

## The Application of Modern Information Education Technology in Higher Vocational Physical Education and Its Countermeasures

Cheng Wenlong

Jiangxi Vocational Technical College of Industry Trade, Nanchang, 330038, China

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**Abstract:** China has entered a period of rapid development of information technology, and the 5G era is coming. With the continuous development of Internet technology and the upgrading of network carriers, education must keep pace with the times and improve the quality of teaching with the help of modern technology. Physical education is one of the important contents of school education, through the use of modern technology teaching, we can better improve the problems existing in traditional physical education teaching. This paper mainly explores the application of modern technology in Higher Vocational Physical Education teaching, and excavates the promoting role of modern information technology in Higher Vocational Physical Education teaching. After thinking about Higher Vocational Physical Education and information technology physical education, we find the existing problems and need to be improved, and promote the development of modern information technology in Higher Vocational Physical education.

### 1. Introduction to Modern Educational Technology Theory

Modern educational technology is defined as the application of modern educational theory and modern information technology. It includes modern educational technology, educational psychology technology, pedagogy, information dissemination technology and other integrated media facilities. Modern educational technology can solve many educational problems, such as educational planning, curriculum development, educational structure and evaluation, and it is the product of the era of the continuous development of education.

Modern information-based education technology mainly relies on the development of science and technology, centering on students, and analyzing and solving problems in the process of education. In the demand of learners, modern educational technology pays close attention to the main content. Teachers take the responsibility of teacher-led teaching indirectly through designing, hosting, demonstrating and evaluating the Internet and teaching assistant software. The research and practice of modern information-based educational technology is the object of the learning process, and students have established a leading position in the learning process. The application of modern information-based education technology relies on abundant teaching resources. Through integration and extraction, it collects content that meets the needs of learning conditions for teaching and manages the whole teaching process in real time. Therefore, we should not only study teaching resources, but also pay attention to the control of the whole teaching process, help learners to learn useful learning resources, and guide learners to learn in their own way. Modern information-based education technology uses a systematic method to design, develop, utilize, manage and evaluate various teaching methods and learning processes, which is scientific and practical.

In the information age, with the promotion of quality education, with the diversification and scale of information, the complexity of information exchange and the rapid change of knowledge, students' education is more colorful, and the interaction between teachers and students is more complicated. With the development of science and technology, great changes will inevitably take place in teaching methods. Universities should not ignore the existence of modern educational technology. With the influence of modern educational technology on the education system, all the elements in the whole design and operation process are affected systematically. The design of these elements is to realize the elements and functions of optimal allocation, to give full play to the best functions of the education system, and to achieve the best education.

## 2. Application Advantages of Modern Informationized Educational Technology

School physical education is a process of improving students 'comprehensive ability. In the process of learning, students' initiative, consciousness and physical quality will be exercised. Continuous development of school physical education methods and means can not only effectively help students to learn sports skills, correct sports attitudes, cultivate sports ethics, but also stimulate students 'learning subjectivity. According to the status and characteristics of modern physical education technology in physical education, it better reflects the characteristics and application value of modern educational technology in physical education. The advantages of modern educational technology in higher vocational physical education are summarized as follows: Fig. 1 shows the application advantages of modern educational technology.

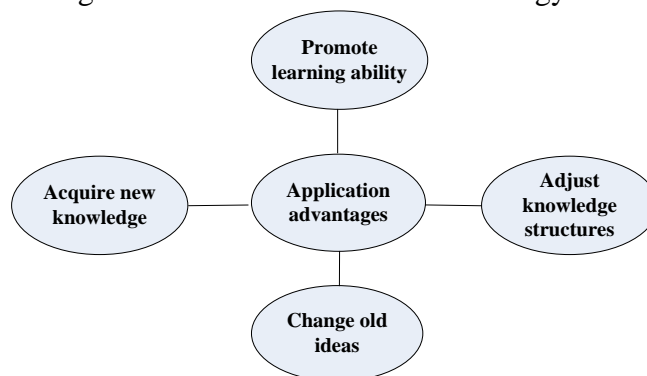


Fig. 1. The application advantages of modern educational technology

### 2.1 Modern information-based education technology helps students acquire new knowledge

The application of modern educational technology promotes students 'acquisition of new knowledge. Continuous educational reform is also aimed at promoting students to absorb more new ideas, learn new sports skills and knowledge, and master more methods and ways of self-learning. At present, the amount of information in education and teaching in our country still needs to be developed, and there is still much room for improvement in the nature, structure, form and method of curriculum system. Traditional higher vocational physical education teaching mainly focuses on teachers, students are often in a state of passive acquisition of knowledge. The process of learning should not only focus on teachers 'teaching, but also on students' autonomous learning. Modern information-based education technology can expand students 'learning space and improve students' learning pertinence through multi-channel, multi-platform and other ways. Students can choose the knowledge they are interested in independently. Therefore, deepening the application of modern information technology in higher vocational physical education teaching can effectively stimulate students 'learning initiative and develop students' innovative spirit and learning ability.

### 2.2 Modern information education technology helps to adjust students 'knowledge structure

At present, the physical education curriculum in higher vocational colleges has been adjusted to varying degrees in the continuous reform and development, and the knowledge structure is more abundant, which can better adapt to the development of the information age. Modern information-based teaching not only promotes the teaching of sports skills, but also plays a positive role in promoting sports culture. Using modern information-based teaching technology can better construct visualized teaching situation, stimulate students 'senses more truly, arouse students' curiosity and thirst for sports knowledge, improve students 'concentration and observation in learning, and thus stimulate students' imagination. With the continuous development of Internet technology and the advent of 5G era, information transmission will be more rapid, and the precision of content will continue to improve. Modern information technology has greatly expanded the classroom teaching space, the collection of various teaching resources is convenient and fast, the combination of inside and outside the classroom is closer, and the communication between teaching and learning is smooth and timely. Through the study of physical education curriculum, students

will no longer gain pure sports skills. With the assistance of information technology, they have a deeper understanding of the history and culture of sports, social development, self-learning methods and sports evaluation.

### **3. Analysis of the Present Situation of Modern Educational Technology in Higher Vocational Education**

The application of modern educational technology has certain advantages in giving full play to the theoretical depth and resource environment of education and teaching. The application of modern information educational technology in higher vocational physical education has improved the interaction of physical education. Intellectual and non-intellectual factors of students affect the improvement of education quality, make them fully developed, and play an important role in achieving educational goals. Through the practice and application of modern information-based innovative education model, this paper makes a comparative analysis of teaching classes, and adopts the method of combining qualitative and quantitative analysis and description, which provides theoretical guidance and practical basis for optimizing the quality of physical education teaching in Higher Vocational colleges.

The application of modern information-based educational technology in teaching is verified by practical teaching. According to the teaching objectives, modern information technology is introduced into higher vocational physical education, and relevant data in practical teaching are collected, analyzed and evaluated. By comparing the results of experimental classes, this paper explores whether the implementation of modern information-based education technology can effectively stimulate students' learning motivation, promote students' learning initiative, and verify its impact on students' sports skills, learning interest and participation attitude.

At present, with the development and popularization of information technology, most of the higher vocational physical education teachers' academic qualifications and the application ability of information technology are constantly improving, and the recognition and acceptance of modern information-based education technology are gradually improving. It is generally believed that it is necessary to introduce modern information-based education technology into physical education. According to the survey on the satisfaction of modern multimedia teaching facilities, 82.65% of teachers are satisfied with the current multimedia teaching facilities, and less than 5% of teachers are not satisfied with them. From the survey results, after the development of recent years, the information-based teaching facilities in higher vocational colleges have been continuously improved, which has laid a solid foundation for the development of modern information-based education technology.

### **4. Management Measures and Suggestions on the Application of Modern Information Education Technology**

#### **4.1 Strengthen the Application and Management of Modern Information Education Technology**

Higher vocational colleges should take necessary measures to strengthen the management of modern information-based teaching. Physical education curriculum should design a management information system that meets its own professional characteristics and needs, so as to save the cost of human resources in the application process and reduce the technical pressure of teachers. In addition, it is necessary to improve the level of sharing educational resources and realize the scientific management of sports curriculum

#### **4.2 Renovate the Educational Idea and Improve the Teachers' Information Level**

The popularization and application of modern information technology has a positive role in promoting the level of physical education in Higher Vocational colleges, improving the teaching effect and students' learning efficiency, and conducive to modern teaching management. Through the use and sharing of network education resources, the pressure of physical education teachers

'work is alleviated, and the content of classroom teaching is more abundant. As the leading role of curriculum reform, physical education teachers 'teaching ideas need to be constantly innovated to meet the needs of the times, constantly broaden the knowledge and cognitive aspects of teachers themselves, stimulate students' interest in learning by means of modern information-based education technology, and lead students to improve their sports awareness, sports skills and sports attitudes through information technology, so as to better realize their lifelong life. The goal of education is to make students understand, understand and love sports.

### **4.3 Strengthen the Construction of Informatization Teaching Facilities**

With the advent of 5G era, informatization will become more time-consuming. In order to promote the continuous development of modern information technology in the field of education, it is essential to ensure the construction of hardware and software facilities. With the popularization and development of mobile communication equipment, the mobility of teaching software has become a normal state. Higher vocational colleges should develop and perfect mobile teaching platform according to their own characteristics, and the development of software should be convenient for teachers and students. Build a perfect campus wireless network to ensure the timeliness and smoothness of information communication. Establish a perfect database of data resources for teachers to collect and analyze data. Therefore, the improvement of information technology teaching facilities in higher vocational colleges is of great significance to promote the application of modern information technology in education.

## **5. Conclusion**

In the era of rapid development of information technology, modern information-based education technology has been widely used in education and teaching, promoting the development of education. Higher vocational colleges have introduced modern information technology into physical education teaching, effectively solved some technical difficulties in traditional physical education teaching, optimized students 'sports knowledge structure, and highlighted students' subjectivity in the teaching process. In order to promote the development of Higher Vocational Physical Education for a long time, we need to improve and strengthen teaching management, teacher training and facilities construction.

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