Research on Artificial Intelligence Promoting English Learning Change

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Abstract. English teaching and learning, as an important part of the new curriculum reform, has been paid more and more attention and recognition by the relevant education departments. With the continuous improvement and expansion of teaching level and scale, with the development of Internet information technology, the environment of English teaching and learning is undergoing unprecedented changes. How to combine AI with English teaching effectively and cultivate compound talents for the society has become an increasingly urgent problem in the field of English teaching and learning. Based on the background of AI, this paper makes a thorough analysis and Research on the reform of English teaching and learning.

Keywords: Artificial Intelligence; English Teaching; English Learning; Change Research.

1. The Significance of Artificial Intelligence Technology in English Teaching and Learning

Media is the extension of human body, and artificial intelligence is also the extension of human intelligence. As one of the most developed technologies at this stage, AI has also made many breakthroughs in the field of education. Simply put, AI simulates human intelligence science through computer. The continuous improvement of information process makes AI penetrate into all aspects of public life. Education is the driving force and cornerstone of social development. English language is one of the universal world languages nowadays. Therefore, through artificial intelligence machine learning, intelligent search and natural language processing, can effectively promote the reform of English teaching and learning. Improve and improve the ability of Chinese people to communicate in English, at the same time, promote the improvement of the quality of English classroom teaching. Therefore, the emergence of artificial intelligence is not only an effective way of English teaching and learning practice, but also an important manifestation of science and technology to promote social change.

2. Basic Summary and Characteristics of Artificial Intelligence

AI, also known as AI, is often used to solve complex problems encountered by human beings. As a frontier interdisciplinary subject, AI can not only make teaching more efficient and fair in education, but also constantly change people’s traditional learning methods and thinking concepts. The development and innovation of traditional science and technology are far from reach in people’s daily life, but the emergence of artificial intelligence makes science and technology more close to people’s lives, while having more temperature.

2.1 Machine Learning and Intelligent Search

Artificial intelligence has the characteristics of machine learning and intelligent search. Machine learning is the summary and reorganization of the knowledge structure of the data in the system and the analysis results formed by the system. As a very important research field in artificial intelligence, machine learning can effectively analyze and deeply mine the data of teachers and students in the application of education industry, and provide more development possibilities for future teaching and learning. For example, machine learning can analyze the data of students’ learning situation and achievements in the past year, and form corresponding written reports. Teachers and students can analyze the problems and causes of learning based on these valuable data and information, and then
put forward the desired learning programs and promotion measures. The general machine learning system includes four elements: system environment, learning, knowledge base and execution of commands. Simply put, an effective learning process can be formed in the process of system operation, and the continuous improvement and expansion of knowledge base can promote the self-judgment and self-learning ability of the system to continuously enhance[1]. As shown in the following figure.

2.2 Understanding of Natural Language

Language is the most important and basic intelligent behavior of human beings in social life. Through the use and expression of language, it can promote the expansion and exchange of thinking among people, and help people better understand the laws of natural things. Natural language understanding in artificial intelligence, also known as natural language processing, forms simulation through the understanding of human language by computer system. The general system includes Chinese, Japanese, Korean, English and other different language categories. Through the use of natural language by computer system, we can communicate the function of language just like human beings. Therefore, in education and teaching, its application value is also increasing. Natural language understanding includes not only the use of different languages, but also the common languages and spoken languages among different countries. It effectively realizes the new interaction between human and computer, and helps the technological revolution of human from text interface to graphical interface and natural language interface[2].

3. The Relationship between Artificial Intelligence and English Teaching

The key of AI technology lies in intelligence. Intelligence in the field of English teaching and learning is also based on the basic point of the education industry. English teaching activities have diversity and complexity. Due to the different levels of English teachers, the implementation of educational and teaching hardware, and even the different interests and cognitive styles of students, will affect English learning. Artificial intelligence can simulate and reproduce human thinking, and reasoning and expression of thinking through targeted processing and analysis. Therefore, in the dynamic environment of English teaching and learning, artificial intelligence can play a unique strategy in English teaching and learning. Secondly, due to the differences of language environment, English often brings many troubles to Chinese students in the process of actual communication and application, even affects the daily teaching of English teachers. With the emergence of artificial intelligence, English teaching system has become a breakthrough point in improving English quality under the innovation of information technology. Individualized and oral English learning stimulates students’ interest in English learning and improves the learning atmosphere in English classroom. This is not only an important reflection of the value of English teaching and learning in the education...
industry, but also an in-depth exploration of the value of modern information technology. The relationship between AI and English teaching is as follows

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<th>Artificial intelligence</th>
<th>English Language Teaching</th>
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<td>Simulated Reproduction of Human Thinking</td>
<td>Complexity diversity</td>
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<td>Technological Innovation to Improve Quality</td>
<td>Environmental differences</td>
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4. Application of Artificial Intelligence in English Teaching

4.1 Artificial Intelligence Changes English Teaching Environment

At present, in the process of learning English, the learning conditions and opportunities of Chinese students are scarce, and the English teaching environment is relatively limited. Therefore, in traditional English teaching classes, students are mostly half-informed about English, and it is even more difficult to carry out daily conversations in English. Therefore, in order to change the teaching situation of deaf-mute English, it is necessary to change the teaching environment effectively. Artificial intelligence provides a good learning environment for interactive English learning. Through the connection and logical analysis of information such as graphics, sound and text in intelligent system, English learning becomes more stereoscopic and visual. Students communicate with AI through man-machine interface, which not only increases the authenticity of the language environment, but also corrects the errors in the dialogue in time, so that students can learn English in a relaxed and pleasant atmosphere.

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<th>AI Teaching Interaction</th>
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<td>Voice interaction</td>
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<td>Text interaction</td>
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<td>GUI Interaction</td>
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4.2 Artificial Intelligence Optimizes English Teaching Effect

In a society dominated by science and technology, computer information provides different services for different users. Therefore, in the education industry, English teachers can customize personalized teaching activities for students according to their different learning characteristics and assisted by artificial intelligence, and then provide targeted teaching optimization measures according to different students’ English foundation. In English teaching and learning, AI can provide a real simulation dialogue platform for English teaching and learning. Let students better use and improve the comprehensive abilities of English words, spoken English and English writing. Not only that, the cultural and customs knowledge of different English-speaking countries collected in AI can be used to communicate and interact with students, but also can greatly enhance students’ interest in English learning. In the implementation of individualized teaching plan, the goal of optimizing English teaching effect is finally achieved [3].

4.3 Enhancing Students’ Operational Ability in English Learning

Artificial intelligence (AI) is the hotspot technology content of industry social research at the present stage. The application of science and technology in education and teaching requires teachers and students to grasp the ability to operate the system and solve problems in time. Therefore, when AI is applied to English teaching, it improves students’ practical operation ability to a certain extent. At the same time, in the process of AI-assisted teaching, many difficulties and problems will be encountered in the process of English learning. Through the guidance of English knowledge content in AI system, problems can be solved step by step and content knowledge can be focused on Deepen.
While improving the quality of English learning, students’ operational ability and problem-solving ability in English learning are increased [4].

5. Concluding Remarks

The development and popularization of artificial intelligence technology has not only brought many conveniences to human life, but also become one of the important contents of teaching reform in the education industry. With the further research and discovery of artificial intelligence. In the process of modern English teaching and learning, we should not only pay attention to the practice and application of AI in teaching, but also integrate AI and English teaching activities fully and interact effectively, optimize the effect and mode of English teaching, and promote the healthy development and reform of English education.

References