

# Research on the English Teaching Reform of Artificial Intelligence Technology

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**Abstract:** With the continuous development of artificial intelligence technology, it provides many new opportunities for higher vocational colleges to create a more personalized, effective and interactive English education experience. In recent years, the rapid growth of artificial intelligence technology has gradually penetrated into the education field of higher vocational colleges, which not only promotes the innovation and reform of English teaching mode, but also provides a boost for modern English teaching. This paper first discusses the current situation of English teaching in higher vocational education, then, according to the current problems, uses artificial intelligence technology to assist teaching, studies its application in higher vocational English teaching, and finally puts forward the reform measures of how to empower industrial intelligence technology in higher vocational English teaching.

**Keywords:** Artificial Intelligence Technology; Higher Vocational English; Teaching Application

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## Foreword

With the development of artificial intelligence technology, people's life has entered a new historical period. At the same time, all kinds of advanced high-tech products emerge, such as electronic dictionaries and tablet learning devices, etc., which indicate that human beings are entering the stage of language learning with intelligence as the core. As AI technology is improving, the many mobile applications it produces are constantly being integrated into the scope of language education, which is both a challenge and an opportunity for the education community. From another perspective, this trend also increases the attractiveness of the curriculum, broadens the path for students to acquire knowledge, alleviates the burden of some teachers, reduces their teaching pressure, and thus promotes the innovation of teaching methods.

## 1. Current situation of English teaching in higher vocational colleges

### 1.1 Limited resources

Higher vocational colleges often encounter the problem of lack of resources, which is mainly manifested in the shortage of teachers, teaching resources and scientific and technological facilities. This situation not only hinders the development of educational reform, but also affects the learning experience of students, because they do not meet the standard requirements of quality education. First of all, the lack of teachers has brought pressure to English teaching in universities. In view of the different English skills and needs of students, it is urgent to add more manpower to achieve targeted tutoring and services. But the manpower shortage may make each teacher have to bear a heavier burden, thus weakening their teaching effect and work efficiency. In addition, the lack of sufficient teaching resources is also a difficult problem to be solved urgently. Traditional teaching resources such as English textbooks and textbooks are difficult to meet the practical needs of college students, but developing and obtaining novel teaching materials often takes a lot of time and capital, which is undoubtedly a difficult problem for higher vocational colleges with financial constraints. Finally, the lack of technology will also restrict the promotion of educational innovation and students' learning feelings. Today's education has increasingly relied on artificial intelligence technology, such as the use of electronic blackboards, smart classrooms and online education platforms. However, higher vocational colleges may not be able to provide these teaching technical tools, thus hindering students' learning experience <sup>[1]</sup>.

### 1.2 Teachers' information technology skills are weak, and teaching is difficult to combine artificial intelligence technology

Although modern technology has begun to penetrate into the field of higher vocational college education, the lack of information tech-

nology skills of English teachers makes it impossible for these universities to effectively use modern technology to improve their English teaching methods. In addition, some higher vocational colleges have plenty of English teachers, however, the advanced artificial intelligence technology into the classroom teaching is a complex process, and most of the English teacher older and not received related training, so the novel technology has not successfully applied in the current English teaching activities<sup>[2]</sup>.

## **2. The Application of Artificial Intelligence Technology in Higher Vocational English Teaching**

### **2.1 Personalized education**

With the continuous development and progress of education, people pay more and more attention to the use of artificial intelligence technology to optimize each link in the education and teaching process. With the help of this advanced technology, the most suitable individual curriculum planning scheme for each student can be formulated according to the specific situation, so that more targeted and diversified teaching methods can be realized. And the traditional school system often adopt a unified standard mode, all students will be assigned to the same tutorial content and the process, completely ignored the possibility of individual difference, it is likely to cause some students can not adapt to the classroom rhythm or think the knowledge is too simple cause of loss and blocked. Vice versa, some students may feel stressed and depressed because of the high difficulty, but all this can be improved with the participation of smart technology.

In the initial stages of education, it becomes particularly important to use AI technology to assess student competence. This technique enables the precise identification of each student's strengths and weaknesses, thereby providing customized learning advice and pathways to meet their individual needs. For example, if a student performs well in English but is lacking in other subjects such as math or science, then the AI system can design more challenging English learning materials and exercises for the student, while also providing support and guidance for other subjects. In addition, AI can have insight into students' learning style. For those students who prefer visual learning, the system will recommend English learning resources containing rich charts, illustrations and videos to help them better understand and absorb knowledge. For auditory learners, the system may provide English listening exercises and audiobooks. This personalized learning method not only improves the learning efficiency, but also increases the students' interest in learning. At the same time, AI can also identify students' interest and enthusiasm. For example, if a student is particularly interested in English literature, the system will recommend relevant literature works and expand their reading to stimulate their enthusiasm for English subjects. In this way, the learning process is not only more efficient, but also can stimulate students' internal motivation and interest, so that they can deeply explore and learn in their favorite fields.

### **2.2 Automate the evaluation and feedback**

The innovative application of education is attracting enthusiastic public attention, especially in the automated evaluation of English ability. With the help of AI technology, a more intelligent and customized new teaching method has emerged, which has the potential to fully subvert the traditional English learning and evaluation methods and make them more accurate, targeted and interactive. Traditionally, the evaluation of English language ability mainly relies on in-class tests and standardized evaluation methods, which cannot fully insight into students' language ability, and the presentation of the results generally requires a certain time delay. But when the AI technology was introduced, the situation was completely changed. With the help of AI, we can fully detect students' auditory, oral expression, reading comprehension and written creation ability, while the whole process is completed in real time. This allows students to get feedback in the learning process, identifying where they have shown their strengths, and where they need to improve.

Through an in-depth study of students' pronunciation, syntax, words and understanding, the AI's language evaluation system can recognize their language levels. This helps the teacher to have a more precise insight into the individual needs of each student. For example, for those students who have problems with oral expression, the AI can provide corresponding training methods and learning materials to improve their speaking skills. For those who are well in reading comprehension, AI will push more difficult articles to motivate them to further enhance their reading skills.

### 3. Reform measures

#### 3.1 Formulate policy support

In order to encourage higher vocational colleges to make full use of AI technology in English teaching, the government and educational institutions need to actively formulate policies and measures to provide support and encouragement, while ensuring adequate funding and resources for the development of this important field. These government signatures should include support from various aspects to ensure the smooth upgrading of the English education system of higher vocational colleges. First, the government can encourage to actively adopt AI technology in higher vocational colleges by setting up special funds or providing financial incentives to improve the quality of English teaching. This will help schools to acquire the necessary hardware and software equipment, develop innovative educational tools, and provide relevant training programs. Secondly, the government can also establish a cooperation framework to cooperate with AI technology companies, research institutions and other relevant stakeholders to jointly promote the innovation of English education in higher vocational colleges. This collaboration can provide advanced technical support and expertise for schools, contributing to the practical application of AI technology to improve teaching. In addition, governments and educational institutions can develop policies to encourage higher vocational colleges to actively participate in the research and development of best practices for AI use in English teaching. This will promote the dissemination and sharing of knowledge, and help schools to better apply new technologies and improve students' English skills. Finally, governments and educational institutions can also provide technical support and consulting services to ensure that higher vocational colleges can fully understand and apply AI technology effectively. This support can help schools to better implement reform measures and improve the effectiveness of English teaching.

#### 3.2 Teacher training and skill improvement

To ensure that teachers make full use of AI technology to improve English teaching, an important step is to provide high-quality training and support to enhance faculty skills and knowledge. This training will not only help to improve the professional level of teachers, but also to enhance their understanding and application of AI technology. First, the school can organize regular workshops and workshops inviting experts and practitioners to share their experiences and best practices. This will help teachers to understand how to effectively use tools such as online education platforms, learning management systems, and virtual assistants to improve English teaching. Secondly, schools can offer online training courses that enable teachers to learn according to their own schedules and needs. This flexible training method can better meet the needs of different teachers and help them gradually master the application of artificial intelligence technology. In addition, schools can also establish a tutorial system for experienced teachers to guide and coach novices and help them better master AI technology. This one-to-one instruction can accelerate the faculty learning process, allowing them to apply new technologies faster to improve teaching<sup>[3]</sup>.

### 4. Epilogue

The artificial intelligence technology applied in higher vocational English courses has great potential, which can help the innovation of education and enhance students' English ability, workplace competitiveness and the possibility of career development. However, we need to carefully assess the advantages and disadvantages of this emerging technology and ensure that it can be implemented smoothly in higher vocational colleges. It is hoped that this study can provide useful ideas and suggestions for the reform in this field, and promote the reform and development of English teaching in higher vocational colleges to some extent.

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