

The Application of Artificial Intelligence Technology in College English Blended Teaching

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Abstract: At present, China's artificial intelligence technology has made a major breakthrough. Big data, cloud computing, language recognition, deep learning and other artificial intelligence technologies are widely applied in education and teaching, which not only change the traditional learning methods of students, but also promote the innovation of teachers' teaching modes and teaching functions. Blended teaching combines the advantages of traditional teaching and network teaching through the integration of "online and off-line" learning, and has become an important developing direction for education in the information age.

1. Introduction

Under the current background, artificial intelligence technology has made important breakthroughs in the field of education and teaching. At present, the accuracy of artificial intelligence speech recognition technology has reached a very high level. The development of information technology has promoted the change of teaching environment and teaching methods. The emergence of online learning, mobile learning, MOOC learning and blended learning has impacted the traditional teaching and forced educators to improve the existing teaching methods. Under this background, the concept of "learner-centered" blended teaching has attracted the attention and research of the educational circles at home and abroad. Blended teaching is a teaching method combining face-to-face teaching with online teaching activities and tasks. Compared with traditional classroom teaching and online teaching, the "online + offline" blended teaching method can not only meet the emotional communication between teachers and students in face-to-face teaching hours, but also introduce the data generated by online teaching to give real-time feedback, so that teachers and students can adjust and improve their teaching activities and learning tasks in a timely manner. Artificial intelligence not only brings new ideas and breakthroughs to human learning, but also brings challenges and opportunities to all aspects of teaching.

2. The Opportunities Artificial Intelligence Brings to English Teaching

The rapid development of artificial intelligence technology has promoted the innovation of college English learning and teaching methods. "The traditional way of foreign language teaching and learning can no longer meet the changing technology and culture, so the new ecology and paradigm of foreign language teaching must be reconstructed." For a long time, teachers have been teaching with the help of multimedia. Although the class is vivid and vivid, this teaching method focuses on courseware explanation and ignores the real-time interaction between teachers and students. Therefore, students still passively accept knowledge and have low learning enthusiasm. The undifferentiated teaching under the unified teaching task cannot get the real-time feedback of students' mastery of knowledge, and students seldom have the opportunity to put what they have learned into practice. The use of advanced artificial intelligence technology makes personalized and accurate education possible.

Artificial intelligence, which is based on large data, can trace and record the various data of

learners, for learners modelling and analysis and evaluation, effective intervention for learners, and to provide data support for teachers to improve teaching methods and strategies, realize the college English teaching guide pointed out "give full consideration to the students individual differences and learning styles, using the appropriate and effective teaching methods, take teacher as the leadership, take the student as the main body of teaching ideas, make teaching activities by the" teaching "to" learn ", The requirements of "normal teaching" should be formed with teachers' guidance and inspiration and students' active participation. Artificial intelligence has not only changed the way of students' language input and language output, so that students' language learning can further penetrate into their daily life, but also played a significant role in the innovation and reform of college English teaching mode. In a complex language environment, it is of great significance to effectively improve the quality of education to make better use of artificial intelligence technology.

3. The Relationship between Artificial Intelligence Technology and English Teaching

First, the English teaching process is relatively complex, contain a variety of uncertainties, including artificial intelligence with simulation of human thinking mode and thinking to solve the reasoning process of representation, for its most prominent feature of the complexity in the process of English teaching needs with the help of artificial intelligence, its unique way of solving to play, and provide every student with the right help, for its dynamic teaching strategies.

Secondly, some schools are faced with the dilemma of poor English teaching quality and poor results, which need to be solved with the help of the reform force of science and technology. Artificial intelligence technology can give full play to its advantages in the field of language learning and make up for many shortcomings in English teaching process, which is not only conducive to adapting to English curriculum standards, but also can realize the reform of English classroom teaching mode and the improvement of students' learning style.

Third, Chinese English teaching has been faced with the practical application and lack of communication skills, English teaching system of artificial intelligence can be used as a breakthrough point to promote the construction of a modern information technology to the change of English teaching, improve teachers' English teaching quality and students' initiative of learning English, it is the intelligent method is adopted to improve the commanding heights of the computer-aided language teaching. At various stages of English teaching should be emphasized for personalized learning, strengthen the students' oral English ability, to each student's language learning fun fully stimulated, reflecting the common English teaching system of artificial intelligence in the English teaching work value, the modern information technology in the language teaching to consolidate the positive exploration.

Fourthly, in the process of social development, teaching plays a cornerstone role. Therefore, the application field of artificial intelligence must be expanded in education and teaching first. Language is the most representative intelligence. Natural language processing, speech recognition and machine translation in artificial intelligence research are closely related to language learning. How to understand the natural language of human beings through computers and realize human-machine dialogue has always been one of the contents that scientists and scholars pay most attention to in artificial intelligence research. The application of artificial intelligence in English teaching is likely to be a breakthrough in this research.

4. College English Blended Teaching Under the Background of Artificial Intelligence

The characteristics of artificial intelligence, such as intelligence, learning and exploration, determine that the application of artificial intelligence can exert a positive effect in various fields of society. The following is a detailed introduction of the application of artificial intelligence in college English teaching from four aspects: listening, speaking, writing and translating.

4.1. Corpus-based Artificial Intelligence College English Listening Teaching

Listening training is the beginning of students' language learning and the basic course of college English learning. However, due to the vapidness of the materials, or the difficulty of listening, listening classes once became an obstacle in college students' English learning. As we all know, English listening, which is based on corpus, can provide students with a large amount of listening materials, so students can choose whatever they like or materials related to their future career. Faced with the huge corpus of English learning, students often have no idea or are unwilling to waste too much time on the choice. Artificial intelligence can match listening learning resources suitable for each student from the corpus according to students' major, age, English level and learning style. In this way, every student can hear his or her major related and interesting topics, eliminating the boring feeling in the traditional listening class. Not only that, artificial intelligence is better at understanding students. In the process of listening learning, the system will automatically push some high-frequency vocabulary to help students learn vocabulary, so as to reduce the burden of students' English listening and even English learning. Moreover, Artificial intelligence based on corpus can realize the interaction between situation and learning. For example, when students scan an object around them by mobile phones, artificial intelligence will automatically recognize it and display the relevant English content of the identified object. Students can control the pace of reading, whether to display the translation, whether to listen and read repeatedly and so on. In this way, "listening" in English learning is closely connected with students' real life, which is beneficial to students' perception of the outside world and their input of English language. In the whole process of corpus-based artificial intelligence college English listening teaching, teachers only need to analyse and guide students' listening skills, carry out appropriate intervention to the students' listening behaviour and track and feedback the students' listening effect.

4.2. Cellphone-based Artificial Intelligence College English Oral Teaching

The purpose of language learning is to communicate, is to use this kind of communication tools skilfully. The students' oral English expression level can fully demonstrate the students' English practical application ability. In traditional English teaching process, except the class, there are few environments for students to use English. Occasionally there are some students who want to practice oral English but find it difficult to find a suitable practice partner, which are the main reasons why students can't speak English.

Artificial intelligence has obvious advantages in oral English teaching. The emergence of oral English APP has built a more colourful English communication environment for students, and chaperone dialogues are of great help for learners to get more accustomed to using English. The interactive dialogue between human and cell phone can provide students with sufficient opportunities to practice oral English. Through the man-machine interactive dialogue form, it provides the opportunity for learners to practice oral English, helps students to ease the tension and embarrassment of the conversation with the real person, also solves the students to practice oral English blindness, brings great convenience to the teacher's oral English teaching, and increases the pleasure of students' oral English learning.

4.3. Artificial Intelligence College English Writing Teaching Based on Writing Correcting Platform

The application of artificial intelligence technology in English writing teaching is mainly reflected in the correction of English composition content. Intelligent English correcting learning platforms such as correcting net have been widely promoted in many universities. This intelligent teaching platform can provide timely and effective feedback on the English compositions uploaded by students and make objective evaluation on their English compositions. The automatic composition correcting system can make a very comprehensive analysis of students' English writing, make a basic judgment on the structure of students' articles, and correct the spelling errors and many grammatical errors in the articles in time, and put forward Suggestions for revision in time. Introduce an automatic online grade service tools to English writing teaching, give full play to its

individuality, instant feedback, according to other comments, and the advantages of online modifications, let the students in the process of draft modify more writing fun, realize self-construction agent and self-innovation, enhance self-efficacy of their writing ability, improve the writing motivation and writing ability of English. Teachers can make use of the automatic feedback mechanism of the system to conduct manual secondary correction and make further teaching feedback. Teachers can also master students' learning situation according to the form evaluation report given by the system and carry out curriculum improvement at any time, which is of great significance for improving teaching methods and realizing the upgrade of teaching system.

4.4. Artificial Intelligence College English Translation Teaching Based on Cloud Service and Machine-aided Translation

Artificial intelligence has also made a significant breakthrough in the field of English translation and achieved some teaching results in the process of English translation teaching. First, the basic flow of English translation can be significantly optimized by using the machine-aided translation system to complete English translation. It is very important for college students to be proficient in English translation when they enter the job. Second, the emergence of English translation software and platform based on cloud services can help students solve a lot of translation difficulties, enhance students' learning confidence and stimulate their interest in further study to some extent. Thirdly, the translation task can be set in the intelligent cloud platform, and the artificial intelligence can be used to track the translation of each student and view the formative assessment report, so as to grasp the translation characteristics and problems of students timely and accurately, and realize personalized guidance and teaching improvement.

5. The Integration of Artificial Intelligence and College English Blended Teaching

Intelligent agent, natural language processing, pattern recognition and educational data mining are the representative underlying technologies of artificial intelligence technology. They have been widely applied in some online intelligent teaching systems and teaching platforms, and helped learners to obtain good learning experience and learning effect. At present, the concept of blended teaching of foreign languages has been accepted and practiced by many educators. The problems in blended teaching mentioned above can be solved through the application of artificial intelligence technology. These solutions not only greatly save the human capital of foreign language teachers, reduce or even completely transfer the teaching burden of foreign language teachers, but also provide precise and personalized teaching programs, which is a huge project with unimaginable workload before the emergence of artificial intelligence technology.

In July 2017, China's state council issued the development plan for a new generation of ai, which elevates ai research to a national strategic level. "The development of neural network, machine learning and other key artificial intelligence technologies makes it more accurate to mine the massive amount of images, voice, text data and personalized characteristic information produced by learners in the process of learning, which provides a strong guarantee for promoting the mixed teaching and modern education reform in China." Therefore, the deep integration of artificial intelligence technology and foreign language teaching can not only fill the gap of foreign language teaching needs, but also improve the efficiency of training a large number of foreign language talents. In view of this, this paper proposes an artificial intelligence-based ecological chain of blended foreign language teaching, trying to explain the process of blended English teaching from the perspective of philosophy.

There is no clear division between the online and offline links of blended teaching, and the two are highly integrated in the whole teaching process. In offline classroom teaching, on the one hand, the teaching content is adjusted by teachers so it is more targeted and applicable. At the same time, teachers can timely adjust teaching strategies and progress according to learners' mastery of certain content displayed on the platform. On the other hand, since learners have already known how the online platform evaluates their own learning effects, they can change their learning strategies in class and strengthen or supplement certain knowledge according to the content recommended by the

online platform after class.

Online platforms mainly provide learners with customized learning tasks, evaluate learning effects, provide Suggestions and recommend learning contents. A large number of learners' voice, text, facial expressions and other data are calculated to generate learners' portraits and build personalized information database for each learner so as to provide a basis for teachers to make decisions. The filling of the underlying technology fully established in the present has been issued on the basis of the artificial intelligence technology to open, so also means that after a lot of online teaching will greatly reduce the workload, teachers can will mainly focus on the design of the teaching content, teaching method and strategy adjustment of research, the teaching effect will be improved than before.

Conclusion

As a new "online + off-line" teaching method, foreign language blended teaching is superior to traditional teaching methods in that it can make up for the deficiency of single classroom teaching environment, methods and resources through online diversified teaching resources and activities. Nevertheless, there are still some problems in the practice of blended foreign language teaching, which can be solved quickly and effectively through artificial intelligence technology. The high integration of artificial intelligence technology and mixed teaching can not only promote the further development of foreign language teaching towards personalized, accurate and intelligent teaching, but also greatly improve the training efficiency of foreign language application-oriented talents. The demand of mixed foreign language teaching will provide new impetus for the development of artificial intelligence, and the development of artificial intelligence should be oriented to meet the demand, so as to build an ecological chain of highly integrated artificial intelligence technology and mixed foreign language teaching, and form a sustainable and benign interactive mode between the two.

References

- [1] Russell, Stuart J. and Norvig, Peter, Artificial Intelligence: A Modern Approach, Qinghua University Press: Beijing, 2013.
- [2] Hua Lulu, Chen Lin and Sun Mengmeng, Research on the Improvement of English Learning by Artificial Intelligence, Modern Distance Education, vol. 6, pp.27, 2017.
- [3] Godwin-Jones, R., Augmented Reality and Language Learning: From Annotated Vocabulary to Place-based Mobile Games, Language Learning & Technology, vol. 3, pp. 9, 2016.
- [4] Ho, S., Hsieh, S., Sun, P., and Chen, C., To Activate English Learning: Listen and Speak in Real Life Context with an AR Featured U-learning System, Educational Technology & Society, vol. 2, pp.176, 2017.
- [5] Ye Rong, Research on the Application of Mobile Learning in English Autonomous Learning, Journal of Sichuan College of Education, vol. 10, pp. 26, 2011.
- [6] Zhang Shenglan, Augmented Reality in Foreign Language Education: A Review of Empirical Studies, Journal of Technology and Chinese Language Teaching, vol. 9, pp. 166, 2018.
- [7] Lifang Xu, Cheng Chi and Qi Zhang, Research on Educational Games Based on Augmented Reality Technology, Journal of Xiangtan University (philosophy and social sciences), vol. 2, pp.120, 2015.
- [8] Li Ma and Ke Shen: Research on the Augmented Reality Foreign Language Teaching Environment and its Multi-modal Discourse, Modern educational Technology, vol. 7, p p.56, 2012.