To explore the development direction and promotion path of computer teaching in colleges and universities in the new era

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Abstract: With the rapid development of information technology, computer teaching in colleges and universities is also progressing and developing. Nowadays, college computer teaching has formed a relatively perfect teaching system, covering two aspects of theoretical knowledge and practical operation. Teachers need to combine the development needs of students in knowledge, thinking and practice, strengthen basic teaching and practical operation teaching, and promote the combination of curriculum and innovation and entrepreneurship education. Based on this, this paper explores the development direction of computer teaching in colleges and universities in the new era with the author's practical experience, and puts forward feasible ways to promote it, in order to provide references for colleagues.

Key words: Universities; Computer teaching; Development direction; Advancing path

Introduction

With the continuous development of Internet and information technology, computer teaching in colleges and universities is constantly changing and updating. Under the background of the new era, computer teaching will pay more attention to interdisciplinary, as well as the combination of teaching and practice, requiring teachers to strengthen basic teaching at the same time, cultivate students' ability to solve practical problems, and develop students' comprehensive literacy. Therefore, the development of computer teaching in colleges and universities should take into account the imparting of basic knowledge and the expansion of ability, so as to lay the knowledge and ability foundation for students to adapt to the contemporary employment environment.

1. Development direction of computer teaching in colleges and universities

(1) Strengthen basic teaching and improve students' computer literacy

If the foundation is not solid, the earth will shake. In the development of computer teaching in colleges and universities, we should pay attention to strengthening basic teaching and improving students' computer literacy. That is to say, teachers should teach the basic principles, programming languages and algorithms of computers in detail, and guide students to deeply understand the working principles and logical structure of computers. In this process, improving students' computer literacy is the core task. Computer literacy includes computer culture, computer application, computer security and other aspects, so teachers should integrate computer culture, history and the latest technology into classroom teaching, and guide students to master computer security awareness and skills in the process of getting familiar with common computer application software and programming tools. And enable them to acquire, evaluate and use information effectively. For example, combining basic knowledge, new teaching models such as case teaching, project teaching and experiment teaching are introduced to expand the basic teaching content. Organize students to participate in competitions and club activities, guide students to learn basic knowledge in practice, and improve their cognition of computer technology.

(2) Focus on practical operation and cultivate students' ability to solve problems

In order to adapt to the development of The Times, college computer teaching needs to pay attention to practical operation to meet the needs of students and the market. First of all, in order to let students better master computer technology, colleges and universities need to integrate practical operation into the curriculum, so that students can find and solve problems in practice. For example, by completing some practical projects, students can learn technology in practice and find and solve problems from it. Secondly, colleges and universities should also strengthen cooperation with enterprises, so that students can have the opportunity to participate in practical projects of enterprises, so as to better grasp the technology and improve the ability to solve problems. Thirdly, colleges and universities also need to strengthen international exchanges, so that students have the opportunity to contact the latest international technology, so as to contact more cutting-edge professional technology, master the use of information technology to solve practical problems. Finally, in order to strengthen practical teaching and enrich students' practical operation experience, colleges and universities should strengthen teacher training, improve teachers' technical level, and introduce more advanced technologies so that students can have the opportunity to contact the latest technologies.

(3) Combine it with innovation and entrepreneurship education to cultivate students' comprehensive literacy

Computer teaching in colleges and universities should be combined with innovation and entrepreneurship education to improve students' comprehensive literacy and cultivate more innovative talents and entrepreneurs. In this process, colleges and universities will constantly explore new teaching models and methods. First of all, college computer teaching should pay more attention to cultivating students' innovative ability, encourage students to study independently, research, practice and explore, and cultivate students' ability to discover and solve problems. Secondly, colleges and universities will strengthen cooperation with enterprises, carry out school-enterprise cooperation in running schools, joint research and development, etc., so as to make college computer teaching more practical and cutting-edge. Thirdly, college computer teaching should pay attention to cultivating students' entrepreneurial ability, cultivating students' teamwork ability, leadership ability and business awareness required for entrepreneurship. For example, by holding innovation and entrepreneurship

competitions and setting up innovation and entrepreneurship courses, we can stimulate students' enthusiasm for entrepreneurship, help students understand and practice entrepreneurship, and improve their success rate of innovation and entrepreneurship. Thirdly, college computer teaching should also develop students' quality in communication, expression and foreign language, and introduce diversified teaching methods and activities.

2. The path of computer teaching in colleges and universities

(1) Improving the curriculum and optimizing the curriculum system

Due to the large differences in students' computer foundation, the curriculum is not flexible enough, and the updating speed of textbooks is slow, the current computer teaching still has some room for improvement. Teachers need to improve the curriculum and optimize the curriculum system, so that students can better master the computer knowledge and skills, so as to help them lay a solid foundation for future development. First of all, teachers should pay attention to the cultivation of practical ability and highlight the combination of science and practice in the curriculum content setting. In computer teaching, theoretical knowledge is important, but practical ability is more critical. Therefore, colleges and universities should enhance the unity of theoretical courses and practical courses, so that students can deeply understand computer-related knowledge and master practical operation skills in practice. Secondly, teachers should set up personalized courses according to students' different learning bases and interests. For those non-computer major students with weak computer foundation, some basic courses can be set up, such as computer basic knowledge, operating system, office software, etc.; For those computer students with good computer foundation, you can set up some advanced courses, such as programming language, data structure, algorithm, etc. In this way, students can choose their own courses according to their actual situation, improve their learning interest and effect. Thirdly, teachers should supplement the content of teaching materials to keep up with the development of information technology. The development speed of computer technology is very fast, but the updating speed of textbook content is relatively slow, which leads to the disconnection between the content of textbook and the actual demand. Therefore, college teachers should pay attention to the cooperation with information technology enterprises, regularly supplement the content of textbooks, and help students to master the latest information technology knowledge and skills. Finally, teachers should attach importance to innovative curriculum and encourage students to carry out innovative activities in computer science and technology. Through relevant courses, students' innovation ability and teamwork spirit can be cultivated, and students' computer skills can be better applied and improved.

(2) Update teaching methods and introduce modern educational technology

Through the application of multimedia technology, network teaching platform, virtual reality technology and online interactive tools, teaching work can be better carried out and students can better master computer knowledge and skills. In the computer teaching work in colleges and universities, teachers need to introduce modern education technology to assist teaching and achieve innovation in teaching methods, so as to improve students' learning quality and teachers' teaching effect. Take programming language teaching as an example, teachers can use information teaching technology to carry out mixed teaching, deepen students' understanding of knowledge, and train students to form programming ideas. First of all, teachers can use multimedia technology to assist teaching. By using PPT, video, audio and other multimedia resources, the course content can be presented more intuitively and students' interest and participation can be enhanced. The application of these multimedia resources is helpful to enhance the interest of teaching, help students better grasp the knowledge point, and improve the learning effect. Secondly, teachers use virtual reality technology to enhance students' practical computer operation ability. Through virtual reality technology, the program development environment of the enterprise can be virtual, so that students can simulate the actual operation process, help them master the operation skills and methods, and deepen the learning of programming language from the theoretical level to the practical level. Thirdly, teachers use the network teaching platform to carry out teaching work and guide students to carry out extended practice. The network teaching platform can provide online courses, homework, exams and other functions, which can allow students to learn anytime and anywhere, and can timely feedback students' learning situation, help teachers better understand students' learning progress and grasp. In this process, we should pay attention to the communication and interaction between teachers and students. Through real-time communication on the Internet, we can help students solve problems and puzzles in time and successfully complete the extension exercises.

(3) Strengthen the construction of teachers and improve their quality

In the development process of computer teaching in colleges and universities, the strength of teachers is the key, and the quality of teachers directly affects the quality of computer teaching. Therefore, improving the quality of teachers is an important aspect of the development of college computer teaching. First of all, colleges and universities should recruit teachers with professional background and rich teaching experience, and constantly strengthen the professional training of teachers, and promote teachers to constantly update their professional knowledge and teaching ideas. Secondly, colleges and universities should strengthen the cultivation of teachers' quality and enhance their professional ethics. For example, teachers should be encouraged to set good examples for students; Strengthen the team cooperation of teachers, deepen the better communication and cooperation among teachers, and encourage them to jointly promote the development of computer teaching. Thirdly, colleges and universities should establish a perfect incentive mechanism to encourage teachers to actively participate in teaching research and reform, constantly innovate teaching methods and means, and improve the quality of computer teaching. At the same time, colleges and universities should also strengthen the evaluation of teachers' teaching work, through the evaluation of students, colleagues and other ways to evaluate teachers' teaching work, help teachers to develop teaching innovation space, and constantly improve their own teaching work mode. In general, improving the quality of teachers is the key link in the development of

computer teaching in colleges and universities. Colleges and universities should strengthen the professional training of teachers, cultivate the professional ethics and teamwork ability of teachers, establish a perfect incentive mechanism, strengthen the evaluation of teachers' teaching work, guide teachers to improve the teaching mode and enhance the teaching ability.

(4) Carry out school-enterprise cooperation and promote the integration of production, learning and research

In recent years, the rapid development of information technology has penetrated into all aspects of people's lives, and the social demand for computer talents is increasing. As an important base for personnel training, colleges and universities must actively respond to the market demand, strengthen computer teaching and improve the quality of personnel training. For example, colleges and universities can deepen cooperation between schools and enterprises, introduce enterprise projects into their curricula, promote the combination of production, learning and research, and cultivate students' innovation and entrepreneurship ability through relevant scientific research projects. First, the introduction of enterprise projects can help students better understand the current situation of the industry and market demand, and improve their practical ability and employment competitiveness. By participating in enterprise projects, students can be exposed to real development environments and business processes, and learn the latest technologies and methods, so as to better adapt to future jobs. Secondly, the introduction of enterprise projects can promote the combination of production, university and research, promote industrial upgrading and scientific and technological innovation, and cultivate students' innovative ability. Enterprise projects usually require a high technical level and innovation ability. Colleges and universities can cooperate with enterprises to jointly develop new technologies and products, promote industrial upgrading and scientific and technological innovation, so that students can experience the process of scientific and technological innovation and research, and understand the industry frontier and technological development trend. Finally, the introduction of enterprise projects can improve teachers' scientific research level and teaching ability. By participating in enterprise projects, teachers can get access to the latest technology and industry trends, improve their own scientific research level and teaching ability, and thus better guide students. As teachers, the combination of production, learning and research should be taken as an effective way to promote the development of computer teaching in colleges and universities, effectively improve students' practical ability and innovation ability, and promote the integration of industrial upgrading, scientific and technological innovation and talent training process.

Epilogue

In short, in college computer teaching, it is not only necessary to guide students to learn the basic principles, operation methods and programming languages of computers, but also to guide them to contact the latest information technology and understand the frontier dynamics of computer science, so as to cultivate students' innovative ability and practical ability. This requires teachers to strengthen basic teaching, pay attention to practical operation, and combine their course teaching with innovation and entrepreneurship education, so as to create better conditions for students to learn basic knowledge, internalize knowledge and broaden their own vision.

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