

IMPROVING BEGINNER STUDENT'S CHINESE LISTENING SKILLS THROUGH THE FLIPPED CLASSROOM METHOD: A ONE-GROUP PRETEST-POSTTEST STUDY AT UNIVERSITAS NEGERI SEMARANG

PENINGKATAN KETERAMPILAN MENYIMAK BAHASA MANDARIN MAHASISWA PEMULA MELALUI METODE *FLIPPED CLASSROOM*: STUDI *ONE-GROUP PRETEST-POSTTEST* DI UNIVERSITAS NEGERI SEMARANG

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Abstract

This study investigates the use of the flipped classroom method to improve first-year students' Chinese listening skills and examines their satisfaction with its implementation in the "Chuji Hanyu Tingli Xia" course. A one-group pretest-posttest quasi-experimental design was employed with 32 Mandarin Language Education students at Universitas Negeri Semarang, Indonesia. The intervention lasted six weeks and included pre-class listening materials, classroom discussion, peer correction, and teacher-guided practice. Data were collected using the HSK Level 3 listening test and a student satisfaction questionnaire. The results showed that students' mean listening score increased from 67.19 to 78.59. A paired-samples t-test indicated a significant difference, $t(31) = -4.790$, $p < .001$, with a large effect size (Cohen's $d _z = 0.85$). The questionnaire results also indicated generally positive student satisfaction. However, the findings should be interpreted cautiously because no control group was used.

Keywords: Chinese listening comprehension; flipped classroom; Mandarin language learning; quasi-experimental study; student satisfaction

Abstrak

Penelitian ini bertujuan untuk mengkaji penerapan metode flipped classroom dalam meningkatkan kemampuan menyimak bahasa Mandarin mahasiswa tahun pertama serta menganalisis tingkat kepuasan mereka terhadap mata kuliah Chuji Hanyu Tingli Xia. Penelitian ini menggunakan desain kuasi-eksperimen one-group pretest-posttest dengan melibatkan 32 mahasiswa Program Studi Pendidikan Bahasa Mandarin Universitas Negeri Semarang. Perlakuan diberikan selama enam minggu melalui kegiatan menyimak sebelum perkuliahan, diskusi kelas, koreksi antarteman, serta bimbingan dosen. Data dikumpulkan menggunakan tes menyimak HSK Level 3 dan angket kepuasan mahasiswa. Hasil penelitian menunjukkan bahwa rata-rata skor menyimak meningkat dari 67,19 menjadi 78,59. Uji paired-samples t-test menunjukkan perbedaan yang signifikan, $t(31) = -4,790$, $p < 0,001$, dengan ukuran efek yang besar (Cohen's $d _z = 0,85$). Hasil angket juga menunjukkan secara umum tingkat

kepuasan mahasiswa yang positif. Namun, temuan ini perlu diinterpretasikan secara hati-hati karena penelitian ini tidak menggunakan kelompok kontrol.

Kata kunci: *flipped classroom; kemampuan menyimak bahasa Mandarin; kepuasan mahasiswa; kuasi-eksperimen; pembelajaran Bahasa Mandarin*

Introduction

Learning a second language is becoming more vital in today's globalized world. Among the various languages available for study, Chinese is among the most widely spoken in the world, with over 1.3 billion native speakers. Mastering the Chinese language can open new personal and professional opportunities, making it increasingly important for global communication (Sukjairungwattana, 2023). Since 2000, Indonesia has resumed formal and informal instruction in Chinese, with the language reintroduced into school curricula, language institutions, and numerous learning initiatives. Many Indonesian universities have also launched programs of Chinese-language instruction (Alindra and Romy, 2022). One of these is the Mandarin Language Education Program at Universitas Negeri Semarang (UNNES), founded in 2011 and still the sole Mandarin Language Education program in Central Java (Pendidikan et al. (S1) - Universitas Negeri Semarang, n.d.).

Students majoring in Mandarin Language Education at Universitas Negeri Semarang begin learning Chinese at the

fundamental level and progress through four main language skills: listening, speaking, reading, and writing. Listening is considered one of the most important yet difficult abilities in second-language acquisition because learners must process sounds, tones, vocabulary, and meaning in real time (Terng et al., 2021). Listening comprehension is often viewed as a complex, one-way, and unobservable cognitive process, leaving many students struggling to grasp spoken language (Liu, 2020). In the first year, students take "Chuji Hanyu Tingli Shang" and "Chuji Hanyu Tingli Xia," which are aimed to help them recognize syllables, tones, intonation, phrases, dialogues, and short texts while also enhancing listening comprehension, recall, detail recognition, and word-meaning inference.

Despite the organized learning objectives, students in the "Chuji Hanyu Tingli Xia" course face various challenges. They sometimes struggle to identify words with similar pronunciations, such as "上" and "下," "那" and "哪," "你" and "女." In addition, students frequently struggle to understand lengthy listening passages, especially when

unfamiliar vocabulary and rapid speech are present simultaneously. Limited classroom time further limits possibilities for repeated listening practice, making it difficult for students to revisit audio materials when they encounter comprehension challenges. These issues show that conventional classroom instruction may not provide sufficient opportunities for repeated listening practice.

To address language-learning issues, language teachers and educators continually research new teaching methods and auxiliary learning tools to promote language acquisition and performance (Terng et al., 2021). Students studying Chinese frequently require significant coaching in pronunciation, vocabulary, and grammar. As a result, educators are expected to not only understand teaching materials but also to use new teaching methods and technologies to improve students' learning outcomes (Hermawan et al., 2020). The flipped classroom model, developed by Bergmann and Sams, reverses the traditional lecture-homework sequence by moving content delivery outside the classroom and using classroom time for interactive learning activities (Chen, 2021).

Previous research indicates that using a flipped classroom can enhance academic achievement, student engagement, learning

motivation, self-efficacy, and classroom interaction (Akçayır & Akçayır, 2018; Saira et al., 2021). In this design, students access instructional content before class, often via digital learning tools, allowing them to learn at their own pace while using classroom time for discussions, problem-solving, guided practice, and collaborative learning (Qiu & Luo, 2022). Bishop and Verleger (2013) described flipped classroom learning as a combination of computer-assisted instruction outside class and active group learning during class. The instructional design encourages active involvement, questioning, discussion, experimentation, and evidence-based learning (Díaz et al., 2021).

Although previous studies have reported positive outcomes associated with flipped classroom implementation, much of the existing research has focused on general language-learning contexts or broad outcomes such as engagement and academic achievement. Limited attention has been given to the use of the flipped classroom method in beginner-level Chinese listening courses, particularly in Indonesian higher education. In addition, few studies have examined both changes in students' listening performance and their satisfaction with the learning process. This gap highlights the need for more context-specific research on how

flipped classroom activities may support Chinese listening development among beginner learners.

To address this gap, this study examines changes in students' Chinese listening scores after implementing the flipped classroom method and investigates their satisfaction with the learning experience in the "Chuji Hanyu Tingli Xia" course at Universitas Negeri Semarang. This study aims to examine changes in students' Chinese listening scores after the implementation of the flipped classroom method and to investigate students' satisfaction with the method.

Method

The study used a quasi-experimental research approach with a one-group pretest-posttest paradigm. A quasi-experimental design is used to study the effect of the intervention in an experimental-like context, but it does not use random assignment and may have limited control over participants' conditions and learning experiences (Privitera & Delzell, 2019). In this study, the same group of students was assessed before and after implementing the flipped classroom method. The pretest measured students' initial Chinese listening skills, whereas the

posttest assessed their listening achievement following intervention.

This approach was chosen because the study was conducted in an existing mandatory course, "Chuji Hanyu Tingli Xia," in which all students received the same instructional treatment. As a result, random assignment and control groups were not conceivable. To reduce concerns about internal validity, the intervention was implemented in the same class with the same teacher, course materials, learning objectives, and assessment method. The pretest and posttest were both based on the HSK Level 3 listening section, and the treatment was delivered continuously for 6 weeks to ensure consistency in the learning process. However, because this study used a one-group design, the findings should be interpreted with caution, as factors such as testing effects, natural development, and external learning exposure may affect students' post-test performance.

Participants

The participants in this study were students enrolled in the "Chuji Hanyu Tingli Xia" course during the second semester of the first year of the Mandarin Language Education Program at Universitas Negeri Semarang in Indonesia. The total number of

participants was 32 undergraduate students, including 3 men and 29 women.

This study used total sampling, as all students registered in the course participated in the research. The Mandarin Language Education Program at Universitas Negeri Semarang begins at the basic level; most students had never learned Chinese before enrolling. Students who take intensive Chinese language classes in the second semester are expected to reach HSK Level 3. This participant profile is relevant to the study's goal because it focuses on beginner-level listening in Chinese.

Research Setting and Duration

The study was conducted at Universitas Negeri Semarang during the "Chuji Hanyu Tingli Xia" course. The implementation period lasted eight weeks, from April 17, 2024, to July 12, 2024. The pretest was administered in the first week, the flipped classroom intervention in the second to seventh weeks, and the posttest and learning satisfaction questionnaire in the eighth week.

Students in the Mandarin Language Education Program must take the "Chuji Hanyu Tingli Xia" course in their second semester. The course aims to improve students' capacity to recognize syllables,

tones, intonation, single sentences, dialogues, and short texts. It also seeks to help students discriminate between sounds and tones, understand phrase patterns, absorb details, infer word meanings, and increase listening comprehension.

Treatment Procedure: Flipped Classroom Implementation

The treatment in this study was the flipped classroom method in the "Chuji Hanyu Tingli Xia" course. The flipped classroom method was used for six weeks, from Week 2 through Week 7. The learning materials were taken from Lessons 16-20 of the listening course textbook.

The flipped classroom procedure consisted of three stages: pre-class learning, in-class learning, and post-class feedback and correction

Before class, the teacher shared listening recordings with students via a WhatsApp group. Every week, students received a lesson recording. Students were asked to listen to the audio on their own at home within one week. After listening, students transcribed the content into Chinese characters, pinyin, and Indonesian meaning. This practice was created to help students repeatedly listen to audio, distinguish pronunciation and tones, comprehend

vocabulary, and connect sounds to written forms and meanings. During the pre-class stage, students were also permitted to ask questions in the WhatsApp group if they encountered sections of the audio they did not understand.

During class, students brought their listening assignments and reviewed one another's work. They compared responses, highlighted errors, and spoke about the challenging sections of the listening material together. The teacher led the discussion, corrected students' faults, and explained pronunciation, vocabulary, meaning, and sentence structure. During this stage, classroom time was mostly used for discussion, peer correction, guided practice, and clarification of listening problems.

After class, students turned in their completed assignments to the teacher. The teacher then reviewed and corrected the students' work. This technique enabled the teacher to track students' listening progress and identify frequent challenges encountered during the flipped classroom learning process.

Research Instruments

This study used two instruments: a Chinese listening test and a student satisfaction questionnaire.

The first instrument was the listening section of the official HSK Level 3 test, which was used to measure students' Chinese listening ability before and after the intervention. The HSK is an international standardized Chinese proficiency test developed by language assessment experts for non-native Chinese speakers. The HSK Level 3 listening section consists of 40 items divided into 4 parts, with 10 items per part. Each audio passage is played twice.

The pretest and posttest used two different official HSK Level 3 listening test forms with the same test structure, number of items, instructions, and scoring format. Different forms were used to reduce the possibility that students would remember the answers from the pretest. Each correct answer received 1 point, and the raw scores were converted to a 0–100 scale. Because both test forms followed the official HSK Level 3 specifications, they were considered comparable measures of beginner-level Chinese listening ability.

The second instrument was a student satisfaction questionnaire adapted from the Students' Learning Satisfaction Questionnaire developed and validated by Topala and Tomozii (2014). The questionnaire consisted of 17 items covering six dimensions: personal characteristics; material conditions and

learning facilities; teachers and teaching activities; learning outcomes; learning environment; and peer relationships. The items were adapted to the context of the “Chuji Hanyu Tingli Xia” course and measured using a five-point Likert scale ranging from 1 = very dissatisfied to 5 = very satisfied. The questionnaire items were translated into Indonesian and adapted to the context of the “Chuji Hanyu Tingli Xia” course. The adapted items were reviewed to ensure clarity and relevance to the flipped classroom learning context. The reliability of the adapted questionnaire was examined using Cronbach’s alpha. The reliability of the adapted questionnaire was examined using Cronbach’s alpha. The result showed a Cronbach’s alpha coefficient of .952, indicating excellent internal consistency.

Data Collection Procedure

The data collection technique lasted eight weeks. In Week 1, students took the HSK Level 3 listening pretest to assess their starting listening skills. From Week 2 to Week 7, students received flipped classroom instruction. Every week, the teacher distributed audio materials via the WhatsApp group. Students listened to the recordings on their own, transcribed the content into Chinese characters, pinyin, and Indonesian

translation, asked questions in the WhatsApp group, discussed their answers in class, corrected errors with peers, and received teacher feedback. In Week 8, students took the HSK Level 3 listening posttest and filled out the student satisfaction questionnaire.

Data Analysis

The data were analyzed quantitatively using SPSS version 26. The pretest and posttest scores were first summarized using descriptive statistics, including the mean, standard deviation, and mean score difference. Before conducting the paired-samples t-test, the normality of the difference scores was examined using the Shapiro–Wilk test. The result was not statistically significant, $W = .953$, $p = .170$, indicating that the difference scores were approximately normally distributed. Therefore, the assumption of normality was satisfied.

A paired-samples t-test was then conducted to determine whether there was a statistically significant difference between students’ Chinese listening scores before and after the flipped classroom intervention. The level of significance was set at $p < .05$. In addition, the magnitude of the pretest–posttest difference was examined using Cohen’s d . Based on the paired-samples t-test result, $t(31) = -4.790$, the effect size was

estimated at $d_z = 0.85$, indicating a large effect. This result suggests that the increase in students' listening scores after the intervention was substantial, although the absence of a control group limits causal interpretation.

The student satisfaction questionnaire data were analyzed using descriptive statistics, including the mean and standard deviation. The mean scores were used to describe students' satisfaction across six dimensions: personal characteristics, material conditions and learning facilities, teachers and teaching activities, learning outcomes, learning environment, and peer relationships.

Result and Discussion

This study investigated the application of the flipped classroom method to "*Chuji Hanyu Tingli Xia*" Course for first-year students majoring in Mandarin Language Education at Universitas Negeri Semarang. This study analyzed quantitative data obtained from the HSK Level 3 listening test and the student satisfaction questionnaire, and the following section discusses the results.

Changes in Students' Chinese Listening Scores after Flipped Classroom Implementation

The implementation of the flipped classroom method in a beginner-level Chinese listening course for first-year students majoring in Chinese Education at the National University of Semarang, Indonesia, led most students to improve their Chinese listening test scores. During the first week, students took a Chinese listening pre-test. From the second to the seventh week, students learned Chinese listening through the flipped classroom method. During the flipped classroom process, teachers gave students recordings and asked them to listen and write down the audio using Chinese characters, pinyin, and meaning. Within a week, students could ask questions in group chats about parts they did not understand. In class, teachers had students review each other's work and work together to identify and correct errors. In the eighth week, students took a post-test in Chinese listening.

This study performed dependent-samples t-tests on the quantitative data collected before and after the action study and analyzed the data using SPSS version 26. Research hypothesis: There is a significant difference between the pre-test and post-test mean scores on the Chinese listening comprehension test in the action study. The following is a summary table of the mean scores for the pre-test and post-test Chinese

listening comprehension tests in the action study.

Table 1. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	671.875	32	1.926.837	340.620
	Posttest	785.938	32	1.424.069	251.742

Table 2. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	32	.715	< .001

According to Table 1, the average pre-test score was 67.19 (SD = 19.27), whereas the average post-test score increased to 78.59 (SD = 14.24). These findings suggest that most students improved their Chinese listening skills to varying degrees after six weeks of flipped classroom instruction. It is worth noting that:

1. The post-test average score was 11.41 points higher than the pre-test average, indicating a considerable increase.
2. The post-test score had a smaller standard deviation than the pre-test score ($14.24 < 19.27$), showing a narrowing of the difference between students and a more concentrated distribution of results.

This suggests that the teaching strategy may lead to consistent student performance. These preliminary findings imply that flipped classroom training may help students improve their Chinese listening skills.

Table 2 shows a strong positive correlation between the pretest and posttest scores, $r = .715$, $p < .001$. This indicates that students who obtained higher pretest scores also tended to obtain higher posttest scores. However, this correlation does not establish the equivalence or validity of the two test forms and does not eliminate the possible influence of external factors.

This data also shows that the correlation suggests consistency between the two measurements, but it does not eliminate possible external influences in students' performance rather than reflecting the influence of external random factors. Before conducting the paired-samples t-test, the normality of the pretest–posttest difference scores was examined. The Shapiro–Wilk test showed that the distribution did not significantly deviate from normality, $W(32) = .953$, $p = .170$.

Table 3. Paired Samples Test

Paired Differences									
					95% Confidence Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Pretest - Posttest	-1.140.625	1.346.946	238.109	-1.626.251	-.654.999	-4.790	31	< .001

Therefore, the normality assumption for the paired-samples t-test was met. A paired-samples t-test was then conducted to compare students' pretest and posttest Chinese listening scores. The dependent-samples t-test (Table 3) revealed a mean difference of -11.41 between the pre- and post-test scores, indicating that the post-test score was substantially greater than the pre-test score.

The t-test yielded a t-value of -4.790 with 31 degrees of freedom and a two-tailed $p < .001$, indicating a significant difference between pre-test and post-test scores. This result implies that:

1. Students' Chinese listening scores increased significantly after the flipped classroom intervention.
2. The result supported the research hypothesis that the pretest and posttest mean scores differed significantly.
3. The 95% confidence interval was -16.26 to -6.55, excluding zero, which confirmed the further supported the statistical significance of the mean difference.

Overall, the results indicate that students' Chinese listening scores increased after the six-week flipped classroom intervention. However, because the study did not include a control group, the improvement cannot be attributed solely to the intervention.

Student Questionnaire Results on Satisfaction with the Flipped Classroom Method

The researchers used student questionnaires to assess students' satisfaction with the flipped classroom approach to Chinese listening instruction. The learning satisfaction questionnaire asked students to measure their perceptions and satisfaction with the flipped classroom teaching approach. The student questionnaire identified six effective measures of learning satisfaction: personal characteristics; material conditions and learning facilities; teachers and teaching activities; learning outcomes; learning environment; and peer relationships. The questionnaire used a five-point Likert scale (1

= very dissatisfied, 5 = very satisfied), and the data were analyzed in SPSS version 26.

Table 4. Descriptive Statistics of Students' Satisfaction with the Flipped Classroom

Questions	N	Min	Max	Mean	Std. Deviation
Personal Characteristic					
The flipped classroom method used in the "Chuji Hanyu Tingli Xia" course meets each student's needs and learning styles.	32	2	5	3.84	.808
I was pleased with the personal support provided by the course.	32	3	5	4.31	.693
This course was beneficial in increasing my self-awareness and personal development.	32	1	5	4.16	.884
Material Conditions and Learning Facilities					
I am satisfied with the learning materials and resources in the "Chuji Hanyu Tingli Xia" course.	32	3	5	4.19	.738
The course's learning facilities can meet my learning needs.	32	3	5	3.91	.777
Teachers and Teaching Activities					
I am satisfied with the flipped classroom methods and the lecturer's teaching quality in the "Chuji Hanyu Tingli Xia" course.	32	1	5	4.03	.861
Through the flipped classroom method, the teacher sparked my interest and motivation to learn.	32	3	5	4.34	.653
In the "Chuji Hanyu Tingli Xia" course, the flipped-teaching activities were diverse and challenging for me.	32	1	5	4.16	.884
Learning Outcomes					
My learning results have improved through the flipped classroom method in the "Chuji Hanyu Tingli Xia" course.	32	2	5	4.00	.880
I am satisfied with the knowledge and skills I learned in this course.	32	2	5	3.97	.897
The flipped classroom method will be helpful for my academic and professional development.	32	1	5	4.13	.942
Learning Environment					
Through the flipped classroom method, I am satisfied with the learning atmosphere of the "Chuji Hanyu Tingli Xia" course.	32	3	5	4.00	.803
I feel that the learning environment of the flipped classroom method in the "Chuji Hanyu Tingli Xia" course supports students' active participation and cooperative learning.	32	1	5	4.09	.928
I am satisfied with the learning support and tutoring services provided by the "Chuji Hanyu Tingli Xia" course through the flipped classroom method.	32	1	5	3.97	.897
Peer Relationships					
Through the flipped classroom method in the "Chuji Hanyu Tingli Xia" course, the class relationship is positive and friendly.	32	3	5	3.91	.818
I can build good collaboration and learning partnerships with my classmates in this course.	32	3	5	4.13	.793
I was satisfied with the teamwork and group discussions in this class.	32	2	5	3.94	.840

The flipped classroom satisfaction survey findings in Table 4 indicate that students generally have a positive attitude toward the course and teaching methodology. Most questionnaire items had mean scores close to or above 4.00, indicating generally positive student satisfaction with the flipped classroom learning experience, and acceptance of the flipped classroom method in "*Chuji Hanyu Tingli Xia*" course. The analysis of each dimension is explained as follows:

At the personal characteristic part, students were most satisfied with "I was pleased with the personal support provided by the course" ($M = 4.31$). This finding demonstrates that the flipped classroom method allows students to prepare for class at their own pace (by listening to recordings, recording pinyin and meanings), which not only improves learning autonomy but also provides clear feedback and guidance through group discussions or peer assessment when necessary, resulting in high levels of individual learning support. This support may have reduced students' anxiety during initial listening activities and strengthened their learning confidence.

In terms of material conditions and learning facilities, and teachers and teaching activities, students gave the highest ratings to

"I am satisfied with the learning materials and resources in "*Chuji Hanyu Tingli Xia*" course" ($M = 4.19$) and "Through the flipped classroom method, the teacher sparked my interest and motivation to learn" ($M = 4.34$). These results suggest that the audio materials, pre-class tasks, and transcription activities were perceived as useful by the students. Furthermore, teacher-led instruction, interpersonal encouragement, classroom correction, and peer collaboration make the learning process more engaging and challenging, thereby increasing student engagement and motivation.

Regarding learning outcomes, students agree that the flipped classroom approach "the flipped classroom method will be helpful for my academic and professional development" ($M = 4.13$). This finding suggests that students perceived the flipped classroom method as supporting their listening, learning, and future academic or professional development. As a result, students not only benefit from short-term learning gains but also view the course as educationally beneficial in the long run.

At the learning environment part, students commented were most satisfied with "I feel that the learning environment of the flipped classroom method in the '*Chuji Hanyu Tingli Xia*' course supports students'

active participation and cooperative learning” ($M = 4.09$). This indicates a shift away from traditional lecture-based learning toward one in which students have more opportunities to communicate, discuss, verify each other's work, and rectify errors. The learning environment no longer stresses one-way input, but rather interaction, discovery, and co-construction of information. This strategy shifts students' passive learning roles, encouraging classroom participation.

In terms of peer interaction, students generally agreed that the course "I can build good collaboration and learning partnerships with my classmates in this course" ($M = 4.13$). Through peer assessment, ideas, and corrections, students progressively developed a collaborative learning environment. This technique prevents students from feeling alienated when dealing with learning issues by allowing them to grow together through group support, which increases emotional connection and a sense of learning support.

Overall, students reported a positive learning experience and favorable perceptions of the learning environment and peer collaboration. Students responded well to this teaching style, suggest the potential feasibility of the flipped classroom method, particularly for beginner-level Chinese

listening courses that require considerable language input and practice.

Discussion

This study investigated the implementation of the flipped classroom method in the “Chuji Hanyu Tingli Xia” course at the Mandarin Language Education Program of Universitas Negeri Semarang. The data revealed that students' Chinese listening scores improved after six weeks of flipped classroom instruction, and the student satisfaction questionnaire yielded generally good feedback on the learning experience. However, because this study used a one-group pretest-posttest design with no control group, the findings should be viewed as evidence of improvement following the flipped classroom intervention rather than solid causal proof that the approach was the only reason of the change.

Interpretation of Students' Listening Improvement

The pretest and posttest findings demonstrated that students' Chinese listening scores improved after implementing the flipped classroom strategy. The posttest mean score exceeded the pretest mean score, and the paired sample t-test revealed a

statistically significant difference. This research suggests that the flipped classroom approach may help beginner learners strengthen their Chinese listening skills, especially when it provides additional opportunities for repeated listening practice outside the classroom.

The enhancement could be explained by the unique character of listening comprehension. Listening is more than just a passive activity; it demands that students identify sounds, differentiate tones, recognize language, analyze sentence meaning, and retain information in real time. This technique is especially difficult for beginning Chinese learners because Chinese tones and comparable sounds can easily confuse them. In this study, students were expected to listen to audio materials before class and write the content in Chinese characters, pinyin, and Indonesian meaning. This practice may have helped students connect sound, textual form, pronunciation, and meaning in a more methodical way.

The flipped classroom method also gave students discretion over the frequency and pace of listening practice. In traditional classroom instruction, students typically listen to recordings only during class, limiting opportunities for repetition. In contrast, the pre-class listening activity allowed students

to review the audio, concentrate on challenging sections, and prepare questions before meeting with the teacher. This frequent input may have increased students' focus on pronunciation, tone detection, word comprehension, and meaning creation. As a result, the score improvement may be attributed not only to the flipped classroom format but also to the more organized listening exposure students had during treatment.

This finding is consistent with Yang et al. (2018), who found that flipped classroom education can increase language performance and learning experiences. It also validates Huang et al.'s (2021) findings that flipped classroom instruction increased students' language learning performance. However, this study differs from prior studies by focusing on beginner-level Chinese listening acquisition in an Indonesian university setting. Thus, the contribution of this study is to demonstrate that flipped classroom activities may be useful not only for general language acquisition or reading and speaking situations, but also for beginner-level Chinese listening instruction.

Nonetheless, the improvement should be regarded cautiously. Because there was no control group, the increase in students' scores could have been influenced by factors

such as their natural development during the semester, familiarity with the HSK exam format, extra practice outside of class, or the teacher's instructional support. As a result, the findings suggest a favorable learning trend following the flipped classroom intervention, but they do not completely rule out alternative possibilities.

Student Satisfaction and Learning Engagement

According to the student satisfaction assessment, students responded positively to the flipped classroom method. The greatest score was recorded in the teacher and instructional activities dimension, specifically the item suggesting that the flipped classroom method boosted students' interest and motivation to study. This shows that the strategy was linked not only to higher scores but also to students' perceptions of a more engaged learning process.

This positive response could be attributed to students' active involvement in the learning process. In this study, students received more than just explanations from their teacher. They listened to the audio before class, wrote down what they heard, asked questions via the WhatsApp group, discussed their responses with classmates, rectified errors, and received teacher

feedback. These activities may have raised students' sense of responsibility by requiring them to prepare in advance and participate more actively in class.

This conclusion aligns with Chang et al. (2022), who found that flipped classroom activities can boost student participation and engagement. In this study, engagement was demonstrated through pre-class preparation, peer evaluation, and classroom conversation. These activities may have increased students' awareness of their own listening difficulties. When students compared their work to their peers' answers, they were able to identify faults in pronunciation recognition, vocabulary comprehension, and sentence meaning. This type of peer-supported correction may promote reflection and deeper processing of the information heard.

However, satisfaction data should not be taken as direct evidence that the strategy is completely effective. Student satisfaction was measured through self-report, so it may be influenced by social desirability bias, students' positive attitudes toward the teacher, or the novelty of a new learning approach. This article reports only test results and questionnaire data, so there is no interview or classroom observation data to substantiate students' in-depth experience of the learning process. As a result, satisfaction

scores should be interpreted as students' perceived satisfaction rather than as definitive evidence of instructional effectiveness.

Collaborative Learning and Listening Comprehension Process

The questionnaire results also revealed positive answers to the learning environment and peer relationship characteristics. This suggests that students regarded the flipped classroom to promote active involvement and collaboration. Collaboration may be helpful in listening and learning because students frequently struggle to detect sounds and meaning on their own. When they share their responses with their peers, they can compare diverse interpretations of the same auditory input and negotiate meaning together.

This finding is similar with Xiao et al. (2018), who stated that flipped classroom learning promotes student-centered learning and collaborative interaction. In this study, collaborative learning was achieved through peer review and classroom discussion. These activities may have helped students' progress beyond merely determining whether their answers were correct or incorrect. Students could use conversation to determine why certain words were misheard, why tones produced confusion, or why sentence

meaning was misread. This process is pedagogically significant since listening comprehension needs both bottom-up processing, such as sound and word recognition, and top-down processing, such as using context to comprehend meaning.

The findings indicate that the flipped classroom method may be useful for listening instruction when planned as an integrated learning cycle rather than as pre-class homework. In this study, the usefulness of the flipped classroom was not just derived from providing audio materials before class. Its instructional usefulness stemmed from the relationship between pre-class listening, online questions, peer correction, teacher assistance, and post-class correction. Without this organized link, flipped classroom activities may become just more homework rather than meaningful listening and teaching.

Theoretical and Pedagogical Contribution

Theoretically, this study supports the student-centered notion of flipped classroom learning by demonstrating how students can participate more actively in beginner Chinese listening training. The findings indicate that flipped classroom learning may aid in second-language listening development by boosting repeated input, learner control, peer

interaction, and guided feedback. These parts are vital because beginner learners require adequate exposure to spoken language, as well as assistance in interpreting and correcting what they hear.

In terms of second-language acquisition and listening pedagogy, this study demonstrates that learners can enhance their listening skills by being given the opportunity to regularly and actively analyze input. The obligation to transcribe the listening content in Chinese characters, pinyin, and Indonesian meaning may have enabled students to analyze audio at multiple levels, including sound recognition, phonological representation, written form, and semantic understanding. This shows that flipped listening instruction can be designed to go beyond just an audio preview; it can also be used to structure input-processing activities.

Pedagogically, this study contributes to the discussion of Chinese-as-a-foreign-language instruction in Indonesian higher education. The findings indicate that flipped classroom activities may be appropriate for basic listening courses when students are given clear directions, accessible audio materials, online help, classroom discussion, and teacher feedback. As a result, the flipped classroom method should not be interpreted as simply transferring learning resources

outside of the classroom, but as a rethink of the interaction between pre-class preparation and classroom learning.

Limitations of the Study

Several limitations should be acknowledged when interpreting the results. First, this study employed a one-group pretest-posttest design, with no control group. As a result, although students' scores improved following the intervention, the study cannot conclusively demonstrate that the improvement was solely due to the flipped classroom strategy. Other factors that could have influenced the outcomes include maturation, repeated exposure to the test format, more practice, and learning experiences in other Chinese courses.

Second, the sample size was relatively small, involving only 32 students from one class in one study program. As a result, the findings cannot be applied to all Chinese language learners or university settings. Third, the treatment lasted six weeks, which may be enough to detect short-term improvements but insufficient to evaluate long-term listening development. Fourth, the satisfaction data were gathered using a student questionnaire; the results may reflect students' impressions rather than their actual learning behaviour. Because no interview or

classroom observation data were provided in this article, the interpretation of students' learning experiences is limited.

Educational Implications

The findings have various implications for teaching novice Chinese listening skills. First, teachers might employ flipped classroom activities to expose students to audio resources before class. This may be particularly useful in foreign-language environments where students have limited exposure to Chinese outside the classroom. Second, pre-class listening should be accompanied by specific assignments, such as writing pinyin, Chinese characters, and meaning, so that students actively process the audio rather than passively listening.

Third, classroom time should be reserved for activities that students cannot complete independently, such as discussing difficult listening sections, comparing responses, correcting errors, and receiving teacher feedback. Fourth, teachers should consider students' readiness and access to technology. Because flipped classroom learning allows students to access resources outside of class, teachers must ensure that students understand the work, have access to audio materials, and receive assistance if they encounter issues.

As a result, the flipped classroom method may be a viable pedagogical choice for basic Chinese listening classes, but its success is contingent on careful instructional design, student preparation, instructor leadership, and frequent feedback. Future studies should incorporate a control group, a larger sample size, a longer treatment period, and qualitative data, such as interviews or classroom observations, to provide stronger evidence of how and why flipped classroom education improves Chinese listening learning.

Conclusion

This study investigated the use of the flipped classroom approach in the "Chuji Hanyu Tingli Xia" course for first-year students in the Mandarin Language Education program at Universitas Negeri Semarang. The data reveal that students' Chinese listening scores improved after six weeks of flipped classroom activities, and the student satisfaction questionnaire yielded generally positive responses regarding the learning experience. These findings indicate that the flipped classroom method may benefit beginner-level Chinese listening instruction by providing students with more opportunities for repeated listening practice, self-paced preparation, peer interaction, and teacher-guided correction.

This study makes a contribution by focusing on Chinese listening instruction in Indonesian higher education, particularly in a beginner-level course where students frequently struggle to discern sounds, tones, vocabulary, and meaning. The findings suggest that flipped classroom learning may provide a structured approach to beginner-level Chinese listening instruction not just as a general teaching innovation, but also as a systematic listening-learning technique. In this case, pre-class audio listening, Hanzhi-pinyin-meaning transcription, peer discussion, and classroom correction formed a learning cycle that enabled students to engage more actively with the listening materials.

However, the findings should be viewed cautiously. This study employed a one-group pretest-posttest design with no control group and included just 32 students from a single class. As a result, the improvement in listening scores cannot be attributed solely to the flipped classroom approach. Other factors that may have influenced the outcomes include students' natural learning progression, familiarity with the test format, more practice, and teacher support. Furthermore, the satisfaction data were derived from students' self-reported replies, which may have been influenced by response bias.

In practice, this study suggests that teachers of beginner Chinese listening courses may apply the flipped classroom method by assigning clear pre-class tasks, providing accessible audio materials, offering opportunities for peer discussion, and providing consistent teacher feedback. Future studies are recommended to include a control group, larger samples, longer implementation periods, and additional data sources, such as classroom observations or interviews. Further research may also examine the use of flipped classroom methods in other Chinese language skills, such as speaking, reading, and writing.

Overall, this study shows that the flipped classroom method may support Chinese listening development when carefully planned as an integrated process of pre-class preparation, classroom engagement, and guided correction. Its importance lies not only in expanding learning opportunities beyond the classroom but also in providing more active, reflective, and collaborative listening and learning experiences for beginning Chinese learners.

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