Research on the Reform of College English Listening and Speaking Teaching Mode Under the Background of Artificial Intelligence

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Abstract. With the continuous development of information technology, artificial intelligence technology is increasingly widely used in the field of education, which provides a new opportunity for the reform of college English listening and speaking teaching mode. This paper deeply analyzes the application advantages of artificial intelligence technology in college English listening and speaking teaching, and discusses the reform strategy and practice path of college English listening and speaking teaching mode under the background of artificial intelligence. The application of artificial intelligence technology not only enriches teaching methods and teaching resources, but also stimulates students' learning interest and enthusiasm, which can effectively improve the quality and effect of college English listening and speaking teaching.

Keywords: Artificial intelligence, College English, Listening and speaking teaching

1 Introduction

Artificial intelligence is an emerging science involving computer science, neurocognition, linguistics, psychology and other fields. The application of this technology has brought about subversive changes in many fields and profoundly affected the college English teaching model. In the field of foreign language education, the application of artificial intelligence can enrich English teaching resources, update teaching forms, provide personalized learning channels for students, and reduce the difficulty of language learning. Artificial intelligence has reshaped the ecological environment of foreign language teaching and learning, making intelligent teaching a new normal. The application of artificial intelligence technology can also effectively stimulate students' learning enthusiasm and improve learning efficiency, especially improve students' English listening and speaking skills. Therefore, college English teachers should pay attention to the

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application of artificial intelligence technology in English listening and speaking teaching, innovate teaching models and methods based on technical means, and deeply study the reform of college English listening and speaking teaching model[1].

2 The Reform Value of Integrating Artificial Intelligence into College English Teaching Model

In recent years, artificial intelligence technology has developed rapidly, especially in the fields of natural language processing, machine learning and data analysis, which has brought new opportunities for the development of education[2]. In college English teaching, the application of AI technology can effectively integrate teaching resources and improve teaching mode.

2.1 Gather Massive Online Teaching Resources

The introduction of artificial intelligence technology provides a boost to the development and utilization of college English digital teaching resources. Artificial intelligence can integrate teaching resources, gather massive online teaching resources, break the limitation of offline teaching scope, expand learning content and learning channels, update basic knowledge framework and cognitive structure, and help students establish cross-cultural communication awareness and realize the goal of English knowledge and skills application. The school can develop more high-quality online English courses, invite experts or excellent teachers in the field of English education to give video lectures, explain the key and difficult points in English learning for students, and provide a wealth of English teaching courseware and handouts, covering key English vocabulary, key grammar analysis, explanation of example sentences, exercises, etc., so that students can download and learn by themselves. At the same time, teachers can use artificial intelligence technology to generate high-quality pictures and charts, and combine them with English text, audio and other textbook content, add rich interactive elements, produce more vivid English digital textbooks, and improve students' participation and enthusiasm in English learning.

2.2 Optimize Teaching Mode

In the era of artificial intelligence, teachers need to constantly improve their teaching models and methods. Combining artificial intelligence technology with traditional English teaching mode, integrating the advantages of the two teaching modes, learning from each other, and developing a mixed teaching mode of online and offline. Through artificial intelligence technology, teachers can penetrate online resources into the classroom, expand the classroom capacity, and provide students with English materials in various forms, so that students can not only focus on textbooks, but also collect and integrate online information resources, and experience the original English expression. Schools can use artificial intelligence and other technologies to develop more advanced English teaching tools, such as the introduction of virtual teaching assistants based on

artificial intelligence technology, which can simulate the behavior of human teachers, personalized interaction with students, and help students improve their English application ability. Artificial intelligence technology is used to build an intelligent recommendation learning system, which recommends personalized learning paths and resources more suitable for students by analyzing information such as students' learning behaviors, performance data and interests. In addition, virtual reality or augmented reality technology can be used to create an immersive English learning environment and simulate real life scenarios to improve students' English skills.

2.3 Personalized and Accurate Evaluation

Artificial intelligence technology can conduct accurate data analysis for students, master students' learning progress, level and ability, and provide data support for the pertinence and effectiveness of teaching content. Through one-click assignment, human-computer dialogue to complete homework, intelligent homework correction and other functions, can greatly reduce the teacher's work burden, improve the efficiency of grading homework, so that teachers will be more time and energy into the classroom teaching. At the same time, artificial intelligence technology can also provide students with specific situations in which students can practice relevant oral dialogues, provide accurate feedback for students, identify pronunciation errors and weak points in listening comprehension, give suggestions for improvement, improve their listening and speaking proficiency, and help English learning.

Artificial intelligence technology can support the reconstruction of teaching content, track and analyze teaching activity data, and help teachers and students adapt to different teaching time and space environments. Through the data portrait of students, teachers can integrate and allocate teaching resources according to the characteristics of students, realize the precision of teaching content push, and meet the learning needs of students at different levels. In addition, adaptive learning systems can use algorithms to analyze students' learning history and test results, automatically adjust learning content and difficulty, identify learning weaknesses, and provide corresponding remedies, so as to achieve truly personalized teaching. The integration of artificial intelligence into college English teaching mode has significant reform value, helps to improve the quality and efficiency of college English teaching, and cultivates students' English application ability and innovative spirit.

3 The Application of Artificial Intelligence in College English Listening and Speaking Teaching

Listening and speaking training is the basic content of college English teaching and plays a decisive role in improving students' comprehensive English language application ability. The reform of artificial intelligence in college English listening teaching has brought profound changes and innovations to the traditional teaching mode. Artificial intelligence technology can integrate and generate rich listening teaching resources. Through big data analysis and natural language processing technology, the system can

collect high-quality English listening materials from around the world, including news broadcasts, film and television clips, academic lectures, etc., and make intelligent recommendations according to students' learning levels and interests. These diverse resources not only enhance students' listening comprehension, but also broaden their international perspective.

Artificial intelligence can build personalized learning paths according to the learning characteristics of different students. Based on a student's learning history, interest preferences, and current learning stage, AI technology can build a personalized learning path. The system can intelligently analyze students' performance in listening exercises, identify their weak points, and recommend targeted learning materials and exercises, so as to help students improve their listening skills efficiently. Artificial intelligence technology enables real-time feedback of listening practice. Using speech recognition and natural language processing technology, the system can instantly score and parse students' listening answers, point out errors and provide correct demonstrations. This kind of immediate feedback mechanism helps students to correct the deviation in pronunciation and understanding in time and improve the learning efficiency. At the same time, artificial intelligence technology can also enhance the interactive listening classroom. Teachers can use tools such as virtual teaching assistants to conduct real-time questions and answers and discussions with students, enlivens the classroom atmosphere and stimulates students' interest in learning.

Artificial intelligence technology has promoted the popularity of new teaching models such as "flipped classroom" and "blended learning". In listening teaching, students can preview listening materials through online resources before class, and conduct more in-depth discussions and practical operations in class, such as role playing and group discussion[3]. This change in teaching mode enhances teacher-student interaction and enhances the depth and breadth of learning. In addition, artificial intelligence technology can also realize the automation and intelligence of listening tests. The system can automatically compose papers, score and generate learning reports, and provide teachers with accurate teaching data support, which is convenient for them to optimize teaching strategies and methods.

4 Artificial Intelligence to Improve Students' English Listening and Speaking Skills

Artificial intelligence technology plays an important role in students' English speaking and listening training. Its functions such as intelligent speech recognition, interactive teaching and intelligent feedback have continuously improved students' learning efficiency, and made remarkable progress in listening comprehension and oral expression. Intelligent speech recognition technology can instantly analyze students' pronunciation and make intelligent adjustments for incorrect pronunciation[4]. This timely feedback gives students the opportunity to correct wrong pronunciation immediately, and it is also an in-depth teaching of correct pronunciation and intonation. The interactive teaching function introduces an immersive learning environment, simulates real English communication situations, and enables students to participate in the dialogue, thereby

improving their listening and speaking ability. Through personalized learning path design, artificial intelligence technology can dynamically adjust learning content and difficulty according to students' English level and learning progress. This personalized learning experience ensures that each student can practice listening and speaking at their own pace, avoiding excessive or lack of challenges and greatly improving learning efficiency. Artificial intelligence's speech recognition and natural language processing technologies provide students with instant and accurate speech feedback. As students practice listening and speaking, the AI is able to assess their voice, intonation and fluency in real time and give specific suggestions for improvement. This real-time feedback helps students conduct targeted training for their own problems, gradually correct pronunciation errors and grammar problems, and improve the accuracy and confidence of their oral expression. Artificial intelligence technology can bring together rich multimedia resources, including listening materials and speaking practice tasks. These resources not only cover a variety of situations such as daily conversations, academic discussions and cultural exchanges, but also simulate real English communication environments, allowing students to improve listening comprehension and contextual coping skills in an immersive experience. When using artificial intelligence technology for English listening and speaking training, students can not only get immediate speech assessment and correction, but also choose appropriate learning materials according to their own interest and ability level, which greatly improves the autonomy and participation of learning, greatly enhances the learning motivation of students, and makes them feel the fun of English learning in a relaxed and pleasant atmosphere. And then more actively involved in learning.

5 The Reform and Improvement Strategy of College English Listening and Speaking Teaching Mode Under Artificial Intelligence

5.1 Integrate Course Content to Realize Personalized Learning

The content of college English courses is characterized by richness and diversity. College English, as an important part of the basic cultural courses of colleges and universities, aims to cultivate students' comprehensive English application ability, cross-cultural communication awareness and ability, so as to meet the needs of future career development, post requirements and international communication. Colleges and universities should integrate college English teaching resources, including digital resources, such as MOOCs, micro courses and super star classes, according to their own characteristics and talent training characteristics, so as to achieve localization and characteristics[5]. Artificial intelligence technology is used to understand the actual English level of students, and then through big data analysis, personalized learning plans are formulated for each student to achieve targeted teaching. This kind of teaching mode can strengthen training for students' weak links and improve learning efficiency. Through the study of this course, students should not only have the comprehensive application ability of English, but also understand the cultural background knowledge,

language logic thinking, local customs and expression habits of different regions and countries with different languages. Faced with diverse content and teaching objectives, teachers can adopt artificial intelligence technology to assist classroom teaching. With the help of advanced AI technology, such as intelligent oral training system, intelligent composition correction system, etc., to provide personalized listening and speaking training for students. These systems are able to recommend appropriate learning resources and practice topics based on students' learning progress and style, and provide targeted corrections and feedback. In addition, through virtual reality and augmented reality technology, a more immersive learning environment can also be created for students to improve learning interest and effectiveness.

5.2 Strengthen Teacher Training and Improve Teaching Ability

In the era of artificial intelligence, the traditional face-to-face communication mode may be changed due to the introduction of artificial intelligence, which will affect the teaching effect. Teachers need to constantly improve their information technology application ability and teaching level, adapt to and master the teaching methods using artificial intelligence tools. Schools should carry out targeted training and professional development support for teachers, including information technology training, teaching methods training, etc., to help teachers master the use of advanced AI tools and teaching platforms, and improve teaching effectiveness. At the same time, teachers are encouraged to conduct teaching research and innovation, and explore more teaching models and methods that meet the needs of students. Construct a multi-wisdom classroom model combining online and offline, including online classroom, offline classroom, extended classroom and teacher-student interaction and cooperation[6]. To build a professional team composed of teachers who are good at making online courses, design offline courseware making activities, and have rich artificial intelligence teaching experience, we can also let these experienced teachers hold public lectures, provide opportunities for other teachers to learn and exchange experience, drive more teachers to participate in the production of online courses, and give students more professional and rich online course materials. At the same time, the design of teaching tools should ensure that human-computer interaction is harmonious, and artificial intelligence assists rather than replaces the role of teachers.

5.3 Improve the Evaluation System, Pay Attention to Formative Evaluation

The evaluation of college English teaching under the guidance of artificial intelligence has become dynamic. With the support of artificial intelligence technology, a more perfect evaluation system can be built, focusing on formative evaluation. The teaching management department of the school can use artificial intelligence technology to supervise the whole English teaching process, and use the intelligent evaluation function to implement multi-dimensional evaluation around students' mastery of basic knowledge and skills, English thinking, emotional attitude, etc[7]. Ai model training re-

lies on high-quality data, but educational data acquisition and labeling is time-consuming and difficult to standardize. The solution is to establish scientific data collection and processing mechanism, develop standardized data set and evaluation system.

Through the collection of student learning data, such as classroom performance, homework completion, oral practice, etc., students' learning process is comprehensively tracked and evaluated. The tracking and feedback function of artificial intelligence technology can more accurately reflect the learning situation and progress of students, dynamically present the teaching process, make the evaluation more specific and clear, and provide teachers with targeted teaching feedback and suggestions.

6 Conclusion

The reform of college English listening and speaking teaching mode under the background of artificial intelligence is a systematic project, which needs the joint efforts of educators, learners and technology developers. Through continuous exploration and practice, we can build a more efficient, personalized and intelligent English listening and speaking teaching model to provide better support for students' English learning and development. In addition, the fairness and popularity of AI applications also need to be paid attention to. Uneven educational resources may lead to new educational divides, and it is crucial to develop policies to support the introduction of AI educational tools in poor and remote areas to promote educational equity. These challenges both point to current priorities and point the way for future improvements to make the use of AI in education more effective and widespread.

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