

Innovative Reform of Computer Education Teaching Model in Colleges and Universities under Modern Educational Technology

Yin Mingfu

Dehong Teachers' College, Yunnan, China

Keywords: Modern educational technology, Computer teaching, Innovation reform, Teaching mode

Abstract: At present, the traditional computer teaching mode is obviously not suitable for the requirements of basic computer courses education in Colleges and universities, which is not conducive to improving the quality of teaching in Colleges and universities. Therefore, this paper analyses the current situation of computer education in Colleges and universities, and gives relevant suggestions from four aspects: strengthening computer practical education, setting up reasonable curriculum structure and innovating teaching mode, in order to provide a theoretical basis for the goal of cultivating more computer talents in our country.

1. Research background

1.1 Literature review

In view of the development and innovation of the traditional computer teaching mode, computer teaching in colleges and universities under the modern educational technology is to analyze the limitations of the traditional computer teaching mode and explore the computer teaching mode in colleges and universities in an all-round way, which is conducive to the improvement of the computer teaching level in colleges and universities (Liu et al, 2015). At present, computer technology has become an important part of personnel training. There are many problems and shortcomings in traditional teaching mode, which not only restricts students' knowledge, but also affects teachers' teaching quality. The application of modern educational technology to computer teaching in colleges and universities is a great pioneer (Li, 2017). Moreover, with the rapid development of information technology, modern educational technology has been gradually promoted, which brings new hope for computer teaching. The application of modern educational technology in computer teaching has greatly improved the teaching quality and students' ability, and promoted the rapid development of computer education (Zhang, 2017). In the process of the development of modern educational technology, there are many new teaching modes. The application of these modes can promote the improvement of students' comprehensive quality (Sun and Liu, 2017).

1.2 Research purposes

Along with the trend of information age, computer technology is more and more widely used in daily life. Especially under the guidance of the thought of "prospering the country through science and education", computer technology has been gradually introduced into primary and secondary schools, which requires normal college students to have strong computer application ability, so that they can solve specific problems and assist teaching in future teaching work through computer application. In addition, with the continuous development of computer software and technology, the school has also made adjustments to the content of basic computer teaching, which also puts forward new requirements for computer education in normal universities (Huang, 2017). Therefore, how to improve the teaching effect through modern educational technology, so as to cultivate students' ability of innovation and application of computers, is the top priority of the current computer curriculum education in Colleges and universities.

2. Basic concept of modern educational technology

Modern educational technology is to exploit, design, evaluate, utilize and manage the process and resources of teaching and learning by using modern educational theories, ideas and scientific and technological achievements, so as to realize the optimization of computer teaching in practice and theory. Modern educational technology regards students as the center of analyzing and solving various problems in teaching, so that students can use modern educational media to complete their independent learning. Modern educational technology focuses on the needs of students. The teaching process is the process of students' thinking, operation and audiovisual. Teachers indirectly lead the teaching process, and perform their duties by presiding over, designing, demonstrating and evaluating. Modern educational technology takes the learning process of students as the object of research and practice. In the process, quality education should be fully embodied. Emphasis should be placed on the development, design and utilization of learning resources, and attention should be paid to the design and research in the teaching and learning process (Fu, 2018). Modern information technology is an important carrier of modern educational technology, which mainly includes two parts: communication technology and computer technology. With the application and development of network communication technology and multimedia technology in daily life, the process of education information is constantly advancing, and modern information technology is gradually applied in teaching. Modern educational technology includes not only hardware facilities, but also interaction between individuals.

3. Analysis of the present situation of computer education in colleges and universities

3.1 Institutions of higher learning do not attach great importance to computer courses

At present, the pressure of employment is increasing rapidly. Many colleges and universities only carry out computer courses for the purpose of responding to instructions from superior departments. In the personnel training mode, it does not take into account whether students can master computer-related skills, which causes most college students can only learn basic scientific and cultural knowledge, leading to the lack of basic social skills learning, and will face a more severe employment situation after graduation, and feel helpless. Teachers do not pay due attention to this compulsory course in the teaching of computer courses. Therefore, the lack of systematic arrangement of computer courses in such universities prevents students from being systematically taught about computer practice and theory in schools, which is not conducive to students' all-round development.

3.2 Mismatch between computer theory and practice teaching

Most colleges and universities always pay attention to students' learning of simple computer operation and basic knowledge theory in computer teaching, so students' computer application practice ability is insufficient. However, the basic training goal of computer education is to let students understand the computer development process and application operation, and learn basic Internet knowledge. In addition, students should simply master C language, Java programming and programming related training. At present, the computer education in Colleges and universities is very simple, most of them only teach the basic operation of computers and documents, and lack of cooperation with enterprises outside the school. This leads to students unable to carry out relevant practical activities after fully understanding the theoretical knowledge. At the same time, there are fewer organizations for related activities in schools, which makes students unable to realize the practical operation of computer teaching in a real sense. After students graduate and enter the workplace, they usually feel that the knowledge taught by the school is useless, and it is difficult to meet the requirements of the market for computer talents.

3.3 The computer curriculum is not standardized

For colleges and universities, the basis of training talents is the students of colleges and universities. At present, most colleges and universities have made computer courses compulsory.

Because the application of computer course itself is practical, in the teaching process, students should first understand the basic knowledge of computer use, and apply these theoretical knowledge to the operation practice in related fields. However, most colleges and universities are too theoretical in the teaching of computer courses, and lack of courses such as computer experiments. In the teaching of computer design, colleges and universities still arrange courses according to the traditional way of personnel training. This kind of teaching can not meet the relevant professional needs of the society for computer talents, but also make students lack practical knowledge of computer application, leading to their mastery of fragmented computer professional skills, unable to meet the requirements of the current employment situation on the level of computer application.

4. The path of constructing a new teaching model with modern educational technology as the core

4.1 Strengthening computer practice education

With the continuous development of modern network technology, many colleges and universities have implemented network-based teaching. One of the important means to realize the intellectualization and mechanization of modern society is to make full use of computer engineering. With the continuous progress of science and technology, colleges and universities should change the traditional form of computer teaching and establish a computer experimental model through the innovation of teaching form. The traditional computer teaching is largely limited by the experimental equipment and equipment, which leads to the insufficiency of the experimental testing process. Therefore, colleges and universities need to actively reform and innovate the form of computer teaching, through the new media education mode, gradually improve the laboratory education equipment, and vigorously enhance students' computer practical ability.

4.2 Reasonable design of computer course structure in colleges and universities

The information age is coming quietly, and the speed of information updating is changing with each passing day. Modern colleges and universities should keep pace with the times when carrying out computer teaching. The traditional computer curriculum design in Colleges and universities is out of touch with the actual application needs, and the teaching effect is not ideal because of the common talent training mode. After learning theoretical knowledge, students have poor ability to apply computers. Colleges and universities should flexibly select corresponding textbooks according to the requirements of different majors for students' computer abilities, and rationally plan the knowledge framework to strengthen skilled knowledge. Teachers should teach students purposefully and form a different system from traditional computer courses. This will help students learn practical skills, and promote the development of college students to a high level, multi-talented and multi-functional. In terms of teaching content, schools must have a full understanding of the market requirements for different professional computer levels, so as to train students to meet the social requirements efficiently according to market requirements. Colleges and universities should be market-oriented, to help students understand the current development of the industry, and then enhance their competitiveness in the workplace.

4.3 Constructing a new teaching model with information technology as the core

The application of computer-centered information technology in teaching and education is called modern educational technology. Information technology can show and create situations to improve students' insight and consciousness. The situation created is realistic for students and relevant to the curriculum. This new modern media with information technology as the core creates a new teaching environment and theoretical basis for the new teaching mode. Modern teaching media integrate multimedia teaching network, multimedia computer and campus network, giving full play to the role of computer human-computer interaction, mutual cooperation and creating situations. The redesign of teaching process through modern educational technology can not only change the traditional teaching mode, but also change the roles of teachers and students, from the traditional

teachers who blindly talk about theoretical knowledge to teachers who actively participate in the learning process of students, thus maximizing the development of teachers' own abilities. Students have also changed from traditional passives to active learners, giving full play to the main role of students.

4.4 Exploring new scientific teaching projects

Scenario construction theory in Constructivism defines human as a group animal with social attributes, which emphasizes the role of social situations in the learning process. Therefore, colleges and universities should introduce teaching projects related to real situations in computer teaching, so as to cultivate students' ability to solve problems, stimulate students' learning enthusiasm, and then strengthen their satisfaction with computer learning. Sense and self-confidence. Constructivism advocates that different individuals have their own unique ways of acceptance, and grouping "collaborative" teaching mode can help students to establish a more perfect knowledge system to a certain extent. Students are divided into different study groups and assigned different projects according to the actual situation. In the process of completion, the members of each group should cooperate and share methods, knowledge and harvest with each other, so as to timely detect and fill gaps, and constantly enrich students' knowledge system.

References

- [1] Liu M.Z., Wang J.H. and Sun X.D. (2015). Analysis of Computer Teaching Model in Colleges and Universities under the Context of Modern Educational Technology, Management and Science and Technology of Small and Medium-sized Enterprises (Previous Periodicals), 24 (1), 207-208.
- [2] Li J.W. (2017). Analysis of Computer Teaching Model under Modern Educational Technology, Wireless Interconnection Technology, 14 (9), 87-88.
- [3] Zhang H.B. (2017). Exploring the Computer Teaching Model under Modern Educational Technology, Digital World, 16 (11), 201-201.
- [4] Sun J. and Liu K. (2017). Exploration of Computer Teaching Model under Modern Educational Technology, Modern Communication, 31 (22), 162-162.
- [5] Huang Y.Y. (2017). Design and Realization of Practical Teaching for Higher Vocational Students under Modern Educational Technology --- Taking Graduation Design (Thesis) of Computer Applied Technology as an Example, Modern Information Technology, 1 (1), 95-96.
- [6] Fu W. (2018). A Preliminary Study on the New English Teaching Model under Modern Educational Technology, Examination Weekly, 9 (48), 86-86.