

Application Research of Mobile Terminal in Computer Network Teaching in Colleges and Universities

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Abstract: Today, with the continuous development of information technology, the demand for talents in the computer industry is increasing day by day. The cultivation of compound talents with both skills and quality has become the focus of college teaching. The article mainly analyzes the teaching needs of computer majors in colleges and universities, the prospects of the computer industry, how to apply mobile terminals to computer teaching, and how to improve the students' comprehensive performance and professional ability through the application of mobile terminal teaching methods.

1. Introduction

As a supplement and extension of general higher education, online education has developed rapidly in China. China's online teaching is gradually developing from a single-way teaching mode dominated by the teaching staff to a two-way communication mode between teachers and students. Mobile learning is a new trend that has emerged from this paradigm shift, and mobile phones are one of the most important tools for mobile learning. According to Dr. Ji, an important feature of mobile learning is the use of convenient devices that can be carried in the hands and backpacks for education and training. In China, with the development of mobile communication technology and the decline of mobile communication tariffs, the penetration rate and usage rate of mobile phones are much higher. Nearly 2.7 billion mobile phones are used worldwide. In 2004, there were 200 million mobile users in China, and the monthly increase was 2 million. Therefore, mobile-based mobile learning has ample space as long as it has the right technology, reasonable price, and diverse content offerings.

2. The Basic Concept of Computer Network Teaching

The so-called computer network teaching, that is, the university's main content of computer technology and computer network, helps students understand and master the relevant professional computer network knowledge, and comprehensively enhance the professional quality and skills of students' computer networks. Through the teaching of computer networks, students should have a comprehensive and systematic understanding of the current mature computer network technology, and at the same time master the basic principles and concepts of computer networks, and have certain practical capabilities for computer technology, so that solutions can be independently designed. In the teaching of computer network, college students can learn the latest computer technology and network technology, and help students improve their ability of independent learning and innovation through the application of mobile terminals. In today's society where network technology is developing at a high speed, the teaching content of computer networks It is difficult to keep up with the speed of the times. Only by continuously improving the ability of students to learn independently can fundamentally grasp the trend of technological development and lay a solid foundation for future research and work. Therefore, in today's rapid development of computer network technology, traditional teaching methods and methods have been unable to adapt to the current era. In response to this situation, colleges and universities can only fully improve the teaching mode, through the combination of mobile terminals and classroom teaching. The

superiority of teaching under the new technology.

3. The Teaching Objectives of College Computers

Stabilize the basic knowledge of students' computers. The application of the mobile terminal can make the basic knowledge of the students more solid, and also enable the teacher to observe the degree of knowledge of the students through the mobile terminal, more intuitively understand the learning situation of the students, and facilitate the formulation of targeted teaching plans. Students practice theoretical knowledge through the application of mobile terminals, which can stabilize basic knowledge and facilitate future in-depth study. In addition to learning and familiarizing with basic methods of operation, students also have independent and skilled operational skills, which have a great impact on expanding learning.

Improve students' computer professional ability. The focus of computer science is on programming and programming, which is the focus of the computer industry. The mobile terminal can be used as a platform to directly show students the different operating characteristics of different systems, so that students can understand how to operate and run the features, and then carry out subsequent program development. Students should combine theory and practice in the study of professional competence. In addition, after understanding the data structure, students can try to design some simple small structures and practice the basic development techniques to help the deep development. At the same time, teachers can formulate different teaching programs through students' feedback, so that students can learn more and improve their comprehensive ability.

Strengthen the computer professional skills of students. Students choose computer science to be able to participate in the computer industry in the future, so the school should strengthen students' professional skills and prepare students. In addition to mastering sufficient professional knowledge, students also need to learn relevant skills in the workplace, learn to actively learn new knowledge, and constantly improve themselves. With the help of mobile terminal applications, students are more confident in the workplace competition and learn new knowledge more quickly. This is the indispensable all-round technical talent in the 21st century computer era. Therefore, the importance of mobile terminal applications can be seen.

4. The Status Quo of Computer Teaching in Colleges and Universities

In the actual teaching process, the biggest advantage of mobile terminals is that they can combine the theory and practice of computer network technology. For the computer majors in the lower grades of colleges and universities, teaching through theory and practice can promote the enthusiasm of students. By applying mobile terminals to teaching, students can help them develop correct learning attitudes and learning methods, and provide a development platform for students to learn independently in their spare time. For senior students, the mobile platform can not only grasp the latest development trend of current computer network technology, but also continuously improve their practical ability, so as to prepare for future study and work.

In the current teaching of computer technology in colleges and universities in China, there are mainly problems of heavy theory and light practice, and the teaching ideas and teaching methods are relatively backward, and the number of hours of class is shrinking. This aspect is due to the actual situation of the school. Although the state's capital investment in college construction continues to increase, most colleges still face budgetary pressures; on the other hand, colleges and universities have not changed the teaching philosophy of computer technology, and still stay in the old times, mainly as follows: The teaching system pays attention to the theory and lacks the practical teaching content. The teacher's requirements for the students stay in the "endorsement" and neglect the practical ability; Excessive emphasis on practice, some schools have emphasized the practice, canceled the theoretical curriculum, and only taught through computer practice courses, making it difficult for students to form a systematic knowledge structure. Both of these teaching modes are difficult to cultivate computer talents that meet the requirements of the times. In addition, the hours of professional courses in colleges and universities are still shrinking. Most colleges and

universities have only 72 class hours for computer network technology, including theoretical study and experimentation. The course is far from meeting the normal teaching requirements, which causes the teachers to pay attention to the progress in the classroom, neglecting the students' actual learning situation, and it is difficult to answer the students' various problems in the teaching process, which not only suppresses the students. The enthusiasm for learning has also led to a significant reduction in classroom efficiency.

Computer teaching is a knowledge learning process with distinct eras. It is subject to the updating process of textbooks. In the actual computer teaching process, there are often different degrees of lag, especially for the rapid development of computer technology today. Learning only on the basis of textbooks will inevitably make it difficult for students to keep up with the pace of the times. Therefore, in the computer teaching of colleges and universities, we should try to integrate the latest computer network technology into the classroom teaching, help students to establish a knowledge structure that conforms to the trend of the times, and require colleges and universities to have good equipment and excellent teachers. However, for most colleges and universities, it is difficult to meet the actual teaching needs in terms of hardware alone. In addition, in the process of computer network teaching in colleges and universities, the development trend of different technologies should be taken into consideration, and the development of students should be guided by the trend of technology development, thus helping students to find employment and further education.

5. Mobile Terminal Learning

For mobile learning, there are three different cognitive and understanding orientations in the theoretical world: The first is to understand mobile learning as a form of distance learning, such as the distance educator Desmond Keegan proposed remote Learning, digital learning and mobile learning are the three development stages of distance education. Secondly, mobile learning is an extension of digital learning. Learning content is the same as digital learning, but the way information and knowledge are acquired by means of mobile communication networks and Mobile communication devices, such as the mobile learning special research program in the European Digital Action Research Program of the European Union, define mobile learning; third, conduct research from the perspective of cognition and learning, considering mobile learning in terms of content and form There is no essential difference between digital learning and online learning, but the mobility and context-related characteristics of mobile learning make it a new learning technology and method that is completely different from digital learning and online learning, such as the University of Birmingham Mobile Learning Research. The group's point of view.

Domestic research directions on mobile learning applications include: home-school communication, intra-school wireless network, mobile library, Bluetooth campus network, Chinese-English text messages, etc. Domestic scholars also conduct research on mobile learning, such as the Peking University Institute of Educational Technology. Peking University undertakes the mobile education program of the Ministry of Education. The SMS education platform they developed has been put into teaching experiments and is studying mobile computing, mobile databases, mobile websites and so on. On the whole, mobile learning is in the research stage and there has not been a large-scale commercial activity. In 2006, China National University Education Technology Cooperation Committee has launched the "Mobile Education Project" pilot project, and the National Ministry of Education "Mobile Theory and Practice" pilot project has also been established. All of these indicate that the educational technology community in China has recognized the importance of mobile learning and mobile education research. However, as the technologies of mobile communication networks, mobile information devices, mobile application software and mobile application development involved in mobile learning are developing, the research on mobile education in China is still in the exploratory stage. The truly practical mobile learning system is not yet More common.

Another research direction of mobile learning is to explore the impact of mobile learning as a teaching method on teaching effectiveness and the attitude of students through the application in the

teaching process. The main research content is to discuss the impact of mobile learning and student attitudes in a course. Thornton (2005) studied the application of mobile learning in Japanese English learning; other research data comes from China and the United States. In contrast, research in this area started late and the results were relatively small. This study hopes to go deeper in this area, get new data, and try to get some experience that has not been seen before.

6. The Application Measures of Mobile Terminals

Improve teaching efficiency. The improvement of teaching efficiency is inseparable from the joint efforts of teachers and students. The efficient teaching environment is conducive to students' improvement of learning efficiency, combining mobile and classroom teaching, improving students' classroom learning efficiency, and using the client to improve students' practical operations. Ability, and in the case of consolidating students' theoretical knowledge, improve students' hands-on ability, meet the requirements of the development of the times, and greatly improve the efficiency of teaching. The teaching method of the mobile terminal is different from the old teaching mode. It mainly emphasizes the combination of theory and practice, from shallow to deep, and improves the overall quality of students.

Strengthen school-enterprise cooperation and increase employment rate. In the teaching of colleges and universities, internship is an important link. It links teaching activities with production activities. In the internship, it can help students use theoretical knowledge in practical work, and truly understand the difference between theoretical knowledge and actual situation. To improve the level of students. Through the cooperation between schools and enterprises, students are provided with a suitable practice environment to help students adapt to the actual working environment and working methods, which is conducive to alleviating the severe employment pressure of computer majors. At the same time, teachers should control the internship of students through the mobile terminal. The teaching tasks during the internship should also be carried out as scheduled. The purpose of school-enterprise cooperation is to improve students' practical ability and ability to apply knowledge. For students. It is an excellent opportunity to improve.

7. Conclusion

In summary, the use of mobile to enhance the teaching effect of computer networks, and ultimately improve the overall quality of students and the teaching level of teachers, is the main purpose of mobile terminals into the network teaching of computers. By reforming the traditional teaching mode, the new teaching mode that connects the mobile terminal with the classroom of computer network teaching in colleges and universities, not only improves the teaching efficiency, but also provides a broad platform and opportunity for the independent development of students. It is beneficial to cultivate more talents in line with the development of the times for the computer industry. It can be seen that the application of mobile terminals has become an important mode and method of computer teaching today.

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