Research on the Reform of Higher Vocational Computer Education Based on Big Data

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Abstract: In the process of continuous development and progress of science and technology, computers are gradually popularized in various fields of society. In order to make the computer teaching meet the needs of social development, higher vocational colleges have carried out corresponding education reform. At the same time, big data is gradually infiltrated into the teaching of computer specialty. Higher vocational colleges need to combine with big data to promote the continuous development and progress of education.

Keywords: Big Data Background; Computer Major in Higher Vocational Education; Education Reform

In the form of college enrollment expansion, the number of college students is increasing year by year, and the employment situation is becoming more and more tense. The teaching of computer major in higher vocational colleges needs to keep pace with the times, teach students the concept of data, so that the development of students can meet the needs of the actual social development, expand their thinking, and then get a broader employment path[1].

1. Characteristics and influence of big data

Big data is a breakthrough in information technology. It is based on high-speed computing ability and a large number of data. It has a variety of features, such as diverse forms, fast calculation and authenticity. Compared with the original information technology, it has greatly improved its data processing and inclusion ability. It can extract more valuable information from a large amount of information, not only for production and life It also affects education and teaching. In terms of education and teaching, first of all, the use of big data has changed the traditional education concept. In the traditional education concept, the teaching content is mainly implemented according to the syllabus, and there is little analysis on the students' subject and other objects. This teaching mode is difficult to meet the current actual needs. The application of big data in education and teaching has changed the traditional teaching ideas. Secondly, big data promotes the change of teaching form. The traditional teaching mode is more flow-based, and students often have a dull and boring feeling in their study. The use of big data makes the teaching form rich and diverse, which can promote the students' subjective initiative. Finally, big data promotes students to play a dominant role in learning. Teachers pay more attention to the main position of students in teaching.

2. The reform of computer education in higher vocational education under the background of big data

2.1 Innovate practical teaching content

Under the background of rapid development of information technology, the network becomes more abundant. Students can not

only obtain knowledge through teachers in the classroom, but also obtain knowledge by the convenience of the Internet. At the same time, the network will retain the methods and ways for students to acquire knowledge, so teachers need to innovate the teaching content according to the actual situation, but in the innovation, they need to take the original teaching objectives as the basis, and with the help of big data, so as to enrich the teaching of applied knowledge and skills[2]. At the same time, the application and knowledge problems are brought into the new teaching content, and then the content is modified and allocated, and its rationality is guaranteed, so that students' initiative in learning is mobilized. In this process, teachers need to use big data knowledge to guide students, use computers to solve professional problems, and promote the formation of students' good thinking mode.

2.2 Cultivate students' innovation ability

In the information age, when using big data to realize the teaching innovation of computer major in higher vocational education, we need not only to pay attention to the innovation results, but also to the innovation process, so students' performance in the innovation process can better reflect their ability. Therefore, in the process of education reform, we need to pay attention to the reform of methods and models, such as in the cultivation of innovation ability, we can In order to create a good opportunity for the formation of students' ability and consolidate their knowledge and skills, we should use flipped classroom, Netease open class and other forms. At the same time, when cultivating students' innovation ability, we can take some successful cases as reference, and study their modes and methods, so that we can make full use of successful cases in innovation teaching, and then make students' innovation ability get a good training under this influence.

2.3 Innovative teaching methods

For the students of higher vocational colleges, the physical and mental development is gradually becoming mature, so teachers should choose teaching methods suitable for students when teaching. When students study big data, they can't understand or listen to it. This is mainly because big data has the characteristics of complexity and comprehensiveness. Therefore, in the actual teaching, teachers can learn from foreign excellent teaching fragments, and in the specific implementation, they can use the project teaching method[3]. For example, when teaching database and Java Web knowledge, teachers can take the specific data of an enterprise as a template in teaching, and set up the corresponding teaching situation for students, so that students can understand the data function and data principle in the situation, and then independently design the corresponding content. When completing the project, teachers can effectively group the students according to their actual learning situation, ensure the reasonable allocation of learning resources, make the students form the independent spirit and exploration spirit in the completion of the project, and then make computer learning obtain better results.

2.4 Highlight the main position of students

In the actual teaching, teachers should strengthen the application of information technology, guide students properly, promote the improvement of students' practical ability in learning, be able to comprehensively use various data effective processing software, in this process, they can better find the shortcomings of students in learning. At the same time, students can improve their self-learning awareness and self-learning ability in software learning. In this process, the main position of students can be fully played[4]. In addition, teachers can use information technology to strengthen communication and interaction with students, pay more attention to the actual situation of students in learning, and make corresponding adjustments to teaching strategies according to the specific reactions of students in the classroom, so as to make the overall teaching more personalized.

2.5 Building big data teaching platform

Under the background of big data, higher vocational colleges need to reform the computer teaching from the teaching mode, curriculum system, teaching content, learning mode and other aspects, and reflect the concentration, which requires the use of the convenience of big data to build a big data teaching platform, which needs not only big data characteristics, but also strong cloud computing capabilities, so as to enable teaching The actual needs of teachers and students are met[5]. Using big data and cloud computing as online sharing and online storage as important teaching aids can promote the efficiency of students in learning. At the same time, the system can recommend the corresponding learning materials for students according to the specific learning content, learning objectives, learning progress, etc., which to a certain extent reduces the difficulty of teachers in teaching. Due to the limitation of time in the classroom, students can't ask teachers everything, and the use of big data can realize the effective use of

teaching platform and solve the problem of limited classroom time.

2.6 Promoting the realization of individualized teaching

Mass storage is the basis of the use of big data, and the analysis of data is one of the main goals of big data teaching. The outstanding characteristics of using big data in teaching and serving teaching are highlighted. Mass storage can effectively store students' classroom performance, test process, learning process, growth track and personal situation in learning, thus providing convenience for data analysis in the future[6]. At the same time, we can use the teaching system to analyze and encourage the students' time, process, content and final result in order to improve the quality and efficiency of teaching and realize personalized teaching with the help of data analysis.

2.7 Using multiple evaluation methods

In the traditional teaching mode, the evaluation of teaching results is relatively single in the mode, and the standard is often the same. Computer is a subject with strong practicability, and its diversity is obvious. Therefore, when evaluating it, we need to use multiple ways to play the auxiliary role of evaluation in education and teaching. When evaluating students, we need to focus on skills, thinking, practice and other aspects, so that the whole evaluation not only involves students' mastery of theoretical knowledge, but also involves students' use of knowledge, and promotes the improvement of students' comprehensive ability. Therefore, in the actual teaching, teachers should pay attention to the use of multiple evaluation methods, to create good conditions for the improvement of work effectiveness, and also to make students get a more comprehensive development.

3. Conclusion

In a word, in the context of big data, the computer major in higher vocational colleges should pay attention to the effective use of big data and promote the overall process of education reform. In the specific implementation, teachers need to combine the characteristics of big data to make changes in teaching methods, teaching concepts and other aspects, reflecting the effectiveness of computer teaching, so that teaching can keep pace with the times and meet the requirements of the times Social development needs. In the era of financial media, accurate and efficient access to data can better grasp the social development trend and recognize the development direction of education.

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