

Research on Strategies for Cultivating Intercultural Communication Competence in AI-Assisted English Teaching

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Abstract: In the context of globalization and multiculturalism, intercultural communication competence has become one of the important requirements for talent in modern society. Intercultural communication competence refers to an individual's ability to communicate effectively and understand one another in different cultural contexts. With the increasing frequency of international exchanges, mastering this competence has become a significant need for students worldwide. Against this backdrop, the rapid development of artificial intelligence (AI) technology has provided new means for English teaching, particularly in cultivating students' intercultural communication competence. AI not only offers personalized learning experiences but also helps simulate real communication scenarios, making learning more interactive and engaging. This paper explores the integration of AI technology into college English teaching and proposes specific application strategies for AI in English education to effectively enhance students' intercultural communication competence.

1. Introduction

In the context of economic globalization, communication between countries is becoming increasingly frequent, with the depth and breadth of exchanges continuously expanding. At the same time, culture is undergoing rapid exchange and integration on a global scale, and the world urgently demands that university English education strengthen the cultivation of students' cross-cultural communication skills and critical thinking abilities. Currently, artificial intelligence technology has become an important teaching aid in the field of education. The introduction of artificial intelligence technology provides new ideas and methods for college English course teaching, promotes innovation in teaching models, enhances teaching quality and efficiency, and fosters personalized development among students, guiding English teaching and learning towards an open and diverse cultural direction [1]. However, in the era marked by the sweeping influence of artificial intelligence, college English courses, teaching practices, students' learning abilities, and value orientations face greater challenges. The teaching concepts, models, and content need to be further reformed and optimized by teachers using advanced digital platforms. Therefore, how to

leverage the developmental advantages of artificial intelligence technology to serve the cultivation of cross-cultural communication talents, particularly the development of cross-cultural communication skills in college English, holds significant theoretical value and practical significance.

2. The Importance of Cultivating Cross-Cultural Communication Skills

Cross-cultural communication skills refer to the ability to communicate and interact effectively using both verbal and non-verbal symbols in a cross-cultural context. They encompass language expression skills, cultural awareness, non-verbal communication skills, and cultural adaptability. The cultivation of cross-cultural communication skills is of great importance for the growth of contemporary college students.

(1) The Connotation of Cross-Cultural Communication Skills

Cross-cultural communication skills primarily include language expression abilities, which form the foundation of cross-cultural communication; this entails mastering a certain vocabulary and being able to use correct grammatical knowledge for language exchanges. Secondly, cultural awareness is necessary, requiring an understanding of the customs, norms, and values of different cultures, as well as the ability to comprehend and respect the values and behavioral norms of other cultures, thereby enhancing cultural sensitivity [2]. This also includes non-verbal communication skills, such as the appropriate use of body language. Finally, cultural adaptability involves the ability to self-adjust in foreign cultures and overcome cultural shock. The development of these skills requires the accumulation of language skills and cultural knowledge, which must be applied and improved through practice.

(2) The Importance of Cross-Cultural Communication Skills for College Students

With the development of economic globalization and social informatization, college students will face a more open and diverse environment. The cultivation of cross-cultural communication skills is of significant practical importance for the growth of college students. First, cross-cultural communication skills can help students adapt to diverse learning environments. Currently, it is quite common for international students from different countries and regions to study and communicate on campus. Strong cross-cultural communication skills can facilitate effective interactions with classmates from diverse cultural backgrounds, broadening international perspectives [3]. For instance, by proactively learning about the customs and practices of different countries and acquiring some basic greetings and etiquette, students can deepen friendships with international peers and gain more opportunities for authentic communication in the target language environment. Second, cross-cultural communication is an essential competency for employment. International companies seek talents who are multilingual and possess cross-cultural communication skills. College students who receive training in cross-cultural communication will have a broader international perspective and greater employability. For example, participating in extracurricular cross-cultural exchange activities, such as international volunteer services or cultural exchange summer camps, can not only enhance language skills but also develop adaptability and teamwork abilities in real cross-cultural environments. These soft skills are highly valued by employers. The college stage is a critical period for cultivating cross-cultural communication skills. Through practice, college students can grow into high-quality talents who possess both an international outlook and a recognition of their local culture.

3. Integration and Development Pathways of Artificial Intelligence Technology in College English Teaching

3.1 Integration Pathways at the School Level

On one hand, strengthening teachers' willingness to engage in digital teaching is a crucial step in integrating artificial intelligence with college English teaching. Schools should implement relevant policies, such as establishing an "Artificial Intelligence Teaching Innovation Award," to encourage teachers to actively use AI technology for teaching innovation. Regular training and learning activities on AI technology, as well as experience-sharing meetings for teachers, can help educators master the latest AI teaching tools and methods, enhancing their confidence and interest in digital teaching. Schools should also create digital teaching demonstration platforms, providing teachers with opportunities to showcase their teaching achievements that integrate AI technology, which can further stimulate their enthusiasm for digital teaching [4]. On the other hand, improving teachers' knowledge and skills in digital technology is a necessary condition for achieving integration. Schools should provide abundant learning resources on AI technology, such as online courses, teaching videos, and professional books, to help teachers systematically learn and master relevant technologies. Organizing teachers to participate in AI-based English teaching practice projects, such as developing intelligent teaching systems and constructing English learning corpora, allows teachers to enhance their digital teaching capabilities through practice. Schools should also actively establish partnerships with enterprises and research institutions to jointly develop AI technologies suitable for college English teaching and invite external experts to guide and teach on campus, broadening teachers' perspectives and improving their skill levels.

3.2 Integration Pathways in Teaching

(1) Utilizing Intelligent Teaching Platforms to Optimize Teaching Design

In the era of artificial intelligence, intelligent teaching platforms, with their unique technological advantages, have become effective assistants for teachers in optimizing teaching design. Through big data analysis technology, these platforms can accurately depict students' learning behavior profiles, making teaching design more aligned with students' actual needs. In terms of data collection, intelligent teaching platforms demonstrate diverse capabilities. They utilize Learning Management Systems (LMS) to track students' activities on the platform, including browsing course pages, watching videos, and participating in discussions, providing teachers with detailed learning behavior data. Additionally, assignments and test results submitted by students are automatically collected by the platform, offering objective evidence for teachers to assess students' learning outcomes. Furthermore, the platform regularly distributes surveys to gather student feedback on teaching content and methods, helping teachers gain deeper insights into students' learning experiences. In terms of data analysis, intelligent teaching platforms employ advanced technologies such as data mining and machine learning to conduct in-depth analyses of the collected data. By analyzing students' learning paths, the platform can reveal their learning preferences and habits, providing strong support for personalized teaching. Moreover, the platform can predict students' future learning performance and identify key factors affecting academic achievement, providing scientific evidence for teachers to adjust their teaching strategies. The platform can also compare learning data across different student groups, identifying differences and commonalities among groups, which can inform teachers in developing more targeted teaching plans. Based on the results of data analysis, intelligent teaching platforms can offer a series of suggestions for optimizing teaching design. The platform can formulate personalized teaching strategies for teachers based on students' learning characteristics and needs, recommending suitable teaching methods and resources.

Additionally, the platform can intelligently recommend relevant learning resources, helping students broaden their learning horizons and improve learning efficiency. During the teaching process, the platform can also adjust teaching plans in real-time based on students' learning progress and feedback, ensuring that teaching content remains aligned with students' learning needs. Intelligent teaching platforms can leverage big data and AI technology to provide intelligent assistance for teaching design. For example, the platform can automatically generate lesson plans, reducing teachers' workload, while also intelligently recommending teaching activities to help teachers design more engaging and interesting lessons, stimulating students' interest and enthusiasm for learning.

(2) Utilizing Artificial Intelligence Technology to Optimize Classroom Interaction

In college English education, teachers can leverage advanced artificial intelligence technologies, particularly speech recognition and natural language processing, to deeply optimize classroom interaction and achieve precise teaching. In the realm of speaking instruction, the application of speech recognition technology enables teachers to accurately capture and analyze students' pronunciation, intonation, and speech rate. Teachers can use specialized speech recognition software to design a series of customized feedback and suggestions closely aligned with the course, such as online corrections of pronunciation errors, reinforcement of grammar knowledge or pragmatic rules, and recommendations for cultural learning materials addressing deficiencies. Additionally, the system can adjust training strategies and the difficulty level of learning content based on students' learning progress and characteristics, achieving truly personalized learning. In summary, by adopting intelligent diagnostic and assessment systems, every student can receive personalized training along the most suitable learning path. This precise training approach significantly enhances the efficiency of language learning.

4. Strategies for AI-assisted English Teaching to Cultivate Intercultural Communication Skills

4.1 Enhancing Cultural Knowledge through AI Tools

Cultural knowledge is the foundation of intercultural communication competence. Only by understanding and respecting the backgrounds and customs of different cultures can students behave more appropriately and confidently in intercultural exchanges. The application of AI technology can help students acquire a wide and rich cultural knowledge base, enabling them to better understand and apply this knowledge.

(1) AI-recommended Cultural Content

By analyzing users' learning behaviors and interests through algorithms, educational platforms (such as Duolingo, Busuu, Rosetta Stone, etc.) can intelligently recommend cultural materials related to the target language of the learner. These recommendations are not limited to texts but also include videos, audio, and interactive games. This personalized recommendation mechanism can engage students to explore the cultural background of the language they are learning more deeply. For instance, when learners are studying English, AI might recommend short films or articles related to American holidays, customs, and social behaviors. By watching actual cultural scenarios, students can intuitively understand communication styles that differ from their own culture, and this experience positively contributes to their future communication skills development. In a study, an AI-based cultural knowledge module was introduced in an English course at a university. Over an 18-week learning process, students were exposed to various cultural content. The results indicated a significant improvement in students' cultural knowledge levels, particularly in understanding specific cultural social etiquette, with students' scores increasing by 45% [5].

(2) Designing Multicultural Learning Tasks

Teachers can design multicultural learning tasks using AI technology. By utilizing online

collaboration tools such as Google Classroom or Kahoot, teachers can organize thematic discussions or cultural comparison activities. In classes with multicultural backgrounds, teachers can assign content from different cultures for group research, allowing students to engage in in-depth discussions within their groups. AI can assist teachers in monitoring student participation in real-time, evaluating their cultural understanding levels by analyzing their speech and comments. Additionally, teachers can set up cultural presentation segments, allowing students to work in groups to create multimedia presentations about specific cultures using AI tools. A study involving first-year students showed that group discussions facilitated by AI-assisted tools led to significant progress in understanding different cultural customs and language expressions, with average scores increasing by 38%. This collaborative learning approach enhanced students' cultural sensitivity and promoted an open mindset.

4.2 Simulating Communication Scenarios to Enhance Communication Skills

Effective intercultural communication not only requires a solid foundation of cultural knowledge but also relies on good communication skills. The application of AI technology makes it possible to simulate communication scenarios, helping students enhance these abilities through interaction.

(1) AI-driven Virtual Communication Platforms

The application of virtual reality (VR) and augmented reality (AR) technologies provides students with immersive experiences. In these interactive experiences, students can not only hear authentic pronunciations of the target language but also feel its cultural context. For example, applications like ImmerseMe and Virtual Reality Language Learning offer various virtual scenarios where students can converse with virtual characters in a simulated world. This immersive learning experience helps students practice the language in authentic cultural contexts, boosting their communication confidence.

In virtual environments, students can participate in scenario simulations, such as ordering food in a restaurant, attending social gatherings, or participating in business meetings. Each scenario has different cultural backgrounds and communication norms, allowing students to observe and reflect on which behaviors are appropriate and which may lead to misunderstandings. This experience can prepare students to respond more calmly in real intercultural situations [6].

(2) Combining Skits and Role-Playing with AI Feedback

By integrating traditional skits and role-playing methods, teachers can design courses related to specific cultural scenarios. Educational platforms like Flipgrid allow students to record their role-playing videos and receive interactive feedback. AI can analyze students' performances, language expressions, tones, and other non-verbal communication factors. This immediate feedback not only helps students identify and correct their expression issues but also guides them to reflect on more suitable communication strategies within specific cultural contexts. For instance, in one study, participants practiced self-introductions through AI-assisted role-playing activities. AI provided feedback on language, tone, and body language based on their presentations, and the results showed that participants exhibited higher confidence and lower misunderstanding rates in subsequent real communications.

4.3 Cultivating Cultural Sensitivity and Inclusiveness

Cultural sensitivity is another key ability that enables students to successfully engage in cross-cultural communication. AI tools can play an important role in this regard.

(1) AI Algorithms Recommend Communication Strategies for Different Cultures

AI systems can analyze behavioral differences between cultures and provide students with effective communication strategies. For example, understanding that directly stating one's opinion

may be considered rude in some cultures, while in others it is seen as a sign of honesty. AI can not only help students identify these cultural differences but also recommend appropriate communication strategies based on specific contexts, thereby reducing cultural conflicts and misunderstandings [7]. For instance, when students are learning to communicate with individuals from Southeast Asian cultural backgrounds, AI can suggest adopting a more indirect and humble way of expressing themselves, while communication with Western cultures can be more direct. This approach significantly enhances students' communication skills.

(2) Reflective Learning and Self-Assessment Methods

AI tools can assist students in self-reflection and assessment. By establishing self-assessment mechanisms, students can reflect after each communication practice. For example, using AI-driven language analysis tools, students can clearly see their strengths and weaknesses in cross-cultural communication and identify their cultural adaptability in understanding, expressing, and responding.

In this process, AI's intelligent analysis tools can record students' communication data and provide them with quantitative feedback. This reflection can help students gain a deeper understanding of communication styles across various cultural backgrounds and motivate them to continue improving.

4.4 Cultural Comparison through Real Case Studies

The rapid development of AI technology has made it easier to access global cultural information, allowing teachers to design courses that encourage students to compare similarities and differences between cultures.

(1) Utilizing AI Data Analysis Tools

Through AI data analysis tools, teachers can provide students with real data related to different cultures. With data visualization, students can clearly observe differences in family structures, educational methods, values, and more across cultures, prompting deeper thinking and discussion. Teachers can guide students in group discussions, using AI tools to analyze differences in social networks and communication skills across cultural backgrounds, as well as the impact of these differences on communication outcomes. Such discussions not only broaden students' perspectives but also encourage them to think deeply about the uniqueness and limitations of their own culture [8].

(2) Conducting Cross-Cultural Projects

Schools can organize cross-cultural learning projects that encourage students to collaborate with foreign students or those from other regions. In such projects, AI can help build online communication platforms, providing a bridge for students from different cultural backgrounds to communicate. Projects can include cultural sharing, language exchange, and even joint social research. For example, some universities have established partnerships with foreign institutions to conduct cross-national cultural research projects, where students use video conferencing and online discussions to jointly study specific cultural phenomena. This collaboration not only provides students with valuable firsthand information but also enhances their understanding and respect for other cultures.

5. Conclusion

Integrating AI technology into English teaching offers new and effective strategies for cultivating cross-cultural communication skills. By enhancing students' cultural knowledge, simulating real communication scenarios, improving cultural sensitivity, and incorporating real case studies for comparison, teachers can better assist students in mastering this important ability. In an era of

globalization, cross-cultural communication skills are not only fundamental for language learners but also crucial for personal and societal development. Therefore, future educators should actively explore different teaching models and strategies, leveraging emerging technologies like AI to systematically cultivate cross-cultural communication skills, helping students communicate, collaborate, and grow freely in a multicultural environment.

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