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## Integration of modern education methods and physical teaching in high schools

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### ABSTRACT

The integration of modern education methods and physical teaching in high schools has expanded the teaching time and space, satisfied students' needs of learning and exercise, helped the integrated education of inside and outside class and covered the shortage of traditional education. Through the analysis of necessities and barriers, this paper comes up with the idea-of- integration of modern education methods and physical teaching in high schools, which aims at the promotion of total mergence between information technology and the idea, contents, and modes of physical education, the intensification of physical education reform in high schools, and acceleration of high education informatization.

### KEYWORDS

Modern education technique; Sports teaching of college and university; Network technique ; Multi-media technique.



## INTRODUCTION

The popularity of education informationization makes the modern education technology taking the multimedia technology as the core, apply in many aspects. It helps the teaching efficiency to get twofold results with half the efforts, and it causes great influence to physical education field of higher education. Besides, it has been the huge driving force to the development of higher physical education. How to apply the modern education technology centered by computer and network technology is quite necessary to reform the physical education in higher schools. The modern education technology takes information technology applied in higher physical education field as the core to push forward the overall integration of modern education technology and higher physical education concept, contents and teaching mode, to construct informationized environment for higher physical education teaching and training, and to realize a higher and new teaching object.

### THE ANALYSIS OF THE NECESSITY OF THE INTEGRATION OF MODERN EDUCATION TECHNOLOGY AND THE TEACHING OF PHYSICAL EDUCATION IN COLLEGES AND UNIVERSITIES

#### **The integration is in accordance with the demand for PE teaching reform and development in colleges and universities**

Because of its own characteristics, network education technology determines that it plays an increasingly important role in the information technology in higher physical education. From the point of view of education, multimedia network education technology has its special feature like globalization of the resources, individualization, autonomous learning, task collaboration, management automation and other technical characteristics. Under the condition of modern educational technology, using the network resources of physical education platform, students can choose sports and exercise according to their own physical fitness and their interest in. This not only brings the potential of students into full play, but also meets the individual requirements of the student, so as to achieve the goal of individualized education. This not only inspires students' interest in exercise cognitive desire, but also cultivates the students' consciousness of physical exercises and practices. Therefore, strengthening the organic integration of modern education technology and teaching of physical education in colleges and universities is not only the implementing the scientific Outlook on development of school education and interpretation of physical education of high quality engineering education in colleges and universities and concentrated expression, but also the demand of higher education reform and development of physical education.

#### **Developing sports teaching, creating teaching situation**

In traditional physical education, teachers just give students a clear request, according to the teacher's explanations and demonstrations, students finish their exercise one by one. Some teachers, not knowing the use of educational technology for teaching, or network information technology well, are still stuck in the physical exercise and tedious classroom theory lessons. This traditional of sports teaching mode must be broken, to construction open, development type of modern sports teaching views, using multiple media technology as the core of modern education technology, to image, and image, and animation, and sound, action of dynamic changes process to intuitive real to reflect movement technology, attracted students of hearing and Visual, to embark students' thinking, to stimulate students' learning and exercises, makes it an effective means of sports teaching and personalized education.

#### **Optimizing class teaching structure, improving the effect of teaching**

Through the integration of modern education technology and teaching of physical education in colleges and universities, teachers can set scientific surrounding for students to practice activities to the maximum. Students can freely choose their favorite sport, access to numerous expert guidance, through immediate feedback over the network, students can watch the training or competition of the elite players in the world at any time, and share their views through the networked interactive information. Under the PE teacher's guidance and inspiration, Students can access to multiple network information related to sports and fully use the valuable information and can. By using modern multimedia technology and various excellent of sports teaching software, the teacher can use picture, sound effect overlay, animation effect, slow action, and reply which are difficult to model clearly by the sports teachers themselves, it help students see each technology details faster, and more accurate, deepened their understanding on action and help them seize the key of the action. So it can improve the efficiency of action learning in the cognitive stage, reducing the teaching process and improving the effect of teaching.

### BARRIER ELEMENTS ANALYSIS OF THE INTEGRATION BETWEEN MODERN EDUCATION TECHNOLOGY AND HIGHER PHYSICAL EDUCATION

#### **Educational concepts comparatively lag behind**

Modern educational technology for University Sports provides a new platform and tools, and it has played a positive role in promoting the teaching of physical education in colleges and universities, but due to the influence of traditional physical education ideas, "teacher-centered, classroom centered, textbook-centered" concept of physical education in schools has been formed. Therefore, the concept of education in the practical teaching of school physical education is also relatively backward, a lack of full understanding of the connotation of modern educational technology, but taking technology as educational tool only and not integrated with the physical education model content, education is common. Even some of the sports teaching in the physical education teachers are using multimedia, to a large extent, to cut explanations and

demonstrations. Some teachers also lack of information education and curriculum integration ideas and methods of guidance, they believe that integrating information technology into physical curriculum is only to complete sport teaching with multimedia, and take information technology only as a tool for them to teach, but not a tool for students to learn. Not understanding the integration of educational technology and physical education “integration”, they didn't notice the information technology is not only an effective teaching method and means, but also as a resource, environment, and content into physical education.

### **The construction of hardware facilities and physical education software is lagged behind**

The network education in China dated from the year of 1994, the “China Education Research Demonstration Project” was constructed. At present, we have gained some achievements and formed a certain scale. As the national economy increasing fast, the educational investment is constantly growing, and the tense situation of information equipment has been released to some extent. However, at present, the construction of information modernization of higher physical education is lagged far behind of other subjects. In general, the network physical education development of higher education still states in its early stage. And they have formed their own distinguished mode. But the finished excellent CAI courseware is still rare. Although the higher education informationization went through a series of important projects, like “Project 211”, “Project 985”, “Campus Network of Western University”, has achieved fast development, the hardware facility still exists many problems for higher education sports network information technology. The quality and stability of transmit information in broadband and multimedia telecommunication network is to be improved. Since the construction of application software matched with campus network is lagged behind, the campus network can not play its original role. And the interactive teaching platform and physical education information resource platform required by physical education is rare and the construction of digital physical education resource bank is ineffective. In addition, people attach less attention to the development of the teaching role of network physical education resource, and the online courseware of each subject in physical education is unreasonable and improper. Then it is rather hard to meet the requirements of physical education teaching as well as individual learning of students.

### **The physical education teachers lack of basic literacy of information technology**

Teachers are the main element of the application of new technology. As the computer and network information technology emerges as a new teaching mode, it put forward a higher standard for the comprehensive quality of higher physical education teachers in information awareness, altitude level and information technology application ability. Since most physical education teachers are relatively weak in cultural knowledge before being a teacher, and at present higher education schools only attach much importance to computer skill cultivation and training instead of the cultivation of teachers' information technology application ability, the physical education teachers are lack of basic literacy of information technology, short of basic knowledge and skill in information technology, not good at using, making and distributing the multimedia software skill. What is worse, they have few channels to learn, to absorb, to process, to transmit, and to use the related skills of modern information skills, and they are afraid of the difficulty in information technology. Most physical education teachers can not actively apply the information technology into the class teaching, but take the information technology as a kind of teaching method for physical education teaching. Some physical education teachers seldom apply the modern education skills.

## **STRATEGY OF INTEGRATION BETWEEN MODERN EDUCATION TECHNOLOGY AND HIGHER EDUCATION SPORTS TEACHING**

### **To improve the awareness and to update education concept**

The leaders of higher education schools shall realize the great importance of the modern education technology to the higher education sports teaching. They should set up advanced and scientific modern teaching concept, and take cultivating and improving modern teaching quality of physical education teachers as the prior objective in the strategic objective of sustainable development in school education, and get rid of the error concept of “subordinationism” of education technology. It is necessary to realize that applying the modern education technology to physical education field is not only for improving teaching quality and teaching results, but also from changing teaching mode from closed type to open type, and changing teaching thoughts from inheritance education to creative education. The higher school teachers in physical education have to reposition their roles, to change corresponding education thoughts and concepts, and to change the traditional awareness taking “teaching” as the center. During physical education teaching, it is essential to set off from the aspects of learning and practice of students, to realize the great significance of new technology to physical education, and to positively learn and use the new theory and new technology. Then to construct the physical education information resources bank shall be focused, and to improve students' learning as a key point of modern education technology so as to optimize physical education results of higher schools and to meet the requirements of students' learning and practice.

### **To strengthen the infrastructure construction of education informationization**

The network infrastructure with advanced technology and perfect function is the important material basis of developing the internet and pushing forward the application of information technology. It is still ineffective if we only have professional talents and better computer software but without high configuration computers. And it is necessary to invest more money to improve the computer hardware environment of physical education. The subject of physical education

different from other subjects is limited by fields and facilities. And it usually carried out in sports hall. Besides, the teaching photography and broadcast system can be installed in sports meeting to conduct real-time feedback. According to students' feedback and teachers' guidance, students can actively improve their movement and improve their learning effects. Besides, to meet the requirement of modern physical education teaching, it is necessary to equip better portable computer to physical education teachers. Meanwhile, it is also encouraged to perfect the construction of campus network, to improve its using effects of the hardware, to reform the management method of hardware facility and their layout, and to improve the convenience of using computer in and out of class for students and teachers. Therefore, researching and designing a set of physical education management information system suitable for physical education of higher schools can help the inner education operation and management mechanism to create advanced information network environment.

### **To strengthen the construction of teachers team of higher physical education**

The modern education technology represented by multimedia and network technology is an important basis for physical education teaching mode of higher schools, and a group of physical education teacher team who is skillful in information technology is required. Therefore, to improve the quality of information technology quality of physical education teachers is an important guarantee of education technology applied in higher physical education. Then to strengthen the training of physical education teachers in information technology, to establish corresponding policy and measures, and to encourage and supervise teachers learning and applying information technology are quiet essential. The training shall be carried out on the basis of physical education of higher schools for help teachers to acquire and master the basic theory of modern physical education, teaching method and teaching design of modern physical education so as to improve their theoretical and technological knowledge of multimedia production, network designing, courseware production and network teaching. Besides, the real problems met by teachers during physical education teaching shall be solved at first. That is to reflect the integration thoughts of modern information technology and physical education according to the principle of "teaching according to the need, learning for practicing, focusing on effectiveness". The training can be carried out by short-term face to face instruction, and also by distance network. Besides, a group of excellent physical education teachers can also be organized to go out for business study, like participating some education technology experience exchange meeting and seminar. Then they will bring positive influence to more teachers and call on them to participate in training and to apply information technology is physical education teaching.

### **To set up unified technical standard and to develop the network application platform suitable for higher schools physical education**

It is quite necessary to positively construct the digital physical education teaching resources bank in local area and to develop the application platform suitable for physical education according to corresponding physical education software resources and assistant software for sports and training supported by corresponding hardware in order to improve the using efficiency of network physical education teaching resources. Therefore, higher education campus network and education resource platform shall be properly improved and set a unified technical standard based on the specialty of physical education teaching. To complete the multimedia network platform of physical education shall be setting off from the requirements of assistant teaching, self learning and teaching management and resources sharing. It is necessary to follow the unified technical standard, to construct a group of excellent network physical education resources which can be applied in cross platform and shared together during development and application. The architecture mode based on B/S can be constructed on the platform. It is designed as 10M broadband network, developed according to cross-platform compatibility and standard requirements. And the supporting criteria, like HTML2.0, HTML3.0, VRML, OpenGL, shall be paid close attention. While the platform is managed effectively, it is also encouraged to perfect the management mode of multimedia resource bank in campus physical education, namely resource management mode and system management mode so as to make sure resource management scientific and system management stable and safe. Both teachers and students can find the required learning resources. Then it will surely create a good environment for teachers' physical education teaching and for students to master sports skills.

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