

# Application of Modern Information Technology in College Physical Education

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**Abstract.** In the face of the reality of the work of traditional college physical education personnel, through the integration of modern information technology, not only helps the return of the value of sports aesthetics, but also helps students to participate in the process of sports practice, the profound perception of sports aesthetics in physical education helps students to form a comprehensive understanding of the value of multiple education in physical education. Based on this, in the intelligent education environment, based on modern information technology, innovation and reconstruction of college sports education mechanism, to truly achieve the goal of college sports education. This paper analyzes the background and main points of the application of modern information technology in college physical education, and puts forward the application strategies.

**Keywords:** Modern information technology, University, Physical Education, application strategy.

The integration of "Internet +" online teaching has become an important development direction of higher education in China, in the future, the traditional classroom teaching and the on-line teaching with modern information technology will coexist for a long time and merge deeply. In the context of comprehensive education, giving full play to the advantages of modern information technology will stimulate the enthusiasm of students to participate in sports learning, and cultivate and strengthen their sports spirit.

## 1 The application background of modern information technology in physical education in colleges and universities

The course reform of higher education towards the online resource sharing mode is the inevitable choice in the information age, the only way of physical education, and the important means to promote the better development of physical education. In the process of physical education in colleges and universities, students will be fully integrated into the work of physical education on the basis of optimizing the form of physical education.

### 1.1 Necessary means to meet the needs of students for different types of PE courses

After the application of "Internet + Education Model" in practice, the traditional teaching

model needs to be developed to "Internet +" innovative teaching model to meet the needs of students for various types of special sports courses. Most colleges and universities offer physical education courses with limited teachers or equipment, and offer only a limited range of physical education courses. Some schools can not offer swimming, skating, golf and other physical education courses because of the conditions, which is in conflict with the students' desire for the study of different types of sports courses. It is of great significance to carry out the construction of on-line resource sharing model for physical education courses. On the one hand, through resource sharing, the limitation of physical education teachers and equipment resources in colleges and universities has been alleviated, on the other hand through the mode innovation to expand the students to learn sports knowledge and enhance sports skills channels.

### **1.2 Effective ways to broaden students' sports vision through multi-channels**

Effective sharing of online educational resources can facilitate the development of in-class and out-of-class integration of physical education, and schools can explain technical actions in class to enable students to understand relevant knowledge, students can choose special VR and related APP learning when they review and preview. The on-line resource sharing model helps to expand students' sports vision through multiple channels, for example, teachers can influence students by updating sports news, Star News, focus events and other knowledge about sports through micro-blogs, wechat public accounts and sports forums, cultivating students sports cultural accomplishment. In addition, schools can also promote sports-related content through new media and expand the impact of sports education through retweets and likes, so that students can have more opportunities to learn about sports events, in order to arouse students' interest, the school can also organize sports-related knowledge competitions based on the Internet, and guide students to answer questions online, so that while effectively disseminating sports knowledge, strengthen the sense of belonging and pride of students. Schools should give full play to the advantages of the network, the use of new media to continue to publicize sports-related knowledge, so that the idea of lifelong sports rooted in students' hearts.

### **1.3 The inevitable trend of optimizing physical education curriculum resources**

Physical Education curriculum information sharing is not only within the school, but also between different schools, even between international schools, each school has its own gold medal curriculum or excellent teachers, through the university physical education information sharing, excellent physical education teachers not only guide the students, but also benefit colleges and universities all over the country, greatly improving the quality and efficiency of physical education. The on-line resource sharing mode can also analyze students' sports learning situation through data sharing and big data analysis, so as to better discover the characteristics of college students' sports learning, finding out the problems in college students' PE learning and making corresponding changes in time can make college students more interested in PE courses and stimulate their enthusiasm in learning.

## **2 Application requirements of modern information technology in physical education in colleges and universities**

## **2.1 Grasp the "vertical link" between the upper and lower sections**

The most outstanding problem of physical education course is the lack of organic connection between the study stages, especially the lack of cohesion of the content. "the main line is to cultivate students' interests, develop their exercise habits, master sports skills and enhance students' physical fitness, improve the national physical education and health curriculum standards, and establish a link-up system for physical education courses in universities, middle schools and primary schools." It is mainly to determine which period of study what, reflect the cohesion, and full of logic, according to the content of the difficulty and the law of physical and mental development of students, such as progressive concrete embodiment. Only the top and bottom link, can avoid the low-level repetition, the student's physical education study can reflect in each stage study the suitability and the actual effect, thus satisfies the development demand.

## **2.2 "Horizontal consistency" in the same section**

The evaluation can give a relatively accurate conclusion about the learning effect of physical education course. The research on the evaluation of physical education curriculum has already attracted the attention of scholars, and it focuses on the establishment of the evaluation system, and tends to the evaluation of physical education curriculum in colleges and universities, no one is interested in the related research that the PE curriculum evaluation reflects the "horizontal consistency" of the same study period. Physical education curriculum integration "horizontal consistency" refers to the students in the same class in the evaluation results, specifically refers to the level of sports ability to maintain relative consistency, including basic sports ability and specific sports ability, this "horizontal consistency" of the paragraph provisions, but also more conducive to the realization of the content of the link.

## **2.3 Maintain the "inner unity" of the target sports**

The goal of physical education curriculum embodies the direction of the reform of physical education curriculum, and the relative unity of the goal should be maintained in the teaching process of special sports. At present, there are few researches on the goal orientation of "Inner Unity" in teaching special sports. The research on the integration of physical education curriculum puts forward that the goal of special sports should be to maintain "inner unity", which means that no matter which special sports, we should focus on the teaching of the four dimensions of "knowledge, ability, practice and health" and the overall promotion of students. For example, basketball should not only focus on the teaching of basketball-related knowledge, students should also emphasize the mastery and flexible use of basketball skills, the formation of basketball sports ability can not be ignored to develop good basketball habits, as well as the promotion of health. The reason for putting forward "inner unity" is to suggest that any special sport should not only be limited to imparting skills, but should be able to realize its functions in all directions and play an educational role in guiding and training students, in fact, it is through basketball to achieve a comprehensive educational function. This kind of unification request, can fully manifest the special movement the comprehensive education value.

## **2.4 Pay attention to "formal combination" of internal and external study**

The effect of PE curriculum implementation determines the speed of curriculum reform, affects the depth of curriculum reform, and also reflects the breadth of curriculum reform.

The research on the implementation of physical education curriculum has always been a key issue of academic concern and discussion, most of the research focuses on the implementation of the status quo investigation, implementation strategy discussion, and some of the research to explore the effectiveness of implementation. The implementation of physical education curriculum involves a wide range and complexity, and how to effectively implement it is also one of the core issues of the integration of physical education curriculum, more systematic and more comprehensive to ensure the integration of physical education curriculum to comprehensively achieve the educational function of the discipline. The so-called "form Union" has the multi-dimension of the field. Only when the "form union" is realized at the level of implementation, the integration of physical education curriculum can have more outstanding effect.

### **3 The application strategy of modern information technology in college physical education**

How to develop and construct the online teaching of physical education in colleges and universities in the new era lies in strengthening the deep integration of information technology and physical education teaching. As to how to achieve "deep integration", we should deeply understand the concrete contents of the reform of classroom teaching structure and implement the innovative teaching mode that can effectively change the classroom teaching structure, develop a wealth of learning resources for related disciplines.

#### **3.1 Improving the understanding of online teaching of physical education in colleges and universities**

In fact, more and more studies prove that online teaching is also suitable for physical education practice courses. With the coming of the information age, the pace of knowledge change and dissemination is quickening. Online teaching, with its advantages of no time and space limitation, convenience and rich resources, not only meets the diverse needs of students for sports knowledge, strengthening the body cognition of sports skills, improving the ability of self-study in sports, and widening the field of traditional offline sports teaching. However, we should be aware that the online teaching of physical education can not replace the offline teaching of physical education, but is a useful supplement and constant improvement of the traditional teaching of physical education. For the on-line teaching of physical education in colleges and universities, it should focus on how to realize the basic task of establishing morality and cultivating people, and how to adhere to the educational idea of health first, how to help students enjoy the fun of physical exercise, strengthen their physique, improve their personality and exercise their will, and then help students understand the basic elements of online teaching of physical education in colleges and universities, physical Education teachers should renew their teaching ideas, improve their information literacy, rationally design and apply online teaching, take students' physical and mental development and meet students' needs for physical education learning as the center, and play the leading role of physical education teachers, cultivating students' ability of self-study in physical education, strengthening their habit of physical training, building and sharing high-quality online teaching resources of Physical Education, building an online learning community of physical education, to achieve the physical learning interaction, physical learning records, physical examination and performance management and other links and elements of a comprehensive convergence and integration.

### **3.2 Construction of on-line teaching model suitable for college physical education**

A deep understanding of the essence and connotation of online teaching of physical education in colleges and universities. The application of modern information technology in the field of education has given birth to on-line teaching. Its fundamental aim is to make use of information technology to better solve the problems existing in traditional teaching and thus improve the teaching quality, but its key point still lies in the deep integration of information technology and subject teaching. Setting up on-line teaching objectives of physical education in colleges and universities which accord with the functions and characteristics of on-line teaching. The functions and characteristics of online teaching mode of physical education in colleges and universities determine that there are obvious differences between its teaching objectives and offline teaching. Among them, the online teaching of sports theory can not only carry out the systematic dissemination of sports knowledge, but also integrate the rich cases vividly presented into the cultivation of patriotism, collectivism and socialist spirit, realizing the requirement of "ideological and political education" in physical education. On-line teaching of sports practice focuses on the cognition and understanding of sports skills, and the guidance and management of after-school physical training. In addition, on-line discussion, on-line homework, on-line test, but also through big data management to strengthen students sports awareness, sports habits and formation. Develop an online teaching plan for physical education in colleges and universities corresponding to the curriculum. The on-line teaching of physical education in colleges and universities is relatively independent and systematic, which involves not only the on-line teaching of a knowledge point or chapter, but also the on-line teaching of the whole course.

### **3.3 Improve the management and evaluation mechanism of online teaching of physical education in colleges and universities**

The position and function of on-line teaching of physical education in colleges and universities. Since MOOCS appeared, online teaching has been widely welcomed by teachers and students all over the world, but it has also been questioned because of its own imperfections and the absence of the corresponding teaching management system. Many point of view that online teaching is only suitable for liberal arts courses teaching, physical activities are not conducive to the main type of practical sports courses. The on-line teaching of physical education can cultivate the students' ability of self-study, but it is also easy to form the situation of the students' self-indulgence in physical education. Therefore, on the one hand, the establishment of college physical education online teaching team. On the other hand, we should establish the perfect evaluation standard of P. E. Online teaching. We should not only consider the process evaluation of sports learning, such as the effective number of posts, teaching video learning time, after-school sports homework upload, but also reflect the summative evaluation. In addition, we should also give full play to the advantages of the internet big data to complete the dynamic management of Students' extracurricular sports learning and exercise. Choosing the appropriate online teaching method of physical education. The on-line direct broadcast teaching is not suitable for large-scale and normal physical education teaching because of its limitation. With the maturity of MOOC technology and online platform function, mooc-based online teaching has become the mainstream. At the same time, we should consider the difference between physical education theory teaching and physical education practice teaching, and whether the current online teaching environment is conducive to the achievement of physical education goals.

## 4 Conclusion

The development of on-line teaching of physical education in colleges and universities in the new era should be based on the needs of contemporary college students in their study and life, guided by the basic task of establishing morality and fostering people, and adhering to the first concept of health, and giving full play to the advantages of on-line teaching, improve the online teaching structure of physical education, enrich the online teaching resources system of physical education, and strengthen the deep integration with the traditional teaching methods of physical education, we should actively construct the school physical education teaching mode that integrates health knowledge, basic sports skills and special sports skills.

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