Discussion on the Reform of Basic Teaching of Computer Application in Universities in the Era of Big Data

Bi-hua Zeng¹, Gong-Bao Liu*¹

¹Hunan Institute of Traffic Engineering, Heng Yang, Hunan, 421009, China
*¹hunan Institute of Traffic Engineering, Heng Yang, Hunan, 421009, China

*Corresponding Author

Keywords: Big data, Colleges and universities, Fundamentals of computer application, Related teaching methods

Abstract: under the background of the era of big data, computer application basic course in colleges and universities in the teaching status quo and existing problems, and puts forward the effective measures to effectively implement the teaching reform, improve the student's ability of theory with practice, focus on analysis of big data era of computer application basic course teaching method, the new teaching technology to research, at the same time, attach importance to the idea of combining theory and practice of in-depth discussion.

1. Introduction

In the new era of big data background, big data technology has been widely used. Specific refers to through a lot of the current precision and high speed data information search, for college students to obtain useful data, according to the characteristics of vocational education in cultivating applied talents in the new era under the background of big data, not only requires students to computers with solid basic theoretical knowledge, also requires students to have practical computer skills, especially in the use of big data technology to solve practical problems, the future development laid a solid foundation of professional, and ultimately improve the students' professional competence. Therefore, in the context of big data in the new era, it is necessary to adjust and reform teaching requirements, especially computer courses.

2. Present Situation and Existing Problems of Basic Computer Application Teaching in Colleges and Universities

2.1 There is a Teaching Deviation between Theory and Practice

After some investigations, it was found that the teaching methods were traditional. Teachers of basic course of computer application in colleges and universities say that teachers pay more attention to theoretical knowledge in teaching basic course of computer application than to the cultivation of practical operation ability of computer. Practice is usually carried out after theoretical training, which leads to the failure of good connection between practice and theory. On the other hand, students cannot accurately apply theory to real life in the future. In addition, if teachers use multimedia equipment to teach concepts and some related theories, students can not fully keep active in a class, and classroom teaching tends to become more boring and boring, and the communication between teachers and students is greatly reduced to some extent. Therefore, in the stage of teaching practice, teachers organize students to practice in class, mainly because they teach students basic knowledge in class, which often leads to no correlation between theory and practice, resulting in students' insufficient use of knowledge. In addition, teachers do not understand the differences between students and often adopt unified teaching methods, which means that some students' practical operation has not been effectively exercised, which affects the effect and quality of classroom teaching.
2.2 The Basic Teaching Content of Computer Application is Quite Old

In recent years, information technology and the rapid development of science and technology in the domestic, especially in the field of computer information technology, the higher vocational colleges is still a lot of teaching problems in the aspect of, the use of computer application basis teaching material is old, too old on teaching content, not on the teaching content update teaching methods, based on this, need according to the development of The Times to the teaching material on design, makes the student to study The knowledge of is relatively backward. Although to some extent, using multimedia equipment in the classroom, but multimedia equipment used in the old software, to students in software practice it is difficult to obtain practical experience, for the teachers, the content of the computer application foundation course, the hardware and software have no update, did not change significantly course content, in addition, the course content is not according to The Times changes and the development of information technology, in the actual classroom lack of innovative ways of thinking, as a direct result of disconnection between education and reality, in the teaching quality and teaching effect is influenced by certain big [1].

2.3 The Application Ability of Moral Education Method is Not Flexible.

The talents of colleges and universities are to cultivate application-oriented and skilful talents for the society. These are the obvious differences between colleges and universities and traditional universities. Therefore, it is necessary for college students to master more practical skills in related majors. At present, students of different majors learn the same basic courses of computer application, so that college students can not meet the needs of society. Therefore, colleges and universities need according to the characteristics of each major and the actual channels of employment, the computer application of the basic teaching work to carry out reasonable norms. For current college students, most of them are relatively poor in academic courses and lack enthusiasm and initiative in the learning process. In addition, the students' learning level is poor, and there are many differences in their basic knowledge and practical operation ability. For the teacher, in the process of classroom teaching is still in the traditional single teaching methods, not according to the students' ability to teach them the ability to learn and layered teaching method, the basic development of make a teaching learning method is not suitable for everyone, because students are the basis of different, they understand and digest the knowledge have different degree. Some students with a good foundation can quickly grasp the knowledge explained by the teacher, while some students with a poor foundation have a higher learning rate. What's more difficult is that in the long run, some students who can't keep up with the pace in class will get bored or lose confidence, which will affect the students' learning effect In addition, it is difficult to improve students' computer practical operation ability [2].

3. Teaching Reform Strategies of Basic Computer Application Courses in Universities in the Era of Big Data

3.1 Under the Background of New Times, Renew the Concept of Computer Teaching

There is no doubt that in the era of big data, there are abundant learning information resources on the network platform. On the one hand, students can acquire relevant knowledge and skills through books, and on the other hand, they can also get the understanding and study of the latest computer technology through the Internet. For current teachers, they should fully understand the era of big data. In the process of classroom teaching, they should change the traditional teaching concept, improve the use of information resources on the network platform, improve their own understanding, strengthen learning, and effectively integrate the information resources on the Internet with the teaching content in the textbook. On the analysis of the students' learning needs on the basis of meet the learning needs of students, improve their comprehensive ability and quality, promote students' computer skills will be improved, teachers can through the adoption of micro class or for class and other modern teaching methods and means, to record the emphasis and difficulty in the classroom knowledge, translate relevant teaching content on the network learning
platform, students with network and multimedia equipment, any time can be anywhere at any time for computer application basis curriculum content of learning, so as to improve the quality and efficiency of classroom teaching Fruit. On this basis, we can see that the concept of education has begun to take place slowly It is adapted to the fundamental needs of every student, and it also introduces specific situations The generation of teaching methods and methods, so that students in the practice of computer education can be needed Knowledge and skills for a deeper understanding [3].

3. 2 To Fully Apply the Teaching Resources and Enrich the Content of Computer Teaching

In the current data-intensive era, information updating speed is very fast, coupled with the rapid and effective development of big data technology. For the current computer application foundation course teacher, should fully understand the characteristics of big data, related should according to actual condition to strengthen the teaching reform of computer application foundation course should pay attention to cultivate applied, high skills, high quality talents, we must integrate approach of the big data and the related concept to the classroom teaching process, expanded the content of the classroom teaching, teaching activity not limited to the place and time, etc, teachers should also be overall planning, combining with the characteristics of professional and choose to use the classic case, improve the students' practical ability, Teachers should also extensively develop teaching methods suitable for students according to their own interests and characteristics, improve students' computer thinking, and guide students to use big data technology to solve problems in the real world.

3. 3 Improve the Teaching Mode and Means, and Transform the Computer Teaching Mode.

Under the background of the era of big data, computer application basic course in colleges and universities teachers should change the traditional teaching methods, to improve the teaching quality and effectiveness of the model, increasing the interaction between teachers and students in class, and at the same time to mobilize students' learning initiative and stimulate students' learning initiative, in addition to the classroom teaching also should adopt various forms of teaching mode, teachers can use MOOC, micro lessons or flip classroom and other advanced teaching mode, through the advanced teaching mode can help students to choose suitable for their own learning needs learning progress. In addition, for teachers, the reasonable design in the teaching link of flipped classroom and the informationization of big data can promote the interest of teaching content. In addition, teachers can let students use teaching APP, micro-class, MOOC class to carry out pre-class preview activities or other ways to encourage students to preview pre-class knowledge and improve students' active learning ability [4]. Because the computer course itself has a strong practical characteristics, so the teacher should integrate students by absorbing scattered knowledge points, and provide students with practical practice opportunities outside the classroom, so as to improve students' practical ability.

Based on big data, some skills competitions are carried out to achieve the purpose of promoting teaching and learning through competitions.

3. 4 Establish a Scientific, Reasonable, Comprehensive and Effective Evaluation System

Evaluation system is a standard of interdisciplinary teaching activities, in computer application foundation course assessment in higher vocational colleges is still on the imperfect evaluation system of the stage, it cannot accurately reflect the efficiency and quality of the teaching content, especially the integrity of the evaluation system and evaluation system and improve space, because of this, no matter from the Angle of higher vocational colleges, or from the perspective of the related division, should perfect the evaluation system of the course. Give play to the guiding role of the assessment and evaluation system. To determine the status of students as learning objects, teachers in the process of teaching the correct guidance status. Focus on the computer thinking ability and innovation ability to train students. Under the background of the era of big data, perfect the evaluation system of reform can be done by big data mining algorithm, it is important to note that based on a variety of scientific and reasonable evaluation system needs perfecting, through
teaching evaluation system will record the relevant problems in the process of effective, reasonable and we need to analyze data, through continuous improvement and teaching activities, to improve the problem such as much interaction between students and teachers, make the quality of classroom teaching, the teaching effect is obviously improved, realized the teaching reform [5].

4. Conclusion:

To sum up, puts forward a new era of big data, higher demands, the universities should be based on the development of the present era, scientific and reasonable education teaching reform, change the education teaching idea, especially of computer application basic course teaching reform, more attention to the training for the thinking ability of students, fully mobilize students' learning enthusiasm, using big data technology advantage in the teaching, strengthen the practice ability of students in classroom teaching, developing students' independent learning ability, help students to improve employment competitiveness, and achieved a better professional skills, meet the social demand for applied and skilled talents.

References


