

Research on Computer Application Software Teaching in Colleges and Universities Based on Virtual Cloud Computing

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Abstracts: This paper mainly studies the teaching of computer application software in colleges and universities based on virtual cloud computing. By analyzing the essence of cloud computing and the problems existing in the current computer application software teaching, this paper analyzes and discusses the specific application of cloud computing in teaching. This paper discusses from four aspects: Building relevant platforms to realize the integration and sharing of teaching resources, applying virtual cloud computing to innovate teaching forms, improving teachers' ability to use virtual cloud computing for teaching, and operating cloud computing to ensure teaching equipment and information security, showing the advantages and significance of virtual cloud computing for computer application software teaching in colleges and universities.

Keywords: Cloud Computing; Computer Application Software; Teaching

1. Introduction

With the continuous change of the times, science and technology are also developing rapidly. In recent years, the computer industry has become one of the most popular fields. Major colleges and universities also increase the opening of computer courses with the needs of the times. For computer application software teaching, the application of virtual cloud computing will enable students to have a deeper understanding of teaching knowledge, and alleviate the pressure caused by the high cost of purchasing equipment in colleges and universities, so as to improve many other problems, and bring some advantages that traditional teaching does not have.

2. Concept of cloud computing

Cloud computing has evolved step by step from a series of concepts such as distributed computing and load balancing. Different people have put forward different views on the analysis of its computing mode. For example, some people regard the computing mode of cloud computing as delivering information services with the Internet as the core. In essence, cloud computing accesses applications and services through the Internet. At the same time, it uses servers provided by third parties to run these applications and services. Taking the concept of cloud computing apart, the cloud refers to the network. It carries out its computing tasks through the resource pool composed of many computers, so

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that it can obtain various software services on demand, which is also the reason why it has super computing power.

3. Current situation of computer application software teaching in colleges and universities

As a course with high requirements for students' practical ability, computer application software should pay more attention to experimental courses in teaching arrangement. However, at present, many colleges and universities often reduce experimental courses and focus on theoretical teaching due to some problems such as capital investment. At the same time, some experimental courses offered in some colleges and universities also have some problems, which do not really improve students' practical ability. The application of virtual cloud computing in the course can well solve this problem. Virtual cloud computing can achieve a high degree of sharing of teaching resources, so that students can also obtain the convenience of accessing resources anytime and anywhere through simple operation. Meanwhile, virtual cloud computing can also avoid the purchase of hardware equipment and a large number of human and material resources required for later maintenance and updating of equipment. The application of cloud computing can further improve the efficient computer teaching system by solving the lack of experimental courses, so that students can combine theoretical knowledge with experimental courses in learning computer application software, make full use of the convenience brought by cloud computing, and achieve the best learning effect.

4. Application analysis of computer application software teaching in colleges and universities based on virtual cloud computing

4.1 Building relevant cloud computing platforms to realize the integration and sharing of teaching resources

Virtual cloud computing is applied to build a platform that can organically integrate scattered resources. On this platform, rich computer application software and educational resources can be organically integrated by relying on the extremely powerful computing power of cloud server. Teachers and schools can also upload relevant data resources through this platform, query relevant data resources anytime and anywhere, whether through laboratory equipment or private equipment, and this convenience only need to simply connect to the network provided by the school. At the same time, cloud computing can timely update the relevant data resources in the platform, which not only eliminates the expensive cost of purchasing a large number of hardware equipment, but also reduces the trouble of later maintenance and updating of hardware equipment, so that students can understand the most cutting-edge knowledge of computer application software. It has laid a solid foundation for the application of relevant knowledge and skills in students' future work. The rich resources provided by cloud computing platform can fully meet the needs of students when learning computer application software. Moreover, the way of organic integration of resources can also enable students to systematically and comprehensively master the relevant knowledge and skill system.

4.2 Applying virtual cloud computing to innovate teaching forms

Virtual cloud computing can provide students with rich resources, which also promotes the innovation of the traditional teaching mode of computer application software to a certain extent. In traditional college teaching, teachers often teach knowledge and skills in the face-to-face form of taking classes in the classroom, and this one-to-many teaching method will make one teacher unable to fully grasp the learning situation of the whole class, and often unable to achieve efficient teaching results. Virtual cloud computing application can build a creative teaching form. Students can use mobile phones, computers and other electronic devices to obtain needed resources anytime and anywhere. In addition, there are some special educational software for online teaching, which can help college students supplement the missing knowledge points in the classroom, enable students to learn according to their own situation and greatly improve the efficiency of students' learning. At the same time, due to the widening of students' learning channels, it can also reverse the form of teachers' teaching. The time and place of teaching will no longer be limited to the classroom during the teaching period. Teachers can teach through cloud computing network. Students can watch the contents of teachers' lectures repeatedly and adjust the progress of courses according to their own progress. Such teaching adjustment can be

carried out according to different students at different levels, so as to improve their levels more effectively.

4.3 Improving teachers' ability to use virtual cloud computing for teaching

Virtual cloud computing is a young product developed according to various concepts. In fact, computer application software teachers are familiar with virtual cloud computing and often use cloud computing for operation in the process of work. However, in the teaching process, many college teachers may not apply cloud computing to the actual classroom, like other courses, computer application software teachers often only use traditional multimedia teaching methods, which will make students unable to deeply understand relevant knowledge in the learning process of this skill. The combination of virtual cloud computing and traditional multimedia teaching will greatly assist students in understanding and mastering knowledge and skills. Therefore, it is extremely necessary to improve teachers' ability to use virtual cloud computing teaching. Schools can set up corresponding training courses for teachers of relevant subjects, so that teachers can learn the teaching method of the organic combination of cloud computing and traditional multimedia teaching in the training courses, and improve their ability to use cloud computing teaching; Students should actively adapt to cloud computing as an auxiliary teaching classroom and actively understand the knowledge of cloud computing. If teachers can use cloud computing in the classroom as an auxiliary way to cooperate with traditional multimedia teaching, students will have a deeper understanding of teaching knowledge under the application of cloud computing, and computer application software teaching will get a qualitative leap.

4.4 Using cloud computing to ensure the security of teaching equipment and information

The teaching experiment classroom of computer application software is equipped with more computer equipment. If a network virus invades the machines in the laboratory, it will easily lead to the paralysis of the whole system, which will have a great impact on the experimental course teaching of computer application software. At the same time, some information in the system may also be leaked, which greatly endangers the information security of the school. The complete elimination of such viruses also needs to consume large financial and material resources, and cannot fundamentally achieve the effect of virus control. It is still difficult to prevent virus invasion in the future. The application of virtual cloud computing can well solve this problem, use the professional team equipped by the cloud computing provider to maintain the security of university computers, in order to prevent network intrusion viruses from the source through its advanced technology, change the traditional way of storing resources locally in the system, and protect important data resources in the cloud computing environment. Teachers and students can query relevant resources on the network through the corresponding account, so as to avoid the destruction and disclosure of data information.

5. Conclusion

According to the above discussion, we can understand the relevant concepts of cloud computing, understand its substantive operation system, and recognize the current situation of computer application software teaching in colleges and universities, in order to deeply understand the problems, analyze the application of cloud computing in teaching, and discuss it from four aspects, to build an integrated and shared resource platform. We can apply cloud computing to innovate teaching forms, broaden students' learning channels, and enable them to learn flexibly according to their own situation. By improving teachers' teaching ability of using virtual cloud computing, cloud computing is deeply penetrated into students' daily teaching, so as to make students have a more thorough understanding of cloud computing knowledge, lay a foundation for using cloud computing to solve problems in their future work; We can use the professional team of cloud computing providers to solve the problems of virus intrusion, damage and leakage of teaching equipment, so as to make college data resources more secure and teaching equipment more secure.

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