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# Enhancing Non-English Major Undergraduates' Chinese Cultural International Communication Competence Through AI-Empowered Instruction

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**Abstract:** This study investigates the developmental characteristics and influencing factors of the international communication competence of Chinese culture among non-English major undergraduates, using first-year non-English major students from a university in Jilin Province as participants. Data were collected through questionnaires, semi-structured interviews, and a digital-video-making task. The findings revealed that the overall international communication competence of Chinese culture among non-English major undergraduates in China was at a moderate level, and its development was influenced by the interaction of environmental and individual factors. Based on these findings, this study proposes a "Framework for the International Communication Competence of Chinese Culture among Chinese College Students" and elaborates on practical pathways for cultivating and enhancing this competence through artificial intelligence (AI) from three dimensions: environmental factors, individual factors, and behavioral performance.

**Keywords:** International Communication Competence; Chinese Culture; Non-English Major Undergraduates; Artificial Intelligence; Foreign Language Teaching.

## 1. Introduction

In an era characterized by globalization and digital transformation, the cultivation of young people's competence in inheriting and disseminating Chinese culture has emerged as a strategic priority for China [1]. The ability of college students to communicate Chinese culture effectively on the international stage encompasses multiple dimensions, among which the ability to tell personal stories in English is particularly crucial [2]. This competence not only reflects students' language proficiency but also embodies their cultural confidence, intercultural awareness, and narrative capabilities, which are increasingly recognized as essential for meaningful cross-cultural engagement in the twenty-first century.

Despite its importance, preliminary research has consistently indicated that Chinese college students' foreign language narrative abilities and intercultural communication competence remain at relatively low levels [2] [3] [4]. Specifically, studies have documented persistent challenges in linguistic accuracy, narrative coherence, and audience awareness among learners attempting to communicate Chinese cultural content in English [5][6]. These challenges will influence learners' willingness and ability to engage in cross-cultural communication.

The integration of artificial intelligence (AI) into foreign language education has accelerated dramatically in recent years. AI technologies have demonstrated considerable potential in enhancing various aspects of language learning and teaching [7] [8] [9]. Studies have shown that AI can provide immediate feedback and reduce learners' anxiety [10] [11]. However, the specific impact of AI on the development of international communication competence of Chinese culture remains underexplored. Existing research has largely focused on theoretical discussions or textual analyses, failing to adequately reveal the developmental features and influencing factors of college students' international communication competence of Chinese culture from an empirical perspective.

Furthermore, the theoretical underpinnings of international communication competence of Chinese culture have not been systematically proposed. While previous studies have identified key components of this competence [2] [6], a comprehensive framework that accounts for the dynamic interplay between environmental factors, individual factors, and behavioral outcomes is lacking. Such a framework is essential for guiding instructional design and understanding how AI technologies can be strategically employed to support college students' international communication competence development.

To address these gaps, the present study undertakes a twofold investigation. First, it examines the developmental characteristics and influencing factors of the international communication competence of Chinese culture among non-English major undergraduates, drawing on data collected through questionnaires, interviews, and a digital-video-making task. Second, it explores how AI technologies can be leveraged to cultivate this competence through a theoretically informed instructional intervention. Grounded in social cognitive theory [12], the study proposes a "Framework for the International Communication Competence of Chinese Culture among Chinese College Students" and evaluates the effectiveness of an AI-enhanced teaching approach in improving students' international communication competence.

# 2. Literature Review

## 2.1. International Communication Competence of Chinese Culture

The concept of international communication competence of Chinese culture has emerged as a distinct area of inquiry within the broader fields of intercultural communication and foreign language education. The ability of college students to communicate Chinese culture effectively on the international stage encompasses multiple dimensions, among which the ability to tell China's stories well in English is particularly crucial [2]. The specific competence of communicating one's own cultural heritage to international audiences involves various dimensions, including cultural knowledge, narrative skills, audience awareness, and cultural confidence [1] [2] [12].

Yang [5] identified three core components of this competence: narrative structure, narrative discourse, and intercultural awareness. These three aspects were closely related to each other during the development of international communication competence. Yang and Li [2] investigated the longitudinal development of college students' competency of telling China's stories using course materials, interviews, and reflection logs. They found that college students' cognitive understanding of Chinese cultural values, willingness to engage in cross-cultural communication, and behavioral ability to effectively adjust cultural content to capture international audience's attention varied across the different stages of competency development.

Similarly, Li and Yang [6] highlighted the importance of intercultural audience awareness—the capacity to anticipate and respond to the perspectives, cultural differences, and interests of international audiences—as a critical dimension of effective cultural communication. Liu [13] investigated the feasibility of cultivating the competence of telling China's stories well in college English listening and speaking class based on the production-oriented approach. The results showed that the cultivation of telling China's stories well was successfully accepted by students both in listening and speaking courses.

However, empirical studies have documented persistent challenges in developing this competence among Chinese college students. For example, Cui [3] found that students' foreign language narrative abilities were limited by vocabulary deficiencies, sentence structures, and logical organization issues. Sun [4] reported that while students expressed strong willingness to share Chinese culture, they struggled to move beyond superficial descriptions to convey deeper cultural meanings and values. Yang [5] further noted that students' storytelling often remained constrained by Chinese communication conventions, thus failing to align with the expectations of international audiences.

These challenges are not merely linguistic but also cognitive and affective in nature. Students may possess adequate cultural knowledge yet lack the ability to select, organize, and present that knowledge in ways that are engaging for audiences. Addressing these challenges requires instructional approaches that simultaneously support learners' linguistic development, cultural understanding, and affective engagement.

## 2.2. Social Cognitive Theory

Social cognitive theory [12] provides a valuable theoretical perspective for understanding the development of complex communicative competencies. According to this theory, human behaviour is shaped by the interaction of three factors: environmental factors, individual factors, and behavioral performance. This model has been extensively applied in educational and language learning contexts to explain how learners' beliefs, behaviors, and learning environments mutually influence each other [12].

Within language learning research, social cognitive theory has been used to examine the role of self-efficacy in predicting learning outcomes and persistence. For instance, studies have consistently found that learners with higher self-efficacy exert greater effort and demonstrate better academic performance [14][15]. Conversely, language anxiety, which is closely related to low self-efficacy, can inhibit learners' academic performance [19][20].

Social cognitive theory also highlights that learners' performance is influenced by environmental factors, including the learning environment, exposure to cultural knowledge, and the use of digital models. In the context of developing cultural communication competence, exposure to cultural knowledge and feedback from teachers or AI tools can help learners internalize effective storytelling strategies and skills.

These principles have implications for instructional design, suggesting that AI technologies might be leveraged to create environments that provide learners with sufficient feedback, exposure to cultural knowledge, and opportunities for scaffolded practice.

## 2.3. AI in Foreign Language Education

The integration of AI into foreign language education has expanded rapidly, driven by advances in the development of large language models such as ChatGPT [10][11]. Research on AI-supported language learning has documented several promising benefits. In the domain of writing, AI tools can provide immediate, personalized feedback on grammar, vocabulary, and organization, enabling learners to revise and improve their work independently [7] [8]. Studies have shown that AI-generated feedback can complement teacher feedback, offering students additional opportunities for iterative refinement of their writing [16]. In speaking and conversation, AI tools can simulate authentic communicative interactions, allowing learners to practice in low-anxiety environments and receive feedback on their language use [8].

Furthermore, AI technologies have demonstrated potential in addressing affective factors in language learning. By providing virtual language speaking environment, AI tools can improve students' self-confidence and increase their willingness to employ new language forms [17]. This is particularly relevant for tasks such as storytelling, where concerns about linguistic accuracy and appropriateness may inhibit learners from attempting more complex or creative expressions.

However, the application of AI in supporting cultural communication competence remains nascent. The present study seeks to address this gap by investigating an AI-enhanced instructional approach designed to develop students' international communication competence of Chinese culture.

# 3. Current Teaching Context

## 3.1. Research Participants

Using convenience sampling, this study selected one natural class of first-year non-English major undergraduates

enrolled in 2025 at a university in Jilin Province as the research subjects. The class comprised 40 students, including 5 female and 35 male students, with a mean age of 18.25 years (SD = 0.48). All participants had completed approximately nine years of formal English instruction prior to university learning. After enrollment, all students took the university's standardized English placement test and were placed in the same proficiency level class, ensuring there was no statistically significant difference in their English proficiency levels.

## 3.2. Survey of Current Teaching Context

To understand the current state of international communication competence of Chinese culture among non-English major undergraduates, this study employed multiple data collection methods, including questionnaire surveys, semi-structured interviews, and an analysis of student-created digital video.

**(1) The quality of storytelling digital video**

Prior to the instructional intervention, students were required to independently complete a storytelling digital video within one week. The task was: "Tell a traditional Chinese culture story you are most familiar with in English." Students were permitted to search for materials online but were explicitly instructed not to use AI tools. The quality of digital video was scored by two trained raters based on six dimensions: content, structure, innovation, emotion, interaction, and linguistic accuracy. Each dimension was scored on a 5-point scale (1 = very poor, 5 = excellent), with a total possible score of 30. Inter-rater reliability was high, with a correlation coefficient of 0.89, indicating good consistency between raters.

The results showed that the overall mean score of students' digital video was 18.25 (SD = 3.21). This suggests that the international communication competence of Chinese culture among non-English major undergraduates was at a moderate level. The scores for each dimension are presented in Table 1.

**Table 1.** Descriptive Statistics of the Quality of Storytelling Digital Video

| Dimension | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|
| **Content** | 3.00 | 0.45 | 2.00 | 4.00 |
| **Structure** | 2.80 | 0.61 | 2.00 | 4.00 |
| **Innovation** | 2.50 | 0.72 | 1.00 | 4.00 |
| **Emotion** | 1.00 | 0.35 | 1.00 | 3.00 |
| **Interaction** | 1.10 | 0.46 | 1.00 | 3.00 |
| **Linguistic Accuracy** | 2.60 | 0.74 | 1.00 | 4.00 |

As shown in Table 1, students performed at a moderate level in content (M = 3.00, SD = 0.45) and structure (M = 2.80, SD = 0.61), demonstrating a basic ability to organize stories around cultural themes. Their performance was moderately low in innovation (M = 2.50, SD = 0.72) and linguistic accuracy (M = 2.60, SD = 0.74), indicating substantial room for improvement. Notably, scores were extremely low in emotional expression (M = 1.00, SD = 0.35) and interaction (M = 1.10, SD = 0.46), reflecting significant difficulties in conveying emotion and establishing connection with the audience when telling China's stories in English.

**(2) Questionnaire results**

To assess students' understanding of Chinese culture, a 5-point Likert scale questionnaire was administered (1 = strongly disagree, 5 = strongly agree). The questionnaire comprised 21 items divided into three sections: background information (2 items), competence in understanding Chinese culture (9 items, covering cognitive, attitudinal, and ability dimensions), and the perceived impact of AI tools on international communication competence of Chinese culture (12 items, covering cognitive, attitudinal, and ability dimensions). The questionnaire yielded acceptable internal consistency (Cronbach's $\alpha = 0.950$ for the full scale; $\alpha = 0.885$ and 0.964 for the two subscales, respectively).

Descriptive statistics for competence in understanding Chinese culture revealed that the mean scores for the cognitive, attitudinal, and ability dimensions were 4.03 (SD = 0.85), 4.18 (SD = 0.64), and 3.74 (SD = 0.80), respectively. This pattern indicates that students demonstrated the highest level in the attitudinal dimension, suggesting strong willingness to share Chinese culture; followed by the cognitive dimension, reflecting adequate knowledge of Chinese cultural content; with the ability dimension being relatively weaker, indicating difficulties in actual communication performance.

These findings suggest that non-English major undergraduates hold positive attitudes towards telling China's stories well in English and possess a reasonably solid knowledge of Chinese culture. However, they experience a gap between knowledge and performance, struggling to appropriately use English to communicate Chinese cultural content in practice. This performance gap likely reflects students' limited English language proficiency, characterized by vocabulary limitations, sentence structure, and difficulties in logical organization when engaging in introducing Chinese cultures [5].

**(3) Interview results**

To gain deeper insights into students' learning difficulties and their experiences with cultural communication tasks, semi-structured interviews were conducted with 10 students purposefully selected to represent a range of English proficiency levels. The interview protocol included the following questions: (1) How well do you understand Chinese culture? (2) Are you willing to communicate Chinese culture abroad in English, and what factors mainly influence this willingness? (3) How frequently and in what ways do you typically use AI tools to learn about Chinese culture? Please provide specific examples. (4) In what aspects do you think AI tools help you tell China's stories in English (e.g., content conception and linguistic expression)?

The interviews revealed three primary challenges faced by non-English major undergraduates when telling China's stories in English: language anxiety, insufficient intercultural knowledge, and lack of intercultural audience awareness.

First, language anxiety is the most significant challenge for non-English major undergraduates while introducing Chinese cultures in English. Most students expressed significant anxiety about grammatical accuracy and appropriate expression when attempting to tell China's stories in English. As Student S7 stated: "When I try to tell a story, I keep worrying about whether my grammar is correct. I often stop halfway because I'm not sure if the sentence is right." This anxiety was particularly pronounced for tasks involving extended spoken or written discourse, where students felt

their language resources were insufficient for conveying cultural meanings. This finding aligns with previous research documenting the constraining effects of language anxiety on foreign language narrative performance [2].

Second, insufficient intercultural knowledge is also one of challenges for non-English major undergraduates while introducing Chinese cultures in English. Students demonstrated a tendency toward superficial understanding of cultural content, focusing on descriptive facts rather than exploring deeper meanings or connections. Student S2 commented: "I know some basic things about Chinese festivals, but when it comes to explaining why certain customs exist or what values they represent, I'm not sure how to express that in English." This superficial understanding limited students' ability to create narratives that convey cultural significance and resonate with audiences.

Finally, lack of intercultural audience awareness is another challenge for non-English major undergraduates while introducing Chinese cultures in English. A recurring theme was students' difficulty in adopting the perspective of international audiences. Many students approached storytelling from an insider's perspective, assuming that what was familiar to them would be equally accessible to others. Student S4 remarked: "I just introduce the culture as I know it. I haven't really thought about what foreigners might want to know or what they might find confusing." This lack of audience awareness resulted in narratives that failed to bridge cultural differences or anticipate audience questions and interests, consistent with the findings of Li and Yang [6].

# 4. Theoretical Framework and Instructional Design

## 4.1. The Model of International Communication Competence of Chinese Culture

Grounded in Bandura's [12] social cognitive theory, this study proposes a "Framework for the International Communication Competence of Chinese Culture among Chinese College Students." The framework conceptualizes this competence as emerging from the dynamic and reciprocal interaction of three dimensions: environmental factors, individual factors, and behavioral performance (as shown in Figure 1).

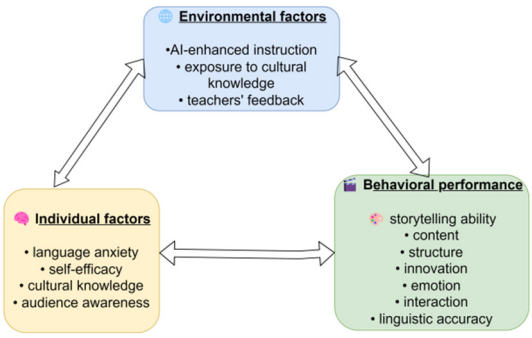



**Figure 1.** Framework for the International Communication Competence of Chinese Culture among Chinese College Students

Environmental factors encompass learning contexts, including instructional resources, technological tools, teacher feedback, and exposure to intercultural Knowledge. According to social cognitive theory, environments can be structured to facilitate learning by providing resources, and creating opportunities for observation and practice. In the present context, environmental factors include the availability of AI tools, exposure to intercultural knowledge, and the quality of feedback provided to learners.

Individual factors refer to learners' personal characteristics, including cultural knowledge, language anxiety, self-efficacy, and audience awareness. These factors influence how learners engage with environmental resources and interpret their behavioral experiences. In the present context, learners' factors include language anxiety, learning self-efficacy, intercultural knowledge, and intercultural audience awareness. These four factors are interacted with each other.

Behavioral performance comprises the observable outcomes of learning, including the quality of storytelling products (content, structure, innovation, emotion, interaction, linguistic accuracy) and the processes learners employ (planning, revising, reflecting). Behavioral performance serves as both an outcome of learning and a source of feedback that influences subsequent individual and environmental factors.

Within this framework, AI tools can influence competence development through multiple pathways. Environmentally, AI tools can provide accessible resources, personalized feedback, and opportunities for practice. Individually, AI can reduce language anxiety by offering non-judgmental support, enhance self-efficacy through successful task completion, and scaffold cognitive processes such as content organization. Behaviorally, AI can support iterative refinement of performance through feedback that enable learners to revise and improve their work.

## 4.2. Instructional Design

### 4.2.1. Teaching Principles

The instructional design of this study was guided by three core principles derived from the theoretical framework:

**(1) Technology-enhanced teaching.** AI technologies were leveraged to optimize the learning environment, addressing key challenges identified in the baseline assessment. During the conception stage, students engaged in multiple rounds of interaction with AI tools to clarify story themes, organize cultural materials, understand cultural connotations, and explore appropriate language expressions. This approach aimed to reduce cognitive load and free learners to focus on higher-level narrative and audience considerations.

**(2) Individual differences and precision intervention.** Recognizing that students varied in their language proficiency, cultural knowledge, and affective engagement, the instructional approach incorporated differentiated support and continuous feedback. Teachers provided individualized feedback on language use, cultural value, and narrative structure, while AI tools offered additional scaffolding tailored to students' specific needs. This combination aimed to address the language anxiety, intercultural knowledge gaps, and audience awareness deficits identified in the initial interviews.

(3) **Behavioral performance.** The competence of telling China's stories well in English was operationalized through six measurable dimensions: content, structure, innovation, emotion, interaction, and linguistic accuracy. By making these dimensions explicit and providing targeted instruction and feedback aligned with each dimension, the intervention aimed to systematically develop students' storytelling skills.

### 4.2.2. Instructional Objectives

The instructional objectives were articulated across three

domains:

**(1) Knowledge objectives.** Deepen students' understanding of Chinese cultural connotations and values; expand their knowledge of intercultural communication principles; develop relevant English vocabulary and grammatical structures for cultural expression.

**(2) Ability objectives.** Enhance students' narrative competence in telling Chinese stories in English across the six dimensions; improve intercultural audience awareness, including the capacity to anticipate and address audience perspectives; develop digital literacy skills for effective multimedia storytelling.

**(3) Affective objectives.** Reduce language anxiety related to English narrative tasks; enhance self-efficacy for cultural communication; strengthen cultural confidence and sense of responsibility for introducing Chinese culture.

## 4.3. Implementation of the Instructional Intervention

The instructional intervention was implemented over an 8-week period and organized into four sequential stages.

### 4.3.1. Preparation Stage (Weeks 1-2)

The preparation stage comprised four steps: topic analysis, research and conception, exemplar presentation, and planning [18]. In the topic analysis phase, teachers introduced the storytelling project and guided students to consider language expression, content organization, and emotional engagement. The research and conception phase involved students exploring potential story topics, consulting Chinese-English bilingual corpora of Chinese culture, and interacting with AI tools to refine their understanding of cultural connotations and narrative themes. Teachers provided feedback on students' preliminary ideas, helping them clarify creative directions.

During the exemplar phase, teachers showcased exemplary digital storytelling works, guiding students to analyze their performance across the six dimensions. This observational learning activity was designed to help students develop clear criteria for evaluating narrative quality and to build intercultural audience awareness by examining how successful storytellers engaged their audiences. In the planning phase, students developed story outlines and began considering multimodal elements such as images, video clips, and music.

### 4.3.2. Revision Stage (Weeks 3-5)

During the script writing and revision phase, teachers provided ongoing language-focused feedback to help students correct errors and refine expression. Students engaged in multiple rounds of revision, using AI tools for initial feedback and peer review for additional perspectives. They were guided to evaluate their work using the six dimensions and to seek specific improvements in areas of weakness. Teachers offered feedback on both the quality of students' work and their use of AI tools, helping them formulate more effective prompts and interpret AI-generated suggestions.

This stage emphasized iterative improvement, with students producing multiple drafts of their scripts. The revision process was designed to build self-efficacy by allowing students to experience success in addressing identified problems and progressively improving their work.

### 4.3.3. Production Stage (Weeks 6-7)

In the production stage, students translated their revised scripts into multimedia digital video. Teachers provided guidance on selecting and using video production software, emphasizing the importance of multimodal synergy—the effective integration of visual and auditory elements with narrative content. Students were encouraged to consider how images, music, and pacing could enhance emotional expression and audience engagement. This stage aimed to develop students' digital literacy skills while maintaining focus on the narrative core of their stories.

### 4.3.4. Presentation and Reflection Stage (Weeks 8)

The final stage involved presenting completed works to peers and invited audience members, collecting and reflecting on audience feedback, and engaging in structured reflection activities. Students presented their videos in small groups, received feedback from AI tools, peers, and teachers, and wrote reflective journals analyzing their learning processes and outcomes. Group discussions provided opportunities for sharing experiences and learning from diverse approaches to storytelling.

Throughout this stage, teachers guided students to attend to audience responses, encouraging them to consider how their choices affected audience understanding and engagement. This focus on audience feedback was designed to strengthen intercultural audience awareness and help students internalize the perspective of the receiver in cross-cultural communication.

# 5. Learning Outcomes

## 5.1. Pre- and Post-Intervention Comparisons

Following the instructional intervention, the questionnaire was re-administered to assess changes in students' competence in understanding Chinese culture. The results show that after interacting with AI tools, students' mean scores in the cognitive, attitudinal, and ability dimensions are 4.33 (SD = 0.62), 4.23 (SD = 0.68), and 4.27 (SD = 0.69), respectively. This indicates that students performed best in the cognitive dimension, followed by ability dimension, with attitudinal dimension being relatively weaker. Compared with the earlier survey data, students' level of understanding of Chinese culture has significantly improved (cognitive dimension: 4.33 > 4.03; attitudinal dimension: 4.23 > 4.18; ability dimension: 4.27 > 3.74).

These findings indicate that the AI-enhanced instructional intervention was effective in improving students' cognitive understanding of Chinese culture and their perceived ability to communicate it effectively in English. The substantial improvement in the ability dimension is particularly noteworthy, as this was identified as the area of greatest weakness in the baseline assessment.

## 5.2. Changes in Learning Difficulties

Analysis of post-intervention interview data revealed meaningful changes in the three areas of difficulty identified prior to the intervention.

### 5.2.1. Alleviation of Language Anxiety

Students consistently reported reduced anxiety about linguistic accuracy and expression following their engagement with AI tools. As Student S3 explained: "Before, I was always worried about making grammar mistakes. Now, with AI helping me check and revise, I feel much more confident. I can focus on what I want to say rather than worrying about how to say it correctly." This shift from anxiety to confidence reflects the scaffolding function of AI tools, which provided students with immediate, non-judgmental support for language refinement.

Student S6 elaborated: "When I first started, I would spend a lot of time looking up words and worrying if I was using them correctly. With AI, I can write more freely. It's like having a tutor available whenever I need help."

#### 5.2.2. Deepening of Intercultural Knowledge

Students demonstrated progress beyond superficial cultural descriptions toward more nuanced understanding that connected cultural content with personal experiences and broader values. Student S8 shared: "I chose to talk about the Suzhou Gardens because I grew up there. As I researched with AI help, I learned not just about the architectural features but about the philosophical ideas behind them. AI helped me find the English terms to express these deeper concepts." Similarily, student S1 noted: "I chose to share about paper cutting, a craft from my hometown. AI helped me understand its symbolic meanings and express them naturally in English." This shows the AI-enhanced instruction helps students pay greater attention to cultural meanings and values rather than merely factual descriptions. Students also began making connections between cultural content and their own experiences.

#### 5.2.3. Enhancement of Intercultural Audience Awareness

Post-intervention interviews revealed that students had developed greater sensitivity to audience perspectives. Student S5 noted: "Earlier, I would just introduce Spring Festival customs as I knew them. Now I think about what might be unfamiliar to international audiences and try to explain things in ways that make sense from their perspective. I also think about what might interest them—not just the facts, but the stories behind the customs."

Student S10 added: "I realized that what seems obvious to me might be completely new to someone from another culture. I started asking myself what background information they would need to truly understand the story."

Student S9 added: "Looking at the exemplar videos really helped me understand what works for audiences. I started paying attention to how the storytellers used eye contact and facial expressions to keep viewers engaged. I tried to incorporate these elements in my own video."

These qualitative findings suggest that the instructional intervention, particularly the combination of AI support, exemplar analysis, and audience-focused reflection, contributed to meaningful development in students' intercultural audience awareness.

# 6. Teaching Reflections and Recommendations

## 6.1. Teaching Reflections

The teaching practice of this study indicates that AI has a significant effect on empowering the cultivation of international communication competence of Chinese culture. However, several issues were identified during implementation:

**(1) Varied proficiency in AI use among students**

Some students were not sufficiently proficient in using AI tools and had low digital literacy, hindering their ability to fully leverage AI's empowering potential.

**(2) Insufficient classroom interaction**

Although AI tools provided rich intercultural communication scenarios, and students dared to engage in simulated conversations with AI tools, interaction among students and between students and teachers still needed strengthening to foster deeper cultural understanding.

(3) **Need for improvement in evaluation system**

The current evaluation of international communication competence of Chinese culture primarily relies on work quality, questionnaire data, and interview feedback, lacking a more comprehensive and systematic evaluation indicator framework.

## 6.2. Teaching Recommendations

The findings of this study provide empirical support for the effectiveness of AI-enhanced instruction in developing non-English major undergraduates' international communication competence of Chinese culture. The results contribute to theoretical understanding of this competence and offer practical insights for instructional design.

Based on the reflections above and grounded in the "Framework for the International Communication Competence of Chinese Culture among Chinese College Students," the following teaching recommendations are proposed:

**(1) Environmental factors**

The present study demonstrates that AI can support more complex competencies involving the integration of linguistic, cultural, and narrative skills. By providing scaffolding for language expression, cultural exploration, and iterative refinement, AI tools can help learners navigate the multiple demands of communicating cultural content to international audiences.

Therefore, AI tools should be utilized in English class to develop cultural communication competence. Firstly, teachers should fully utilize AI tools to construct Chinese-English bilingual corpora of Chinese culture, providing students with rich intercultural knowledge, deepening their understanding of Chinese culture, and helping them strengthen cultural confidence. Secondly, teachers should enhance training for students in AI usage skills, such as using appropriate searching prompts and selecting video recording tools. Finally, teachers can employ AI tools to provide diverse intercultural communication thematic activities in class, and offer timely feedback on optimizing prompts and work quality during student-AI interactions, helping them use AI tools effectively to tell China's stories well in English.

(2) **Individual factors**

The finding that AI support reduced students' language anxiety while enhancing their self-efficacy for cultural communication. Therefore, teachers should help students organize necessary language expressions and intercultural knowledge using AI tools before assigning digital storytelling tasks, and provide ample intercultural communication activities. Simultaneously, teachers should encourage students to engage in intercultural communication activities in small groups initially, followed by providing necessary feedback. This approach helps reduce language anxiety, enhance self-efficacy, and thereby strengthen students' confidence and ability in telling China's stories well in English.

Addressing the prevalent lack of intercultural audience awareness among Chinese college students, teachers should guide students to start from intercultural differences during the creative process, to seek stories with personal experiences, and to design story content and language expression with the help of AI tools in ways that the audience can understand and relate to, thereby enhancing the communicative effectiveness of their digital works.

**(3) Behavioral performance**

College students' ability to tell China's stories well in English is primarily manifested in dimensions such as content, structure, innovation, emotional expression, interaction, and linguistic accuracy. During the conception stage, teachers can showcase exemplary digital works, guiding students to analyze their performance across these dimensions, helping them develop a clear understanding of a "good work." During the refinement stage, teachers should provide continuous language-focused feedback to help students correct language errors, preventing potential misunderstandings caused by such errors. During the submission stage, teachers should emphasize the importance of the storyteller's emotional expression, guiding students to establish emotional connections with the audience through their narratives, thereby enhancing the communicative effectiveness of their works. Furthermore, AI tools should be used these stages to support language refinement, cultural connotation, and iterative revision, which can provide more comprehensive feedback for students.

# 7. Conclusion

This study investigated the developmental characteristics and influencing factors of international communication competence of Chinese culture among non-English major undergraduates in China. The findings revealed that this competence was at a moderate level and was shaped by the interaction of environmental and individual factors. Based on social cognitive theory, this study proposed a "Framework for the International Communication Competence of Chinese Culture among Chinese College Students," which conceptualizes competence development as emerging from the reciprocal interaction of environmental, individual, and behavioral dimensions.

The instructional intervention designed within this framework demonstrated significant positive effects on students' cognitive understanding of Chinese culture and their perceived ability to communicate cultural content effectively in English. Qualitative findings further indicated that the intervention contributed to reduced language anxiety, deepened cultural understanding, and enhanced intercultural audience awareness. These outcomes were supported by the integration of AI tools that provided scaffolding for language expression, cultural exploration, and iterative refinement.

These outcomes also carry theoretical and practical implications. The teaching practice in the current study indicates that AI technology positively affects Chinese non-English major undergraduates' ability to disseminate Chinese culture internationally through multiple pathways, including reduced language anxiety and enhanced self-efficacy. Theoretically, these practices help construct a framework for understanding international communication competence of Chinese culture across environmental, individual, and behavioral dimensions. Practically, they offer empirical recommendations for foreign language teachers integrating AI into their teaching, such as providing adequate cultural knowledge, fostering deep understanding of cultural values, and enabling personalized feedback and iterative interaction. Through such AI-facilitated support, students experience reduced language anxiety and improved self-efficacy, which in turn strengthen their intercultural narrative skills, willingness to present Chinese culture in English, and affective engagement with international audiences. Consequently, non-English major undergraduates who participate in AI-enhanced instruction are likely to become more willing to inherit and disseminate Chinese culture and to engage in cross-cultural communication in the digital age.

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