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Analysis on the Application of New Media Technology in Computer Course Teaching

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Abstract

In recent years, with the rapid development of new media technology, its application in modern society has penetrated into various fields, including the field of education. As one of the core courses of computer science and technology majors, computer course teaching is facing many challenges, such as the traditional teaching method is single, and students' interest in learning is not high. New media technology, with its advantages of rich learning resources and strong interactive learning environment, has brought new possibilities for computer course teaching. New media technologies include social media, mobile Internet, virtual reality, etc., which are characterized by interactivity, immediacy and diversity. By making the use of new media technology, students can provide rich learning resources for computer course teaching. For example, online learning platform can provide rich teaching videos, case analysis, programming practices, etc., so that students can learn anytime and anywhere. Virtual laboratory can simulate the real experimental environment, allowing students to carry out experiments through virtual operation and improve their practical ability. Teaching games can increase students' participation and interest through gamification, and encourage students to actively participate in course learning. This paper explores the application of new media technology in computer course teaching, and hopes that on this basis, the teaching mode of computer course can be continuously optimized.

Keywords

New media technology, computer course, and teaching analysis

Introduction

As one of the core courses of computer science and technology major, computer course plays an important role in cultivating students' computer science and technology ability. However, there are some problems in the traditional computer course teaching methods, such as limited teaching resources, single teaching content, and students' low interest in learning. With the rapid development of new media technology, its application in the field of education has provided new opportunities for the innovation of teaching mode. New media technologies include social media, mobile Internet, virtual reality, etc., which are characterized by interactivity, immediacy and diversity. New media technology can provide rich learning resources for computer course teaching. For example, online learning platform can provide a variety of learning content and learning methods, virtual laboratory can simulate the real experimental environment, and teaching games can improve students' participation and interest. In addition, new media technology can also promote students' cooperation and interaction and improve students' practical operation ability and problem-solving ability, so as to enhance students' learning experience and learning effect [1]. Although new media

technology has been widely used in other fields, its application in computer course teaching is still relatively limited. Therefore, explore the application of new media technology in computer course teaching, study the teaching effect and the influence of students 'learning experience, explore the new media technology in the computer course teaching best practice and strategy, to promote the innovation of computer course teaching mode and improve the students' learning results is of great significance.

1. The challenge of computer course teaching

1.1 Technical update is fast

Fast technology update is a big challenge in the application of new media technology in computer course teaching. With the continuous development and innovation of science and technology, new media technology is constantly updated and evolving, including software, hardware, application programs and other aspects. For teachers, it is necessary to constantly learn and master new technologies, and keep the timeliness and advancement of the course content. First, teachers need to constantly understand and learn the latest development and application trends of new media technology, including the understanding of new software tools, programming languages, network applications, etc. They need to constantly update their knowledge and skills, so as to be able to apply the latest technology in teaching and provide students with the latest learning experience. Secondly, teachers need to pay attention to the application scenarios and practical application of new media technology, and understand its application situation in practical work [2]. This helps teachers to combine new media technology with practical application scenarios, so that students can better understand and master the practical application of technology. In addition, teachers also need to constantly update the curriculum content and teaching materials to keep pace with the new media technologies. They need to constantly update and adjust the curriculum to ensure that the course content covers the latest technology developments and application trends, exposing students to the latest knowledge and skills. At the same time, schools and educational administrators also need to provide corresponding support and resources, including updated hardware equipment, software tools and training opportunities, to help teachers constantly update their technical knowledge and improve their skills. To sum up, fast technology update is the challenge of applying new media technology in computer course teaching. Teachers need to constantly learn and update their technical knowledge, and schools and educational administrators need to provide corresponding support and resources to maintain the timeliness and advancement of the course content.

1.2 Unbalanced educational resources

The imbalance of educational resources is another challenge when applying new media technology in computer course teaching. There may be an imbalance in the allocation of educational resources between different regions and different schools, including hardware equipment, network environment, software tools, teachers and so on. First, some regions or schools may lack sufficient hardware equipment, such as computers, tablets, etc., which limits the application of new media technology in curriculum teaching. This may lead to students being unable to fully experience the application of new media technology, which will affect their learning effect and interest. Secondly, the imbalance of the network environment is also a problem. New media technologies usually need a stable network environment to support, such as Internet connection, high-speed network, etc. However, in some remote areas or economically underdeveloped areas, there may face problems such as incomplete network coverage and slow network speed, which limits the application of new media technology. In addition, the use of the software tools may also be limited [3]. Some advanced software tools may require higher licensing fees or professional training, while some schools may not be able to afford such fees or provide corresponding training resources, thus limiting the scope of application of new media technologies. Finally, the faculty strength is also an important factor. Teachers need to have enough technical knowledge and teaching experience in order to effectively apply new media technology in course teaching. However, teachers in some schools or regions may lack relevant training and support, causing them difficulties in applying new media technologies. Addressing the challenges of unbalanced educational resources requires integrated measures. Through policy support and funding input, the government can provide more hardware equipment, improve the network environment, provide free or low-cost software tools, and provide teacher training and support. Schools and education administrators can also strengthen resource allocation and optimize the allocation of educational resources to ensure that every student has equal access to educational resources. At the same time,

teachers should actively participate in relevant training and learning, constantly improve their technical ability and teaching experience, and better apply new media technology for course teaching.

2. The Application of new media technology in computer course teaching

2.1 Multimedia teaching materials

Multimedia teaching materials are a common application method of new media technology in computer course teaching. By using multimedia teaching materials, teachers can create a rich variety of teaching resources, including images, videos, animation, audio, etc., to present the course content and display examples. The following are the application advantages of multimedia teaching materials in computer course teaching. First, enhance your interest in learning. Multimedia teaching materials can present the course content in a vivid and intuitive way, stimulate students' interest in learning, and make the learning process more pleasant and attractive. Second, enrich the teaching content. Multimedia teaching materials can contain rich information and diversified materials, such as pictures, videos, audio, etc., which can show practical application scenarios, cases and examples, enrich the course content, and improve the quality of teaching. Third, provide a multisensory learning experience. Multimedia teaching materials can present information through various ways, such as images, sound and animation, to meet students' multi-sensory learning needs, and help to improve the learning effect and memory. Fourth, provide a personalized learning experience. Multimedia teaching materials can be customized according to students 'learning style and interests, provide personalized learning experience, meet students' different needs, and improve the learning effect and autonomy. Fifth, it is convenient and flexible to use it. Multimedia teaching materials can be presented through online learning platforms, electronic teaching materials, teaching software and other ways. Students can study independently according to their own pace and learning needs, providing a convenient and flexible way to use them. Sixth, expand the learning resources. Multimedia teaching materials can be shared and disseminated through the network, enriching students' learning resources, helping students to expand their knowledge field and in-depth understanding of the course content [4].

2.2 Online learning platform

First, learn across time and space. Online learning platform can realize distance learning. Students are not limited by time and place, and can learn according to their own arrangement and pace, which is convenient and flexible. Second, provide rich learning resources. Online learning platform can provide a rich variety of learning resources, including textbooks, courseware, examples, cases, exercises, etc. Students can choose appropriate resources for learning according to their own needs, enriching the learning content. Third, provide interaction and cooperation. Online learning platforms usually provide learning social functions, such as online discussion, interactive question and answer, group cooperation, etc. Students can interact and cooperate with teachers and other students to promote learning communication and cooperative learning among students. Fourth, provide independent learning and personalized learning. Online learning platforms usually support students to choose their own learning path and learning pace, and can provide personalized learning experience according to students' learning interest and level, which helps to improve the learning effect and autonomy. Fifth, provide timely feedback and evaluation. Online learning platforms usually provide functions such as learning progress tracking, homework submission, automatic evaluation and so on, which can give students timely feedback and evaluation, help students find and improve learning problems in time, and improve their learning effect. Sixth, teaching management and monitoring. Online learning platform can manage and monitor students 'learning activities, including learning progress and learning results, etc., which helps teachers to monitor and guide students' learning situation.

2.3 Virtual experiments and simulations

First, maintain security and the economy. Virtual experiments and simulation can avoid the possible dangerous and costly problems in real experiments. Students can conduct experiments in a virtual environment without worrying about the safety and maintenance costs of the experimental equipment, thus providing a safe and economical way to learn. Second, provide reliability and flexibility. Virtual experiments and simulation can conduct multiple repeated experiments, and students can conduct multiple experimental explorations according to their own needs and interests, so as to improve the reliability of experimental data. At the same time, the virtual experiment and simulation can be adjusted and flexibly applied according to different teaching objectives and students' levels to meet the learning needs

of different students. Third, simulate the expansion of the experimental environment. Virtual experiments and simulations can simulate a variety of experimental environments and situations, including those that are difficult to obtain in the real world. Students can extend more complex and realistic experiments in a virtual environment, thus expanding the scope and depth of the experiment. Fourth, provide interaction and feedback. Virtual experiments and simulation usually provide interactive operation and inquiry process, and students can complete the experiment and inquiry by interacting with the virtual environment. At the same time, virtual experiments and simulation can also give timely feedback to students to help students understand the experimental results and principles. Fifth, improve learning interest and participation. Virtual experiments and simulations are usually presented in the ways of graphics, sound, animations, etc., which can improve students' interest and participation in learning. Students can conduct independent exploration and experiments in the virtual environment, so as to stimulate their interest in learning and improve the learning effect. Sixth, provide the flexibility of time and space. Virtual experiments and simulations can be conducted at any time and place, regardless of time and place. Students can conduct experiments and inquiries according to their own learning arrangement and rhythm, providing flexible learning methods [5].

3. Epilogue

The application of new media technology in computer course teaching has been in continuous development and exploration. Through multimedia teaching materials, online learning platform, virtual experiment and simulation, many positive changes have been brought to computer course teaching. These applications not only enrich the course content and teaching methods, but also improve students 'interest and participation in learning, and promote students' in-depth learning and the cultivation of practical ability. However, new media technology also faces some challenges in computer course teaching, including fast technology updating, unbalanced educational resources, insufficient teacher training, and difficulties in evaluation and monitoring. These challenges require a joint effort of educational institutions, teachers, and related technology providers to overcome. Despite some challenges, the application of new media technology in computer course teaching still has great prospects. In the future, with the continuous development and progress of technology, new media technology will play a greater role in computer course teaching, help students to better understand and master computer knowledge and skills, cultivate their innovative and practical ability, and adapt to the needs of the information age.

References

[1] Generation of governance. Practice of computer course teaching mode in new engineering engineering [J]. Electronic Technology, 2023, 52 (03): 96-97.

[2] Li Tianjiao. Internet-based computer course teaching design [J]. Integrated circuit applications, 2023, 40(03): 240-241. DOI:10.19339/j.issn.1674-2583.2023.03.109.

[3] Du Zhipeng. Design and implementation analysis of computer courses [J]. Integrated circuit applications, 2023, 40(03): 268-269. DOI:10.19339/j.issn.1674-2583.2023.03.123.

[4] Wear Honghong. Research on the development trend of computer in the era of big Data [J]. Scientific and technological Innovation and Application, 2020 (27): 6-7.

[5] Pay for the glory. Computer development and industrial automation control [J]. Hubei Agricultural Mechanization, 2020, (11): 147-148.