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The Application of Multimedia Technology in Web Education

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Abstract

The development of the multimedia technology and network technology, multimedia network teaching has become an inevitable development. Multimedia is a better communication tools, education society with its own characteristics. In this paper, we discusses the teaching pattern of multimedia technology in web education and its necessity, and give full play to multimedia applications in the web education.

*Keywords:*multimedia,network teaching, applcations

1. Introduction

Dependent on multimedia network teaching closely combining multimedia computer technology and network technology, with a variety of media information processing technology, man-machine communication ability, to achieve online multimedia information transfer and resource sharing, forming an ideal of multimedia network environment. Because the multimedia is a collection of text, graphics, animation, video, sound, special effects, etc and contains an infinite space imagination, not only change the we learn and understand the question, but also changed the way we spread information. With the development of the Internet, and quickly spread, the modern education technology is going through a network of revolution. Teaching and training of basic multimedia information resources system, including the main function of multimedia teaching material construction and multimedia information resource management, multimedia information resources application, is the material basis of multi-media teaching in schools. The formation of student-centered teaching and learning environment of multimedia, multimedia teaching gradually deepening.

2.   Overview Of Multimedia

2.1 concept

   The new multimedia technology mainly refers to the multimedia computer technology, refers to the comprehensive management and control of multimedia information including text, graphics, animation and moving images, etc, and to establish logical link of information, and will "interaction" enter the system function. This is a completely different traditional simple combination of multimedia technology.
   The computer multi-media technology integrating audio-visual information system of digital signal, then can easily storage, manipulation, control, editing and transform even query and inspection? People can describe, release, and deal with various kinds of audio-visual material, using multimedia technology, representations of nature, have more participation and creativity.

2.2 features of the new multimedia

- Integration. Various symbols system integration of multimedia, characteristics, this characteristic is different from the past or compound drab multimedia symbol system. In other words, multimedia technology is not the overlay of symbol systems, but the overall integration.
- Nonlinear characteristics of Non - linear. Multimedia technology will change the reading and writing sequence model patter. In the past, people's reading and writing method usually is a famous chapter, sections, pages, and acquired a knowledge step by step, and multimedia technology will attract hypertext links method can display content to the reader in a more flexible and changeable.
- Nonlinear characteristics of Non - linear. Multimedia technology will change the reading and writing sequence model patter. In the past, people's reading and writing method usually is a famous chapter, sections, pages, and acquired a knowledge step by step, and multimedia technology will attract hypertext links method can display content to the reader in a more flexible and changeable.
- Real-time. The audio, moving video, animation in multimedia information are closely linked to time, and the integrated process of their presentation and interactivity is real-time. When one of the main content is displayed, its audio-visual information is synchronous.
- Edit ability. The key technology of the multimedia is digital high-compression and decompression technology. Digital information is easy to copy and modify, including the audio (language, sound), graphs (static and dynamic), text and so on, which can be edited flexibly through the digital compression.
- Ease of the use of information. The users can use information according to their own needs, interests, task requirements, preferences and cognitive characteristics, and take graphs, text, audio and other information forms freely.

3.   Model Of Multimedia Networ Teaching

   Teaching mode and adapt to the constructivist learning theory in the multimedia network environment, can be summarized as follows: to students as the center, in the whole teaching process, the teacher as organisers, teacher, help and service providers, use of multimedia network environment resources through cooperative learning, students give full play to one's own initiative, enthusiasm and entrepreneurial spirit, and make students the effective ways to achieve the goal of construction of realization, which means they have learned. In this model, the students are of positive significance constructer knowledge. The knowledge supplied materials content is not only the instructor, but students object tectonic initiative. Multimedia network technology is not only the ways and means to help the teacher imparts knowledge, but tool used to create the environment and do collaborative learning. The main multimedia web education model has the following categories:

First, explain demonstration model based on multimedia classroom. This teaching model, make the traditional teaching of multimedia network teaching process, the teacher closely integrated teaching contents according to the teaching goal, puts forward the multimedia system various types of teaching content by courseware, graphics, animation, video image and sound form, vivid images. The students understand these vivid perceptual materials, formulate appropriate feedback. In this model, according to the needs of teaching, teachers can supplement make those extracurricular materials to save the time of writing on the blackboard, increase the amount of information, and the focus of teaching can repeat, so as to improve the teaching effect.

Secondly, based on the web-based autonomous learning mode. According to the teaching goal, the teacher to provide students with a lot of teaching and learning of information resources, by those students according to its actual conditions, decide on the learning objectives, choose to study the content and method of their own learning. Students can also do a lot of repeated practice, through the network to achieve purposes of cement their formation of knowledge and skills. Meanwhile, auto - correcting computer can also function feedback timely learning result of pressure reduces teachers inspector role. In this model, if the student encounter difficulties, they can discuss with the teacher or a classmate via E-mail or instant messaging chat, timely solve the problems, and teachers are able to collect more feedback information students.

Third, cooperative learning, according to different tasks. According to the teaching aim, teaching content design to meet the various tasks characteristics of distributed to teachers and students through the network packets students. Students in the completion of the teaching task through positive cooperation, mutual communication, learn from each other and mutual influence and inspiration, knowledge, methods and skills in this process. Teachers can join task group, and guide students and inspection and supervision of the cooperation process middle school students.

4.   Teaching Effectiveness Off Multimed Ia Technology Application

  First, the use of multimedia technology can stimulate students' interest in learning. Using the multimedia technology through innovative image, dynamic indication, rich films and wireless data change passive "listen", "recording" active "see", so it can trigger the learning interest of the students, and students tend to have a positive trend learning contents, aroused warmth and lasting emotion. Therefore, students think positively and have courage to express his views, and actively participate in class, this is the true as learner-centered representation and the student's development as a fundamental innovation education thought.

Second, direct feedback timely from teaching depends on the ability of using human-machine interaction. The computer multi-media how effective classroom can be learned only through teaching feedback. Through computer software and powerful man-machine interactive function of multimedia network technology development, the teachers and students in teaching and learning process get teaching feedback at any time, and teachers may study effect of training. If a lot of practice my classroom report, teachers can know the results of each title, real-time help students identify the reasons for the mistake. Even if the test students master degree of professional knowledge, can also realize the courseware.

Third, the cultivation of students' creative thinking in the multimedia network teaching. In the web education, teachers use creative teaching strategies, build a new teaching model which is student-centered, student-based independent exploration activities, teaching-oriented, learning as the main body, suspicion to be spindle, exploration the main line, so that the teaching activities are established based on student self-study, self-inquiry, and thus conducive to the formation of teaching and learning environment of students' creative thinking ability.

Fourth, the ideal learning environment is built for students to self-study with media technology. Constructivist theory suggests that human learning is neither a simple rendering of external things, nor a human cognitive structure of the original commencement, but construction of meanings established step by step for external things in the process of the human interaction with the external things. It emphasizes the active construction process of knowledge for the students, the learning autonomy

and innovation of students. Constructivist learning theory suggests that "situation," "collaboration", "Conversation" and "meaning making" are the four elements or properties, which constitutes the self-study for students.

5. The Necessity Of Multi-Media Teaching In The Networ

Now there are many different types of instructional media whose performances and features are different, and the performances of the teaching content exist one kind or another limitation, which means that no single media can not be good to face the whole teaching process. As a complete classroom teaching, it is often composed of multiple basic teaching activities. When one kind of media delivery does not meet the requirements, other media can be supplemented. Therefore, it is necessary to optimize teaching and learning media with different performance to avoid weaknesses in the teaching process, and apply interactively, and harmonize the teaching effectiveness. In a word, according to the need of learner characteristics, teacher characteristics, teaching content and teaching goals, various media combine and exhibit their length, complement and reinforce mutually to constitute a optimized teaching media group for the transmission of teaching information, and various media co-involve the entire process of teaching in order to achieve optimum results.

6. Multi-Media Teaching Is The Inevitable Trend Of Development Of School Education

Today's society is an era of knowledge explosion and expansion, and the rapid development of information and quick update knowledge require us to keep the pace to improve our own qualities constantly. The web education makes use of modem information technology as a principal to innovative teaching, and now the students have great interest in the computer, so they will not resist it. In the classroom, the interests of students thicken and enthusiasm for learning increases, and thus they will be more proactive, conscious. The network teaching can cause students to think about, so the answers are various, which can stimulate the creativity of students in full compliance with the requirements of network teaching. We advocate "innovative educational environment under network", which means network-style classes with multi-media mixture discuss.

The multimedia classes involve a broader range of knowledge, which can mobilize the enthusiasm of students unlike traditional education which is confined to a very limited knowledge of the books, and it is more representative of the breadth and usability of the multimedia technology. Because of the simple and fast to transfer the information in the teaching process, the classroom teaching includes high information content and wide teaching knowledge, which help the students to improve the strength and breadth to receive knowledge so as to achieve the ultimate goal of improving teaching quality.

Finally, a substantial network of information resources, superior multimedia capabilities and multi-interactive function offer the possibility to improve quality and efficiency of teaching. What we are facing is a highly information-oriented era of education, and multi-media teaching is the need of the times and the inevitable choice for school teaching.

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