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# On the Impact of Multimedia Technology and the Integration of College Physical Education Curriculum on School Physical Education Teaching

# Jun Liu

School of Physical Education and Health Science, Yibin University, Sichuan Yibin 644000

Abstract: With the continuous deepening of educational reform, the application of multimedia technology in physical education teaching in universities is becoming increasingly widespread. Multimedia technology is an information processing, storage, and dissemination system based on computer networks, which includes a collection of various media such as text, graphics, images, animation, sound, etc. When applied to physical education teaching in universities, it is beneficial for students to understand and master the teaching content, improve their learning interest, and help them achieve efficient learning. The article mainly analyzes the current application status and necessity of multimedia technology in college physical education courses, and proposes integration measures between multimedia technology and college physical education courses.

Keywords: multimedia technology, college sports, integration measures

#### Introduction

With the continuous deepening of the new curriculum reform, multimedia technology has become an important component in the field of education. Integrating multimedia technology with physical education courses can not only provide students with a good learning platform, but also stimulate their interest in physical education courses to a certain extent, which is conducive to cultivating their comprehensive qualities. The integration of multimedia technology and physical education courses is also an inevitable trend in today's social development. Therefore, how to effectively apply multimedia technology in physical education teaching in universities has become a focus of attention for physical education teachers.

## 1. The importance of multimedia application in physical education teaching in universities

# 1.1 Enriched teaching content

With the rapid development of information technology, current physical education teaching in universities has gradually integrated multimedia technology, and more multimedia resources are being used in physical education teaching in universities. Using a large amount of multimedia resources to carry out physical education teaching can not only continuously stimulate students' interest in learning, but also encourage them to actively think in physical education learning, cultivate their thinking ability, and thereby enhancing their self-learning ability. In addition, using rich multimedia

resources for teaching can also improve the richness and diversity of physical education teaching content, without causing students' aesthetic fatigue due to a single reason, thereby enhancing their interest in physical exercise.

# 1.2 Breaking through the key and difficult points of teaching

Multimedia technology can present abstract action structures through animation or video, making them more intuitive and vivid. Teachers can use multimedia technology to decompose actions and present each action structure, allowing students to understand the action structure from a macro perspective and form a clear impression of the action in their minds. In basketball teaching, teachers can use multimedia technology to dynamically display various aspects of basketball, enabling students to have a more intuitive and specific understanding of basketball. After integrating multimedia technology with college physical education courses, teachers can present the details of each link to students through video animation, and based on this, summarize and summarize, so that students have a clear understanding and grasp of the entire basketball process, effectively breaking through the teaching difficulties.

## 1.3 Optimzing the structure of physical education teaching

The application of multimedia technology in physical education teaching in universities has optimized the structure of physical education teaching, allowing students to acquire more sports knowledge. The application of multimedia technology in physical education teaching in universities can not only focus students' attention on classroom teaching, but also concentrate teachers' energy on the structure of classroom teaching, allowing teachers to have more time to deal with students' problems in the classroom. For example, when a teacher explains a key action in class, it is difficult for students to understand what the action is. Teachers can use multimedia technology to explain it. After the application of multimedia technology in physical education teaching, teachers can present the essentials of this action in the form of videos or animations, making it easy for students to understand. Using multimedia technology to optimize the structure of physical education teaching not only allows students to understand and learn, but also gives them more time to master knowledge.<sup>[1][2]</sup>

# 2. Integration measures of multimedia technology and college physical education curriculum

#### 2.1 Optimizing multimedia teaching design to improve the quality of multimedia teaching

Multimedia teaching design is a type of multimedia teaching resource based approach that integrates teaching content, methods, and processes to provide teachers with an environment and conditions for effective classroom teaching. By utilizing multimedia technology, teachers can present the content they want to explain in various forms. The application of multimedia technology in physical education teaching in universities should first optimize the design of multimedia teaching, clarify the role of multimedia technology in physical education courses, and at the same time, scientifically and reasonably design physical education courses to meet teaching requirements. For example, in college basketball classrooms, teachers can use methods such as PPT or video to simulate basketball games, showcase individual technical actions and tactical coordination of players during the game process. By watching videos, students can deepen their understanding of the game and better grasp the basic rules and tactical coordination of basketball.

In addition, teachers can also conduct specialized skill demonstrations in multimedia classrooms. For example, in volleyball, teachers can play volleyball dribbling practice videos to help students learn the essentials of volleyball dribbling movements; In football, teachers can play football shooting practice videos to help students learn the basic movements of football shooting. Through the above methods, students can have a more intuitive understanding of the basic knowledge and methods of physical exercise. The images and animations presented through multimedia technology can stimulate students' interest in learning. In short, the application of multimedia technology in physical education teaching in universities is an effective teaching method, and teachers should pay attention to its application effect.

## 2.2 Optimizing the teaching process and improving teaching quality

In college physical education teaching, teachers should fully utilize multimedia technology to optimize the teaching

process. The goal of physical education teaching in universities is to provide students with lifelong opportunities for physical exercise, cultivate their sports skills and techniques. Due to the extensive content and knowledge involved in physical education courses in universities, teachers need to spend a considerable amount of time explaining these knowledge points clearly. If teachers adopt traditional teaching methods, it will greatly reduce the teaching effectiveness. Therefore, teachers should fully utilize multimedia technology to optimize the teaching process, combine knowledge points with multimedia technology, and play the role of multimedia technology in college physical education teaching.

For example, in basketball class, teachers can use multimedia technology to demonstrate basketball games, and then use pictures, videos, etc. to explain to students. During the explanation process, teachers should combine multimedia technology to enhance students' interest in learning. In basketball games, in order to help students better understand the game rules and become familiar with the playing field, teachers can use multimedia technology to display various game scenes. Through these images, students can have a comprehensive understanding of basketball games. For example, in football class, teachers can use multimedia technology to showcase the scenes of football matches. Teachers can display scenes such as passing, passing, and shooting in football matches. In these scenes, teachers need to explain to students through animation or videos. During the explanation process, attention should be paid to combining pictures, videos, and text to better help students understand sports knowledge.

## 2.3 Expanding teaching content to innovate teaching models

College physical education teachers can use multimedia technology to expand teaching content, help students better understand and master the knowledge they have learned, and achieve efficient learning. For example, in college track and field courses, teachers can use multimedia technology to explain content such as hurdles, long jump, and throwing. During the explanation process, teachers can demonstrate the starting, hurdle distance, body weight, supporting legs, and swinging leg movements in hurdle running through video playback, so that students can better grasp the starting method. In long jump teaching, teachers can use multimedia technology to demonstrate the process of running up, taking off, and landing, so that students can better understand the position of the body's center of gravity during the running up and the changes in the body's center of gravity when the heel lands on the ground during the takeoff. In throwing teaching, teachers can use multimedia technology to demonstrate the throwing process, enabling students to better master throwing techniques.

Introducing multimedia technology into physical education courses in universities can also innovate teaching modes and cultivate students' interest in learning. Traditional physical education teaching mainly focuses on teachers, using teaching methods and demonstration methods for teaching. Under traditional teaching methods, students have limited understanding of the content explained by the teacher and are prone to developing a fear of difficulty. Multimedia technology provides abundant resources for physical education teaching in universities. Through multimedia technology, abstract knowledge can be concretized, helping students better grasp relevant knowledge. For example, when explaining volleyball dribbling, teachers can use multimedia technology to demonstrate volleyball dribbling movements. Through this approach, students can better understand the movement of the cushion technique and master relevant skills.

## 2.4 Realizing full multimedia coverage to enrich students' extracurricular life

Multimedia teaching technology not only refers to the presentation of images and videos, but also includes various teaching platforms. Therefore, teachers can actively innovate the mode of physical education teaching through multiple teaching platforms, creating a new learning experience for students. For example, in terms of flipped classroom teaching mode, flipped classroom can be interactive through interactive software, allowing students to preview and understand new actions in advance before class, understand the content that needs to be learned in advance, and communicate and interact in the software to solve problems in the preview process in a timely manner. This can systematically preview knowledge and improve the efficiency of classroom teaching<sup>[3]</sup>.

For example, when learning about aerobics related content, in order to fully stimulate students' learning enthusiasm, teachers can record some short videos in advance and upload them to the teaching platform, or send them to class groups, so that students can use their spare time to watch. This can not only enrich students' extracurricular life, but also allow

them to preview in advance and grasp the key points. After the course is over, teaching videos can also be sent to students to encourage them to actively exercise after class. They can work together with friends to learn aerobics well and ensure exercise time.

#### 3. Conclusion

In today's rapidly developing multimedia technology, education is gradually moving towards modernization, and introducing multimedia into physical education teaching has become a trend. Only by correctly recognizing the role of multimedia in physical education teaching and organically combining theory and technology can it become an important supplement to physical education teaching. While multimedia brings convenience to teaching, it cannot ignore the cultivation and improvement of students' overall quality. The most crucial aspect is the teaching philosophy and methods of teachers. Physical education should complement and organically combine with information technology in order to truly move towards modernization.

#### **Conflicts of interest**

The author declares no conflicts of interest regarding the publication of this paper.

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