

2014

BioTechnology

An Indian Journal

FULL PAPER

BTAIJ, 10(15), 2014 [8501-8505]

A Study on Development and Construction and Sharing Mechanism of Network Education Resource in Physical Education

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ABSTRACT

This paper has put forward the concept to establish network education resources sharing and construct the operating mechanism in physical education by a thorough analysis on its necessity and barriers of constructing the network education resources development and sharing mechanism in physical education. And the mechanism aims to make their respective advantages complementary to each other in physical education network education resources, shortens the gap between urban and rural schools physical education resources, and helps the excellent sports network education resources to provide better services for regional physical education teaching and the society.

KEYWORDS

Physical Education; Network Education Resources; Sharing; Mechanism.



INTRODUCTION

The constant development of information technology and network technology has brought a brand new information environment to education circle, and has led an overhaul innovation and reform in education concept. The sports education system constructed by superior sports network education resources does not only optimize the physical education teaching environment and teaching method and promote the reform and development of school sports education, but also provide a series of new teaching practice mode to sports education resources designing and development. The latest physical education knowledge and information would be learned by students through multiple media as well as other network education methods which surely enriches the sports education contents and makes students to easily acquire the advantage knowledge of sports fields. Therefore, it is necessary to strengthen its using efficiency of sports network education resources and to construct the sharing mechanism of network sports education resources so as to realize school sports education resources sharing, to make their respective advantages complementary to each other in sports network education resources, to shorten the gap between urban and rural schools sports education resources, to get the utmost out of physical education teacher resources and cultural geography, and to help the excellent sports network education resources to provide better services for regional sports teaching and the society.

NECESSITY ANALYSIS ON CONSTRUCTING THE NETWORK EDUCATION RESOURCES DEVELOPMENT AND SHARING MECHANISM IN PHYSICAL EDUCATION

To speed up school sports education reform and to improve physical education management level

Since the network sport teaching is a key supplement of the existing physical education teaching mode, the network remote teaching breaks the limits of learning space and time. Teachers can offer different training practice contents to students with different knowledge background and physical fitness which helps students to learn by networks at any time and helps teachers to adjust educational difficulty and practice progress so as to finish teaching objectives timely. Also it can promote teachers' innovation consciousness and innovation ability and develop sports teaching mode and teaching approach which accelerate sports teaching innovation of higher schools. At the same time, the information technology and network technology frequently applied in sports teaching which surely promotes innovation of school sports education management. Therefore, the traditional sports teaching management thoughts, strategy and system will be evolved to a new height. The sports teachers can communicate with students through network platform instead of class whenever and wherever possible to answer questions and to provide instructions. Then the teaching method will be enriched and the sports teaching information, students' information, and physical education teachers will be diversified and multiple dimensional. Finally, the sports teaching management level will be highly improved.

To optimize sports teaching process

Since the information technology and network technology are frequently used in sports teaching, physical education teachers can efficiently resolve the situation that the technical education is separated from theory teaching during sports teaching process. Teachers can take full use of modern educational technique to sports education designing situation and create new sports education environment by network resources. They take it as accessory appliance for sports teaching and training by individual designing of interface, appetent language description, colorful and rich contents as well as diversified learning and practicing methods so as to help the learners to maintain their interests in learning. For the key and difficult points of the technology, it is unnecessary for teachers to explain and demonstrate repeatedly. Teachers just need one portable wireless net-connected computer to carry out sports teaching and training whenever and wherever possible. They make teaching PPT with multiple media, take full use of visual information to express information to slow down or repeat the example activities and to display the features and principles of physical sports and sports techniques which help students to observe details of each momentary movement clearly. Then students can acquire clear and complete technique movement which are easy for them to experience and memorize in real situation in order to realize the goal of learning and practicing. Therefore, sports teaching process has been optimized and the teaching efficiency of physical education have been highly improved.

To improving teachers' teaching ability and to promote teachers' role transition

As the fast development of network and computers, students can acquire the physical education information as much as possible from outer database resources. And the physical education teachers are no longer the main characters of information spreader who always organize better sports knowledge system. Their functions have been changed from "teaching" to "instructing". Teachers will help students to learn how to get sports information, where to acquire those resources and how to efficiently use of these information resources to finish active exploration and construction to sports education. Therefore, it is rather necessary for physical education teachers to constantly acquire and master the new trend of subject development. Besides, they have to be equipped with strong ability of acquiring and storing sports information, processing information and innovating and creating sports information. Then the physical education teachers are required to adapt the new role of sports teaching in the network information environment, to break down the traditional concept of "once education", to set up the concept to learn for the whole life, to constantly improve self modern information ability and professional quality in sports and to promote the ability in sports teaching, training and researching.

To facilitate balanced development between urban and rural physical education

As the balanced development of compulsory education has been pushed forward, physical education teaching staff of rural schools has achieved significant progress, but cannot compete with the teaching staff of urban areas. Some physical teachers from rural areas are not professional in technical movement because of their quality and increasing age, then the students first to learn the movement cannot master the accurate concept the movement. However, by developing and using the physical education network resources, like video, film and other kind of multi-media, students can learn the standard movement of world top athletes by watching course website to set up the correct movement concept and to master the correct movement skills. Meanwhile, the related teaching departments can put the sports teaching and training contents, like new course reform in physical education and teaching information and quality, on the platform through network information technique platform. Then it can not only allow all the physical education teachers from rural and urban areas to share the training resources, but also acquire information feedback from different areas. In addition, it promotes resource integration of high quality physical education, improves physical education teachers from rural areas training performance, shortens the gap between physical education teachers from rural and urban areas, and also accelerates coordinated development of physical education teachers from rural and urban areas.

BARRIERS ANALYSIS ON CONSTRUCTING THE NETWORK EDUCATION RESOURCES DEVELOPMENT AND SHARING MECHANISM IN PHYSICAL EDUCATION

The construction of physical education information resources has been lagged behind severely

At present, our country has constructed network infrastructure of national education information in the support of China Education and Research Network (CERNET) and China Education Broadband Satellite Net (CEBSat). The campus network of all levels has been popularized and the modern network technique and software and hardware facilities of all levels have a certain scale. However, the construction of physical education information resources has been lagged behind severely in China. First, competent administrative department is lack of efficient instruction and coordination in macroscopic view. The construction of physical education information resources has no unified standard which surely results in repeat construction. Second, those “versatile” physical education teachers researched and developed physical education network resources shall be proficient in sports and education and skillful in computer. Otherwise, they can not meet the real need of physical education. Then the physical education network teaching resources lacks of richness, network education management and practice strategy lacks of ration. Therefore, it is rather difficult to constantly improve its multi-media network education function during operation. Third, each independent school, especially institutions of higher education can not share the resources together which surely results in large amount of repeat work and the advantage of network resources has not been fully developed.

The talents with profound understanding of physical education informationization are not sufficient

As the physical education informationization develops fast, the quality of school education teaching and management team has been put forward a higher requirement. However, the existing physical teaching and management team can not completely adapt to the new requirement. Technical talents of sports information are in urgent demand, and employer increasingly put forward a higher standard for talents’ technical ability. Therefore, the concept of sports information technical talents is more and more professional. At present, the technical standard of sports information in China is still lower and the specialized talents engaging in school physical education information technology research and development and informationization application and maintenance are still insufficient. Especially in rural area, such kind of talents is almost zero. And some physical education teachers even can not apply the information into class teaching and after class training; they just take information technology as a teaching method to add to physical education teaching. Physical education teachers from all levels are far away from the development requirements of physical education network information technology no matter in quality or quantity. And these conditions surely limit modern sports technology’s development and application in physical education. To conclude, to research how to cultivate high standard and high quality information technology talents is very important.

Hardware resources allocation of primary and middle schools in rural and urban areas exists great difference

Hardware resources allocation is a key element of education informationization resources allocation as well as the foundation of campus informationization construction. Since China has promoted the education balance development and “rural distance education project”, the hardware resources allocation of most rural area has been highly improved but lagged behind by developed urban area. Physical education is quite different from other subjects. It requires the field and equipment. But most rural schools just have a multi-function room. So the limited equipment cannot meet the requirements of sports teaching. Some information technicians from rural schools in China have not professional knowledge of information and sufficient time to learn. They just achieve progress by short term information technology training arranged by county or country. Therefore, they are not professional and can not provide technical support for physical education teaching. Most physical education teachers and students can not acquire the information freely which is bound to influence the balance development of sports network education integrity in rural and urban schools.

DEVELOPMENT AND CONSTRUCTION OF NETWORK EDUCATION RESOURCE IN PHYSICAL EDUCATION AND SHARING MECHANISM CONSTRUCTION

To update education concept and to improve information technique quality of physical education teachers

Competent administrative department of all levels has realized the great importance of modern education technique to school physical education. They have set up advanced and scientific modern education concept and taken cultivating and improving modern teaching quality of physical education teachers as the prior objective in the strategic objective of sustainable development in school education. Meanwhile, as a physical education teacher, it is rather necessary to set up modern education technique awareness, to change the corresponding education thoughts and concept, to reposition teachers' role, to improve their information technique quality, to fully understand the significance to physical education teaching created by new technology, and to learn new theories and technology actively. While the training department of all levels carries out training for sports teachers, they should help physical education teachers to understand and master the professional knowledge and skills, like the basic theory of modern education technology and modern education technology teaching software production based on physical education. It is urgent to solve the real problem met by teachers during physical education teaching process and to follow the principle that "teaching according to the need, learning for practicing, focusing on effectiveness".

To construct the digital information application platform of network physical education

According to the specialty of the sports subject, the large scale interactive teaching platform of digital physical education centered by colleges and universities and counties has been constructed coordinating by the competent department of sports, education and information, and guiding by the experts of software development and sports subject. It can guarantee that schools of each level can realize resources sharing in order to meet the requirements of physical education teaching in local area. The distance interactive teaching platform of Delight IP 5.0 can be applied to carry out interactive teaching, group teaching, real time teaching and unreal time teaching. The distance interactive teaching platform can realize network teaching in long distance. Besides, it can view and emulate the whole process of network teaching and conduct real time comment. The multi-tier distributed system construction can be adopted to connect seamlessly the database and file server. The three-tier 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. The integration of each application system shall be finished so as to realize loose coupling of informationization architecture. While the platform is managed effectively, the teachers and students can find the required learning resources. Then it will surely create a good environment for teachers' physical education teaching and training, for students' learning and practicing.

To construct physical education network operation system adaptable in the local area

It is quite necessary to positively construct the digital physical education teaching resources bank in local area 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. Schools of all levels, especially those in good conditions, can carry out digitalized reform on the current network physical education teaching resources which also can be developed and constructed by professional staff. Meanwhile, teachers can modify their excellent courseware and teaching plan. According to the requirements of teaching syllabus and real teaching activities, directed by physical education teaching reform, it is encouraged to develop and make physical education teaching application software which is suitable for local areas to shoulder the task of constructing network teaching resource bank. The construction of teaching language point bank suitable for physical education requires constant supplement and renewal. The physical education teaching and training network operation system is very convenient for teachers to find required physical education resources during teaching activities. All the physical education teachers from rural and urban areas shall deeply aware the significance and function of information technology in school physical education teaching reform and development in modern society, and fully realize that to develop physical education informationization is an effective way to change poor education situation of primary school and middle schools in distance rural area and to achieve balance development of physical education in rural and urban area.

To establish sharing mechanism of network physical education teaching resource and to construct operating mechanism

The sports projects are various, not only including modern competitive sports, but also including traditional national sports. Any organization or institution can not construct high quality education resources of all the sports projects in physical education field. Then the government department promotes cooperation among development organization. The traditional development situation of manual workshop shall be changed, the thought of "individualism" shall be abandoned, the unnecessary expense will be saved so as to construct network physical education teaching resource bank. The sports department and education department from each province, city and county cooperate with each other to explore network resources. Directed by the government, cooperation between city and county or county and county shall be carried out to construct the resources and to share the operation mechanism. According to the features of network physical education resources intellectual property, it is planned to participate in constructing and sharing network teaching resources together by

agreement, to allocate resources construction and sharing interests, to establish a suit of standard sharing guarantee mechanism by taking intellectual property as bind to share all the resources. While the recognized network teaching resource has been saved in the resource bank, he can gain the right to acquire other teaching resources of different projects developed by other organization or institution from the resource bank. Then these resources shall be modified, innovated after usage. Therefore, a good operation mechanism will be established, from “save”, to “acquire” and to “save again”.

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