

## Research on Multimedia Teaching of Physical Education Class Based on Online Physical Education Curriculum Construction

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**Keywords:** Multimedia Teaching; Physical Education Courseware; Teaching Method

**Abstract:** Multimedia courseware has the characteristics of interaction and intuition that cannot be replaced by traditional teaching methods. It can play an important role in stimulation. Excellent physical education courseware can create realistic situations and stimulate students' interest in learning. It has a multiplier effect on improving the efficiency of classroom teaching. The text influences the teaching effect by studying colorful multimedia means, enabling students to practice what they have learned in a safe and controllable environment. This can optimize physical education classroom teaching, stimulate students' sports motivation and interest, deepen students' understanding of action concepts and sports theory knowledge, and have important significance and effect on improving the quality of physical education.

### 1. Introduction

Physical education is the last platform for students to accept school sports before they go to society. Here, everyone must lay a solid constitutional foundation for going to the society after graduation or climbing a higher ladder, develop a good healthy life and study habits, master the lifelong sports skills, and form a solid lifelong sports awareness and behavior.

There are a lot of technical movements in the sports textbooks that are vacant, high-speed, and flipped [1]. It is difficult for students to see these momentary actions clearly, and it is difficult to quickly establish a complete motion representation. At this time, the teacher can only repeatedly demonstrate and repeat the explanation [2]. The final result is affecting the teaching process. Moreover, too many explanations and demonstrations are easy for students to misunderstand. This is also a difficult problem in the traditional physical education model [3].

Multimedia technology is a new type of teaching aid to optimize the teaching process with its vivid images, vivid images, flexible animation and music effects. Multimedia information technology is a finished courseware that is closely linked to the teaching content. It is easy to use multimedia courseware to solve the heavy and difficult problems in teaching. In the teaching process, it is difficult for the teacher to demonstrate clear technical links, use the animations or images in the courseware to express or stop the aerial action to show the students, so that the students can see each technical faster [4]. More complete set up representation. Deepen the understanding of the movement, it is very obvious for the students to quickly grasp the learning content and improve the teaching effect [5]. At the same time, it has indeed received good results in practical applications, improving the quality of teaching and shortening the teaching process.

Multimedia courseware can express clearly the actions that the teacher can't do or can't figure out. Let students have less boring in the physical education class, affecting students' enthusiasm for teaching. You can also learn knowledge by changing one method, and can achieve the goal of happy physical education. Simply put, our teachers make some slide courseware, which can be used in physical education classes, and can also improve students' enthusiasm. Not only does it require good physical fitness but also a high professional ethic [6] [7]. Therefore, we must seriously study the guiding ideology of running a school [8].

### 2. Development and current situation of physical education courseware

The Internet is the world's most extensive computer network with the most extensive information

resources and the largest scale. It has the advantages of openness, freedom, rich information resources, strong interactivity and the integration of multiple information technologies. Sports modern education technology draws on the characteristics and advantages of Internet technology, and utilizes human resources and educational resources. The computer network provides an all-round, open and interactive educational environment for the education platform [9] [10].

Sports multimedia teaching technology mainly utilizes and utilizes the following modern information technologies: internet and local area network technology, multimedia technology, video conferencing communication technology, virtual reality simulation technology, satellite television broadcasting technology [11]. Therefore video on demand, video broadcasting, distance physical education, virtual multimedia sports experiment, remote sports training guidance.

We must fully realize this and apply it well. Traditional physical education is always based on teachers, supplemented by students. This kind of teaching is an oppressive teaching method with certain limitations. Today's physical education has taken a big step toward science and technology. The use of high technology for teaching is the leading direction of physical education in the future.

In physical education and training, using e-learning and combining traditional teaching in physical education can achieve good results in a short period of time. The salient features of the teaching method using multimedia physical education compared with the traditional physical education teaching method are shown in Table 1.

Table.1. Comparison between traditional physical education and multimedia teaching

	Interest	Resource	Openness
Traditional	70%	31%	40%
Multimedia	64%	90%	95%

With the improvement and development of science and technology, the use of electrification teaching in various disciplines has become more and more extensive. The combination of audio-visual education and physical education is an inevitable trend in the development of contemporary physical education. In the teaching practice, physical education classes are generally divided into three categories: theoretical, practical and assessment. The theoretical courses are divided into basic knowledge courses and appreciation courses [12]. The practical courses are divided into review classes, new lectures, and comprehensive courses based on physical fitness exercises. The assessment courses are divided into basic knowledge and technical examination. The type of theoretical class is that students acquire knowledge through the form of sight, hearing, and discussion. Course types are generally divided into basic knowledge classes and sports appreciation classes. The thinking of deepening physical education is shown in Figure 1.

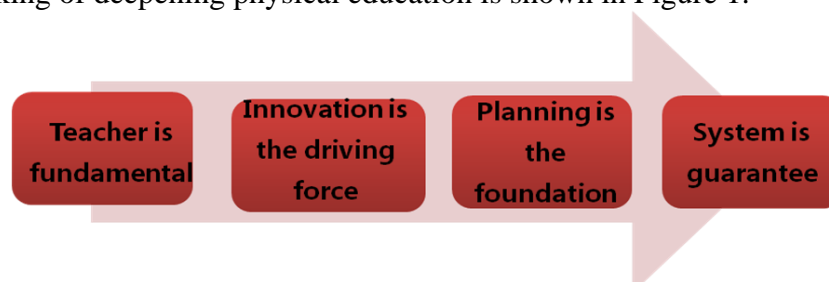


Fig.1. Thoughts on Deepening Physical Education

By studying the basic knowledge of sports, it lays a good theoretical foundation for cultivating students' ability to exercise independently. In the process of enjoying sports, students will be more aware of sports, improve students' interest and enthusiasm for participating in physical exercise, stimulate their motivation to participate in physical exercise, help students establish correct sports values, and lay a good foundation for cultivating students' lifelong sports awareness.

### 3. Promotion of physical education by multimedia teaching course of physical education

The development of sports multimedia teaching technology is based on the Internet, reflecting

the characteristics of large amount of information dissemination, strong interaction, fast transmission, and nonlinear structure. It is guided by constructivist learning theory to meet the needs of sports students. In order to promote the study of physical education students, we provide a learning environment centered on physical education. The development of sports multimedia teaching technology is not only the development of educational technology itself, but also the transformation of educational ideas and educational concepts.

Therefore, one of the main goals of developing sports multimedia teaching technology is to change the teacher-centered teaching structure of traditional physical education and construct a new teaching structure that can not only play a guiding role but also fully reflect the role of physical education students. On this basis, the reform of physical education teaching mode, teaching content, teaching methods and teaching methods will be gradually realized. Judging from the reality of higher physical education in China, a considerable number of higher physical education colleges still use the teacher-centered teaching structure.

However, if they are allowed to watch cartoons, the situation is completely different. They will be full of interest throughout the class. This is because the vivid colors and storylines of the animation attract their attention and stimulate their interest in learning. Therefore, we can use animation video to make the teaching content lively and interesting in multimedia teaching, so that students can learn knowledge in a good classroom atmosphere. When giving a class to a martial arts class, you can make a video of the student practicing martial arts. Then, cut it into the courseware and play it through the screen. The students watch the picture while listening to the teacher's explanation to see which classmates have the best technical movements. The online sports curriculum system construction is shown in Figure 2. After the comparison and analysis of the students, the results are clear at a glance. Such animated courseware with appropriate music presented to the classmates is very attractive and will give them a strong interest in learning.

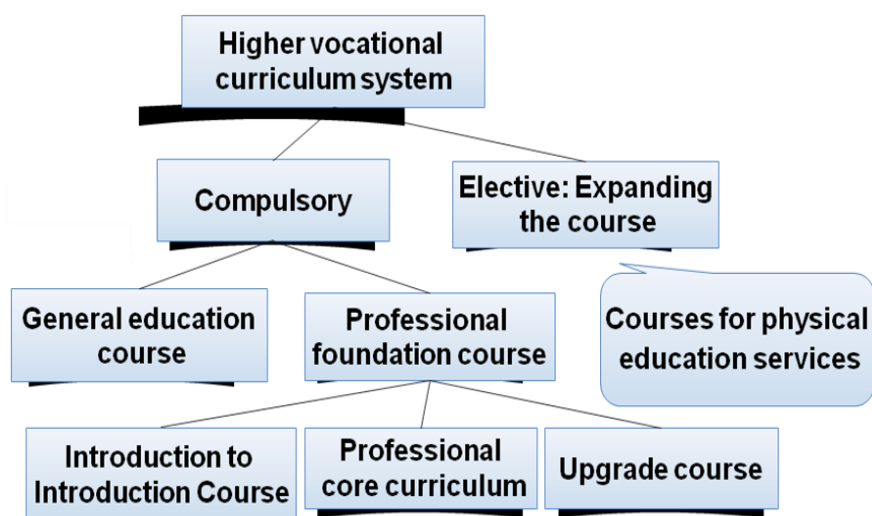


Fig.2. Online sports curriculum system construction

Physical education is a compulsory course. The attendance and examination system should be strictly enforced, and the content, methods and scoring standards of the physical education examinations in this syllabus should be implemented. School physical education work should be combined with extracurricular and extracurricular. Cooperate with the tasks of physical education classes, conduct class counseling, implement the National Physical Training Standards, and carry out extracurricular physical exercise in a planned manner. The reasonable arrangement of teachers, venues and equipment in the construction of online physical education curriculum is shown in Table 2.

Table.2.Multimedia online basic physical education teaching hours assignment

Project		Class hour	total	percentage
Theoretical part	Teach	6	8	11.1%
	examination	2		
	Entrance examination	2	2	2.8%
Video viewing	track and field	Short run	24	33.3%
		High jump		
		Shot ball		
		Medium run		
	Body exercise		8	11.1%
	Ball		20	27.8%
	Martial arts		8	11.1%
	Movement		2	2.8%
	total		72	100%

#### 4. Multimedia teaching contributes to the breakthrough of key points and difficulties in physical education

Everyone knows that some difficult physical education materials must complete a series of complicated technical movements in a flash. For example: aerial movements of track and field events, continuous movements of gymnastics support jumps, and rollovers of skills. Another example is the order in which the softball is thrown in the final force throwing project; the movements such as the stand-ups in the jump project are actions that have never been seen in daily life, which brings great difficulty to teaching. However, the use of modern educational technology, multimedia courseware produced by computers, it is difficult for teachers themselves to demonstrate clear technical links, to visualize and concrete. The animations or images in the courseware are combined with explanations and demonstrations using teaching methods such as slow motion, stop mirroring, and replay. This can be Abstracted into images and enhance students' perceptual knowledge, thus helping students to see each moment of action. Faster and more complete set up of action representations, improve teaching results and shorten the teaching process. Before the teaching demonstration, students can take the problem to see, such as what parts of the long jump? What are the points of attention in each section? Ask the students to answer after reading.

Multimedia teaching technology is an important teaching method for sports and health theory knowledge. Sports and health textbooks are interspersed with a large number of sports theory and health care health knowledge. Some contents cannot be displayed in real life by students in the classroom, just by our teachers. Language and textbook texts are not well understood and understood by students. The use of multimedia for teaching can intuitively teach students the content of sound, color, and static, expand the students' audio-visual space, and make the Abstract content more intuitive and visual. The students are on the verge of being immersed in the situation, their thoughts are highly concentrated, and their emotions are very high.

#### 5. Conclusion

To study the characteristics, methods and means, teaching effects of the multimedia teaching technology of the technical department of the physical education department, and provide a scientific basis for the multimedia teaching of the technical department of the physical education department. Online multimedia physical education should have rich multimedia teaching content according to the needs of students, and form an effective physical education teaching mode. In the content of this paper, the form of online multimedia physical education and the basic form of class assignment are proposed. The multimedia physical education classroom is a great teaching tool. However, as a physical education teacher, we cannot ignore the cultivation and improvement of our

own quality. Multimedia online teaching is complementary, and innovation in teaching methods is the main one. Only when the two complement each other, organic combination can produce fruitful teaching results.

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