

# Practice and Research on College English Hybrid Teaching Based on Artificial Intelligence

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**Abstract:** *With the rapid development of artificial intelligence technology, its application in the field of education is becoming more and more extensive. Especially in college English teaching, artificial intelligence technology has brought profound changes to the traditional teaching model. This article aims to explore the practice and research of hybrid teaching of college English based on artificial intelligence. By analyzing the current application status of artificial intelligence technology in college English teaching, it explores its application strategies in hybrid teaching and its impact on teaching quality and learning effects. Influence. Research results show that the college English hybrid teaching model based on artificial intelligence can significantly improve students' English learning efficiency and performance, and enhance students' learning motivation and independent learning ability. The research of this article provides useful reference and inspiration for the reform of college English teaching.*

**Keywords:** Artificial Intelligence; College English; Blended Teaching; Learning Efficiency; Autonomous Learning Ability.

## 1. INTRODUCTION

In the context of globalization, the importance of English as an international common language is becoming increasingly prominent. As an important part of higher education, college English undertakes the important task of cultivating students' comprehensive English application ability. However, the traditional college English teaching model often has problems such as single teaching methods, low student participation, and poor learning effect. With the continuous development of artificial intelligence technology, its application in the field of education has gradually become a research hotspot. This paper aims to explore the practice and research of college English hybrid teaching based on artificial intelligence, in order to provide new ideas and methods for the reform of college English teaching.

## 2. CURRENT STATUS OF THE APPLICATION OF ARTIFICIAL INTELLIGENCE IN COLLEGE ENGLISH TEACHING

### 2.1 Intelligent Translation and Speech Recognition

Intelligent translation tools such as Baidu Translate and Youdao Translate can quickly and accurately translate between Chinese and English, providing great convenience for students' learning. At the same time, intelligent speech recognition tools such as iFlytek and Baidu speech recognition can help students practice speaking and improve their speech level. The application of these tools means that students are no longer restricted by time and place in English learning and can learn anytime and anywhere.

### 2.2 Intelligent Teaching Platform and Resource Library

Smart teaching platforms such as Super Star Erya and Wisdom Tree provide students with a wealth of online courses and learning resources. These platforms not only contain a large amount of English learning materials, but also provide personalized learning paths and evaluation systems, allowing students to conduct targeted learning according to their own learning needs and levels. In addition, the construction of smart resource libraries also provides students with more learning options and resource support.

### 2.3 Intelligent Evaluation and Feedback

Intelligent assessment tools such as BiGai.com and automatic scoring systems can automatically evaluate and provide feedback on students' English writing and oral English. These tools can quickly analyze students' language

usage, point out problems, and provide suggestions for improvement. This instant feedback method helps students find and correct mistakes in a timely manner and improve learning efficiency.

#### **2.4 Intelligent Tutoring and Q&A**

Intelligent tutoring tools, such as intelligent question-answering systems, can provide students with timely answers to questions and guidance. These tools can provide personalized tutoring plans and learning suggestions based on students' questions and needs. This personalized tutoring method helps meet students' different learning needs and improve learning outcomes.

### **3. PRACTICE OF HYBRID TEACHING OF COLLEGE ENGLISH BASED ON ARTIFICIAL INTELLIGENCE**

#### **3.1 Overview of Blended Learning**

Blended teaching is a teaching mode that combines traditional face-to-face teaching with online teaching. It makes full use of the flexibility and convenience of online teaching, as well as the interactivity and personalization of face-to-face teaching, providing students with a richer and more diverse learning experience. In college English teaching, blended teaching can help students better understand and master English knowledge and improve their comprehensive language application ability.

#### **3.2 Hybrid Teaching Design Based on Artificial Intelligence**

##### **3.2.1 Teaching objectives and needs analysis**

When designing blended instruction, we first need to clarify the teaching objectives and students' learning needs. The teaching objectives should be clear, measurable, and achievable so that students can clearly understand their learning direction and goals. At the same time, we also need to analyze students' learning needs and understand their learning styles, interests, hobbies, and learning habits, so as to provide them with personalized learning resources and support.

##### **3.2.2 Teaching content and resource design**

AI-based hybrid teaching needs to make full use of online resources and intelligent technologies to enrich teaching content and forms. For example, online courses and learning resources provided by intelligent teaching platforms can be used to provide students with a variety of learning materials and learning paths. At the same time, AI technology can be combined to design intelligent question banks and online practice tools to help students practice vocabulary, grammar, reading, etc. In addition, virtual reality (VR) technology can be used to provide students with a virtual simulation language training environment to help them better understand and master English language knowledge.

##### **3.2.3 Teaching activities and interactive design**

Blended teaching needs to focus on the diversity and interactivity of teaching activities. In teaching activities, artificial intelligence technology can be fully utilized to design intelligent tutoring and question-answering systems to provide students with timely answers to questions and guidance. At the same time, online discussions and group cooperation can be used to promote students' communication and interaction and improve their language proficiency. In addition, artificial intelligence technology can be combined to design intelligent assessment systems to conduct timely evaluation and feedback on students' learning outcomes, so that students can discover and correct errors in a timely manner and improve their learning efficiency.

##### **3.2.4 Teaching management and assessment design**

In hybrid teaching management, it is necessary to make full use of artificial intelligence technology to track and manage students' learning process. For example, big data and artificial intelligence technology can be used to analyze and manage students' online learning behavior, helping teachers to better understand students' learning situation and needs. At the same time, intelligent management systems can also be used to track and manage students' homework, exams and other learning tasks, helping teachers to better grasp students' learning progress

and level. In terms of evaluation, intelligent evaluation tools can be designed in combination with artificial intelligence technology to automatically evaluate and provide feedback on students' English compositions and oral English, so that students can understand their learning achievements and existing problems in a timely manner.

### **3.3 Implementation Strategy of Hybrid Teaching Based on Artificial Intelligence**

#### **3.3.1 Push of personalized learning resources**

Based on artificial intelligence technology, personalized learning resources can be pushed to students according to their learning needs and interests. For example, suitable online courses and reading materials can be recommended to students based on their learning progress and level. At the same time, diversified learning materials and exercises can be provided to students based on their interests and learning styles. This personalized learning resource push method helps to stimulate students' learning interest and enthusiasm and improve their learning results.

#### **3.3.2 Intelligent practice and assessment**

Based on artificial intelligence technology, intelligent practice and evaluation systems can be designed. For example, intelligent question banks and online practice tools can be used to provide students with online practice in vocabulary, grammar, and reading, and automatically evaluate and provide feedback based on the students' practice. At the same time, intelligent speech recognition and evaluation tools can be used to practice and evaluate students' oral English to help them improve their oral English. This intelligent practice and evaluation method helps to detect and correct students' mistakes in a timely manner and improve their learning efficiency.

#### **3.3.3 Virtual simulation language training environment**

Based on virtual reality (VR) technology, a virtual simulation language training environment can be provided for students. For example, virtual simulation technology can be used to simulate real scenes and character exchanges, allowing students to conduct simulation training in English speaking and listening. At the same time, virtual reality technology can also be used to simulate business negotiations, conference exchanges and other scenes, allowing students to conduct simulation training in English speaking and communication skills. This virtual simulation language training environment helps students better understand and master English language knowledge and improve their language application ability.

#### **3.3.4 Intelligent learning management and tracking**

Based on artificial intelligence technology, students' learning process can be tracked and managed. For example, big data and artificial intelligence technology can be used to analyze and manage students' online learning behaviors, helping teachers to better understand students' learning situations and needs. At the same time, intelligent management systems can also be used to track and manage students' homework, exams and other learning tasks, helping teachers to better understand students' learning progress and levels. This intelligent learning management and tracking method helps teachers to promptly identify students' learning problems and difficulties and provide them with targeted guidance and support.

## **4. ANALYSIS ON THE EFFECT OF BLENDED TEACHING IN COLLEGE ENGLISH BASED ON ARTIFICIAL INTELLIGENCE**

### **4.1 Improvement of Learning Efficiency**

Blended teaching of college English based on artificial intelligence can significantly improve students' learning efficiency. Through the intelligent practice and assessment system, students can discover and correct their mistakes in time, reducing blindness and inefficiency in learning. At the same time, through the virtual simulation language training environment and personalized learning resource push, students can understand and master English language knowledge more intuitively and improve their language application abilities. These advantages enable students to complete learning tasks more efficiently and improve learning efficiency.

### **4.2 Enhancement of Learning Motivation**

AI-based hybrid teaching of college English can enhance students' learning motivation. Through intelligent learning management and tracking methods, teachers can timely understand students' learning situation and needs, and provide them with targeted guidance and support. This personalized learning method and timely feedback mechanism can stimulate students' learning interest and enthusiasm and enhance their learning motivation. At the same time, through diversified teaching activities and interactive design, students can participate in learning more actively, improving their learning initiative and participation.

### **4.3 Cultivation of Autonomous Learning Ability**

Artificial intelligence-based hybrid teaching of college English can cultivate students' autonomous learning ability. Through intelligent learning resources and evaluation systems, students can learn and evaluate independently and master their own learning progress and level. At the same time, through virtual simulation language training environment and diversified teaching activity design, students can explore and practice English language knowledge more independently and improve their autonomous learning ability and innovation ability. The cultivation of this autonomous learning ability is of great significance to the future development of students.

## **5. CONCLUSION AND OUTLOOK**

### **5.1 Conclusion**

This article explores the practice and research of hybrid teaching of college English based on artificial intelligence. By analyzing the current application status of artificial intelligence technology in college English teaching, this paper discusses its application strategies in blended teaching and its impact on teaching quality and learning effects. Research results show that the college English hybrid teaching model based on artificial intelligence can significantly improve students' English learning efficiency and performance, and enhance students' learning motivation and independent learning ability. This teaching model not only enriches the teaching content and form, but also improves students' learning interest and participation, providing new ideas and methods for the reform of college English teaching.

### **5.2 Outlook**

In the future, with the continuous development and improvement of artificial intelligence technology, its application in college English teaching will be more extensive and in-depth. For example, more advanced natural language processing technology and deep learning algorithms can be used to optimize the performance of intelligent translation and speech recognition tools; more intelligent learning management systems can be used to track and analyze students' learning behaviors and grades; more diverse virtual simulation technologies can also be used to simulate real language environments and scenarios. The development of these technologies will provide more abundant resources and support for college English blended teaching, and further improve teaching quality and learning effects.

At the same time, we should also see that the application of artificial intelligence technology in college English teaching still faces some challenges and problems. For example, how to ensure the accuracy and fairness of intelligent assessment tools; how to balance the relationship between online and offline teaching; how to cultivate students' autonomous learning ability and innovation ability, etc. These issues require us to further study and explore in order to continuously improve and optimize the hybrid teaching model of college English based on artificial intelligence.

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