

Research on Personalized English Teaching in Universities under the Background of Big Data

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Abstract: With the continuous development of science and technology, big data technology has been widely applied to provide many conveniences for people in various fields of life. In this context, university English teaching has also ushered in personalized reform opportunities. Teachers should integrate themselves into the current situation of higher education reform in the era of big data, actively use big data ideas and methods to innovate English teaching, and create personalized, modern, and efficient English teaching models to provide better support for students to learn, grow, and develop. This article analyzes the value and significance of personalized teaching of English in universities in terms of big data. The study explores its practical path to provide some reference for relevant personnel.

Keywords: Big data; College English; Personalized teaching; Value significance; Practical path

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1. Introduction

The proposal of the Education Informatization 2.0 Action Plan has sparked a wave of higher education informatization 2.0 reform. Big data has gradually become an important technical support for the reform and upgrading of English teaching in universities. Based on reality, big data technology has rich resource advantages and diverse operational methods, which can further simplify students' learning difficulties and promote their learning enthusiasm and effectiveness^[1]. In this regard, teachers should equip themselves with the advanced tools under the background of higher education reform in the era of big data, actively explore personalized teaching paths, improve the quality and efficiency of English teaching, provide students with more personalized learning experiences to comprehensively promote their English abilities, and then help them grow and develop better in the future.

2. The value and significance of personalized English teaching in universities based on big data

2.1. Expand course capacity and stimulate learning interest

The course being interesting is the best way for a student to learn. In the teaching process, it is necessary

to grasp the interest of students, innovate teaching methods and designs that students like to stimulate their interest and potential, and then comprehensively improve the quality of teaching. If teachers want to achieve these goals, relying solely on traditional teaching methods is not enough. Big data technology, as an innovative technology on the Internet, has rich resource content and can become an important supplement to personalized English teaching in colleges and universities. With its assistance, teachers can introduce various resources to expand the capacity of the course, to free class limitations from textbooks and traditional classrooms, and thus a course with fun and effectiveness will be provided. At the same time, big data technology itself is a popular technology among students too. The integration between big data and English teaching will also bring personalized learning experiences to students, allowing them to gain more joy, knowledge, and growth in English learning ^[2].

2.2. Optimizing teaching methods to promote comprehensive development

Big data has had a huge impact on modern education, and its application in English teaching in universities can serve as a method and model for innovation. During the teaching process, teachers can rely on the characteristics of big data technology to actively create a multimedia classroom that combines audio and video, build online self-directed learning spaces, and further improve the scientific and effective nature of English teaching. At the same time, the application of big data technology also provides good data and feedback information that supports teachers. In the teaching process, teachers can rely on big data technology to guide students to be intelligent and digitally interactive, accurately analyze their learning information, obtain effective feedback, and adjust teaching strategies promptly to improve teaching quality and effectiveness ^[3]. In addition, with the support of big data, English teaching has also achieved diversified extensions. Teachers can use big data tools to build the second and third English classrooms, being free from traditional classroom constraints and extending towards after-school activities, which is greatly conducive to students for better learning and all-around growth.

3. The practical path of personalized English teaching in universities under the background of big data

3.1. Optimizing teaching content through media means

Multimedia, as the most common teaching method in the era of big data, has the characteristics of intuitive presentation and strong interest. It can flexibly present college English teaching content in an audio-visual way, create personalized learning situations for students, stimulate their learning interest, simplify their learning difficulties, and promote their learning understanding ^[4]. Therefore, in the teaching process, teachers should also pay attention to the application of multimedia technology, introduce some big data resources, and help students better understand and learn. For instance, during the practice, teachers can combine teaching content, select materials with big data networks, and then use multimedia technology to display relevant English audio-visual materials or film and television sources to guide students to learn, read, and analyze. In this way, not only can teachers expand the course capacity, but also provide students with more personalized learning resources, which has important promoting significance for stimulating their learning interests and improving learning effectiveness ^[5].

3.2. Utilizing micro-course technology to promote flipped exploration

Micro-courses, as the most representative technological means in the current context of big data, have good practical significance for the construction of personalized English teaching in universities ^[6]. First of all, micro-

courses are easy to operate and have concise content. Integrating them into English teaching can provide students with personalized learning resources that are short to promote their understanding of learning. Secondly, micro lessons are easy to operate and have strong inspirations for guidance. Integrating them into English teaching can create a flipped classroom atmosphere, thereby enhancing students' integration ability to learn, think, and utilize knowledge, effectively promoting their learning capabilities. Therefore, in the era of big data, teachers should also actively use micro-course technology to innovate teaching models, create a personalized new normal of teaching, and demonstrate "big wisdom" through small micro-courses ^[7]. For example, in the practice of English reading classes in universities, a teacher can design a reading micro-course based on the content and objectives of teaching, and combine the subject with online resources, which can include specific content of course works, audio resource display, reading tasks, and so on. Then, teachers can divide the students into multiple reading groups, 4–6 people for each in the class, and guide each group member to work together, read, communicate, and explore, ultimately completing the reading task. In this process, teachers should also fully immerse themselves in group cooperation to maintain good classroom order and to provide timely guidance to students who are representatives of class outcomes. Finally, teachers can guide each group of students to showcase their flipped learning experiences one by one and combine them with some of the highlights and shortcomings to conduct a summary and analysis. With the help of micro-course technology under big data, teachers can fully stimulate students' autonomy and subjectivity, cultivate their abilities in independent thinking, problem-solving, and collaborative exploration, and lead them to comprehensive growth and development ultimately.

3.3. Utilizing network technology to create online classrooms

In previous English teaching routines in universities, due to limitations such as class hours, teachers often found it difficult to teach comprehensively within a limited time and were unable to take care of all students, which to some extent affected the quality of English teaching in universities. In the era of big data, teachers can give full play to big data and the Internet to break down the boundaries. Teachers are more likely to build a digital flipped classroom with the help of network means, effectively eliminating the impact of students' ability gaps, class hour restrictions, and other factors on teaching quality, so that English teaching can break through the shackles of traditional classrooms, and extend towards networking and digitalization ^[8]. For example, to better ensure teaching effectiveness in the process of grammar teaching, which is a harsh part of teaching activities, teachers can carry out online classroom teaching methods based on traditional classroom teaching to improve their learning effectiveness. Specifically, teachers can use methods such as Tencent Classroom and Cloud Classroom to carry out online grammar teaching. On the one hand, online teaching can be carried out for all students to supplement their grammar knowledge ^[9]. On the other hand, it also can be used to provide video, phonetic, and other forms of guidance to individual students. If a student's grammar knowledge is not firmly mastered, teachers can provide them with video, phonetic, and other forms of teaching guidance and after-class assistance to help them overcome learning difficulties and improve their comprehensive abilities. In addition, students can also raise their doubts or express their opinions through online platforms, thereby forming effective and real-time interactions with teachers, and comprehensively improving the quality of English teaching.

3.4. Utilizing human-computer interaction to promote ability development

In the context of big data, English teaching in universities has gradually embarked on a wave of intelligent and digital reforms. In this context, the human-machine interaction mode based on big data has been widely applied in teaching and has played a huge role in improving teaching quality and promoting student ability enhancement ^[10]. Thus, in the teaching process, teachers should actively guide students to engage in human-computer

interaction according to the big database, so that they can gain more opportunities to experience English skills through interaction with computers, improve their learning quality, and promote their comprehensive ability. Specifically, first of all, teachers should utilize big data and guide students to engage in language human-machine communication out of various places such as computer rooms and language practice rooms, therefore promoting their communication abilities and translation interactions, and enhancing their comprehensive abilities. Secondly, teachers can introduce human-computer interaction into daily English teaching, and use relevant software to guide students to communicate and interact with computers in English with the support of big data. In this way, diverse and personalized English practice scenarios will be built to stimulate students' interest and potential in English learning comprehensively, and therefore promote the cultivation and development of students' overall English abilities ^[11].

3.5. Introducing virtual reality to intensify students' experience

The Ministry of Education's "Action Plan for Education Informatization 2.0" clearly proposes to use the construction of demonstration virtual simulation experimental teaching projects as carriers, promote the deep integration of information technology into the entire process of education and teaching, and strengthen the integration of higher education and virtual simulation ^[12]. Virtual reality technology (VR), as a virtual simulation technology, can be introduced into English teaching to further provide fun and effectiveness in teaching, and create personalized teaching models in the form of virtual reality. In teaching practice, teachers should also actively introduce virtual reality technology to bring personalized learning experiences to students. For example, in the process of English teaching, teachers can rely on VR technology to create life and communication scenes in English-speaking countries, vividly display various people and actual things, and then let students use relevant equipment to "virtualize" English practice, promoting their comprehensive English and expressive abilities. Secondly, teachers can rely on VR technology to create a large English learning scene, allowing students to interact and freely communicate with lots of people in the VR scene, and then share their English learning experience, and further improve their learning effectiveness and interactivity. Furthermore, teachers can create personalized virtual learning environments based on the interests and development needs of college students. For example, students' major directions could be involved in creating professional English contexts with the full leverage of English teaching in promoting students' professional learning and career development. The outcome is that the study interest of students will be stimulated and overall qualities will be enhanced. This can be said to be a win-win situation ^[13].

3.6. Improve teaching evaluation with data technology

Teaching evaluation, as an important part of English teaching in universities, has a direct impact on the quality of teaching. However, considering the current situation, the evaluation of English teaching in universities is mostly based on results or grades, lacking focus and evaluation of the learning process of students. In the era of big data, teachers should also actively rely on big data methods to innovate English teaching evaluation and to make teaching evaluation more accurate and efficient ^[14]. Firstly, teachers can use big data technology to innovate the assessment process of English teaching, such as using digital test questions to guide students in practice or allowing students to use big data software for human-computer interactive practice. In doing so, teachers can obtain accurate learning feedback to understand the shortcomings of students, then provide targeted comments and guidance respectively, and promote their learning process in the long run. Secondly, teachers can rely on large-scale technology to analyze the performance of students in the learning process, accurately grasp their learning and growth situation, and on this basis, provide targeted guidance to promote their English

study skills. Furthermore, teachers can use big data technology to change the traditional teacher evaluation-centered evaluation model and actively carry out various evaluation models such as group evaluation, mutual evaluation, and social evaluation. For example, teachers can guide students to conduct mutual evaluation and group evaluation on big data platforms, propose their views, share their learning experiences, and create a good learning atmosphere. At the same time, teachers can use big data technology to connect social enterprises, jointly evaluate and analyze the learning situation of students, and then assess the comprehensive quality of students from the perspective of professionals, provide effective learning suggestions, and promote their better learning and growth facility^[15].

In short, under the background of big data, English teaching in universities has also ushered in new reform opportunities. In this regard, teachers should use the opportunities brought to English teaching in the era of big data, introduce multimedia, micro classes, the Internet, virtual reality, big data, and other technologies into teaching, create a personalized, modern, and efficient teaching model, enable modern technology be involved to create a better English teaching environment, fully stimulate students' enthusiasm for English learning, promote the cultivation of their English ability and comprehensive quality, help them learn more, and grow better in the future.

Disclosure statement

The author declares no conflict of interest.

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