Study on Multimedia Application in Sport Education

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Abstract

Multimedia technology will get the new revolution of sport education, education thought and education theory in colleges and universities during the multimedia period. Sport education need to protest to change the traditional education. In colleges and universities, bring multimedia technology into the education, rich the teaching content, combine various media techniques to raise students' learning interests with energy application to the teaching activities then to improve sport teaching in colleges and universities. This article analyzes the current sport education problems, provide revolution urgency and analyze the application possibility of multimedia technology in the sport education. Propose the secondary CAI (Computer-assisted Instruction) and provide courseware design and manufacture processes in the last.

Keywords: Multimedia technology, Sport, Education.

I. INTRODUCTION

The rapid development of multimedia technology brings great support of sport education. The multimedia technique application makes revolution of education theory and method in colleges and universities that improve the whole effect of sport education. Aiming at the present sport education, take the advantage of multimedia education theory to change and develop the education quantity then to exploit the new teaching area.

II. MULTIMEDIA TECHNOLOGY

A. Multimedia overview

At present, there still not has a unified definition of multimedia. Simply speaking, multimedia is the combination of rich "cross media"or "methods". Such as different texts, graph, audio and video, photo, animation and other information, all the integrated various information called "multimedia". The "multimedia" is not only the single media, but also the completed information technology of management and technology. Computer function of digital and interaction management brings new break for multimedia technology. The advanced computer technology integrated with video, audio and information that are the present multimedia technique. Therefore, multimedia and multimedia technology is the synonym without distinguish.

B. Multimedia technology overview

In the usual, multimedia computer technology is the multimedia technique. It means use multimedia computer technology to manage the complete media information such as text, graph, video, sound, photo, animation and so on. The multimedia information forms the technology with inner logical relation, organic combination, interactive and new type of multimedia technique with man-machine interaction, comprehensive application information and computer management technology.

C. Multimedia technology characteristics

(1) Multidimensionality of multimedia technology is in the information operational analysis, especially in the continuation ability of space operation. This function can achieve the information transform, process and recreation that improve the performance effect of information output. For example, use multimedia technology to reach sport education that student can learn lessons not only in pictures but also through multimedia animation to understand the important decomposition of movement then to strong the education effect.

(2) Compositionality of multimedia technology can organic integrates huge various media information then to construct completed multimedia information. The compositionality includes hardware combination, computer software system, data storage system and the assembly of input and output devices. The compositionality of multimedia technology reaches the integration of multimedia on the computer that output with sound, light and electric.

(3) Interactivity of multimedia technology is mainly about the interaction of man to man, man to machine, machine to machine, especially in the interaction of man to machine. Man-machine conversation decides the user level. This is the basic distinguish among traditional television, family cinema and other household appliances. Multimedia computer

system needs people based on requirements to control, choose and index the multimedia that involve information reproduction and program interaction with better autonomy than passive information acceptation.

The digitization of digital multimedia technology means the multimedia technology establish on the basic of computer digitization management. Various media information such as graph, photo, audio and video is store and manage in the computer as digitization of lattice, vector and digital coding.

III. PRESENT ANALYSIS OF TRADITIONAL SPORT EDUCATION

A. Sport education

Sport education process has similarity with other course teaching. They are all the learning process of knowledge and ability with planned and purposeful cultivation that teacher in the leader position of knowledge impart and training of ideological and ethical standards. However, sport teaching has the own characteristics. Sport education target: sport education target is to teach students sport knowledge and functions that students can grip methods and skills to establish improvement, bodybuilding, and life extend learning then to develop thinking, strengthen innovation initiative. Sport education content: teaching basic knowledge to the students. Basic sport skill is the main content of sport education. Through repeating training, understand the accurate body exercises and use perfect knowledge to guiding body exercises. Sport education content emphasizes the body practice. Sport education organization: sport education in the sport venues of colleges and universities with individual extramural environment. Different types of exercise machines distributed in the various fields that sport education has huge span space with difficult organization. Otherwise, students are full of power, circulation and differences that limited by the teaching venues and facilities. All these decide the organization complexity and form diversity.

B. Present analysis of sport education in colleges and universities

Teacher education leader: during the process of traditional sport education, teacher are in the definitely leader position that teacher talking while student listening in passivity. This mode cannot represent the perfect organic relation of teacher, student and intermediary. Spoon-feed education will constrain the classroom atmosphere that cannot encourage the learning interests and block the further development of innovation thinking even the improvement of exploration ability. Principle learning standard: principle learning will directly improve the development of cognitive competence but lack of practical experiences with less cognitive ability of students. Emphasize rationality, neglect sensibility, emphasize theory, neglect practice, emphasize conclusion and neglect process will discount the teaching effect of sport education. This will lead rationalization pursuing, abstract and graphic symbol learning cannot transform into vivid motion and will create machinery study to be weary of studying then to strangle the intelligence development and innovative thinking.

C. Multimedia education possibility

With the ceaseless development, multimedia technology has taken into application in the classroom education. Modern teaching theory is the theory foundation of multimedia during education application. It is not only emphasize the knowledge learning but also the training of active learning, divergent thinking ability with sound, light and electric method to represent the elusive knowledge in an easy method. This method can develop the learning interaction and break the teaching important points then to remedy the traditional insufficient fundamentally. Students have strong dependence on specific experience and images of sport knowledge understanding and grasping. Otherwise, people usually thinking by the left-brain. Make multimedia courseware by multimedia software and explain the courseware while representing in during the class will vivid the teaching with sound, light and electronic. All the multimedia information will excite student perception that can easier to understand the content with various interested teaching contents. Provide more information from sight, hearing and touching that student will obtain study and thinking during the openness and interaction learning. Therefore, students' abstract thinking and imagery thinking will develop with innovation thinking training.

IV. CAI APPLICATION IN SPORT EDUCATION

A. CAI courseware

CAI courseware means computer-assisted instruction system with education functions. A completed courseware should include various teaching information that combine with learning leading, analysis, feedback and controlled teaching strategy among learning process. CAI is the multimedia technology uses assisted instruction with widely, favorable teaching effect and easy adoptive assisted teaching.

B. Sport education mode in colleges and universities

(1) Principle education mode: this mode includes principle education and technology education. Principle education is aiming at the basic characteristic, development rules, infrastructure regulation, and motion methods of sport knowledge teaching in details. All these will help to establish theory outline in advance. Technology education is to take the

advantage of CAI that represents important motion through video playback system with scientific and regular cases. Therefore, students can learn the important action in the higher level.

(2) Training education mode: this mode will teach students in accordance of their aptitude with differentiation education. Improve the basic method, basic ability and basic essentials of students in practical and develop the skill of analysis and problems solving.

C. Multimedia courseware manufacture of sport education

(1) Courseware construction design divide into teaching content and teaching target of sport education in colleges and universities. The teaching education target divides into basic knowledge, ability learning, improvement of student physical attribute and ideological and moral cultivation. As figure 1 shows. Multimedia courseware of sport education includes theory courseware and practical courseware that each part has related independent some sub-models.
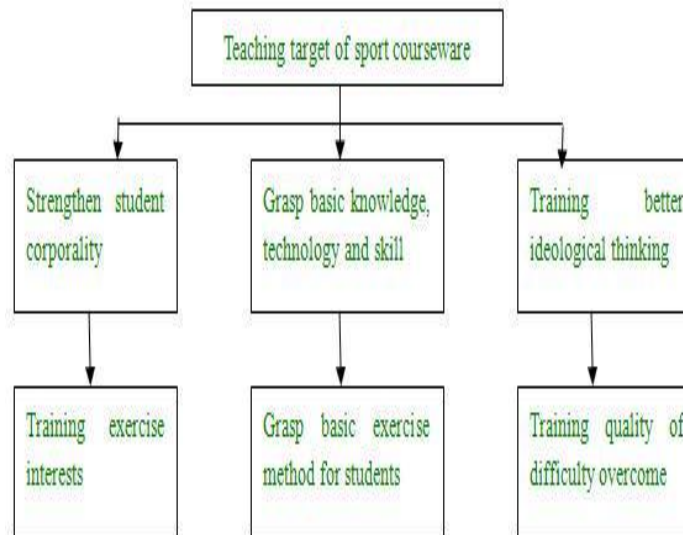

Fig. 1.Teaching target structure of multimedia sport education in colleges and universities

(2) Design principle of multimedia courseware

– Construction analysis principle: use construction-grading analysis that gradually divides the system combination units until emerges all the sub-units. This method can make the teaching content distinct progression, clear method with courseware warranty of scientific and integrality partly.

– Model design principle: on the basic of construction analysis, organic integrate the same or similar parts that single list as the private function model then to represent as model frame. This is very simple for the courseware manufacture with integrated format and achieves the structured programming of the whole courseware system.

– Differentiation education principle: aiming at students with different level and reception, invent appropriate teaching courseware and control strategy that based on the flexibility assurance of teaching content with achievement of learning depth and breadth self-control.

– Feedback and encourage principle: the perfect courseware should include learning analysis and feedback. Friendly man-machine operation will encourage the learning subject. Provide related feedback and analysis that aiming at each student will strengthen the teaching effect and improve the learning power for the students in colleges and universities.

V. SUMMARY

Multimedia technology application in sport education of colleges and universities convey the few-teaching mode from teacher leader to the three parts of teacher, student and multimedia. Sport education is the practical interactive teaching with strong repeat education. As the new sport teaching aids, multimedia breaks the traditional education guideline and has outstanding meaning for improving the teaching quantity.

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