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Course Design for Chinese Oral Communication Teaching Oriented toward Cross-Cultural Communication Skills

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SUMMARY: *In modern Chinese oral language teaching, the cultivation of cross-cultural communication skills focuses on how to effectively leverage students' diverse cultural backgrounds and learning networks, as well as how to better address culturally relevant topics in oral language instruction. Based on this, this paper updates the design of Chinese oral language teaching courses, using teaching objectives as a guiding principle to integrate teaching content and resources, and identifies thematic relationships such as "contemporary life," "science and technology," and "social values." A teaching sequence oriented toward cross-cultural communication skills is established: "setting teaching themes – introducing classroom themes – theme-based learning activities – sharing learning outcomes – evaluation and feedback," thereby achieving the cultivation of cross-cultural communication skills in Chinese oral language teaching courses. Utilizing CAI technology and the wavelet transform algorithm to extract digital resources required for Chinese oral language instruction, after one semester of teaching practice, the cross-cultural communication skills-oriented Chinese oral language instruction class achieved significant improvements in all question types, including multiple-choice questions, with an average score of 86.59 ± 9.712, significantly higher than the class using traditional teaching methods. This demonstrates the effectiveness of the cross-cultural communication skills-oriented Chinese oral language instruction approach.*

KEYWORDS: *CAI; wavelet transform; teaching curriculum; cross-cultural communication skills*

1 Introduction

With the accelerated development of globalization, cross-cultural communication has become an indispensable part of our lives [1, 2]. Globally, due to cultural differences, the issues involved in cross-cultural communication are also increasing [3, 4]. As one of the most complex and ancient languages in the world, Chinese is highly valued globally [5]. As China's influence on the international stage continues to grow, an increasing number of people have developed a strong interest in learning spoken Chinese. Consequently, the design of Chinese language courses focused on cross-cultural communication skills has become increasingly important [6-9]. How to better assist students in mastering cross-cultural communication strategies and enhancing their cross-cultural communication abilities during the teaching process has emerged as a significant research topic [10].

In Chinese oral language instruction, cross-cultural communication strategies can help students better understand the characteristics of Chinese language and culture, reduce cultural barriers, and improve language learning outcomes [11, 12]. Through the guidance of cross-

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cultural communication strategies, students can better understand Chinese ways of thinking, value systems, and social customs, thereby enhancing their ability to communicate effectively in Chinese [13-15]. Cross-cultural communication strategies also contribute to improving students' language output abilities and communication skills [16]. By learning and practicing intercultural communication strategies, students can communicate more confidently in Chinese and better handle communication challenges in different cultural contexts [17, 18]. Therefore, when designing Chinese oral language courses, it is essential to establish clear course objectives [19]. These objectives should include the development of language skills, the cultivation of cultural awareness, and the enhancement of students' overall competencies [20, 21]. Students should be able to use Chinese for communication, expression, and understanding in daily life and work, gain a deep understanding of Chinese culture and customs, and enrich their international perspective and language proficiency [22-24]. Additionally, modern technology can be integrated into teaching, utilizing multimedia teaching software and interactive classrooms to allow students to learn and master language knowledge in a relaxed and enjoyable atmosphere [25-27].

Literature [28] examines the importance of oral teaching in Chinese language education for non-native speakers, as it provides students with opportunities for oral communication and helps them master oral vocabulary and expression patterns. Literature [29] introduces a new teaching model, BOPPPS, and discusses its application in oral Chinese instruction as a foreign language. The results indicate that this model effectively enhances the efficiency of Chinese oral instruction and stimulates students' enthusiasm for learning Chinese. Literature [30] emphasizes the importance of mastering Chinese phonetics in the learning of Chinese by foreign learners, integrating research findings from language, language learning, and tone acquisition, providing a broader and more consistent foundation for practice. Literature [31] analyzes the value of oral teaching in teaching Chinese as a foreign language and outlines some theories aimed at enhancing the oral teaching capabilities of university students in China's international education. Literature [32] explores the impact of Performance-Oriented Language Teaching (PLT) techniques on speech variables such as fluency and accent, and validates the effectiveness of this method through comparative experiments. Literature [33] outlines the criteria for excellent oral Chinese teaching materials, emphasizing not only the content but also how to learn, and highlights how information-based teaching formats can significantly enhance the teaching and learning outcomes of Chinese language instruction in foreign language education. Literature [34] examines the auxiliary role of ChatGPT in oral language teaching in international Chinese language education, systematically describing its applications in personalized oral practice and intelligent speech assessment, and summarizing its effectiveness in oral language teaching within international Chinese language education. The above studies highlight the importance of oral language education in Chinese language education, methods to enhance oral language learning outcomes, teaching models, and the role of information technology in promoting oral language learning.

Literature [35] aims to analyze the teaching of cultural competence from the A1 to B2 educational stages in the Spanish Official Language Institute. The objective of the analysis is to identify the cultural competence elements that students encounter when learning Chinese through textbooks, revealing that the textbooks include training content related to cultural competence. Literature [36] points out that cross-cultural communication skills are currently not adequately reflected in the field of Chinese as a foreign language education. However, through surveys, it was found that Chinese language teachers have a comprehensive and up-to-date understanding of this skill and pay significant attention to its development in teaching. Literature [37] examined the application of cultural activities in cultural education at Chinese

supplementary schools in London and students' feedback. The results indicated that while cultural activities offer numerous benefits, existing cultural activities fail to meet the learning needs of Chinese students with multicultural identities. Literature [38] discussed how authentic dialogues provide sociocultural resources for cultivating cultural competence among Australian Chinese native language learners, revealing that authentic dialogue models are beneficial for fostering members with social and cultural competence within minority groups. Literature [39] suggests cultivating students' intercultural competence through authentic videos in language education, reviews the application of audiovisual media in cultivating intercultural competence, and studies the cultivation of intercultural competence among Chinese language learners through authentic videos in Chinese language education and its implications. The aforementioned studies examine the cultivation of cross-cultural communication competence in Chinese as a foreign language, analyze the current state of the field through case studies, and propose effective measures such as authentic dialogue and audiovisual media to enhance cross-cultural communication competence.

This paper analyzes the development of Chinese oral language teaching in the context of new educational technologies, breaking down Chinese oral language teaching into classroom instruction and self-directed learning. It identifies the primary educational technologies in the implementation environment of modern Chinese oral language education, including Computer-Assisted Instruction (CAI), and employs the wavelet transform algorithm to extract and integrate digital resources for Chinese oral language teaching. The paper analyzes the key areas for cultivating cross-cultural communication skills in Chinese oral language teaching and uses this as guidance to update and redesign Chinese oral language teaching courses. It selects students from the School of International Education to analyze the performance comparisons before, during, and after the implementation of a Chinese oral language teaching course model oriented toward cross-cultural communication skills. Additionally, teachers and students evaluate and score the satisfaction level of this Chinese oral language teaching course model.

2 Teaching Chinese Oral Communication in the Context of New Technologies

2.1 Teaching spoken Chinese in the context of new educational technology

2.1.1 Oral Language Classroom Teaching

Oral language classroom instruction is the central component of oral language teaching and the process through which teachers directly guide students in practicing oral language skills. In the context of new educational technologies, conducting oral language classroom instruction requires optimizing the design of the course, guided by scientifically sound and reasonable teaching arrangements, supported by diverse teaching content, and primarily utilizing standardized oral language training methods to comprehensively advance the reform of this course.

According to the current philosophy of curriculum reform, teaching content is not synonymous with textbooks but refers to the dynamic, interactive materials and information generated during the teaching process that serve the achievement of teaching objectives. Therefore, classroom instruction should not be confined to textbooks, especially in the new technological context where students have higher demands for the diversity and appeal of teaching materials. This aspect must not be overlooked. To maximize students' desire to express themselves and effectively promote the development of their language application abilities, a large amount of textual, pictorial, audio, and video resources have been accumulated in advance

for use in class.

The scientific nature of Chinese oral language teaching arrangements is also reflected in the reasonable use of pattern columns [40, 41]. Based on practice and exploration, it can be concluded that: if imitative oral training is to be conducted (such as imitating characters, words, sentences, or short passages using audio as the medium), the follow-along mode should be selected. If report-style oral training is to be conducted (such as describing pictures, impromptu speeches, or responding orally after playing audio or video), the reading mode should be selected. If group-based collaborative discussion training is to be conducted (such as role-playing reading, debates, discussions, or question-and-answer sessions), the group discussion mode should be selected. All three training modes produce recorded results, and students should be organized to listen to, review, and evaluate these recordings in a planned and selective manner.

Guided by teacher-designed classroom activities, supported by new educational technology language teaching platforms, and oriented toward cross-cultural communication skills, Chinese oral language instruction has demonstrated significant advantages in the following areas:

(1) Student participation rates.

(2) Establishment of student-centered learning.

(3) Implementation of personalized instruction.

2.1.2 Independent oral language learning

In a CAI-enabled learning environment, oral language instruction should view in-class and out-of-class activities as an inseparable whole aimed at completing the same task or achieving the same goal. Therefore, it is essential to reform the traditional teaching method centered solely on classroom instruction, and instead establish a continuous teaching model characterized by "classroom instruction as a guide followed by reorganized self-directed learning after class." Self-directed oral language learning oriented toward cross-cultural communication skills is conducted within the peer-review assignment module of new educational technology. This module provides basic functions for oral autonomous training, enabling oral autonomous learning through the process of "creating assignments, posting assignments, answering assignments, peer evaluation, and teacher feedback."

The peer-evaluation assignment module is a cross-training system that uses autonomous learning resources as a medium and employs various training modes as tools. The construction of a Chinese oral autonomous learning resource repository should be based on the functions provided by the peer-evaluation assignment module, aiming to include as diverse and abundant digital resources as possible.

The peer-review assignment module of new educational technology provides functional buttons for inserting text, hyperlinks, images, audio, video, and microphone input. Therefore, it is essential to collect, organize, and establish a scenario material repository with diverse content, including text material repositories, image repositories, audio repositories, and video repositories.

Accordingly, four types of oral self-training exercises are provided for students: reading short passages and answering orally, listening to recordings and answering orally, describing pictures, and watching videos and answering orally.

This model has three main advantages:

First, it completely transforms the traditional learning environment centered on teachers, classrooms, and textbooks, fundamentally changing students' learning methods.

Second, by combining audio and visual elements to create rich, multimedia-based communication scenarios, it fully taps into students' initiative, proactivity, and creativity, enhances their language intuition, and even mobilizes their non-cognitive factors, thereby

facilitating the development of “Chinese thinking” among learners.

Third, task-based self-directed learning allows learners to perceive, understand, explore, and apply knowledge through the practical process of completing tasks, enabling them to learn by doing and using. This maximizes students' desire to express themselves and effectively promotes the development of their language application abilities.

2.2 Technical Environment for Teaching Spoken Chinese

2.2.1 CAI

Computer-Assisted Instruction (CAI) refers to the use of computers to perform instructional functions. It not only expands the application of computers but also represents a new educational technology and teaching method.

Constructivism is an important branch of cognitive learning theory and a new learning theory that has emerged in Western countries in recent years. It represents the mature stage of computer-assisted instruction. It posits that learning is the process of constructing internal mental representations. The acquisition of knowledge and the development of skills by learners are not achieved through teacher instruction but rather through learners building upon their existing knowledge, experience, and skills within a specific social and cultural context. With the assistance of teachers and peers, learners utilize necessary learning materials to actively engage their initiative, enthusiasm, and creativity, ultimately achieving meaningful construction of the knowledge they have learned. “Context,” “collaboration,” “conversation,” and “meaningful construction” are the four key attributes of a learning environment, and CAI is the ideal cognitive tool for realizing a constructivist learning environment.

CAI can provide learners with authentic communication environments both inside and outside the classroom, giving them opportunities to apply the language knowledge they have acquired, thereby consolidating and improving their language knowledge and skills through practical use. Therefore, by leveraging online platforms to build multi-path, interactive teaching environments that reasonably combine traditional teaching methods with modern technological teaching methods, students are given the time and space for self-directed learning. This not only cultivates students' interest and ability to learn but also ensures teaching quality and effectiveness.

2.2.2 Digital Resources

(1) Wavelet transform algorithm

The reason for the wavelet transform, i.e., the mathematical principle of the Fourier transform, and the problems caused by signals in the Fourier transform [42, 43].

The representation of a function decomposed into a series of simple basis functions is important both theoretically and practically. The Fourier transform is defined as follows:

$$F(\omega) = \int_{-\infty}^{\infty} f(x) e^{j\omega x} dx \tag{1}$$

$$f(\omega) = \int_{-\infty}^{\infty} F(\omega) e^{-j\omega x} d\omega \tag{2}$$

When describing signals, the existence of the Fourier transform of singular signals (such as impulse signals) can be obtained by introducing the concept of generalized functions or distributions. For constant functions in the time domain, they will appear as impulse functions in the frequency domain, indicating that the Fourier transform has excellent frequency domain

localization properties. From equations (1) and (2), it is clear that to obtain $F(\omega)$, one must have all past and future knowledge about $f(x)$, and changes in the local values of $f(x)$ in the time domain will propagate throughout the entire frequency domain. In other words, information about any finite region of $F(\omega)$ is insufficient to determine any small region of $f(x)$. The concept of the short-time Fourier transform (STFT) also arises from this: if for W, we have $t(W) \in L^2(R), \omega(\hat{W}) \in L^2(R)$, then performing a window Fourier transform using W as the window function is referred to as an $STFT$:

$$\tilde{g}_b f(\omega) = \int_{-\infty}^{\infty} (e^{-j\omega} f(t)) \overline{W}(t-b) dt \tag{3}$$

However, the constant analysis window size of the STFT is also its main issue. The frequency of a signal is inversely proportional to its period. Analyzing the high-frequency components of a signal requires a narrow time window, while analyzing the low-frequency components requires a wide time window. The STFT with a fixed window cannot simultaneously achieve the highest resolution in both the time domain and frequency domain. Additionally, the STFT has significant computational redundancy, increasing unnecessary computational load.

Faced with the limitations of the STFT, the wavelet transform, as an analysis tool that can automatically adjust the analysis window size according to frequency changes, can perfectly solve or avoid these issues. As a result, it has been widely applied in fields such as signal processing, fault diagnosis, computer vision, and image processing.

Definition of the wavelet transform:

Given a basic function:

$$\varphi_{a,b}(t) = \frac{1}{\sqrt{a}} \varphi\left(\frac{t-b}{a}\right) \tag{4}$$

In the equation, a, b are constants, and $a > 0$. Clearly, $\varphi_{a,b}(t)$ is obtained by first translating and then scaling the basic function $\varphi(t)$. If a, b vary continuously, a family of functions $\varphi_{a,b}(t)$ can be obtained. Given a square-integrable signal $x(t)$ such that $x(t) \in L^2(R)$, the wavelet transform (WT) of $x(t)$ is defined as:

$$WT_x(a,b) = \frac{1}{\sqrt{a}} \int x(t) \varphi\left(\frac{t-b}{a}\right) dt \tag{5}$$

$$WT_x(a,b) = \int x(t) \varphi_{a,b}(t) dt = < x(t), \varphi_{a,b}(t) > \tag{6}$$

Equations (5) and (6) both involve continuous variables a, b, so this transformation is also known as the continuous wavelet transform (CWT). Unless otherwise specified, the integrals in this equation and subsequent equations are all over the interval $[-\infty, \infty]$. After the original input signal $x(t)$ is transformed into $WT_x(a,b)$, the independent variable changes from t to the scale factor a and the time shift factor b. $\varphi(t)$ is an artificially selected analytical tool known as the basic wavelet or mother wavelet. The selection of the basic wavelet is relatively free; it can be a real function or an imaginary function, but it must have properties such as rapid

decay, positive and negative oscillations, and zero integral over the entire frequency band.

$\varphi(t)$ undergoes the combined effects of the time shift factor and scale factor, producing a set of analysis functions with continuous amplitude and displacement. These analysis functions are collectively referred to as the wavelet basis function family, hereinafter referred to as the wavelet basis, denoted as $\varphi_{a,b}(t)$. The process of wavelet analysis can be viewed as the result of performing an inner product calculation between the original signal $(x)t$ and each basis function in the wavelet basis.

Wavelet transforms can be used for signal analysis, but to perform operations such as signal enhancement and conversion using wavelet transforms, it is also necessary to use the inverse wavelet transform. The formula for the inverse wavelet transform is shown in (7):

$$\int_0^\infty \int_{-\infty}^\infty WT_{x1}(a,b)WT_{x2}(a,b)\frac{da}{a^2}db = C_\varphi < x_1(t), x_2(t) > \tag{7}$$

Not all wavelets have an inverse transform. According to the wavelet allowability theorem, the necessary condition for a time domain function to be a wavelet is that its Fourier transform satisfies:

$$C_\varphi \triangleq \int_0^\infty \frac{|\varphi(\Omega)|^2}{\Omega} < \infty \tag{8}$$

At this point, the wavelet possesses an inverse transform form. Additionally, this allows us to summarize the characteristics of the wavelet function: the wavelet function should be a bandpass function, its time-domain waveform should be oscillatory, and it must simultaneously have positive and negative values. The wavelet function is finite in duration in the time-frequency domain, so it must decay rapidly on both sides, and as φ approaches infinity, the function approaches 0.

The formula for the discrete wavelet transform (DWT) is shown in (9):

$$WT_x(j,k) = \int x(t)\varphi_{j,k}(t)dt \tag{9}$$

It is worth noting that t is still a continuous variable in this equation. Equation (10) can also be rewritten as:

$$x(t) = \sum_{j=0}^{\infty}\sum_{k=-\infty}^{\infty} d_j(k)\varphi_{j,k}(t) \tag{10}$$

This equation is called a wavelet series, where $d_j(k)$ becomes the wavelet coefficient, which represents the degree to which the signal contains the wavelet basis function family and reflects the characteristics of the signal.

(2) Digital resource query and extraction based on wavelet transform

Wavelet transform is a type of time-frequency analysis. It is a method for analyzing signals in terms of scale and time, with the characteristic of multiple resolutions. It also has the ability to describe local features of signals in both the time and frequency domains. It is an algorithm with a fixed window size but variable shape. This feature makes wavelet transform adaptable to resource signals. It is particularly suitable for detecting and displaying transient anomalies embedded within digital resource signals in libraries, earning it the reputation of being a

"microscope" in the field of signal analysis.

From a mathematical perspective, the process of wavelet analysis is typically described through the wavelet transform. The wavelet transform decomposes a signal into a weighted sum of wavelet bases, where the signal is represented as a function of the mother wavelet $\psi(t)$. Simultaneously, after displacement τ, it is displayed as an inner product within different scales a and the resource signal $X(t)$ to be analyzed. That is:

$$W_x = x(t) \times \psi_{a,t} \tag{11}$$

In the equation, $a > 0$ represents the scale factor, τ represents the displacement, which can be either positive or negative, and $\psi_{a.t}$ represents the scale and displacement scaling of the basic wavelet.

Depending on whether the scale a is continuous, the wavelet transform can be divided into continuous wavelet transform and discrete wavelet transform. The continuous wavelet transform is defined as the sum of the original signal multiplied by the wavelet function at various scales and displacements over all time, and can be described as:

$$C_s = W_x \times \psi(s, p) \tag{12}$$

The result of the continuous wavelet transform is the wavelet coefficients, which can be described as functions of scale p and position s. By multiplying all coefficients by appropriate shifts and scales, the component wavelets of the original signal can be generated. The size of the scale can also be described as stretching or shrinking the wavelet. The smaller the scale coefficient, the higher the intensity of the compressed wavelet, the faster the detail changes, and the smaller the scale; conversely, the larger the scale.

Computing wavelet coefficients at all possible scales involves a huge computational load, resulting in an astonishing amount of data. Therefore, it is common to perform computations on a subset of scales and shifts. Using binary shifts and scales allows for effective analysis while maintaining accuracy, leading to what is known as the discrete wavelet transform.

The discrete grid obtained by discretizing shifts and scales is then subjected to the wavelet transform. Compared to scale, discretization is generally performed according to a power series of 2, i.e., take $a = 2^j$ and $j \in Z$ displacement takes $\tau = 2^j k$.

Digital resource queries can be divided into local computation queries and data source computation queries. Data source computation queries involve two steps:

STEP1: Transmit the query request to the data source.

STEP2: Parse the received library digital resources to facilitate data extraction.

The extraction method in this paper defines extraction functions using computational representations. These extraction functions are composed of several predefined functions or functions used to construct result tuples from strings extracted from digital resources. The main types include the following:

(a) $get-url(url, params) \rightarrow string$: This function returns a string representing the resource, where url and $params$ represent the location parameters.

(b) $extrct(s, pattem) \rightarrow tuple$: This function extracts a tuple of strings from s, where $pattem$ represents the type of extraction.

(c) $splitls(s, patten) \rightarrow list$: This function splits the string s into a list of strings using the specified delimiter.

(d) $map(\ func,1) \rightarrow list$: Applies the function $func$ to each element in the list and returns a list of tuple results.

(e) $tuple(s_1,\cdots,s_n)$: Forms a tuple from the strings $s_1,s_2,\cdots,s_n$.

With these functions, the task of extracting digital resources for Chinese oral language teaching in higher education can be accomplished.

2.3 Focus on cross-cultural communication skills in spoken Chinese language teaching

(1) Learning and communication circles in different cultural contexts

In oral language teaching classrooms, especially those with large numbers of students, it is important to strategically avoid the rigidity of grouping students from different cultural backgrounds and the long-term dispersion of communication task discussions. The diversity of learners' cultural backgrounds makes them more likely to automatically seek out groups with similar cultural backgrounds or even shared languages for oral communication training in foreign-language classrooms. This is because they find it easier to communicate and plan before communication tasks begin, making the training process smoother and more likely to yield high scores. After the oral classroom ends, they return to groups with similar cultural backgrounds or shared languages, seeking what is known as “language security.” This situation is actually very detrimental to the learning of Chinese oral communication. Constantly seeking out a comfortable native language environment and cultural circle can lead to a severe reliance on one's native language. If learning a language cannot temporarily sever this umbilical cord, it will directly affect the progress and efficiency of oral communication learning. Oral communication teachers should strive to diversify the composition of communication discussion groups.

(2) Competency Requirements for Teachers of Spoken Chinese as a Foreign Language

In spoken language classrooms, effectively addressing culturally sensitive topics in oral instruction requires teachers to possess a high degree of sensitivity to cultural differences and the ability to integrate diverse perspectives. Additionally, teachers of Chinese as a foreign language must demonstrate stronger cross-cultural communication and adaptability skills than the general population.

These competencies encompass at least the following dimensions: proficiency in at least one commonly used foreign language, adept application of sociolinguistic knowledge, strategies to successfully engage in communication with limited linguistic resources, mastery of different communication styles, understanding of basic principles of interpersonal interaction, strategies to avoid and clarify communication misunderstandings, and recognition of how different thinking patterns and behaviors are shaped by specific cultural cognitive frameworks.

(3) Design of Chinese Oral Communication Teaching Courses

How to effectively integrate the cultural characteristics of different students into oral course lesson plan design, utilize more diverse teaching methods, and create a multicultural cross-cultural oral learning environment. This poses a significant challenge for Chinese language teachers in their pre-class design of oral teaching. It not only requires integrating the cultural characteristics of different students but also guiding them to better integrate into the culture of the target language country, transforming passive acceptance of the target language culture into active exploration and even enthusiasm for it, thereby further promoting the acquisition of Chinese oral proficiency.

Teachers can appropriately utilize oral scenario videos, audio recordings, performances, discussions, and even extend classroom activities to real-life contexts involving multicultural groups to maximize “classroom engagement.” In summary, strengthening students' cross-

cultural communication awareness, seeking common ground while respecting differences, and avoiding unnecessary cultural conflicts in and outside the classroom are essential to effectively utilizing limited classroom time to achieve better oral teaching outcomes.

2.4 Updating the Design of Spoken Chinese Teaching Courses

2.4.1 Setting Teaching Objectives

Using three-dimensional teaching objectives—cognitive objectives, skill objectives, and affective objectives—we provide a detailed description of the teaching objectives for Chinese oral communication instruction oriented toward cross-cultural communication skills:

Cognitive objectives primarily aim to cultivate students' mastery of relevant subject knowledge and the development of corresponding cognitive abilities. In Chinese oral communication courses oriented toward cross-cultural communication skills, students should be able to understand language materials related to the theme, master key vocabulary, sentence structures, and paragraph-level expression techniques related to the theme, and apply them correctly and proficiently in oral communication related to the theme.

Skill objectives primarily refer to cultivating students' ability to integrate the knowledge they have learned and apply it to real-life situations. Specifically, in Chinese oral communication courses oriented toward cross-cultural communication skills, students' Chinese listening and speaking abilities should be cultivated. Students should be able to decode and encode information related to the topic quickly after receiving it, and then express their personal views on a specific topic clearly, fluently, and coherently.

Emotional objectives primarily refer to cultivating students' attitudes and interest in learning subject knowledge. In Chinese oral communication courses oriented toward cross-cultural communication skills, it is not only necessary to improve students' Chinese listening and speaking abilities but also to maintain and enhance their enthusiasm for learning Chinese, further increasing their motivation to learn Chinese. Additionally, through the study of Chinese cultural knowledge related to the theme, students should develop an interest in Chinese culture, thereby strengthening their intrinsic motivation for learning Chinese.

2.4.2 Selection of teaching themes

The “theme” is the core of theme-based Chinese language teaching, with all elements of the teaching system revolving around the teaching theme. Therefore, the selection of themes is particularly important.

This paper has identified the following principles for theme selection in Chinese oral language teaching courses oriented toward cross-cultural communication skills: the principle of interest, the principle of authenticity, the principle of practicality, and the principle of communication.

When designing specific teaching content, based on the “flexibility” characteristic of theme-based teaching methods in content selection, the five major themes covered in the textbook are combined with the learning characteristics and interests of the students, and various teaching resources are integrated to divide each lesson's sub-themes into several topics. This makes theme-based oral teaching more systematic and ultimately establishes a thematic relationship diagram for topics such as “contemporary life,” “science and technology,” and “social values.” Taking “Contemporary Life” as an example, the thematic relationship framework for “Contemporary Life” is shown in Figure 1. The “Contemporary Life” theme is divided into five sub-themes: learning, sports and leisure, diet, travel, and shopping, with each sub-theme allocated 2 class periods.

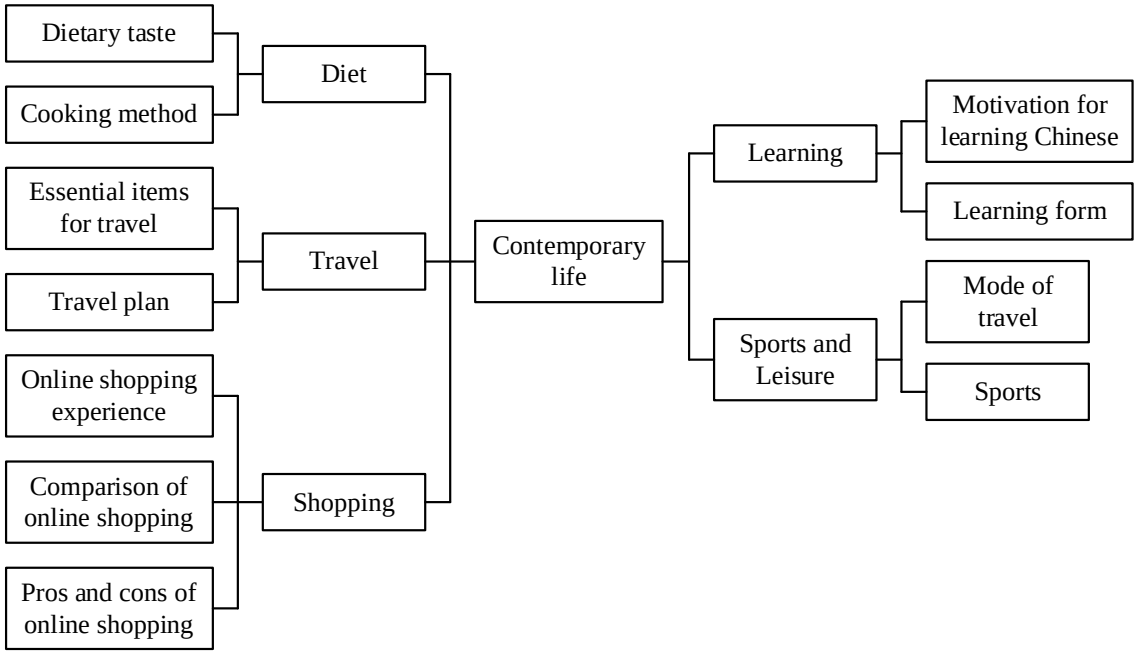

Figure 1: "Contemporary Life" Theme Relationship Diagram

2.4.3 Teaching Program Arrangement

The teaching process of Chinese oral communication courses oriented toward cross-cultural communication skills can be conducted in the following sequence: “setting the teaching theme – introducing the classroom theme – theme-based learning activities – sharing learning outcomes – evaluation and feedback.”

The teaching theme is the core of theme-based Chinese language instruction, with all teaching steps aimed at this core. Teachers should rely on course-related static resources, such as textbooks, workbooks, and reference books, and combine them with dynamic resources such as learners' Chinese language proficiency, learning experience, and interests and preferences to determine the teaching theme for each lesson.

The introduction helps students understand the course theme, activates their relevant experiences and learning interests, and lays the foundation for theme-based learning. In this phase, teachers should follow the “interactivity” principle of theme-based teaching.

The theme-based learning activity phase can be divided into three sub-phases: “theme learning,” “assigning activities,” and “completing activities.”

The sharing of learning outcomes provides students with an opportunity to showcase and share their theme-based learning achievements, thereby enhancing their expression and communication skills.

After the theme-based activities conclude, teachers should summarize and explain the Chinese language knowledge covered in the oral communication activities, ensuring that oral language instruction transitions from the “Chinese language theme” back to “Chinese language knowledge,” thereby achieving the dual objectives of balancing ‘theme’ and “knowledge.”

2.4.4 Teaching Activity Design

In Chinese oral language instruction focused on cross-cultural communication skills, theme-based teaching activities play a crucial role. Teachers should design teaching activities appropriately based on the characteristics of the course theme, the format of Chinese oral language instruction, and the cognitive level of learners. In cross-cultural communication-oriented Chinese oral language classes, based on the student-centered principle, interactivity

principle, and communicative principle of thematic teaching methods, the following categories of thematic activities were primarily designed to address the main issue of “cross-cultural communication orientation” in teaching.

Discussion-based activities: ① Group discussions. ② Group debates. ③ Plan formulation. ④ Audio-visual activities.

Information exchange activities: These activities primarily leverage the information gaps between learners. Driven by the desire to fill these gaps, learners must engage in meaningful communication in Chinese to exchange information and complete the thematic activities.

Presentation activities: These activities require learners to design creative projects and present explanations based on thematic task requirements. The design tasks are related to the course theme, appropriately challenging, and highly practical.

3 Analysis of teaching practice effectiveness

3.1 Evaluation of Teaching Practice Results

(1) Survey Participants

The participants in this survey were international students enrolled in the second year of the International Education College at a certain university in a certain province who were studying under this teaching model during the spring semester of 2024. They came from countries such as Yemen, Afghanistan, Vietnam, Turkmenistan, Kazakhstan, South Africa, Lebanon, and Iraq, totaling 31 individuals. A total of 31 questionnaires were distributed, with 28 valid responses collected, resulting in a response rate of 90.32%.

(2) Questionnaire Design

After a semester of teaching practice, a survey was conducted to investigate the authentic classroom experiences of the students in Class 1 of Grade 8, aiming to understand their satisfaction with various aspects of the classroom.

By collecting student feedback, the study sought to assess the impact of the Chinese oral language teaching model oriented toward cross-cultural communication skills on students' learning outcomes in actual teaching, as well as their participation and feelings in the classroom.

(3) Results Analysis

The practical experiences of Grade 8 Class 1 students regarding the updated course design model for Chinese oral language instruction focused on cross-cultural communication skills were compiled. The survey scores for the Chinese oral language course instruction focused on cross-cultural communication skills are shown in Table 1.

In response to the question, “How would you evaluate your overall experience with the new teaching course design in the beginner-level Chinese oral language class?” 13 students indicated they were very satisfied, 8 students indicated they were somewhat satisfied, and a total of 75% of students approved of the cross-cultural communication skills-oriented Chinese oral language teaching course designed in this paper.

Table 1: The students' survey scores on the teaching of Chinese oral English courses

Question	Options	Selection number	Proportion
Does the import that teachers use at the beginning of the course attract your attention?	Very attractive	15	53.57
	Comparative attraction	7	25.00
	General	4	14.29
	Not so attractive	1	3.57
	Completely unattractive	1	3.57
Do you think the import section is helpful for understanding the course content of the day?	Very helpful	12	42.86
	Comparative help	9	32.14
	General	4	14.29
	Not very helpful	2	7.14
	Totally out of touch	1	3.57
Do you know exactly what the learning goals of each class are?	Very clear	13	46.43
	Comparison clarity	8	28.57
	General	5	17.86
	Not clear	2	7.14
	Completely unclear	0	0.00
Do you think that participation in class activities (such as group discussion, etc.) increase your interest in learning?	Very agree	14	50.00
	Comparative consent	6	21.43
	General	4	14.29
	Not too much	3	10.71
	Completely different	1	3.57
How do you evaluate the overall experience of the new teaching course design in the primary Chinese speaking class?	Very satisfied	13	46.43
	Comparison satisfaction	8	28.57
	General	6	21.43
	Unsatisfactory	0	0.00
	Full discontent	1	3.57

3.1.1 Analysis of test results prior to implementation

(1) Test subjects

In the spring semester of 2024, the same professional teacher was assigned to teach beginner-level oral Chinese classes to two parallel classes of international students in their second year of high school: Class 1 and Class 2.

Both classes had 28 students, with ages ranging primarily from 19 to 28. At the beginning of the semester, traditional teaching methods were used in both classes. After a period of teaching, it was found that the teaching results were not ideal. Therefore, to assess the teaching outcomes during this period, a unit test was administered to both classes to evaluate students' learning outcomes. This test also provided pre-test data for the implementation of a Chinese oral language teaching course focused on cross-cultural communication skills. The comparison of the test scores of the two classes before the implementation of the cross-cultural communication-oriented Chinese oral language teaching course is shown in Table 2.

From the data, the t-value is 0.29, which is relatively small. The p-value is 0.749, which is far greater than 0.05. Therefore, it indicates that the test scores of the two classes before the implementation of the cross-cultural communication-oriented Chinese oral language teaching course model were basically equivalent, with no significant correlation.

In summary, the differences in initial scores and total scores across all question types between the two classes are not significant. This indicates that prior to the implementation of the cross-cultural communication-oriented Chinese oral language teaching course model, students possessed similar foundational levels of ability across multiple dimensions, including Chinese character writing, reading aloud, and oral communication skills. This similarity in baseline levels provides a solid foundation for comparability and stability in the subsequent implementation of the cross-cultural communication-oriented Chinese oral language teaching curriculum model, facilitating a scientific assessment of its actual impact on beginner-level

Chinese oral language instruction.

Table 2: The results of the previous two class results were compared

Item	Class	Grade	t	p
Selection problem	Class 1 in the second grade	6.21 ± 1.021	-0.15	0.806
	Class 2 in the second grade	6.19 ± 1.365		
Fill out the type	Class 1 in the second grade	6.75 ± 1.189	-0.158	0.851
	Class 2 in the second grade	6.59 ± 1.524		
Sentence problem	Class 1 in the second grade	10.52 ± 2.694	-0.091	0.974
	Class 2 in the second grade	10.79 ± 3.221		
Read the article and repeat the problem	Class 1 in the second grade	11.86 ± 3.895	0.004	1.000
	Class 2 in the second grade	12.01 ± 4.011		
Situational dialogue	Class 1 in the second grade	13.86 ± 5.593	0.081	0.911
	Class 2 in the second grade	14.22 ± 5.771		
Free expression type	Class 1 in the second grade	12.75 ± 4.703	-0.174	0.552
	Class 2 in the second grade	12.19 ± 4.214		
Total score	Class 1 in the second grade	61.95 ± 12.619	0.29	0.749
	Class 2 in the second grade	61.99 ± 12.547		

3.1.2 Analysis of test results during implementation

(1) Test subjects

Same as the pre-test subjects. In Class 1 of the second year of junior high school, a Chinese oral language teaching model oriented toward cross-cultural communication skills was used, while in Class 2 of the second year of junior high school, a traditional teaching model was used to teach the same content. After the course, the same post-test papers were distributed to both classes to evaluate the teaching effectiveness.

(2) Test Results

Using SPSS 29.0 software, an independent samples t-test was conducted on the post-test scores of students in Grade 8 Class 1 and Class 2. The comparison results of the two classes are shown in Table 3.

By comparing the post-test scores from the cross-cultural communication skills-oriented Chinese oral language teaching course model, it can be observed that, through the t-test, Grade 8 Class 1 demonstrated superior performance across all question types. This indicates that the cross-cultural communication skills-oriented Chinese oral language teaching course model has positively impacted the students in Grade 8 Class 1 in terms of enhancing their language proficiency across multiple dimensions.

Table 3: The results of the two grades were compared

Item	Class	Grade	t	p
Selection problem	Class 1 in the second grade	8.59 ± 1.521	2.563	0.042
	Class 2 in the second grade	7.04 ± 2.196		
Fill out the type	Class 1 in the second grade	8.46 ± 1.425	2.536	0.027
	Class 2 in the second grade	7.12 ± 2.549		
Sentence problem	Class 1 in the second grade	13.09 ± 1.523	2.201	0.008
	Class 2 in the second grade	10.59 ± 3.657		
Read the article and repeat the problem	Class 1 in the second grade	16.27 ± 2.993	2.488	0.019
	Class 2 in the second grade	13.42 ± 4.856		
Situational dialogue	Class 1 in the second grade	18.06 ± 3.733	2.754	0.013
	Class 2 in the second grade	14.84 ± 6.866		
Free expression type	Class 1 in the second grade	15.68 ± 2.054	2.094	0.052
	Class 2 in the second grade	13.72 ± 5.591		
Total score	Class 1 in the second grade	80.15 ± 10.007	3.769	0.014
	Class 2 in the second grade	66.73 ± 13.508		

3.1.3 Analysis of test results after implementation

(1) Test subjects

Same as the pre-test. At the beginning of the spring semester, the author found that students in oral Chinese classes using traditional teaching methods were relatively unmotivated and had low levels of classroom participation. Therefore, after teaching the third lesson, the author attempted to use a cross-cultural communication-oriented Chinese oral teaching model in Class 1 of the second year of junior high school, while continuing to use the traditional teaching model in Class 2 of the second year of junior high school.

(2) Test results

An independent samples t-test was conducted on the final test scores of students in Grade 8 Class 1 and Class 2. The comparison of the two classes' scores after implementation is shown in Table 4.

Based on the data analysis in the table, it was concluded that there was a significant difference in the final scores between Grade 8 Class 1 and Class 2. This indicates that after a semester of comparative teaching, the cross-cultural communication-oriented Chinese oral language teaching model demonstrated notable effectiveness in Grade 8 Class 1.

The average final score for Grade 8 Class 1 was 86.59, which was 12.07 points higher than the average final score for Grade 8 Class 2. The t-value was 4.678, and the p-value was less than 0.05, indicating that the difference in scores between the two classes was highly significant.

Table 4: The results of the two classes were compared

Item	Class	Grade	t	p
Selection problem	Class 1 in the second grade	9.61 ± 1.023	4.526	0.003
	Class 2 in the second grade	8.04 ± 1.596		
Fill out the type	Class 1 in the second grade	16.87 ± 3.412	4.107	0.000
	Class 2 in the second grade	14.91 ± 2.573		
Sentence problem	Class 1 in the second grade	9.05 ± 0.801	5.269	0.001
	Class 2 in the second grade	7.61 ± 0.894		
Read the article and repeat the problem	Class 1 in the second grade	16.89 ± 2.333	3.251	0.004
	Class 2 in the second grade	14.31 ± 2.684		
Situational dialogue	Class 1 in the second grade	17.02 ± 2.391	3.012	0.005
	Class 2 in the second grade	14.76 ± 2.641		
Free expression type	Class 1 in the second grade	17.15 ± 2.016	2.953	0.007
	Class 2 in the second grade	14.89 ± 2.505		
Total score	Class 1 in the second grade	86.59 ± 9.712	4.678	0.001
	Class 2 in the second grade	74.52 ± 11.909		

3.2 Course Design Satisfaction Evaluation

The statistical results of the satisfaction evaluation of teachers and students regarding Chinese oral language teaching courses oriented toward cross-cultural communication skills are shown in Table 5.

The average scores for all teaching-related projects in this course were mostly above 4.6, indicating that the course design was generally well-received and appreciated by the participants. Specifically, the average satisfaction score for the course was 4.79, with a standard deviation of 0.63, indicating that participants were generally satisfied with the overall quality of the course, with scores being concentrated and relatively high. This suggests that the course design is reasonable and meets the learning needs of participants. The average satisfaction score for teaching methods was 4.81, with a standard deviation of 0.47, reflecting participants'

recognition of the Chinese oral language teaching method focused on cross-cultural communication skills. The average interest in cultural content was as high as 4.90, and the standard deviation was 0.71, indicating that students had a strong interest in the cultural content integrated into the course, which showed that the integration of cultural elements in teaching not only did not increase the learning burden, but also enhanced the fun and practicality of learning, and achieved the teaching goal of cross-cultural communication ability. Finally, the average satisfaction with the learning effect was 4.63 and the standard deviation was 0.72, indicating that the students generally believed that the Chinese oral teaching curriculum model oriented by cross-cultural communication ability had made significant progress in knowledge mastery and skill improvement.

Overall, students were highly satisfied with the effectiveness of this course, but there are still areas for improvement that require careful reflection. For example, the average satisfaction score for course difficulty was 4.12, with a standard deviation of 1.64, the lowest average among all evaluation items. This indicates that some students have differing opinions on the alignment of course difficulty with their own skill levels. This suggests that instructors should pay closer attention to individual differences among students and adjust teaching content and difficulty levels flexibly during the instructional process.

Table 5: Evaluation of course satisfaction(N=28)

Project		Mean ± standard deviation	Minimum value	Maximum value
1	Overall class satisfaction	4.79 ± 0.63	1.52	4.86
2	Satisfaction with teaching methods	4.81 ± 0.47	1.79	4.91
3	Satisfaction with teaching resources	4.63 ± 0.51	1.68	4.75
4	Practical satisfaction of the course content	4.54 ± 0.38	1.93	4.82
5	The difficulty of the course	4.12 ± 1.64	1.36	4.69
6	Interest in cultural content	4.90 ± 0.71	2.54	5.00
7	Satisfaction with teacher teaching	4.79 ± 0.52	1.78	4.95
8	Teacher guidance method satisfaction	4.69 ± 0.59	1.54	4.83
9	Self-evaluation of learning results	4.63 ± 0.72	1.66	4.94
10	Recommended will	4.82 ± 0.45	1.73	5.00
11	Keep the expectation of the class	4.93 ± 0.43	2.15	5.00
12	Continue to participate	4.83 ± 0.36	2.69	4.95

4 Conclusion

This paper proposes the development of Chinese oral language teaching in the context of new educational technologies, updating the design of Chinese oral language teaching courses to focus on cultivating cross-cultural communication skills. It evaluates the practical effectiveness of implementing a Chinese oral language teaching course model oriented toward cross-cultural communication skills.

Prior to the implementation of the Chinese oral language teaching curriculum, the scores of two classes were obtained using traditional teaching methods. The total scores of students in Grade 8 Class 1 and Class 2 were 61.95 ± 12.619 and 61.99 ± 12.547, respectively, with $p = 0.749$. After implementing the cross-cultural communication-oriented Chinese oral language teaching course model in Grade 8 Class 1, students' scores improved across all question types, including multiple-choice, fill-in-the-blank, and sentence-based questions, with the total score reaching 80.15 ± 10.007. After the teaching practice, the actual total scores for the Chinese oral

language courses in the two classes were 86.59 ± 9.712 and 74.52 ± 11.909, respectively, with a p-value less than 0.05. The Chinese oral language course scores of the students in Class 1 of Grade 8 improved significantly, and there was a significant difference in the total scores between the two classes. The cultural content integration and communication components of the cross-cultural communication-oriented Chinese oral language teaching model were well-received by both teachers and students, with a satisfaction score of 4.90. The updated design and implementation of the cross-cultural communication-oriented Chinese oral language teaching model were effective and can be further optimized and promoted.

About the Author

Yueyi Liu, born in 1988 in Wuhu, Anhui Province, China. She obtained a PhD degree in Linguistics and Applied Linguistics from Jinan University. She is currently employed at the School of Foreign Languages, Nanfang College, Guangzhou. Her main research direction is teaching Chinese to speakers of other languages and cross-cultural communication.

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