Research on the Application of Modern Education Technology in Physical education of Universities

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Abstract: The original meaning of sports education is to tech by physical exercise, in English it can be say as "physical education". But with the development of sports, the connotation of modern sports has completed its transition from education and bodybuilding to physical culture, which has expanded the function and scope of sports. Therefore, modern physical education is not just physical education at school, which needs the physical educators and sports enthusiasts to renew their physical knowledge and to know and strengthen the continuing education, in this way they will know the necessity and feasibility of developing the network education for physical education.

1. Introduction

With the rapid development of human society and knowledge economy, IT is also rapid changes. The emergence of modern information technology, we have optimized the process of teaching, improving teaching effectiveness provide new avenues of choice of modern information technology to disseminate knowledge to learners in the integrated form of text, images, sound, animation and video, Physical Teaching content, to stimulate learners' interest in the movement of knowledge and skill learning, to mobilize the motivation to learn, to broaden the horizons of knowledge to improve teaching effectiveness [1].

At present the online universities are on the rise around the world, many prestigious universities, such as Stanford University, Columbia University, Duke University, have opened the online course. Basing on the survey report of America, in the next few years, about 75% of the universities in America will provide network education, and 58000 thousand people are willing to accept online courses, and the online education may feed the thirst for knowledge of considerable groups [2]. As Robert Macklin, the director of Research Institute for Study of Columbia University had ever said: "the Internet has opened a new learning world" [3].

Now the network education for physical education is still in blank space state, particularly there still has a large market to be explored for continuing education and renewing knowledge of these physical educators, which provide precondition and solid foundation for establishing distance education [4]. Taking the China Sport Science Society for example, about every year there will be 15 national wide academic events, including academic conference, seminar and subject training class, every time it demands a lot of manpower and material resources. So imagine that if we change this way and put the conference and training into the Internet, then the participator will greatly increase, cost will be reduced and the quality will be improved, meanwhile, the events will free from the limit of time and space. And the only essential condition for this is to turn the Internet education into universal education.

The development of Chinese distance education has made the sports bring forward requirements for modern distance education, which should serve for the physical education by virtue of imagine and network tools. Admittedly, the physical education is different from others cultural curriculums, it has some technical problems. In the traditional concept, "education" is regarded as an independent social category; "communication" is another independent social category; and "computer network" is also a different category. But actually, the limitation among these categories is disappearing increasingly, the learning style of breaking through the limit of time and space has promoted the

development of education, and it will certainly promote the update of physical education pattern. Australia distance education expert Lateen has pointed out in his thesis that seeing from the Chinese Imperial Examination System we may know that the history of open learning and self-study of knowledge and wisdom in China has more than 1300 years, the largest scale and system in the history of distance education is the Radio and Television University which emerged in the early 1980s. China is a country with large population, so we need strive to develop education and distance education in order to turn population burden into talent resources, which will have profound impact on Chinese education reform [5].

2. Analyses of Present College Physics Teaching Situation

For the past few years, The Ministry of Education in China has reformed the college physics course. Less class hours for physics teaching, more content, while physics is an experiment based science, much knowledge of which comes from the continuous summing up and study of people's production and living practice, so it is highly abstract and hard to understand and accept by students. Limited by realistic conditions and teaching equipment, not all this abstract knowledge can be demonstrated experimentally. The knowledge far from life becomes unattractive to students; frustration makes learners feel boring, even lead them to lose heart to physics study.

In order to match the characteristic of the E-age, teachers should take net-based ways to satisfy their students: there must be well-designed instruction, proper teaching methods, correct teaching resources and good learning environment. Teachers should have the ability of development digital physical teaching resources to design their teaching materials with net-based way. Then they should with the help of these things to achieve teaching goals and support education, to attract interest of students, to inspire and guide students and help them with the study of physical law.

The management of modern educational technology in college is not mature; the physical teachers are not quite qualified at modern educational technology, the unsuitable setting in institution of modern educational technology. PE teachers are not knowledgeable on the modern educational technology and possess few methods and they are not highly skilled at media equipment and teaching software. In response those problems, the corresponding measures and suggestions are put forward through the survey and analysis, serving as the reference for the development of college physical education teaching in China. In a word, the aim of college physics teaching is to combine traditional education with modern education technologies to create an `Inquiry Teaching Mode for students under net-based environment.

Of modern IT in physical teaching can help students build up the appearance of a clear action to establish the correct perceptual compensate for the lack of teacher demonstration. It help students to quickly grasp the true technology action; conducive to the students to correct the error action; conducive to students' understanding of the key and difficult points of the action more thoroughly. Enhance the interests and hobbies of physical education; to strengthen the communication between teachers and students; give full play to the initiative of the students; promote personality development of students; cultivate the sense of learning by the students' independent learning and lifelong sports; pioneering students new ideas; mining the potential of students.

By teaching experimental results show that: The application of modern IT-assisted teaching to fully highlight the characteristics of the IT superiority to make IT in physical education teaching "Glow" fever "in order to promote positive student learning to improve teaching effectiveness.

Teacher Questionnaire reflect the prevalent school of the modern IT-assisted Teaching ① province universities to spend a lot of money and effort to set up the hardware environment of the school, have been ignored in the construction of software resources, a serious lack of truly useful software. ② School leaders do not attach importance to modern educational technology, training, university technology theory needs to be improved.③ Modern teachers of modern educational IT-assisted Teaching , the majority of applications are "blackboard move" rather than the true sense of the superiority of the use of information technology, In university multimedia teaching popularization in the foundation, and constantly improve, the introduction of new information

technology, the design of the system multimedia courseware

Reflect the student questionnaire: the province of college students generally have a network of independent learning conditions. As the network has two sides, making the most of the students is difficult to grasp their own behavior and self-control, lack of awareness of self-management, poor awareness of autonomous learning.

From expert interviews reflect the application of modern IT in the teaching of university sports education: Due to the influence of traditional ideas and consciousness, lagging behind, is also relatively weak. It cannot meet the requirements of the development needs of modern society and school physical education teaching reform.

3. Conceive and Framework of Turning Physical Education to Modern Education Mode

Modern distance physical education system can be constituted from the following patterns:

1) Real time teaching system: Radio television system, video conference system. Its characteristics lie in: visual in image, high efficiency, and teachers and students may have real time interactive discussion online.

2) No synchronous learning system: create interaction between teachers and students.

3) Cooperative learning system: The students themselves or among students may evaluate or discuss online through the website, which emphasize the discovery learning of independent exploration.

Network teaching system is kind of system software which provides distance teaching service, it organically integrates the network course with distance teaching of school, including the system of information Communication, Multi-Media Courses Learning System, System for Counseling and Answering Questions and System for Check in and Evaluating etc. The system of physical education network teaching information resources includes: Data Bank of Subject Document, Subject Question Bank, Subject Media Material Database, Subject Courseware Database, Technology Exercising Database and Exercise Prescription Database, etc Management system of modern distance physical education is used for the systematic management of physical education network teaching resources and establishing a unified physical teaching database, which may provide powerful information support for making all kinds of physical education network courseware and teaching. It includes Distance Teaching Management System, Course Learning Management System, Teaching and Learning System, Examination Management System, Referral Information System, Data Statistics and Analysis System, Fitness and Health Monitoring System and Sport Technique Evaluation System, etc. The development of network courseware is a new pattern of lesson preparation, with the design tool of network courseware and under the support of correspondent database it can meet the requirements of rapid generating of multimedia courseware, transplantation and interaction, including Development Tool of Network Courseware, Multimedia Network Course Resources and Template Base of Network Course Development, etc.

Network course is the summation of the content of certain subject and its implementation of teaching activities through the network, and it can be divided into two parts: content of course organized in light of definite teaching objectives and instructional strategies and supporting environment of web-based teaching. It has the following characteristics:

1) Advanced nature. The advanced content and teaching system reflect the development direction and the stamp of age of physical education discipline.

2) Open. Excellent capacity of network information, gym teachers may produce network teaching scheme depending on their own their own characteristics, the production and application of network course has the characteristic of automation, large-scale, industrialization and strong expandability.

3) Interactivity. Education is not equal to publicity, so the information flow shall be bidirectional.

4) Sharing. It can be realized whether in wide area network, local area network or stand-alone and adapt to the visit of different terminal equipments (such as PC, information household appliances). It demands that in the process of implementation of distance education, the various media shall be published synchronously, which contributes to the selectivity for users, reutilization of teaching materials, resources sharing and is easy to extension.

5) Cooperation. It can be used not only for the communication between teachers and students, but for the mutual interaction among students.

6) Independency. Reflecting the educational thought centered on students and emphasizing self-directed learning and individualized learning,

7) Vitality. The application of various multimedia authoring tools, such as the animation and video technologies like 3D max studio, Adobe Premier, Flash and Java, etc., which make the courseware and webpage more vivid and lively.

With the repaid development of Internet and Information Industry throughout the world and it is feasible for the implementation of distance education on the Internet platform. In our country, many high-level first-class universities have opened network education institute in recent years. They have effectively communicated educational resources with high speed to the computer terminals of every student by server connected to high speed optical fiber. Besides they have built the online platform for reasonable teaching and student management, and supported by realistic teaching school in various regions at the same time, which have made a dynamic integration of network education and realistic traditional education. In practice it has been proved that we may receive good effect from network education.

However, the network education in the colleges of our country is only confined to these famous-brand majors and only these "Book Major" with strong theoretical knowledge, such as the major of arts and science, and there has no network education in the field of physical education. Therefore, it is really necessary, realistic and feasible way for the training of sports talents in our country to build hardware and software platform and development distance education of physical education basing on the experience of other majors, which have developed the network education.

4. Conclusions

With the extensive use of virtue really technology, the distance physical education has improved the network education from two-dimensional image to a new level, that is, the complete environment of control person three-dimensional space. Thus the traditional model of teaching will disappear gradually and the training feedback system consists of portable computer and the sensor connected to one's body may guide students' technical moves accurately, and transfer the optimum technical conditions that meet the physical characteristics of students. Students may obtain the guidance from many aspects, such as exercise training, sport nutrition, and exercise prescription by the timely feedback from network, and send message alternatively by the Internet.

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