Research on the Reform of College English Listening Teaching Based on Artificial Intelligence

Juan Yu*

Xi'an Kedagaoxin University, Xi'an 710109, Shaanxi, China

Corresponding author: Juan Yu, 18092332830@163.com

Abstract: In the process of education innovation and development, it gradually combines with artificial intelligence technology to realize the continuous innovation and optimization of teaching mode, and creates better conditions for students to learn English courses. Especially in college English listening teaching, front-line teachers actively try to intelligent teaching, and build a learning environment that can further meet the individual needs of students, which helps to improve the efficiency and quality of students' learning. Based on this, this paper first analyzes the significance of the reform of college English listening teaching based on artificial intelligence, and then discusses its practical strategies based on the author's practical experience, aiming to provide a reference for the continuous promotion of teaching reform.

Keywords: Artificial intelligence; Universities; English listening teaching; Reform

1. Introduction

Teachers should strengthen the application of artificial intelligence technology in college English listening teaching, further expand teaching resources and stimulate students' interest in practice, which will help improve students' learning efficiency and quality. Under the background of the new era, college English teachers should actively explore various possibilities brought by the promotion of artificial intelligence technology for the reform of college English listening teaching, and carry out listening teaching model innovation with the assistance of various new artificial intelligence technologies to provide a good environment for students to learn listening knowledge and practice listening.

2. The significance of the reform of college English listening teaching based on artificial intelligence

2.1. Cultivate good study habits

Good learning awareness and habits can lead students to conduct independent listening practice, so training students to form good English learning awareness and habits is an important prerequisite for effectively

strengthening their English listening [1]. Artificial intelligence technology can enrich students' listening practice methods, improve students' listening practice experience, and support students to use fragmented time for listening practice, which plays an important role in cultivating students' learning awareness and habits. Teachers can reasonably apply artificial intelligence technology in college English listening teaching, break the limitations of time and space on students' English learning, and lay a foundation for students' good learning habits [2].

2.2. Enrich teaching resources and methods

In the past, college English listening teaching was limited to textbooks, and the content and resources of listening teaching were relatively simple. The singleness of teaching resources not only restricts the thinking of English teachers but also makes students feel bored with the content of listening teaching, which weakens the enthusiasm of students to learn to a large extent. However, the application of artificial intelligence technology provides various help for teachers to supplement, refine and enrich the content of listening teaching and develop listening teaching resources [3]. With the help of artificial intelligence, teachers can present listening teaching topics, write teaching plans, develop listening practice resources with the help of various technologies and platforms, and integrate audio, video, pictures and other elements into these teaching resources. Teaching resources rich in form and content can promote the innovation of listening teaching methods, broaden students' horizons, expand students' knowledge margin, and further guarantee the quality of listening teaching [4].

3. The reform strategy of college English listening teaching based on artificial intelligence

3.1. Improve teachers' artificial intelligence teaching ability and lay the foundation for teaching reform

As the main participants, teachers' AI teaching level has a decisive impact on the quality of college English AI teaching. Improving teachers' AI teaching ability is the basis for promoting the reform of college English listening teaching based on artificial intelligence. In the process of introducing and updating artificial intelligence teaching facilities in colleges and universities, teachers should actively participate in technical training, understand the functions and usages of these facilities, and master operational skills, so that they can reasonably and fully apply them to English listening teaching and effectively play their auxiliary role in teaching [5]. At the same time, teachers should also exchange and discuss the application and innovation of artificial intelligence listening teaching methods, and study and learn from the successful cases of artificial intelligence listening teaching to transform the teaching thinking combined with the new teaching methods and cases. This is of great significance in promoting the diversification of artificial intelligence listening teaching methods and giving full play to the role of artificial intelligence technology in promoting the reform of English listening teaching [6]. In combination with the reform process of English listening teaching in colleges and universities, teachers should also change the teaching evaluation concept, build a corresponding teaching evaluation mechanism, analyze the shortcomings in English listening teaching, and make targeted improvements to the application of artificial intelligence technology. After reflecting on the current implementation of artificial intelligence in English teaching, teachers find the shortcomings and make corresponding adjustments, learn teaching concepts and innovate teaching methods, to develop themselves and improve their artificial intelligence teaching ability through continuous exploration, reflection, practice and research.

3.2. Enrich the application methods of artificial intelligence technology and promote the process of teaching reform

3.2.1. Use artificial intelligence platform to adapt to different pronunciation characteristics

In college English listening teaching practice, the rational use of artificial intelligence technology to optimize the listening training of students can effectively improve the ability of students to adapt to diverse English pronunciation [7]. Teachers should rely on the artificial intelligence platform to collect, analyze and screen audio materials with accents from different English countries and regions, expand the coverage of audio materials selection, help students understand the standard pronunciation of American and non-English speaking countries, and improve their ability to adapt to the diversified English environment. Students will hear the information back to the artificial intelligence platform, and its intelligent recognition function can automatically analyze the accuracy of students' "listening," judge their listening level, and then automatically adjust the difficulty and speed of playing the speech, to achieve personalized listening training for students. For students with low English listening levels, it can automatically slow down their speaking speed and choose listening materials with simple structure and less vocabulary. Teachers can encourage students to carry out independent training through these intelligent tools, use repeated listening exercises to strengthen students' memory or design some listening games combined with these intelligent tools to integrate them into the classroom to enhance the interest and attraction of listening exercises. According to students' listening practice, teachers can also conduct online listening seminars around the application of artificial intelligence technology, strengthen communication and interaction among students, and encourage them to further improve their listening in the process of jointly analyzing the doubts and difficulties in listening materials [8].

For example, based on specific analysis of students' listening level, teachers can design a listening training process with the help of artificial intelligence listening training platform to help students enhance their ability to recognize and understand different English accents. This requires teachers to first select the listening materials covering American English, British English and English accents of non-native countries in combination with the content of the textbook, and the content and difficulty are suitable for the content of the textbook. Secondly, teachers should rely on the artificial intelligence listening training platform to organize students for preliminary listening practice. The platform can record and analyze the degree of students' understanding of different accents in real time, and then automatically adjust the accent type and difficulty of the listening materials to help students gradually adapt to different pronunciations. Thirdly, teachers conduct teaching evaluation according to the progress of students' listening training, such as using the advanced algorithm provided by the artificial intelligence listening training platform to analyze the repeated errors in students' listening training and recommend training materials to help students carry out intensive training. Intensive training can include different difficulties and different types of listening training tasks to improve the ability to extract key information from a variety of complex contexts. The whole listening training process highlights the principal position of students, pays attention to the diversity of listening materials, provides a carrier for students to extract information from multi-level contexts and accumulate "listening" skills, and promotes the continuous progress of students' listening [9].

3.2.2. With the help of artificial intelligence technology, promote English practice communication

In English communication, listening and speaking are often carried out at the same time. Teachers will integrate students' listening and oral expression skills to promote students' English practical communication,

which can further improve the scientific and practical effectiveness of listening teaching. In the process of promoting the reform of college English listening teaching based on artificial intelligence, teachers optimize the English practice activities, unify the training process of students' listening practice and expression ability, and promote the further play of the advantages of artificial intelligence technology and the further improvement of students' learning effect. In teaching practice, English short play is a more commonly used and effective way of English practical communication. Teachers can use this to create an English communication environment for students, stimulate students' desire to listen and speak, encourage students to give full play to their subjective initiative in communication, and actively strengthen their listening and expression abilities. Compared with traditional listening training methods, short play interpretation can mobilize students' internal motivation, help students put down their defensive psychology, listen carefully and speak actively in communication. Teachers can select suitable short play interpretation content that is in line with English teaching objectives and students' interests, and rely on artificial intelligence technology to organize students to carry out English short play interpretation activities, to promote them to strengthen their listening and speaking ability in the listening training atmosphere of entertaining and teaching [10].

For example, according to the teaching progress of college English courses and students' learning interests, teachers can rely on artificial intelligence technology to organize students to perform the short play "Notre Dame de Paris." First of all, teachers need to divide students into several study groups, guide them to choose the clip of Notre Dame de Paris independently and give them appropriate preparation time. In this part, each group needs to assign roles, design music background, design dialogue, design movements and practice lines. Artificial intelligence can play background music according to students' instructions in the practice session so that students can have a sense of being in the scene and carry out English dialogue and communication in a specific context. Secondly, teachers organize students to report and perform to strengthen students' sense of achievement in listening and speaking practice. According to the performance effect of each group, teachers should give objective comments and encourage them to strengthen students' self-confidence and stimulate students' enthusiasm in listening and speaking practice [11]. Different from traditional English practice communication methods, this method uses artificial intelligence technology to assist students in line practice, avoiding the boredom and mechanization of listening and speaking practice, and can bring students into the real dialogue scene and fully stimulate the endogenous power of listening and speaking [12].

3.2.3. Comprehensively understand the development of listening comprehension through intelligent assessment

In college English listening training, teachers can also carry out intelligent assessments of students' learning processes and results through artificial intelligence technology, to fully understand the cultivation of students' core literacy and the application effect of artificial intelligence technology. At present, machine learning algorithms, speech recognition technology and natural language processing technology are commonly used intelligent assessment methods for English listening training, which provide important support for teachers to carry out teaching evaluations [13]. Teachers can combine listening teaching objectives and teaching syllabuses, develop intelligent comprehensive listening test programs, and integrate a variety of question types, such as short answer, fill-in-the-blank, and multiple-choice, to conduct a comprehensive assessment of students' listening development. The intelligent test system can automatically adjust the difficulty and complexity of the questions according to the specific performance of students, and actively adapt to the assessment needs of students with different listening levels. It can provide and feedback on the assessment results through

the form of an analysis report, explain the development of students' listening in detail, and put forward the corresponding improvement suggestions. For example, if students frequently make the same comprehension mistakes in the listening practice of English accent materials in non-native countries, the intelligent assessment system can analyze the rules and characteristics of the mistakes, feedback relevant information to students, and provide corresponding listening practice materials to assist students in making improvements. Teachers should regularly understand the implementation of listening teaching through intelligent assessment, evaluate the applicability of teaching strategies and content, and combine the results of system analysis to specifically understand the listening fields in which students do not perform well and have made significant progress in which listening fields, and then optimize the follow-up listening teaching plan individually to promote students to make greater progress in listening training [14].

For example, combined with the unit theme, teachers can conduct intelligent evaluations around listening training, summarize the development of listening training in the stage, and optimize the follow-up teaching design. First of all, teachers need to choose an English listening material that includes a variety of different types of questions, such as short answer questions, decision questions, multiple choice questions, etc., so that the listening assessment can cover different skills and knowledge points. English listening materials can come from the text in the textbook, or they can be recommended by the intelligent evaluation system. Then, teachers organize students to take a listening test through an intelligent test system, which can automatically analyze the answers submitted by students and assess their understanding level of the material. For example, if a student fails to accurately quote the text in a short-answer question, the system can detect the problem through its analysis function and immediately present a prompt to guide the student to listen to the corresponding fragment and find the correct answer. At the same time, through the answers submitted by students, the system can identify the details that students often ignore in listening training, and help students find listening weaknesses and strengthen training directions. Teachers can track and understand the whole assessment process, analyze the performance of students in the assessment and the assessment results provided by the system, and then combine the obtained information with the overall implementation of listening teaching during the assessment stage, and adjust the subsequent listening teaching content and strategies to improve their compatibility with the actual needs of students [15].

4. Conclusion

To sum up, the gradual integration of artificial intelligence technology in the field of education has accelerated the innovation and optimization of teaching models and brought more possibilities for the reform of college English listening teaching. In daily teaching practice, teachers should actively try intelligent teaching, build an environment that can further meet the needs of personalized student-oriented learning and improve the learning efficiency and quality of students by improving teachers' artificial intelligence teaching ability and enriching the application methods of artificial intelligence technology.

Disclosure statement

The author declares no conflict of interest.

References

[1] Sun H, 2024, On the Construction of College English Teaching System for Informatization Empowerment. Chinese Science and Technology Papers, 19(3): 407–408.

[2] Wang H, 2024, Research on the Development of College English Mixed Teaching Based on Artificial Intelligence. Modern English, 2024(6): 12–14.

[3] Qi L, 2024, Difficulties and Strategies of Digital Transformation in College English Teaching Under the Cultivation of Higher-Order Thinking Ability. Modern English, 2024(6): 51–53.

[4] Tan F, 2024, The Application of Artificial Intelligence in College English Teaching. University, 2024(5): 173–176.

[5] Xing H, Fang Y, Chen Y, 2024, Thoughts on the Teaching of English Translation Activities in Colleges and Universities Supported by Artificial Intelligence. Journal of Jiangxi Electric Power Vocational and Technical College, 37(1): 33–35.

[6] Zhou Y, 2023, Research on the Innovative Path of College English Wisdom Teaching Under the Background of Artificial Intelligence. Modern English, 2023(23): 29–31.

[7] Han J, 2023, Research on Innovation of College English Teaching Model Based on Smart Classroom – A Case Study of Multi-Channel Integration and Interaction Model. Journal of Shanxi Youth Vocational College, 36(3): 102–104 + 108.

[8] Cui J, Lang X, 2023, A Study on College English Teaching Strategies From the Perspective of College English Test Reform. College English, 2023(37): 19–21.

[9] Ding J, 2023, Integrated Development of Artificial Intelligence and College English Teaching From the Perspective of Education Informatization. Forum on Education Informatization, 2023(9): 3–5.

[10] Lin X, 2023, Research on Professional Development of College English Teachers Based on Big Data Artificial Intelligence. Journal of Jiangxi Electric Power Vocational and Technical College, 36(7): 94–96.

[11] Zhang Z, 2023, Exploring Artificial Intelligence Technology to Empower Adult College English Teaching. Taste Classics, 2023(12): 163–165.

[12] Wei C, 2023, Construction and Application of College English Teaching Evaluation System Based on Big Data. College English, 2023(23): 43–45.

[13] Xue C, 2023, Research on the Application of ChatGPT in College English Writing Teaching. Modern English, 2023(7): 35–38.

[14] Zhang Z, 2023, Application of Artificial Intelligence Technology in Adult College English Teaching. Science and Technology Horizon, 2023(7): 97–100.

[15] Huo X, 2023, The Current Challenges and Improvement Strategies of College English Teaching From the Perspective of New Liberal Arts. Journal of Qilu Normal University, 38(1): 53–58.