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# Using the Flipped Classroom Approach to Adapt to the Chinese Leaving Certificate in Ireland

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# **ABSTRACT**

Although Chinese was officially introduced into the Irish Leaving Certificate curriculum in 2022, current instructional practices face significant limitations, such as short class periods, insufficient lesson frequency, a lack of teachers, and challenges balancing language and culture, all hindering effective learning and exam preparation. To address these constraints, this exploratory pilot study developed and implemented a flipped classroom model explicitly tailored for Chinese teaching in Irish secondary schools. A 20-hour flipped course was conducted, and student feedback and performance were analysed through questionnaires and tests. Results indicate the flipped approach significantly enhanced student engagement, improved autonomous learning skills, and effectively addressed curriculum limitations. Despite minor implementation challenges, students reported high satisfaction, and their learning outcomes aligned closely with curriculum objectives. These findings demonstrate that this flipped classroom method is feasible and beneficial, offering Irish students and teachers a practical approach to achieving their Leaving Certificate Chinese examination goals.

Keywords: Chinese Teaching, Flipped Classroom, Irish Secondary School, Chinese Leaving Certificate

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# 1 Introduction to the Research Background

The flipped classroom approach has been gradually adopted by many disciplines, from computer science and economics to the humanities. With the development of educational technology, the flipped classroom teaching approach has been applied to language instruction and has demonstrated significant value in its implementation. Several recent studies have further confirmed the benefits of flipped classrooms in language learning (Kong et al., 2024). The flipped classroom teaching method has also gradually begun to be applied in the field of teaching Chinese as a foreign language. A teaching experiment conducted in the United States showed that students in flipped classrooms performed better in oral communication and scored higher on average in three aspects of their learning experience: self-directed learning requirements, amount of classroom practice, and stimulation of interest in the subject (Yang et al., 2018). Another research in Taiwan exhibited significantly greater improvement in their reading skills than those in classes employing traditional teaching methods, and most students believed that flipped classroom teaching could spark their interest and help them achieve their desired learning goals (Huang et al., 2021).

In 2022, Irish students sat their first-ever Leaving Certificate examination in Mandarin Chinese, reflecting the official inclusion of Chinese as a senior-cycle subject. This milestone has significantly increased interest in Chinese language courses in Irish secondary schools.



However, these Chinese courses are typically short, student-driven, and must cover both language and cultural content within limited contact hours. Traditional teaching methods struggle to meet these needs, creating a demand for innovative approaches. The shortage of teachers has also made it even more challenging to promote and implement Chinese language courses in Irish secondary schools (Zhang & Ruddock, 2024).

The primary target group for this study is Transition Year (TY) students (typically aged 15–17). At this age, learners are generally beyond the optimal critical period for language acquisition, making it more challenging to achieve high proficiency. Apart from a few heritage learners, most TY students begin with no Chinese knowledge. Furthermore, the TY Chinese course is brief, with only a few lessons available. These features make it difficult to cover both basic language skills and cultural topics effectively. A flipped classroom approach is therefore especially suitable for maximizing this limited time.

This study thus poses the question: Is a flipped classroom model feasible and effective for Chinese instruction in Irish secondary schools? To investigate this, a flipped classroom teaching model was designed and implemented for the TY Chinese course at a secondary school in Waterford, Ireland, and its effects were evaluated through student questionnaires and tests.

# 2 Feasibility Analysis

In terms of language policy, Ireland's NCCA published the Chinese Language Syllabus in 2024, which details language knowledge and skills objectives and designates Chinese language classes in secondary schools as short-term courses(NCCA, 2024). It also provides clear guidance on teaching objectives, methods, content and assessments for Chinese language courses in Irish secondary schools.

ICT is commonly used in Irish education, and the flipped classroom method relies heavily on this technology. The necessary networks and equipment are already in place, meeting the technological requirements for this teaching method. In addition, according to the Central Statistics Office (2024), 94% of Irish households have access to the internet, which allows students to use the internet for educational purposes outside of school. Therefore, from the perspectives of language policy and technology, it is feasible to use flipped classroom teaching in Irish secondary school Chinese language courses.

The primary target group for Chinese language teaching in Irish secondary schools is students in the Transition Year (TY). These students make up a unique group. First, they are 15–17 years old, which is beyond the critical period of learning (Lenneberg, 1967) when learning a second language is more difficult than for younger students. Second, apart from a small number of Chinese students who have some understanding of the language, most students in the TY are beginners with no knowledge of Chinese. Furthermore, the course is comprised of a small number of lessons in a short period due to the special curriculum for the TY. Students cannot acquire a great deal of knowledge within such a limited window. This makes it challenging for teachers to design course content that meets the school's needs and balances the teaching of both language and culture. It is, therefore, necessary to employ flipped classroom teaching in Irish secondary school Chinese courses.

# 3 Creation and Description of the Flipped Classroom Model for Chinese Language Teaching

The design of the flipped classroom teaching model has evolved since its inception, and scholars have adapted the model to different subjects according to specific teaching

circumstances. Based on the flipped classroom teaching model diagram proposed by Zhang et al. (2012), the author has designed a flipped classroom teaching model for Chinese language instruction in Irish secondary schools, as shown in Figure 1.

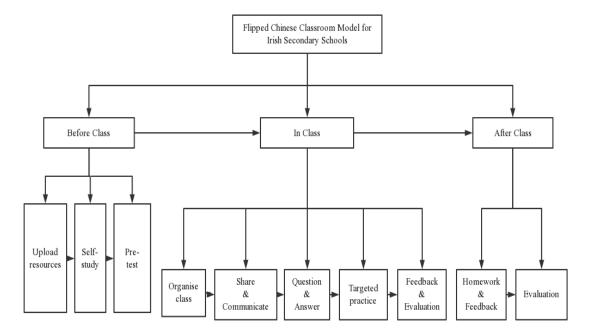


Figure 1. Flipped Chinese classroom model for Irish secondary schools

The following subsections describe the flipped classroom model for teaching Chinese in Irish secondary schools. The process is divided into three modules: before, during and after class.

## 3.1 Before class

#### 3.1.1 Upload Resources

Teachers upload resources to Google Classroom, where students can access materials independently for pre-class study. Quizzes are also conducted on this platform to assess student preparation and inform targeted classroom activities.

# 3.1.2 Self-study

Students independently study the teaching resources, while teachers use the communication platform to facilitate students' interactive communication, provide feedback and assistance, and remind students to complete their work on time.

#### 3.1.3 Pre-test

During the self-study, students are required to complete a pre-class test after they have finished studying the material. The test is uploaded as a quiz to the communication platform; the platform also has a quiz/homework collection function that teachers can use to check that students have completed the test. The teacher can then review the students' work so they can provide targeted feedback in class.

#### 3.2 In Class

# 3.2.1 Organise the Class

This stage serves to help students get into the lesson quickly. After a short greeting, the teacher guides students in reviewing the previous lesson and introduces new content.

#### 3.2.2 Share and Communicate

This session can be conducted in groups or as a class, and it serves multiple purposes: it gives students an opportunity to share and summarise what they have learned and what problems they encountered during the self-study session, it allows students to learn collaboratively and it encourages students to solve problems on their own. The teacher should guide students in identifying and solving problems during this part of the lesson.

#### 3.2.3 Question and Answer

The teacher and students summarise the problems they have encountered. For problems that students can solve themselves, the teacher checks that the results are correct, provides encouragement and assists those who did not arrive at the correct answer. For problems that students cannot solve, the teacher can either provide the answer or assign the problem as homework so that students can use other resources to obtain the correct response.

# 3.2.4 Targeted Practice

As part of the pre-test and previously described in-class sessions, the teacher organises targeted drills for the students. This practice takes different forms, and teachers try to design activities that engage and motivate the students, such as hot potato, drawing and guessing, and other fun games.

#### 3.2.5 Feedback and Evaluation

At the end of the class, the teacher leads students in a review of the day's learning, assigns homework and rewards those students who have performed well in class. Rewards can take the form of small gifts that are relevant to the Chinese language curriculum and stimulate students' interest in Chinese culture. Also, at this time, the teacher can assess students' mastery of the lesson content based on their output in class.

#### 3.3 After Class

#### 3.3.1 Homework and Feedback

Students complete their assignments by the end of the lesson and submit them to the teacher, who corrects them and provides prompt feedback.

# 3.3.2 Evaluation

The lesson is now complete. The teacher assesses the students' ability and mastery of the language and cultural knowledge based on their performance before, during and after the lesson. The teacher should also make any necessary adjustments to their teaching based on what transpired during the lesson.

# 4 Data Collection and Analysis

To test the feasibility and effectiveness of the model, the author conducted a 20-hour Chinese language flipped classroom programme for TY students in a secondary school in County Waterford, Ireland. The 20 students, eight girls and 12 boys, were all beginners in Chinese and had no prior knowledge of the language.

At the end of the course, the author conducted a questionnaire survey and a final test on 20 students. The purpose of the questionnaire survey was to investigate students' satisfaction with the flipped classroom model in Chinese language classes during the semester. The final test was designed to assess the effectiveness of the flipped classroom model and students' mastery of the course content.

Due to the course structure, all TY students are required to participate in one to two weeks of work experience at the end of the semester, making it challenging to schedule exams at a time when all students are available. Considering this issue, the author discussed it with the school and decided to conduct online satisfaction survey and final exam via Surveyhero, and the data was analysed using Excel. Descriptive statistics such as frequency and percentage were used to summarise questionnaire responses and test results. As the study involved a single group and small sample size, no inferential statistical tests were conducted.

# 4.1 Questionnaire Results and Analysis

Students spent about 30 minutes on pre-class study and reported that bilingual resources (pinyin – English, adjustable-speed videos) were easy to use. Chinese tea art materials were the most popular self-study item (25%).

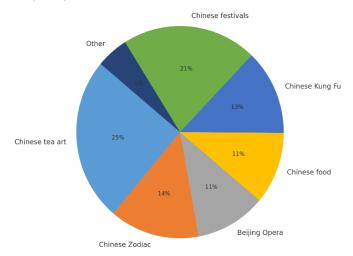


Figure 2. Learning Resource Preferences

Most learners mastered syllabus targets—greetings, numbers, self-introductions, colours, ages, birthdays, family members—while "hobbies" remained challenging owing to its heavier vocabulary load.

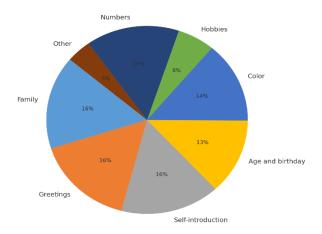


Figure 3. Mastery of learning content

The author also found that collaborative formats (group/partner work) were well received; 48.28% of students preferred the "repeater" drill and 29.69% favoured "show and tell", although 17.65% were less enthusiastic, citing lack of preparation or interest. Learners also made frequent use of YouTube and Google Translate.

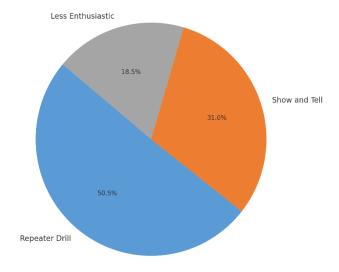


Figure 4. Preferred learning methods

Overall, the questionnaire confirms that the flipped course met learners' needs, improved autonomy, and was viewed very positively.

# 4.2 Test Result and Analysis

#### 4.2.1 Expected Impacts and Responses

Considering the students' Chinese proficiency and the time required to complete the test, the test duration should be approximately 90 minutes, with no more than 10 questions, to ensure a high completion rate within the specified timeframe. Furthermore, when determining final grades, the test should not be the sole criterion for evaluating student progress, as this approach is not objective, and low scores may demotivate students.

To address these issues, the author has decided to design the test according to the following requirements:

The test content should be of moderate difficulty and based on the student's current language proficiency. As mentioned earlier, the Chinese language course offered during the TY period is a short-term comprehensive course that includes both Chinese language and Chinese culture. Therefore, the test questions should focus on practical application and be easy to understand.

The test questions should include a mix of subjective, objective, oral, written, and cultural questions, with oral questions administered individually or in pairs.

#### 4.2.2 Test Results and Analysis

The test is divided into two parts, written (including Part A: Writing and Part B: Chinese Culture) and oral (Part C: Oral Test). Candidates must complete the written part (Parts A and B) before taking the oral part (Part C). The written test is 60 minutes long, and the oral test is 30 minutes open-ended. A total of 20 students were tested, and 20 tests were completed and collected, for a 100% completion rate. Based on the 20 tests, the following analysis was made.

#### 4.2.2.1 Examination of Language Knowledge Points

The written part A examined students' knowledge of pinyin, numbers, everyday language, greetings and self-introductions. Descriptive statistics (percentages, means) were calculated to summarize student performance. For instance, Figure 5 shows the percentage-correct rates on written items.

The evaluation criteria for the "writing" section are as follows:

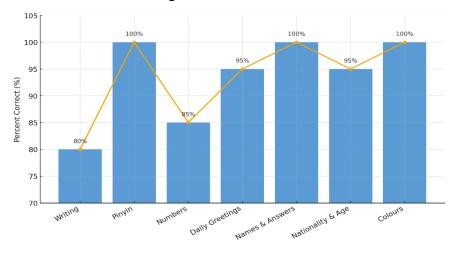


Figure 5. Written part A scores

 Level
 Criteria

 Excellent
 Neatly written with correct and complete strokes

 Good
 Slightly untidy with minor errors in the strokes

 Poor
 Sloppy writing, illegible or missing strokes

 Level
 Criteria

Table 1. Writing assessment criteria

# 4.2.2.2 Examination of Cultural Knowledge Points

The study of Chinese culture is one of students' favourite aspects of the course. In addition to the elements of Chinese culture introduced in the lessons, the flipped classroom allowed students to develop the habit of self-directed learning, and they took initiative to do research outside of class. This is one of the positive effects of the Chinese course: it encouraged students

to use online resources to learn about China on their own, rather than relying on media reports to help them understand Chinese culture. The following table shows the results of Part B, knowledge of Chinese culture.

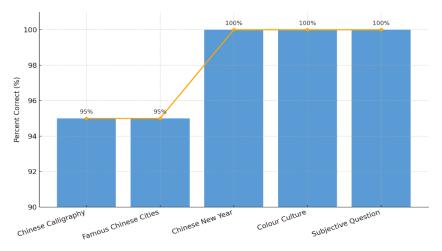


Figure 6. Scores of the part B

The last subjective question tested students' further understanding of Chinese culture, and due to limitations in Chinese language proficiency, students may express themselves directly in English. Students who answer questions about Chinese culture in a logical, well-founded, and factual manner will receive full marks. Students' answers varied greatly, with 'red envelopes' appearing most frequently.

#### 4.2.2.3 Oral Examination

Part C, the oral test, accounts for 40% of the total marks. This Chinese as a Foreign Language course is primarily based on listening and speaking, so speaking is a key focus of this test. The oral test consists of four questions covering numbers, pinyin recognition, self-introductions and everyday conversations (excluding self-introductions). Students were scored on their level of clear, standard pronunciation, with a maximum score of 10 points for each question.

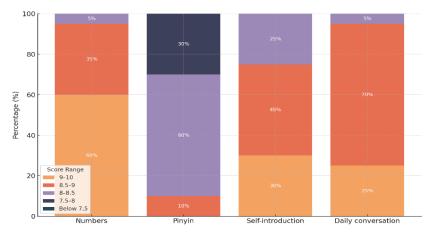


Figure 7. Scores for Speaking Test Part C

These results demonstrate that the flipped model effectively supported both linguistic and cultural outcomes while highlighting pinyin pronunciation as a future focus.

#### 4.2.2.4 Integrated Assessment

Overall, student performance was positive, with most students achieving excellent grades. Assessments accounted for tests, classroom engagement, attendance, and pre-class participation, confirming the effectiveness of the flipped classroom approach, as shown in Figure 8.

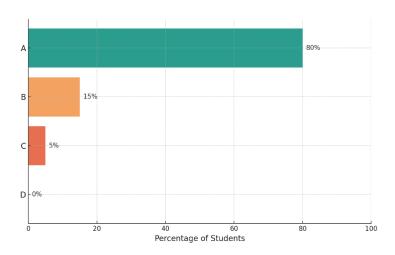


Figure 8. Comprehensive assessment results

# 5 Challenges Encountered and Countermeasures

While using the flipped classroom teaching method in Chinese classes in an Irish secondary school, the author encountered the following challenges:

Varied Completion Rates for Pre-class Learning. In actual teaching, not all students were able to complete the pre-class learning on time. This is partly the behavioural unpredictability typical of adolescents and the fact that the provided resources did not fully meet their diverse needs. It is necessary to conduct a needs assessment beforehand to identify areas of interest among students. This enables differentiated instruction that caters to the diverse learning needs of the majority.

**Difficulty in Managing Classroom Activity Time.** During student exchanges, sharing, and practice sessions, time often ran out, resulting in rushed task completion. Teachers should allocate time for each session in advance and inform students of the lesson structure at the beginning of class. This allows students to self-monitor and helps ensure that the class stays on schedule.

Discussion Topics Deviating from the Main Focus. Teenage students often have short attention spans and may use discussions to socialise, leading to off-topic conversations. Rather than discouraging interaction, Chinese teachers can invite other local teachers to assist in managing discipline. Teachers should also reflect on their content delivery and maintain engagement through well-paced lessons, ideally adjusting rhythm or content every 10–15 minutes.

**Inconsistent Learning Progress.** Due to differences in students' proficiency and motivation, some groups completed tasks ahead of others. Group students based on language level, attendance, and willingness to participate, ensuring that each group includes active members. Offer additional challenges to advanced learners and encourage quieter students to speak up more. Provide personalised support where needed.

# 6 Discussion and Implications

This study offers actionable insights for Chinese language educators and curriculum designers seeking to implement flipped classroom models, particularly in multicultural contexts. The findings underscore the importance of tailoring pre-class materials—such as instructional videos and interactive quizzes—to students' language proficiency and cognitive processing capabilities. Moreover, the success of flipped pedagogies hinges on robust institutional support, including access to digital platforms, targeted teacher training, and the redesign of assessment frameworks.

Beyond classroom implementation, the results carry broader implications for professional development programmes aimed at Chinese as a Foreign Language (CFL) teachers operating in culturally diverse environments. These programmes should equip educators with the necessary tools to integrate technology effectively, foster learner engagement, and navigate intercultural complexities. Such competencies are particularly critical in settings where personalised learning must be scaled despite limited resources.

To support the sustained implementation of the flipped classroom model in CFL instruction in Ireland, the following practical recommendations are proposed:

Align teaching resources with learners' proficiency and curricular goals. Given that most Irish secondary students have no prior exposure to Chinese, educators must first conduct needs assessments to understand their learners' expectations. This ensures that selected materials are accessible, relevant, and pedagogically appropriate.

Leverage school-based digital platforms (e.g., Google Classroom) to streamline teaching workflows. These platforms facilitate the dissemination of learning materials, while also enabling assignment management and promoting student interaction through built-in communication tools.

Use pre-class assessments to inform in-class instruction. Diagnostic activities allow teachers to identify learning gaps and highlight common challenges. Class time can then be strategically used to address these issues, encourage student inquiry, and foster collaborative problem-solving.

Coordinate classroom management with school administrators. Given the high level of student autonomy and occasional behavioural challenges typical of Irish secondary schools, requesting classroom supervisors may help maintain a conducive learning environment.

Maintain consistent pacing while preparing contingency content. Teachers should estimate instructional time based on learners' abilities and lesson complexity. Preparing additional enrichment materials ensures that early finishers remain engaged and learning time is fully optimised.

Celebrate student progress through public showcases. Cultural events and home–school days present valuable opportunities to exhibit students' learning outcomes. Such activities reinforce learners' motivation, enhance institutional visibility for Chinese language instruction, and foster stronger communication between teachers, parents, and school leadership.

Taken together, these implications and recommendations provide a practical framework for advancing flipped classroom practices in CFL education, particularly in resource-constrained yet culturally dynamic contexts such as Ireland.

#### 7 Conclusion

Chinese language courses in Irish secondary schools are often brief and limited in scope, necessitating a balanced approach to language and cultural instruction. Traditional Chinese teaching methods struggle to meet these demands. This study demonstrates that the flipped classroom teaching method is not only feasible but also necessary in Irish secondary schools, effectively addressing the issue of limited class time. However, this study has limitations in that it did not conduct a control experiment to prove whether the Chinese flipped classroom is more advantageous than the traditional classroom.

Through 20 hours of Chinese flipped learning, students reported high satisfaction with their experience in the flipped Chinese classroom. Through this approach, their autonomous and collaborative learning abilities improved, and their learning outcomes were achieved. Teachers should actively explore teaching methods that can adapt to the Irish Chinese Leaving Certificate and local educational context to promote the localisation of Chinese language education in Ireland. Future research should consider comparative studies and longitudinal tracking to further validate the long-term effectiveness of flipped instruction in multicultural CFL contexts.

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