On the Application and Development of Modern Information Technology in Physical Education

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Abstract. With the progress of the times and the advancement of science and technique, along with the rapid development and popularization of computer technology and network technology, modern information technology has entered all aspects of human life, especially in the appliance of education and teaching, which further reflects the teaching. The modernization of means, the use of modern information technology for teaching, the establishment of a new teaching model, is conducive to improving the quality of teaching, then how to use modern information technology education in physical education teaching? This article will discuss some.

Keywords: Modern Information Technology, Physical Education, Application

1. Introduction
The teaching methods and means of modern information technology are lively, novel and diverse. They have overcome the traditional teaching mode of teachers in the past while demonstrating and explaining. Its use is in line with the psychological characteristics of children and children and it can create a better situation and experience. Inducing and maintaining students' attention and interest, which can stimulate students' enthusiasm for learning and motivate students' enthusiasm for learning. Educational psychology research shows that the most realistic and active factor in learning motivation is the interest of understanding and the students are in an interesting state. Everything you learn is often mastered quickly and firmly. The use of computer-related technology to assist teaching can greatly increase the capacity of the classroom and the information density conveyed in the classroom. In addition, it can also help teachers improve the efficiency of autonomous teaching and enrich students' learning content. Teachers can be in class. Display various information, pictures, sounds and words related to the teaching content of this lesson and give students a new kind of stimulation to stimulate students' interest in learning. For example, when explaining the essentials of fast running, let students collect through watching. Some materials and pictures enable them to understand the correct running posture, understand the physiological principles of the movement through the animation effects in the relevant courseware and let the students understand the optimal movement angle of the shoulder joint, elbow joint and wrist joint during the swing arm process. What is the reason why such a swing angle is the best angle, it is Running Technique played what role? When the students understand the ins and outs of the whole movement, the students can consciously understand and
understand the teacher's movements, instead of simply imitating, the posture feeling ability will be improved and the whole technical movement learning will be qualitatively improved[1].

2. The role of modern information technology in physical education

2.1. Improve motor skills

In short, the main task of physical education teaching is that teachers need to let students master some major sports skills to enhance their resistance. In addition, teachers should use physical education to help students learn knowledge system related to physical education. Students must form a new movement through listening and seeing the technical movement process. Moreover, We can think of it as the main clue to the student's school's personal information. Using modern information technique to enable students to quickly establish correct visual images can effectively improve their motor skills.

According to the statistics of psychologists, the information obtained by people through audiovisual accounts for 94% of the total amount of information and 70% can be remembered after 3 days, far exceeding other methods of communication. The growth rate of sports information technology teaching equipment is shown in figure 1.

![Figure 1. Growth rate of sports information technology teaching equipment.](image_url)

In the process of teaching, mobilizing the audio-visual function of students can greatly improve students' autonomous learning efficiency. This way can quickly promote the development of students' ability. The use of modern information technology has a significant effect on cultivating students' good observation ability and plays an active role in quickly establishing a correct perceptual knowledge. In the content of physical education, there are many sports technology organization structure is very complex. Moreover, students need to complete the combination of teaching actions in a period of time to be considered as qualified in physical education. For example: the air movement of the track and field jumping project, the continuous movement of the gymnastics support jump and the rollover of the skill. And still some unusual actions. For example, in the throwing project, the last order of force, the jump project, the body of the long jump and so on, are difficult for the students to master. On the one hand, the teacher's demonstration movement is limited by many aspects and the randomness is often large, such as the teacher's understanding of the action essentials, the teacher's age, physical condition, psychological factors, etc. On the other hand, the students' observation angle and timing are also very large. Due to the fast action and high comprehensive difficulty, it is difficult for students to clearly observe the teacher's demonstration actions. This will inevitably have a certain impact on the students' learning. Using modern educational technology, it is difficult for teachers to demonstrate clear technical links by making multimedia courseware. The animations or images in the courseware are combined with explanations and demonstrations using teaching methods such as slow motion, stop mirroring and replay. In order to help students see the technical details of each instantaneous action, the teacher can carefully explain the main content of each decomposition action. Teachers can also demonstrate the whole process of the whole action through the network. Students need to master the main parts of the movement. The teaching content of teachers should highlight the important and difficult parts of the structure of sports content. Improve the teaching efficiency of cognitive learning.
in the cognitive stage and shorten the teaching process\cite{2}. The role of modern information technology in physical education is shown in figure 2.

![Figure 2. Role of modern information technology in physical education.](image)

2.2. **Cultivate problem analysis skills**

When we use modern information technology for analysis and comparison, we can use courseware to improve students' comprehensive ability to find and solve problems by themselves. Using modern network technology, we can make courseware of various sports techniques and common mistakes. Teachers can observe students' learning effect in class. For example, you can give several sets of simulated shots of leaping jumps (including jumping well, better, general, poor, etc.) for students to carry out collaborative learning, first by group observation, comparison, analysis, After exchanges and discussions, the technical essentials and precautions such as run-up, take-off, vacancy, over-the-counter and landing were obtained. Then the results were discussed in small groups. Finally, the teacher summed up the technical action essentials of the leap-forward jump. In this way, students can not only master the relevant knowledge and skills. They can also master the method of autonomous learning. In the process of teaching goat leg, when students start to learn, the teacher's explanation and demonstration may make students not clear about the learning content. Decomposing the teaching is easy for the students to misunderstand, forming a habit of decomposing and acting, ignoring the characteristics of rapid coherence\cite{3}. Using multimedia teaching software to teach, will avoid the above problems. In the teaching, the physical education teachers' explanations and demonstrations are directly broadcasted to the students to listen and see and the decisive points and difficulties are repeated and slowed down and the specific sounds and images are displayed, highlighting the decisive points and difficulties and making the students intuitive, active, three-dimensional and comprehensive. Master the movements and improve the effectiveness of teaching. It can be seen that modern information technology is used in the timely teaching of physical education, which not only enables students to learn knowledge, but also deepens their understanding, memory and mastery of the movements they have learned and cultivates their active thinking, observational learning ability and improves the teaching of physical education. effectiveness.

2.3. **Strengthening patriotic education**

The use of multimedia for moral education is not limited by time, space and macro. It vividly combines physical education with patriotism and collectivism education, making the content of ideology education more vivid and vivid and full of appeal, achieving the goal of teaching and educating people. For example, when watching the competition of the collective project, the teacher emphasizes the importance of mutual cooperation and promotes the spirit of collectivism of unity and cooperation while teaching techniques and tactics. Organize students to watch major international competitions. Such as the Olympic Games, the Asian Games, etc., when the athletes have won through the tenacious struggle, standing on the highest podium, the five-star red flag rises, so that students are
patriotic and collectivist education in the subtle[4].

2.4. Reforming educational concepts

Whether modern information technology teaching can become an important means of physical education has a key factor, that is, the multimedia information quality of physical education teachers. Only by continuously studying hard and enriching themselves can physical education teachers stand at the forefront of the development of the times and grasp the pulse of the times and greet them. The challenges of the new era have truly become the new force for realizing the leap-forward development of modern education. The cultivation of students' interest in exercise is the key to physical education teachers. The change of teachers' educational concepts is not only a symbol of the development of the times, but also plays a vital role in the development of education. Through correct, reasonable and efficient use of Internet resources, teachers can not only cultivate their ability to acquire knowledge and update knowledge, but also explore new educational systems and teaching models through the powerful functions of computers and networks and cultivate the needs of adapting to the information age. New talents to ensure a high quality of teaching and teaching efficiency, so that the "knowledge explosion" and the rapid development of knowledge to adapt to the development trend. The role of "people-oriented" can be fully exerted, so as to maximize the potential of network resources, build a virtuous circle of learning, cultivate the habit of lifelong physical exercise and achieve the goal of comprehensive education[5].

3. Conclusion

The 21st century is an era of information. The continuous development of modern technology centered on computers and networks has affected all walks of life. The pace of education modernization is getting faster and faster. Modern information technology has entered the school and entered the classroom. The relationship between modern information technology teaching and traditional physical education teaching, modern information technology teaching can play a very good auxiliary role in physical education. Modern information technology teaching can not be used as the main teaching method of physical education teaching. It is only a teaching method to assist teaching. In various forms, it is the teaching content and teaching methods that play a decisive role in teaching. Therefore, physical education teachers should give full play to the advantages of modern information technology teaching, enrich some new teaching methods into our physical education classroom and use it reasonably and correctly, thus realizing the modernization of physical education[6].

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