

# Practice of College English Listening and Speaking Teaching in the Context of AI-enabled Cross-cultural Communication

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**Abstract:** Under the background of economic globalization, trade and cultural exchanges between countries are very close. English is the main language of international communication, and the importance of English teaching is further highlighted. Listening and speaking teaching in college English is an important way to cultivate students' intercultural communication ability. Applying AI technology to create rich and varied listening and speaking learning materials for students and enhance their awareness of intercultural communication is one of the goals of current English listening and speaking teaching reform. As a teacher, we should form a correct understanding of the advantages of AI technology in data analysis, intelligent interaction and personalized learning support, and on this basis, build a high-quality English listening and speaking class with the empowerment of AI, so that students can understand multiculturalism and improve their comprehensive ability while learning language knowledge, and lay the foundation for future career development.

**Keywords:** ai; Intercultural communication; College English; Listening and speaking teaching

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With the development of educational informatization, AI technology is widely used in college English courses, which provides many innovative ideas for English listening and speaking teaching and creates conditions for students' cross-cultural communication <sup>[1]</sup>. In the intelligent platform based on AI technology, teachers will set up various language dialogues and cross-cultural communication scenes for students, and guide them to flexibly use what they have learned in class to carry out listening and speaking training and learn multicultural knowledge, which will enable students to avoid misunderstandings and conflicts caused by cultural differences on the basis of effective understanding and accurate expression. This paper summarizes the common AI technology in college English listening and speaking teaching under the background of cross-cultural communication, explores the importance of AI empowering college English listening and speaking teaching, and then analyzes the specific methods of college English listening and speaking teaching, hoping to provide reference for educators.

## 1.First, the common AI technology in college English listening and speaking teaching under the background of cross-cultural communication

### 1.1 Intelligent voice scoring

Intelligent voice scoring is an important achievement of AI technology applied in English listening and speaking field, which embodies the important trend of the integration of education and AI technology <sup>[2]</sup>. At present, intelligent phonetic scoring has been widely used in large-scale English listening and speaking tests such as senior high school entrance examination and college entrance examination, and it is also an important tool to test students' listening and speaking ability. The principle of intelligent voice scoring system is to set the type of oral or listening test questions in the computer system in advance according to the actual needs, and then build a man-machine dialogue platform based on AI technology to simulate the real scene. When taking the oral or listening test, students only need to enter the platform to have a dialogue with the AI agent. In this process, the background computer system will automatically collect the recorded information of students' answers, and then use intelligent speech recognition technology and natural language processing technology to deeply analyze the recorded information, and judge the students' listening ability and language expression ability from the perspectives of pronunciation, grammar,

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fluency and integrity. After the grading is completed, the system will also use the existing model to integrate the multi-dimensional evaluation results, and finally show the students' scores, and quantitatively present the students' listening level and oral level.

### **1.2 Intelligent voice interaction**

Intelligent voice interaction integrates various AI techniques such as voice recognition technology, voice synthesis technology and natural language processing technology, which can accurately recognize voice instructions and voice content, simulate human expression habits to reply on the basis of understanding intentions, and realize smooth dialogue between man and machine. In college English listening and speaking teaching, the function of intelligent voice interaction is mainly to provide students with real-time and accurate pronunciation feedback and standard pronunciation demonstration, and at the same time to improve their listening ability in the process of human-computer interaction. Under the background of cross-cultural communication, the intelligent voice interaction system can also simulate the real language communication environment, in which the dialogue and communication with students can be realized. At the same time, the system can accurately match students' English learning level, and adopt vocabulary and grammar with appropriate difficulty according to students' level. For students with poor English listening and speaking skills, you can also click the "Prompt" button to get sample answers during the dialogue. After completing the interaction, the system will recommend learning materials and exercises suitable for students' current ability according to their actual situation, so as to realize personalized teaching [3].

### **1.3 Big data analysis and machine learning**

The technical principle of big data analysis and machine learning is to use big data analysis technology to collect, store and process students' English listening and speaking learning data, which mainly includes learning behavior data, academic performance data and daily training data. After that, the system will automatically select valuable information to build a model, so as to realize the analysis of students' learning situation, the recommendation of personalized content and the intelligent evaluation of learning effect [4]. In the course of college English listening and speaking teaching, teachers can use big data analysis and machine learning system to find the common problems and personality problems of students, and generate tailor-made training programs for each student. Through continuous data accumulation and model training, teachers can continue to optimize listening and speaking teaching methods. In cross-cultural communication listening and speaking teaching activities, teachers can also use big data analysis and machine learning system to collect students' data in voice interaction and scenario simulation exercises, analyze their manners in the process of communication, intelligently evaluate students' cognition and understanding of different cultures and generate cultural awareness portraits, and then implement targeted cultural teaching according to students' actual situation.

## **2.Second, the importance of AI empowering college English listening and speaking teaching in the context of cross-cultural communication**

### **2.1 innovative English listening and speaking teaching model**

With the wide application of AI technology, college English listening and speaking teaching mode is constantly innovating, and students' intercultural communication ability is obviously improved. The traditional English listening and speaking course is mainly based on the model of teachers explaining and demonstrating and students imitating learning. Empowered by AI, various intelligent teaching tools such as online learning platform and intelligent teaching software are widely used, which creates conditions for students' autonomous learning. Students can arrange learning time, choose learning content and set learning goals according to their own learning situation, which can form a more diversified teaching model in English listening and speaking class. For example, some colleges and universities will build a mixed teaching mode based on AI technology. Before class, students will use AI platform to learn theoretical knowledge of cross-cultural communication and watch cultural contrast videos. During class,

teachers will guide students to organize group discussions around cultural differences between China and the West, so that students can improve their language use ability in the process of in-depth communication. At the same time, students in traditional English listening and speaking classes lack real cross-cultural communication scenes, and are prone to "dumb English" and "cultural misreading". With the support of AI technology, teachers can optimize the process of listening and speaking teaching, innovate the form of classroom interaction and build a new teaching paradigm. Through the intelligent voice interaction system, teachers can set up scenes of cross-cultural communication for students, such as cross-cultural negotiation, dialogue on cultural customs, and questions and answers at international conferences. Through real-time interaction with AI virtual partners, students can not only improve their English listening and speaking ability, but also better perceive the cultural differences between China and the West and improve their cultural understanding ability.

## **2.2 expand English listening and speaking teaching resources**

Under the background of cross-cultural communication, it is necessary to ensure the richness of teaching materials in college English listening and speaking teaching. The empowerment of AI technology will broaden the resource range of English listening and speaking teaching and enhance the interest and effectiveness of listening and speaking teaching. With the support of natural language processing technology and speech recognition technology, English listening and speaking learning resources will show the characteristics of digitalization and intelligence, and will be presented in various forms such as words, audio and video [5]. Teachers and students can use the online English learning platform to obtain these resources, and students will effectively broaden their cultural horizons by learning these resources. With the integration of crawler technology and authorized cooperation, teachers can use AI technology to integrate English listening and speaking teaching resources and real cross-cultural communication materials around the world, including United Nations speeches, workplace dialogues of multinational enterprises, and folk cultural exchanges. These resources will be accompanied by cultural annotations generated by AI, which can reduce the learning difficulty of students. At the same time, relying on AI technology, teachers can also generate personalized resources according to the actual needs of students in English listening and speaking courses, and generate corresponding training materials and exercises according to the teaching objectives set before class and the students' learning situation. For example, in an English listening and speaking course with the theme of "Cross-cultural Catering Etiquette", the teacher used AI to generate a "Chinese-Western Table Dialogue Script", which included the contents of cross-cultural communication such as "persuading the cultural differences of wine" and "taboo on consumption topics", and provided supporting voice reading according to the students' learning foundation.

## **2.3 provide personalized learning support**

Providing personalized learning support is also an important advantage for AI to empower college English listening and speaking teaching. This is because AI technology can widely collect and comprehensively analyze students' data on English foundation, learning progress, listening and speaking habits, accurately locate students' learning needs and learning characteristics, and implement the concept of teaching students in accordance with their aptitude on this basis to provide students with personalized learning support. At the same time, in the practice of English listening and speaking teaching, it is found that students show obvious individual differences in cross-cultural communication ability. For example, some students have weak English listening and speaking ability but a high degree of understanding of culture, and some students have standard pronunciation and fluent expression, but they don't understand the culture, so they have problems in expressing their words. Based on this, teachers can use AI empowerment to break the "one size fits all" teaching form and meet the individualized learning needs of different students. Provide students with weak language foundation with "language+culture lightweight" resources and strengthen comprehensive language training, while provide students with weak cross-cultural communication ability with "cultural context embedded" resources and strengthen cultural communication training. After completing

the teaching, teachers can also use the students' learning data recorded by the AI system for a long time to generate a growth report for them, showing the students' learning process and progress in a quantitative way. This can fully reflect the student-centered educational concept, make the teaching content adapt to the students' learning foundation and learning progress, meet the students' individual needs, and realize teaching by learning [6].

### **3.Third, AI-enabled college English listening and speaking teaching methods in the context of cross-cultural communication**

#### **3.1 the application of big data analysis technology to meet the differentiated needs of students**

Empowered by AI, teachers should use big data analysis technology to dynamically monitor students' learning situation and classroom performance, and build personality portraits for students, so as to objectively reflect students' learning situation, and then formulate targeted learning plans for students to meet differentiated needs [7]. Before English listening and speaking teaching, teachers can use AI platform to build a "portrait of cross-cultural listening and speaking ability" for students from three dimensions: language ability, cultural understanding and communication strategies, and generate personalized learning plans based on this portrait, and then adjust the teaching plans and teaching strategies in real time according to the students' learning progress, so as to gradually improve students' listening and speaking ability and cross-cultural communication ability through step-by-step training.

For example, in the teaching of business English listening and speaking, teachers can use the AI teaching platforms such as iWrite and New Oriental AI to test the students one week before the course starts, collect the information of the students in the test and generate differentiated portrait labels from the perspectives of language ability, cultural understanding and communication strategies. In the cross-cultural communication scene of "business negotiation with European and American customers", student A frequently uses informal expressions, but there is no behavior that violates the other party's cultural habits, and can accurately use diversified words to achieve the negotiation goal. The system generates a portrait label of "weak language ability-medium cultural understanding-excellent communication strategy" for student A, and at the same time automatically records the information of his cultural adaptation mistakes, and formulates a preview scheme of "European and American accent business dialogue collection+shorthand manual of trade terms". In the teaching process, teachers can carry out teaching activities according to students' learning plans, and at the same time use AI platform to monitor students' learning data in real time, so as to realize dynamic adjustment of teaching strategies.

#### **3.2 the clever use of intelligent teaching AIDS to mobilize students' listening and speaking initiative.**

In view of the lack of real cross-cultural communication scenes in college English listening and speaking teaching, teachers can skillfully use intelligent teaching AIDS to innovate teaching forms under the empowerment of AI, and build an intelligent platform for language learning and oral communication for students. Teachers should present the listening and speaking contents in college English textbooks in an intelligent way, turn a single boring conversation into vivid animations or pictures, mobilize students' subjective initiative while optimizing their learning experience, and break the dilemma of students' "being afraid to speak and unwilling to speak". In English listening and speaking practice, teachers can use virtual reality technology, augmented reality technology and 3D interactive technology to build cross-cultural communication scenes for students, create an immersive learning experience, and make them actively participate in learning activities. At the same time, AI technology can be used to combine the content of English listening and speaking practice with gamification elements, so as to stimulate students' interest in learning through the forms of entrance games or integral competitions, reduce their boredom, and then improve their investment in English training.

For example, teachers can create "overseas shopping", a cross-cultural communication scene that students are interested in, with the empowerment of AI systems such as intelligent voice interaction. In this scenario, students need to play the role of "shoppers" and the system plays the role of "shopkeepers in the Middle East". Students

should complete bargaining and shopping on the basis of respecting local cultural customs and bargaining habits. If students directly ask about the price of goods, the system will remind the cultural custom of "greeting first and then bargaining" in the Middle East from a cultural point of view, and guide students to "How's your day? "Open the dialogue. In this scene, students will form a strong sense of substitution, and they will flexibly use the English listening and speaking knowledge they have learned in class to complete the training, and improve their cultural knowledge and intercultural communication skills while improving their willingness to practice actively.

### **3.3 relying on the online oral corner function to improve students' cultural sensitivity**

Under the background of cross-cultural communication, teachers should fully realize the relationship between language and culture in college English listening and speaking teaching, improve students' cross-cultural communication ability through cultural infiltration, and guide students to use English knowledge flexibly to complete listening and speaking training. The core of cross-cultural communication lies in understanding differences and adapting to context. The cultural knowledge that students come into contact with in traditional listening and speaking teaching mainly comes from teaching materials, which has static characteristics, and students lack opportunities for dynamic practice, so it is difficult to understand the cultural logic behind the language [8]. With the empowerment of AI, teachers can build an online oral corner as a cross-cultural communication platform for students, and rely on the functions of intelligent voice scoring system to match the objects of cross-cultural oral communication for students, break through geographical restrictions and provide students with one-on-one communication opportunities. Make students deeply feel cultural differences in real conversations and improve their sensitivity to culture. These oral communication objects can be "virtual cultural messengers" played by AI, or real students from other countries.

For example, in the online speaking corner, students can have cross-cultural exchanges with the "Mexican college students" played by AI, and the two sides discuss the topic of "holiday customs". In the dialogue, students can share traditional cultural customs such as eating jiaozi, setting off firecrackers and pasting Spring Festival couplets during the Spring Festival in China, while "Mexican college students" will share cultural customs such as setting up altars, vigils in cemeteries and street parades on the Day of the Dead in Mexico, explaining the cultural significance behind eating bread for the dead. The two sides can conduct in-depth exchanges around a certain cultural custom, and further explore the cultural differences in different regions in the process. At the same time, AI will monitor students' cross-cultural communication mistakes in dialogue in real time and provide real-time guidance and cultural interpretation, so that students can deeply feel the significance of language expression and cultural adaptation in practice.

## **4. Conclusion**

Generally speaking, AI technology is a key force in the reform of college English education. In the field of listening and speaking teaching, AI systems such as intelligent voice scoring, intelligent voice interaction, big data analysis and machine learning are widely used, which not only innovates listening and speaking teaching mode, expands listening and speaking teaching resources, but also provides support for students' personalized learning. Under the background of cross-cultural communication, teachers should make full use of AI technology to provide students with English listening and speaking scenes and opportunities, so that students can improve their sensitivity to culture while mastering language expression skills, and find suitable English listening and speaking learning methods to lay a solid foundation for future cross-cultural communication.

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