Research on personalized teaching of University Information Technology Course Based on big data

Caihua Kong

Yunnan Open University, Kunming 650599, China

Abstract: with the vigorous development of social economy, science and technology are also constantly optimizing and innovating, emerging a variety of advanced technologies and equipment, and has achieved remarkable application results in many fields, changing people's mode of production and living habits. Based on this background, the field of education needs to boldly introduce various advanced technologies to meet the needs of the development of modern education and teaching. As a teacher of information technology courses in Colleges and universities, he can try to create a personalized teaching mode with the help of big data technology. Finally, he can build an information and modern teaching classroom and improve the personalization and effectiveness of information technology course teaching. How to carry out personalized teaching of information technology course under the background of big data is an important issue that teachers need to solve urgently. This paper will carry out in-depth exploration around this issue, in order to benefit teachers and provide reference for their teaching research.

Keywords: big data; Colleges and universities; Information technology courses; Individualized teaching

Introduction

In the context of modern education, teachers of information technology courses in Colleges and universities need to realize that the traditional teaching mode has been difficult to adapt to the current information and diversified teaching needs, and need to use the advanced technology of big data to innovate teaching methods and enrich teaching content, so as to successfully mobilize students' subjective initiative, So that they can actively participate in the course learning and teacher-student interaction, and ultimately help them acquire a variety of knowledge and skills. At the same time, it can also cultivate their quality and literacy, and lay the foundation for their subsequent adaptation to social life and docking work. In view of this, course teachers can explore the appropriate opportunity to introduce big data technology according to the characteristics of the course, students' needs and school running strategies, so as to give full play to the application value of this technology, realize personalized teaching and improve the quality of course teaching. Due to the limitations of practical factors, teachers need to face various difficulties in guiding information technology teaching, which limits the steady improvement of the teaching quality of the course to a certain extent. Based on the author's teaching experience, this paper analyzes the practical significance of personalized teaching of information technology course under the background of big data, and puts forward the teaching path on the basis of analyzing the problems existing in the teaching of the course, in order to promote the process of curriculum reform.

1. The practical significance of personalized teaching of University Information Technology Course Based on big data

According to previous teaching experience, big data technology has achieved remarkable application results in the information technology course in Colleges and universities, which is specifically reflected in the following points: first, to improve the teaching quality of information technology course, the content involved in the information technology course is relatively abstract and obscure, and the course also has prominent practical and applied characteristics, Teachers can try to introduce big data technology to assist teachers in teaching activities, such as building a network platform, integrating teaching resources, and introducing simulation technology, which can help students understand and internalize what they have learned, and exercise their practical skills, and ultimately improve the teaching quality of information technology courses. Second, improve the overall level of information technology teachers. With the advent of the Internet era, teachers need to actively accept advanced teaching concepts and introduce the latest achievements to meet the new teaching standards and requirements put forward by modern education. Among them, teachers can give full play to the application value of big data technology, comprehensively evaluate the teaching process and teaching results of teachers, and then provide reference for carrying out teacher training, continuously improve teachers' professional level, professional quality and practical ability, and finally provide professional guidance and help for students. The third is to stimulate students' awareness of autonomy in curriculum learning. According to the author's practice and research, if teachers still use traditional teaching concepts and methods to carry out teaching activities, it is easy to make the classroom atmosphere dull and wide. Therefore, teachers can try to introduce big data technology to improve this teaching situation by playing video animation for studentsDisplaying pictures and words to create appropriate teaching situations can mobilize students' subjective initiative, enable them to actively participate in course learning and teacher-student interaction, and ultimately promote the comprehensive and balanced development of students.

2. Problems in the teaching of University Information Technology Course

(1) Teaching methods need to be enriched

At this stage, most college teachers pay more attention to quality education and curriculum reform in the actual teaching process, and explore new and effective measures to infiltrate the concept of "student-centered", aiming to effectively play the educational value of

information technology courses, and ultimately build a perfect curriculum teaching system. However, according to the author's teaching experience, some teachers are deeply restricted by the traditional teaching thinking, and it is difficult to change teaching ideas and update teaching methods in a short time. They are still used to using didactic or cramming teaching methods, which leads to the decline of students' enthusiasm and lack of self-awareness, and can't achieve good teaching results. In addition, information technology teachers also generally pay attention to theoretical explanation and ignore practical training, and do not use advanced technology and equipment to provide students with opportunities and platforms for computer operation, which is not conducive to the cultivation of students' practical skills. Most colleges and universities have not organized teachers to carry out professional technical training, resulting in their lack of technology application experience, unable to give full play to the application value of big data technology, and ultimately unable to provide professional guidance for students, let alone improve students' comprehensive quality.

(2) The teaching mode is in urgent need of innovation

In the context of quality education, teachers need to introduce advanced concepts and technologies to build a new teaching mode, so as to stimulate students' enthusiasm and initiative in classroom learning. However, according to the current teaching situation, some teachers did not optimize the top-level design according to the characteristics of the course and the needs of students, so they could not give full play to the application value of the new teaching mode, let alone achieve good teaching results. In addition, some information course teachers simply stack up the technology, and do not deeply integrate the course content with advanced technology, which can not activate the classroom atmosphere and stimulate students' interest. Even this single and lagging teaching mode will lead to their resistance, and ultimately lead to the poor teaching effect of information technology course.

(3) Imbalance in the proportion of theory and Practice Teaching

In general, when colleges and universities set up courses, the teaching hours of information technology courses are relatively fixed, but many teachers do not put the theoretical explanation and practical teaching in the same teaching position, which leads to the lack of scientificity and rationality of the curriculum, and the integration of theory and practice teaching, which ultimately affects the comprehensive development of students. In addition, in order to strengthen the theoretical teaching, some colleges and universities will also reduce the practice teaching hours. Therefore, teachers will give priority to explaining the theoretical content to students, and ignore the practice teaching, so they do not leave enough time and free space for students to practice training, which ultimately limits the improvement of students' practical operation skills.

3. The reform of individualized teaching method of University Information Technology Course

(1) Constructing network teaching platform

With the vigorous development of information technology, various advanced technologies are changing people's life, production, entertainment and learning. At the same time, higher requirements are put forward for the teaching of information technology courses in Colleges and universities. However, according to the author's practical investigation, the teaching of information technology course in Colleges and universities is still based on mobile devices, such as computers and mobile phones, but if students lack autonomy and concentration, they are easily attracted by network information, which affects the teaching quality of information technology course. Therefore, teachers need to rely on advanced technology to build a perfect network teaching platform, and introduce nail, Tencent conference, rain class, blue ink and other equipment to carry out mixed teaching. Lanmoyun class is a software based on the interactive teaching interest of network technology. Teachers can encourage students to participate in the course teaching with the help of mobile electronic devices. In this way, it can not only innovate the teaching mode, enrich teaching resources, but also improve the interactivity and openness of the classroom, and ultimately achieve good teaching results. Nowadays, cloud class is recognized and favored by the majority of college teachers and students. By editing video or recording micro class to break the time and space constraints, students can watch video and learning content anytime and anywhere, which can improve their subjective initiative. At the same time, it can also deepen their cognition and understanding of what they have learned, and ultimately stimulate their interestCultivate their habits.

(2) Enrich the teaching content of the course

In order to further improve the teaching quality of information technology courses, teachers also need to use big data technology to integrate teaching resources, enrich teaching content, and ultimately provide students with a large number of high-quality learning materials. The information technology courses set up in Colleges and universities have certain practical and instrumental characteristics, that is, students need to master solid information knowledge and skilled information skills in the process of further study and employment, which is related to their subsequent development. In addition, with the birth of 5g technology, information technology has been innovated and developed. Therefore, information technology courses should also update and extend the teaching content with the times. According to the author's practical teaching experience, it is necessary to explain the keyboard input operation, operating system, input method and other contents for students when carrying out the teaching of information technology course. However, with the further development of information construction, most students already have rich computer operation experience and are familiar with all kinds of basic common sense, The information literacy of contemporary college students has made great progress compared with before. Therefore, teachers need to change the previous teaching concept, timely delete the eliminated content, add the latest achievements, and adjust the teaching focus and circle the key content in combination with the information technology curriculum standard, so as to continuously improve the foresight and pertinence of the curriculum teaching, and make students' information literacy continuously improved. Based on this, teachers can introduce cutting-edge technologies and equipment in the field of information technology when telling students about information technology courses,

and focus on explaining office software for students in practical teaching, and carry out targeted information technology course teaching according to students' majors, such as computer security, multimedia technology, computer network, graphics and image processingAudio and video production and other different curriculum requirements focus on the teaching of information technology courses, so as to serve their learning and work.

(3) Optimize the teaching process

Information technology courses in Colleges and universities not only contain theoretical knowledge, but also involve practical skills. If teachers still use traditional teaching methods, it is easy to lead to a serious disconnection between theoretical and practical teaching, and ultimately can not promote the comprehensive development of students. Therefore, teachers can use various advanced technologies to optimize the teaching link of the course: first, before designing the teaching link, teachers should clarify the teaching objectives and make teaching plans according to the characteristics of the course and the needs of students, and upload the content of handouts, teaching materials, audio pictures, learning websites, test questions and other contents to the network teaching platform according to the teaching needs of the course, In order to stimulate students' awareness of autonomous learning, and ultimately expand their cognitive vision, enrich their knowledge system. In addition, teachers can also require students to use mobile devices to come from the main preview and online test, and feed back their problems and puzzles to teachers, providing a clear direction for subsequent classroom explanation. Second, when organizing students' classroom learning, teachers can timely master students' attendance through the sign in function, and then need to share the teaching courseware, process demonstration and learning materials needed for teaching on wechat group or network platform. When explaining in the classroom, teachers should also give full play to students' subjective initiative and organize them to participate in various classroom teaching activities, such as brainstorming, organizing discussions, issuing and answering, so as to improve students' participation and activity in the classroom. It should be noted that teachers need to release tasks according to students' learning progress and existing problems, and encourage students to discuss and explore in groups, so that they can exercise their collaboration ability in team cooperation, enhance their team consciousness, and lay a solid foundation for their subsequent job selection and adaptation. At the same time, It can also complete the inquiry tasks assigned by teachers as soon as possible and improve their comprehensive application ability. Third, teachers also need to set up after-school consolidation links, which need to arrange after-school homework and practical tasks for students, so that they can understand and master the knowledge and skills learned in class in the after-school consolidation exercises, and continuously improve their learning ability. In addition, teachers should also optimize the online teaching platform and set up a question answering or comment section for students to freely express and bravely ask questions. After that, teachers can provide answers and help for them. In addition, the network teaching platform should also set up the achievement display module to take this opportunity to display excellent assignments and practical achievements, so as to enhance students' sense of participation and achievement. Fourth, teachers should also improve the assessment and evaluation link, and comprehensively evaluate the teaching situation of information technology courses, including not only the result evaluation, but also the process evaluation, so as to improve the comprehensiveness of teaching evaluation. In addition, teachers can also encourage students to actively participate in various evaluation activities such as group mutual evaluation, teacher-student evaluation and self-evaluation, so as to continuously improve the fairness of teaching evaluation and provide reference for teachers to adjust teaching programs.

Conclusion:

To sum up, in order to meet the needs of the development of modern education and teaching, information technology teachers in Colleges and universities need to explore effective measures to build an efficient classroom and improve the curriculum system based on big data, so as to provide comprehensive and high-quality teaching services for students. Among them, teachers can help students consolidate basic knowledge and practice skills by building a network teaching platform, enriching teaching content and optimizing teaching links, so as to promote their all-round development. At the same time, they can also effectively promote the process of information technology teaching reform.

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