages students to actively participate in practice, and closely integrates theory with practice through the instructional strategy of Lesson Study. Lesson Study is a collaboration-based teacher professional development approach that originated in Japan (Fernandez & Yoshida, 2004). From engaging in Lesson Study, teachers feel connected to each other and to a body of knowledge that they generate, share, and continuously refine. In other words, it is a highly justified activity that allows teachers to come together to develop their pedagogical knowledge and skills (Zhou, 2013). During the course implementation, the teaching steps of Lesson Study were as follows:

Step 1: Students work in groups to read books, literature, and documents, and determine the topic of Lesson Study.

This step encourages students to engage in collaborative research and critical thinking. By reading various materials, they broaden their knowledge and deepen their understanding of the lesson topic. It fosters teamwork and helps students choose a relevant and meaningful lesson topic based on their collective findings.

Step 2: Students collectively write a lesson plan.

Collaborative lesson planning allows students to actively participate in the design of the teaching process. By working together, they combine their ideas and knowledge, which enhances their creativity and teamwork skills.

Step 3: Choose one student from the group and teach according to the lesson plan. Other group members and the researcher observe the teaching performance of the student teacher.

This step provides an opportunity for a student to practice teaching, helping them gain real-world teaching experience. It allows the rest of the group and the researcher to observe the lesson's effectiveness and identify areas for improvement. An observation also serves as a reflective practice, where both the student teacher and the group can assess the success and challenges of the lesson.

Step 4: Group members and the researcher provide feedback and discuss the teaching performance of the student teacher.

Feedback is essential for professional growth. In this step, students and the researcher provide constructive feedback that allows the student teacher to reflect on their performance. This discussion promotes a deeper understanding of teaching techniques and provides the opportunity to identify strengths and areas for improvement, fostering an environment of continuous learning and development.

Step 5: Students write a new lesson plan based on the discussion results of group members and feedback from the researcher, and then choose another student to re-teach the lesson.

Revising the lesson plan based on feedback encourages students to adapt and improve their teaching strategies. This iterative process allows students to apply what they've learned from the feedback and discussions. Re-teaching the lesson allows for further refinement and testing of new ideas, leading to more effective teaching practices.

Step 6: Students write the sharing report of the Lesson Study in groups in class.

Writing a sharing report helps students consolidate their learning and reflect on the entire process. It also provides an opportunity for them to synthesize their experiences, document their insights, and share their learning with others. This final step reinforces critical thinking, self-assessment, and the ability to communicate ideas.

Lesson Study offers significant benefits for pre-service Chinese language teachers by fostering collaboration, feedback, and self-reflection. It helps student-teachers develop their teaching skills



through peer observation and feedback. Additionally, writing reflection reports enhances their self-assessment and communication skills, enhancing their confidence.

## Recommendations

### Recommendation for implication

#### 1. Teacher professional development.

Given that the research highlights the value of teaching skills in Chinese reading and writing, schools and educational institutions should provide regular professional development opportunities for Chinese language teachers, particularly focusing on improving pedagogical strategies for these core skills. Lesson Study can be used as a means for teachers to collaborate, share best practices, and engage in continuous professional learning, thereby enhancing their teaching effectiveness.

#### 2. Course enhancement.

The course components designed in this study have shown promising results in improving students' teaching skills in Chinese reading and writing. Therefore, it is recommended that the course for Chinese teaching theory in middle school be revised to include Lesson Study as a methodology for continuous improvement. Course developers and education policymakers should consider integrating collaborative and reflective teaching practices into regular classroom instruction, focusing on both theory and practice.

#### 3. Student-centered approaches to teaching.

As the research findings indicate high levels of student satisfaction, it is recommended that future courses incorporate more student-centered instructional strategies. These strategies include active learning techniques, peer feedback, and hands-on activities that foster student engagement and empowerment. Providing students with more opportunities to be actively involved in their learning process can lead to greater satisfaction and better learning outcomes.

### Recommendation for further research

#### 1. Recommendations for policymakers.

Future studies could develop evidence-based recommendations for educational policymakers on how to integrate Lesson Study into teacher training programs and curriculum development. Providing clear guidelines on how to implement Lesson Study effectively could enhance its impact on educational outcomes at a broader scale.

#### 2. Scaling the program to other universities.

Based on the positive outcomes observed in this study, future research could explore the feasibility of implementing the Lesson Study model in other universities. Conducting multi-site studies would help evaluate the scalability and adaptability of the model across different institutional settings.

#### 3. Technology-Enhanced Lesson Study.

Future research could investigate how integrating technology, such as online collaboration platforms and virtual teaching simulations, can enhance the effectiveness of the Lesson Study approach. Exploring how technology can facilitate teacher collaboration and feedback exchange may offer new insights into improving teacher development.

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