The Application of Artificial Intelligence in China's College English Education

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Abstract:

Ineffectiveness of listening training, the difficulty of pronunciation practice, and the slow improvement of writing ability become stumbling blocks for Chinese students trained in the traditional English classroom in China. To tackle these problems, artificial intelligence technology and its software can be used to facilitate listening training effectiveness, help enhance pronunciation accuracy, and aid English writing skills in English teaching. This paper demonstrates the significant feasibility of applying artificial intelligence technology to China's college English teaching and proposes corresponding strategies.

Keywords: Artificial intelligence, College English education, CAI software.

I. INTRODUCTION

China's adoption of AI in education is the result of the national education reform. The importance of artificial intelligence in language teaching has become increasingly prominent in recent years after two significant plans issued by the Chinese State Council, i.e. *China's Education Modernisation 2035 Plan* and the *Implementation Plan for Accelerating Education Modernisation*. The application of various language-assisted teaching systems and tools in Chinese college English teaching will help to improve the quality of English teaching and students' English learning performance. This paper will present currant situation that artificial intelligence technology application in China's higher educaiton, and observed difficulties and possible stragitgies for better use of artificial intelligence in the specific context of China.

II. ARTIFICIAL INTELLIGENCE IS GRADUALLY BEING APPLIED TO COLLEGE ENGLISH TEACHING IN CHINA

In China, the purpose for offering English courses to college students is to enable students to have proficient English communication skills, and accurate English literature comprehension skills. [1] But, many students can not comand English in a high level, and their ability can not meet the standard of syllabus where they should be. Therefore, the quality of English teaching in China' universities aroused doubts by many people in the domestic society. Englilsh teaching reforms and innovations introduce artificial intelligence in college English teaching, which helped improve students' listening, speaking, reading, and writing skills, and allivated teachers' burden to some degree.

2.1 The Chinese Government Strongly Supports the Application of Artificial Intelligence to English Teaching

The "Implementation Plan for Accelerating the Promotion of Education Modernization (2018-2022)" issued by the General Office of the Central Committee of the Chinese Government and the General Office of the State Council vigorously promotes education informatization and strives to build a new education and teaching model based on information technology, education service supply methods and the new mode of education governance [2]. The introduction of this policy has put forward higher requirements for English teaching. Using artificial intelligence to improve teaching efficiency, promote teachers' accurate teaching, and achieve personalized development of students has become a new indicator of English teaching quality assessment [3]. Under the guidance of national policies, teachers and students need to conform to the trend of the times, integrate artificial intelligence technology into teaching and learning, and make full use of artificial intelligence to expand teaching resources to achieve their development.

2.2 Artificial Intelligence Provides Technical Support for English Teaching in China

In recent years, the development of big data, brain-inspired science, and quantum computing has promoted the progress of artificial intelligence, which enables artificial intelligence-related products to have the functions of collection, calculation, and analysis [4]. Artificial intelligence provides timely and accurate feedback to teachers by sensing and analyzing students' learning status, interests, and hobbies. Its social interaction, situational sensitivity, and connectivity have changed the ecology of college English education in China [5]. The interaction between teachers and students has changed, and teachers and students can communicate without meeting. Teachers can also rely on the facial recognition system to perceive students' learning status and adjust the relevant teaching content and modes through the feedback of the students' learning situation through the system to promote the efficiency of the teaching process.

III. THREE MAJOR PROBLEMS FACING COLLEGE ENGLISH TEACHING IN CHINA AT PRESENT

There are three major problems in China's college teaching: the ineffectiveness of listening training, the difficulty of pronunciation practice, and the slow improvement of writing ability. The details are illustrated as follows:

3.1 The Ineffectiveness of Listening Training

At present, Chinese college English teachers mostly play predetermined learning materials repeatedly by teaching equipment. Students analyze problems under the guidance of teachers. Teachers train students in listening through mechanical deduction [6]. In this case, students may find it more difficult to process verbal information due to their lack of understanding of listening training materials, making it difficult to concentrate. It is also difficult for teachers to remind students to maintain a positive learning state. At the same time, the traditional English listening training mode of "playing listening materials first, and then

answering questions" can no longer stimulate students' interest in learning and certainly will not make English listening training achieve high-quality results. In addition, in the traditional listening training, teachers often judge students' understanding of listening materials through students' answers, so some students may attempt to feign answering. In this case, it is difficult for teachers to grasp the effect of students' listening training.

3.2 The Difficulty of Pronunciation Practice

Standard pronunciation is a fundamental ability that any English learner should possess. Still, in the process of college English teaching in China, standardized pronunciation training is challenging to carry out. First of all, the subjects in English pronunciation textbooks are too simple. Simple and boring teaching content is difficult to arouse students' interest and enthusiasm for English topics, and the difficulty of English topics also limits students' participation in the classroom. If the taskis too challenging, the students will not be motivated to learn and they will refrain from learning and practicing. At the same time, pronunciation training courses in Chinese colleges are insufficient. In the process of college, English teaching, listening, speaking, reading, and writing all need to occupy a sufficient proportion of class hours. However, college English is not a core subject. As such, its credit tends to be reduced, resulting in fewer pronunciation training courses or even being cancelled. English language training takes quite a long time, and it is difficult to achieve significant results in English classroom pronunciation training under limited time. In addition, the training context of the pronunciation courses in China is difficult to create, and accuracy cannot be guaranteed. The context of English pronunciation training relies on fabricated dialog between teachers and students. Still, the pronunciation of most college English learners is not accurate enough, so it isn't easy to achieve satisfactory results in English class training pronunciation. Therefore, the lack of factual context, high-quality interaction, and timely feedback are the main problems of current Chinese college English learning difficulties [7].

3.3 The Slow Improvement of Writing Ability

In the Chinese college English teaching, students have different reserves of English vocabulary and cultural knowledge, so their writing training generally has three levels: new words to make sentences, template application, and random application. First of all, most students are still at the level of using new words to make sentences. They do not control enough English vocabulary, so they can only use simple words to make sentences when they are writing. That means according to their vague understanding of some words, and apply them following simple grammar rules. Some students can achieve the level of template application. They can apply a fixed template to their writing by reciting long and complex sentences, analyzing the grammatical composition of the sentences, applying words to form sentences as needed, and finally completing the composition. In this process, students can use more complex grammar rules, but, when the sentence structure is difficult to meet their own expressive needs, it is difficult to vividly express the original meaning. Only a very small number of students have both comprehensive writing skills and individualized thinking, so it is not easy to achieve this level of random application. Such students can form innovative thinking based on accurately expressing the original meaning, using

grammatical rules accurately and flexibly, and creating personalized sentence expressions. The fundamental reason it is difficult to improve the English writing level of Chinese college students is the difference in each student's writing level and the inconsistency of the content and pace of English teaching.

IV. APPLICATION STRATEGIES OF ARTIFICIAL INTELLIGENCE IN CHINESE COLLEGE ENGLISH TEACHING

To solve the above three problems, artificial intelligence technology can assist Chinese college English teaching. Teachers can use artificial intelligence software to help students learn to improve the teaching quality of college English and the learning effect on students.

4.1 Using Artificial Intelligence Teaching Tools to Improve the Effect of Listening Training

The application of artificial intelligence teaching tools can help solve the problems of students' inattention, single listening training method, and distorted evaluation results. First of all, for the issue of students' attention, artificial intelligence technology can help students formulate appropriate learning plans according to their individual characteristics, including basic information, knowledge mastery, learning styles, differences in cognitive levels, etc., and then push the relevant learning materials on-demand, and in a state of "immersion learning" to help students to achieve satisfactory results in English learning. Secondly, teachers should actively apply artificial intelligence technology to increase the fun and richness of English learning content. The diversification of teaching methods through speech recognition, image recognition, language training systems, virtual situational dialogue systems, etc. in the classroom can solve the problem of listening training in traditional teaching. Third, some artificial intelligence-assisted English learning systems and Apps currently launched in China can judge students' learning situations. They evaluate students' learning effects, generate training results in real-time and dynamically, and give feedback to improve the accuracy of assessment of classroom participation and learning outcomes for teachers. College teachers can provide students with personalized learning guidance based on the feedback results so that students' listening training can achieve ideal results.

4.2 Use Speech Training Software to Improve Pronunciation Accuracy

Nowadays, some English pronunciation training software launched in China can solve the problems existing in traditional teaching pronunciation training. First of all, regarding the pronunciation environment and pronunciation accuracy, learners can choose the module of interest in some English learning software in China (Such as Cake English Training Camp APP, Salted Egg Spoken APP, etc.) for one-to-one follow-up contextual training, double-role-playing contextual training. These Apps train students' pronunciation by dubbing and singing. The system can quickly form evaluation results for students' pronunciation, mark the advantages and disadvantages of students' pronunciation, and generate targeted feedback exercises so that students can solve pronunciation problems in a targeted manner. The timeliness and repeated training of this assessment help students acquire pronunciation skills. Individualized learning

methods can help improve students' interest and ability in autonomous learning [8]. Secondly, given the limited duration of class pronunciation training, arranging after-school pronunciation training assignments can help students extend their English learning time and achieve the effect of strengthening class pronunciation training. Teachers assign English pronunciation training tasks to students through the English learning platform or software. Students can choose the training topics and modes they are interested in to complete the training and increase the time after class to ensure the training effect. For the problem of a single training mode, artificial intelligence technology can also push relevant content to carry out personalized training by capturing students' personality traits. It is also possible to push the knowledge that students need to supplement according to their acceptance and understanding ability, and control the difficulty of training within the scope of students' needs, to prevent students from losing interest in learning because the learning difficulty does not suit their own abilities.

4.3 Use Writing Aid Software to Train Students to Improve Their Writing Skills

Some writing training software launched in China (such as Juku Composition Correction Network, Mita Writing Cat, etc.) can gradually solve the problems of insufficient vocabulary, incorrect grammar rules, and unclear structure levels in students' writing. First of all, for students with inadequate vocabulary, using word recitation software (such as Baicizhan APP, Cake English Training Camp APP, etc.) can improve their vocabulary. The learning software first tests students to get their word mastery and then calculates and generates targeted training plans and items with fixed training levels and training difficulty. The word recitation software can also provide relevant pictures to stimulate students' enthusiasm for learning and deepen their memory. At the same time, the learning software will mark the problems of incorrect grammar rules for students and provide corresponding long and complex sentence exercises to help students solve a problem in a targeted manner. Long-term systematic key learning will help students gradually master all grammar rules. In addition, For the comprehensive problems encountered by students in writing, the current Juku Composition Correction Network, and Mita Writing Cat can also help students solve them more accurately. In writing training, the system can comment on students' writing content sentence by sentence, analyze their grammatical errors, and write comments according to the four scoring standards of vocabulary, sentences, chapter structure, and content relevancy. It will also give students scores and make suggestions for revisions to the composition. This dynamic learning process in which students can iteratively revise based on immediate assessment will promote their writing skills.

V. CONCLUSION

In a word, the application of artificial intelligence technology in Chinese English teaching is relatively sound. Still, in the future, with the increasing maturity of artificial intelligence technology, this situation may be better and more effectively improved. The English comprehensive training software supported by artificial intelligence will provide English teachers and learners with a better and more simulated language learning environment. It will be a more intelligent learning companion to help realize students'"complete immersion learning" and promote their deep language understanding even cultural mastery.

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