

The Three-Dimensional Perspective of Artificial Intelligence-Aided University English Course Reform from the Perspective of Core Disciplinary Literacy

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Abstract: Artificial intelligence, as an emerging educational technology, has gradually penetrated into the reform of university English curriculum and become an important tool for promoting educational innovation and improving teaching quality. This paper is based on the significance of artificial intelligence to help the reform of university English curriculum, for the current reform of university English curriculum is faced with the teaching concept to be updated, teaching content and methods to be perfected and the construction of teachers to be strengthened and so on, puts forward the promotion of the innovation of teaching concepts, improve the content and methods of teaching and strengthen the construction of teachers, etc., which provides some references to the promotion of China's university English education reform.

Keywords: Higher Education; English Curriculum Reform; Artificial Intelligence; Disciplinary Core Literacy

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Introduction

Artificial Intelligence (AI), as a revolutionary technology, has gradually penetrated into all fields of society, especially in the field of education, where its influence has become more and more significant^[1]. Especially in university English teaching, with the accelerating process of globalization, English, as an important tool for international communication and cooperation, has become an essential core subject in higher education^[2]. The traditional teaching mode of university English, although meeting the basic teaching needs for a certain period of time, has exposed many problems with the change of times and social needs, restricting the efficient development of English education. In order to meet the requirements of education in the new era, it has become an important task to promote the reform of college English curriculum.

With the concept of disciplinary core literacy proposed and widely applied, the direction of reform of university English education should not only focus on the teaching of language knowledge, but also on the cultivation of students' comprehensive literacy and core competence^[3]. Disciplinary core literacy, as the necessary abilities required by students for the future society and workplace, emphasizes the cultivation of the integration of interdisciplinary knowledge, innovation and critical thinking^[4]. In this context, the application of artificial intelligence technology provides new opportunities and possibilities for the reform of university English curriculum. AI technology can not only effectively improve the efficiency of English learning through intelligent means, but also provide strong support in personalized education, resource sharing and

innovation of teaching methods, further promoting the profound change of the shape of university English education.

This paper combines the current status quo of university English curriculum reform with the perspective of disciplinary core literacy, with a view to exploring the application path of artificial intelligence in the reform of university English curriculum and providing reference for comprehensively improving the quality of university English education.

1.The Value Implications of Artificial Intelligence Assisting the Reform of College English Curriculum

1.1 Driving change in the shape of university English education

Artificial intelligence can make university English education shift from the traditional teacher-centered teaching mode to the student-centered learning mode through intelligent teaching tools and platforms, greatly enhancing students' learning autonomy and participation. With the help of AI, students can not only receive real-time feedback and personalized tutoring in the classroom, but also obtain targeted learning resources and exercises through the intelligent platform after class, forming a more flexible and efficient learning mode. Students are no longer passive recipients of knowledge in English learning, but active participants and self-driven learners, which promotes the diversification of teaching goals and the personalization of teaching effects^[5].

The application of artificial intelligence provides the field of English education in higher education institutions with unprecedented data processing and analysis capabilities. Artificial intelligence can monitor and analyze students' learning dynamics in real time through big data analysis technology, providing teachers with more precise and detailed teaching feedback. Data-based teaching methods can help teachers accurately diagnose students' learning needs and weaknesses, and also make the teaching process more scientific, precise and efficient. Students' learning history, behavioral data and interest preferences can be analyzed to intelligently recommend personalized learning resources and practice content, achieve accurate matching of educational resources, and optimize the presentation of teaching content. Transformative technology has driven a profound transformation of the English education model, bringing unprecedented innovation and change to traditional teaching methods.

1.2 Contribute to the high-quality development of university English education

The application of artificial intelligence in university English education profoundly promotes the optimization and integration of teaching resources. In the traditional teaching system, teaching resources often show the characteristics of fragmentation and localization, especially high-quality teaching materials and learning resources are limited to the mastery and use of some schools or specific teachers. The fragmentation of resources limits the dissemination of educational content and the enhancement of learning effects^[6]. Intelligent platforms based on artificial intelligence and supported by cloud computing technology can break through the traditional time and space constraints, realize the seamless integration and sharing of global high-quality educational resources, and provide teachers and students with richer and more diversified learning content and interactive forms.

The innovation of artificial intelligence in teaching feedback and academic assessment further promotes the high-quality development of university English education. The traditional evaluation system is mostly based on students' test scores as the main measurement standard. A single assessment method cannot fully reflect the actual ability of students, and it is easy to lead to students' mechanized and monotonous dependence on English learning. Artificial intelligence can provide students with richer and more detailed evaluation methods through natural language processing, speech recognition and other technologies. Students' oral expression, listening comprehension and writing ability can all receive real-time feedback through intelligent assessment tools. Intelligent assessment improves the efficiency and accuracy of assessment, and moreover stimulates the improvement of students' abilities in all aspects of listening, reading and writing through a comprehensive and multi-dimensional assessment method. The innovation of artificial intelligence in the field of assessment has changed the traditional mode of assessment, and promoted the improvement of education quality, so that the educational objectives can be more comprehensively implemented.

1.3 Promoting equity and resource sharing in higher education

Artificial intelligence technology can break the geographical and resource limitations existing in the traditional education

model and promote the globalization of the flow of educational resources. Artificial intelligence can realize the global sharing of educational resources through intelligent platforms, cloud computing and big data technology. Whether it is online courses, educational software, or world-leading English learning materials, they can be opened to students in all universities through AI technology, thus enabling students in remote or resource-poor areas to have access to high-quality educational resources. Artificial intelligence breaks down the educational divide between regions and also realizes the fair distribution of educational resources across the country, providing strong support for educational equity.

The application of artificial intelligence in education has demonstrated its far-reaching potential for overcoming learning barriers and promoting educational equity in terms of personalized learning support. The learning progress, ability differences and individual needs of students in the traditional education model often lead to an uneven distribution of educational resources, affecting educational equity. The introduction of artificial intelligence provides tailored learning content and feedback for each student, greatly facilitating the realization of personalized teaching. Based on analyzing students' learning trajectories, knowledge mastery, and cognitive styles, AI is able to recommend the most appropriate learning materials and training strategies for students based on a precise understanding of their learning status. This can effectively help students overcome learning difficulties, especially for students with weak foundations or special needs, and provides efficient learning support.

2. Bottlenecks Facing the Reform of College English Courses in the Perspective of Disciplinary Core Literacy

2.1 Teaching philosophy to be updated

The traditional concept of English teaching is still rooted in the examination-oriented education model, where teachers' and students' understanding of language learning mostly stays at the level of teaching basic knowledge such as grammar and vocabulary, and lacks the cultivation and enhancement of students' comprehensive language ability. Under this concept, the focus of teaching is centered on the mere explanation of language knowledge, ignoring the essence of English as a communication tool, and failing to effectively stimulate the cultivation of students' language application ability and cross-cultural communication ability. The traditional teaching concept of focusing too much on grammar and vocabulary fails to meet the requirements of the core qualities of the discipline, such as "language application ability", "critical thinking" and "intercultural communication ability". The traditional teaching concepts of grammar and vocabulary have not been adapted to the core qualities of the subject, such as "language ability", "critical thinking" and "intercultural communication ability".

The current concept of English teaching lacks attention to students' individual differences. In the past, teachers usually relied on uniform teaching materials and teaching plans, and paid insufficient attention to students' learning progress and differences in interest, and taught in a "classroom-full" manner, neglecting the cultivation of students' subjectivity and independent learning ability. The promotion of core academic qualities requires that we emphasize the cultivation of students' independent learning, critical thinking and innovation ability, but the existing teaching concepts have not yet taken these qualities as the core of the teaching and learning objectives of , which leads to students being in a state of passive acceptance of knowledge in the process of English learning, which restricts the development of students' potential, and makes it difficult to adapt to the diversified qualities of the English language talents needed in the times.

2.2 Teaching content and methods need to be improved

The current teaching content is relatively traditional, still focusing on the explanation of basic knowledge such as grammar and vocabulary, neglecting the cultivation of language application ability and intercultural communication ability. Most of the content settings and textbook arrangements of university English courses are centered on the demands of examinations, favoring the teaching of language knowledge and lacking the cultivation of students' practical language application ability. The knowledge-driven content design deviates from the goal of focusing on the cultivation of ability and the development of comprehensive quality in the core qualities of the discipline, which leads to the fact that although students have a certain language foundation, they lack sufficient practical ability and the ability to cope with complex situations when they actually use English to communicate and express themselves.

The teaching methods of university English courses are relatively single, still dominated by traditional lecture teaching, with

insufficient cultivation of students' active participation and innovative thinking. Under the existing teaching mode, classroom teaching mostly relies on teachers' explanations and students' listening, with limited opportunities for classroom interaction and students' language practice. Although this teaching method can cover certain knowledge points, it is difficult to stimulate students' interest in learning and cannot effectively improve their comprehensive language ability. Under the perspective of disciplinary core literacy, language learning is not only the mastery of grammar and vocabulary, but also the cultivation of critical thinking, creative expression and cross-cultural understanding. Existing teaching methods are insufficient in this regard, and the teaching process relies more on mechanized knowledge transfer, but lacks effective inquiry and practical links, which makes it difficult to fully stimulate students' active learning consciousness and innovation ability.

2.3 Teacher training needs to be strengthened

There are gaps in teachers' professionalism and comprehensive abilities. Modern English education requires teachers to have solid language knowledge and teaching skills, as well as strong cross-cultural communication skills, information technology application skills, and the ability to cultivate critical thinking. However, the current literacy of some English teachers in these areas is relatively weak, especially in the application of information technology and artificial intelligence, where teachers' abilities are generally low. Although education informatization has become an important means to improve the quality of education, many English teachers lack sufficient understanding and mastery of the application of intelligent teaching tools, network platforms, and technologies such as big data analysis, making it difficult to effectively utilize these emerging technologies in teaching to promote the innovation of students' learning modes.

Teacher development suffers from insufficient opportunities for professional development. Many English teachers face the dilemma of narrow space for promotion and development during their professional development, especially for young teachers, and the lack of sufficient training and further education opportunities makes it difficult for them to receive timely academic support and professional growth. The education reform requires teachers to have not only in-depth subject knowledge, but also the ability to continuously update their teaching methods, philosophies, and interdisciplinary integration. However, many teachers rely on traditional teaching experience and lack the ability to learn and practice emerging educational theories and technologies to effectively integrate subject core literacy into their teaching activities. Teachers' professional growth depends on their own efforts, and they also need external academic support and educational training, but the current opportunities and platforms for teachers in this regard are obviously insufficient, which makes the overall level of teacher training lagging behind.

3.The Practical Path of Artificial Intelligence Assisting the Reform of College English Curriculum in the Perspective of Disciplinary Core Literacy

3.1 Promote innovation in teaching philosophy

The application of artificial intelligence provides teachers with richer teaching tools and data support, and promotes the transformation of teachers from the traditional mode of knowledge transmission to student-centered interactive and inquiry teaching. Through the intelligent teaching platform of artificial intelligence, teachers can obtain students' learning data, analyze students' learning status and problems in real time, and tailor a personalized learning plan for each student. The data-driven teaching concept can help teachers better understand the learning progress and needs of students, adjust the teaching content and methods, truly realize the teaching of students according to their aptitude, and enhance the relevance and effectiveness of teaching.

The introduction of artificial intelligence promotes the innovation of classroom teaching, and pushes the teaching concept from centering on "knowledge transfer" to centering on "ability cultivation". By providing personalized learning paths and interactive learning resources, AI makes classroom teaching not only limited to the cultivation of the traditional four basic skills of listening, speaking, reading and writing, but also extends to the cultivation of multi-dimensional abilities such as language practice, cultural understanding and innovative thinking. The AI-based teaching platform can recommend relevant learning materials according to students' interests and needs, promote students' active exploration and participation, cultivate their independent learning ability and innovative thinking, and then realize the comprehensive cultivation of subject core literacy.

The introduction of artificial intelligence breaks through the time and space limitations of the traditional classroom, and also provides new impetus and possibilities for the innovation of online and offline hybrid teaching mode. In the traditional education model, teaching activities are usually limited to a fixed time and space, and the learning process of students often depends on the direct guidance of teachers in the classroom. The use of AI technology, however, has expanded and transformed the model that relies on the physics classroom, promoting the rise of an independent learning model supported by an intelligent platform. This model allows students to no longer be limited to face-to-face lectures in the classroom, but to be able to learn independently outside the classroom through smart platforms, accessing customized learning content, personalized tutoring, and instant feedback anytime, anywhere.

3.2 Improvement of teaching content and methods

Artificial intelligence has profoundly integrated and optimized teaching resources through the application of intelligent recommendation systems, significantly breaking through the limitations of traditional teaching that relies only on textbooks. Intelligent technology enables students to expand their learning horizons not only through traditional textbooks, but also through diversified extracurricular learning resources such as e-books, video courses and online tests. The extracurricular resources complement the classroom teaching content, helping students learn independently outside the classroom and promoting the overall improvement of their language skills. Teachers can use artificial intelligence systems to analyze students' learning preferences, cognitive characteristics and knowledge weaknesses, and dynamically adjust the recommended learning resources based on real-time data. When students make significant progress in listening and speaking, the system can intelligently push more challenging and advanced listening materials, or recommend simulated conversations to further improve oral expression.

It provides teachers with more flexible and interactive teaching tools. Based on speech recognition and natural language processing technology, teachers are able to utilize intelligent tools for language interaction in the classroom in real time, which can effectively improve students' listening and speaking skills through two-way communication with students' voice and text, and also correct students' errors in pronunciation and grammar instantly. Through the support of AI technology, teachers can create richer language practice opportunities for students. Simulated contextualized language learning scenarios allow students to engage in interactive conversations with foreigners on a virtual dialogue platform, which greatly enhances students' contextualized language use ability. This kind of practical teaching method helps students to skillfully use the language they have learned in real contexts, thus enhancing their communicative competence.

Help teachers implement precise teaching interventions. Based on the AI platform, teachers are able to access students' learning data in real time, covering dimensions such as learning duration, learning depth, and question-answering accuracy. These data provide teachers with clear feedback on students' learning status, which allows them to assess students' learning progress and adjust teaching strategies. For students who are slow in learning or have difficulty in understanding certain knowledge points, teachers can provide more tutoring resources and intensive practice in a timely manner. For students who are progressing faster, teachers can push more challenging learning materials to maintain their motivation and interest in learning. The data-driven precision teaching intervention mechanism ensures that each student learns best in an environment that suits his or her pace and difficulty, and promotes personalization and refinement of education.

3.3 Strengthening of the faculty

Based on the intelligent assessment system, teachers are required to reflect and feedback on their teaching activities in real time to continuously refine their teaching abilities. Artificial intelligence can accurately analyze student learning data to reveal weaknesses and potential problems in classroom teaching and provide practical suggestions for improvement based on the data results. The system can analyze students' performance in the classroom, including their accuracy in answering questions, class participation and learning progress, helping teachers identify key issues in teaching and then adjust teaching strategies and methods to achieve more efficient teaching outcomes. The use of AI can also meticulously analyze teachers' teaching styles and classroom interactions, helping teachers understand students' needs and emotional states from a data perspective, optimize classroom management and instructional design, and enhance teaching effectiveness and students' learning experience.

Teachers can access the latest teaching theories and educational research results through AI, and also receive customized teaching support according to their own teaching needs. . The AI platform can intelligently recommend the most suitable teaching methods and resources according to teachers' specific needs, ensuring the richness and diversity of teaching content. The platform can also provide teachers with the latest research progress on the subject, the dynamics of education reform and advanced teaching experiences at home and abroad, further broadening their knowledge and vision and enabling them to respond more flexibly to different teaching challenges in teaching practice.

4. Conclusion

The assistance of artificial intelligence to the reform of university English curriculum is a process of deep integration of technology and educational concepts, which not only provides new means for education, but also offers more possibilities for the realization of educational goals. In the face of future educational challenges, artificial intelligence will continue to provide a steady stream of power for educational innovation, promote the comprehensive development of educational concepts, teaching content, teaching methods and the construction of teachers, and provide strong support for the cultivation of innovative talents that meet the requirements of the times.

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Conflict of Interests

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