

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

Zhou Siyu

*Guangdong University of Foreign Studies South China Business College, Guangdong, China,  
510545*

**Keywords:** Modern information technology; physical education; application

**Abstract:** With the development of the times and the advancement of science and technology, 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 application of education and teaching, which further reflects the teaching. The modernization of means, the use of modern information technology for teaching and the establishment of a new teaching model are conducive to improving the quality of teaching. Then this paper discusses how to use modern information technology education in physical education teaching.

## 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. Using modern information technology to assist teaching can greatly increase classroom capacity, increase information density, improve teaching efficiency, enrich students' learning content and utilize computer functions. 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<sup>[1]</sup>.

## 2. The role of modern information technology in physical education

### 2.1. Improving motor skills

One of the main tasks of physical education is to enable students to master certain sports skills. Students must form a new movement through listening and seeing the technical movement process. Moreover, it is the main source of information for students. Using modern information technology 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.

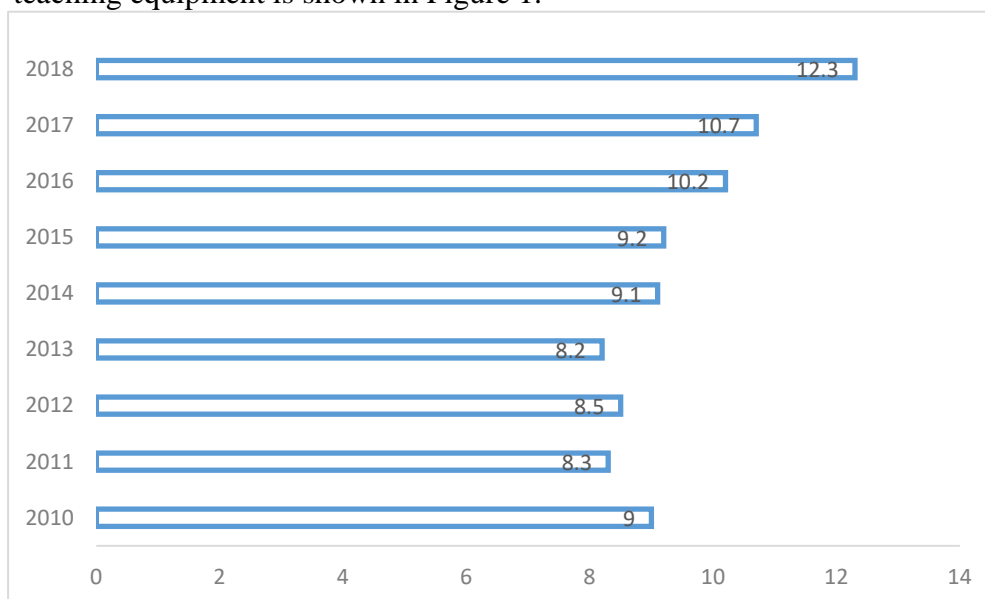


Figure 1: Growth rate of sports information technology teaching equipment

Simultaneous mobilization of audiovisual functions in teaching can significantly improve learning efficiency and promote the development of abilities. 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 physical education, there are many sports techniques that are not only complicated in structure, but also need to complete a series of complicated technical actions in an instant. 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. To help students see the technical details of each moment's

movements, the teacher can explain the essentials of each decomposition movement, demonstrate the whole process of the whole movement and then grasp the key parts of the movement, highlight the key points, difficulties and establish the appearance of the movement faster. Improve the teaching efficiency of cognitive learning in the cognitive stage and shorten the teaching process<sup>[2]</sup>. The role of modern information technology in physical education is shown in Figure 2.

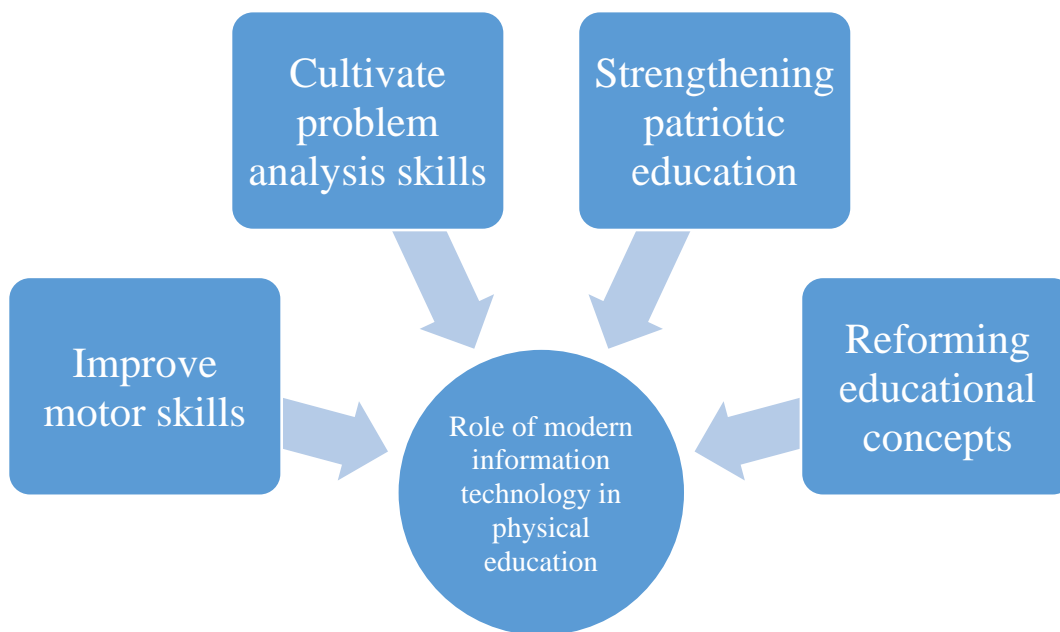


Figure 2: Role of modern information technology in physical education

## 2.2. Cultivating problem analysis skills

Using modern information technology for analysis and comparison can improve students' ability to analyze and solve problems. Using modern information technology, various sports techniques, technical difficulties, key points and common mistakes are made into courseware. Students can watch students when they are in class, analyze and compare with students, ask questions, solve problems and promote students. Analyze the ability to solve problems. 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 not only learned the relevant knowledge and skills, but also mastered the methods of learning. Another example: in the teaching of the goat's legs, when the students begin to learn, the teacher's explanation and demonstration students are not necessarily clear. Decomposing the teaching is easy for the students to misunderstand, forming a habit of decomposing and acting, ignoring the characteristics of rapid coherence<sup>[3]</sup>. 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 key points and

difficulties are repeated and slowed down and the specific sounds and images are displayed, highlighting the key 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 ideological 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 collectiveism 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<sup>[4]</sup>.

### 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<sup>[5]</sup>.

## 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.

## References

- [1]Yanqing, Zhang,Dongyan, Cheng. *The Application Study of the Multimedia Technology in the University Physical Education Teaching* [P]. *Instrumentation, Measurement, Computer, Communication and Control (IMCCC), 2012 Second International Conference on,2012.*
- [2]Schoitsch, Erwin,Skavhaug, Amund. *European Perspectives on Teaching, Education and Training for Dependable Embedded and Cyber-physical Systems*[P]. ,2013.
- [3]Zhou Yuanchao. *Research on the Feasibility of the Application of Multimedia Technology in Teaching of Martial Arts of College* [P], 2013.
- [4]Schoitsch, Erwin. *Introduction to Special Sessions TET-DEC I & II: Teaching, Education and Training Viewed from European Projects' Perspectives*[P]. *Software Engineering and Advanced Applications (SEAA), 2014 40th EUROMICRO Conference on,2014.*
- [5]Podrigalo L.V.,Prusik Krzysztof.,Prusik Katarzyna.. *Main regularities of teaching course "Non-traditional methods of recovery at physical culture and sports"*[J]. *Fizičeskoe Vospitanie Studentov*, 2012,4.