# Study on Modern Educational Technology and New Teaching Mode

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**Abstract:** With the advent of the Internet age, computer technology has gradually penetrated into education, and modern educational technology has emerged. Modern educational technology provides a solid material foundation for the construction of a new teaching model. The correct use of modern educational technology to construct a new teaching model is the commanding height of modern education reform.

### 1. Introduction

In the 21st century, mankind is facing another great leap in the history of civilization. From the industrialized society to the information society, the countries of the world have given unprecedented attention to the development of education and the application of information technology in education, and have taken measures to try to be in the future. Education is at the forefront of the information society. Today, with the rapid development of science and technology, colorful TV programs and fast and fast network information have broadened the world of students' learning, but they also impacted the traditional physical education model. Modern educational technology has caused profound changes in the field of education, and has brought far-reaching influence on educational concepts, teaching methods and teaching organization. Deeply understand the important position of modern educational technology in education and teaching and its corresponding necessity and urgency. Fully understand the application of modern educational technology is the requirement of modern science and technology and social development for education, and it is the need of education reform and development. Faced with this situation, Minister Chen Zhili emphasized: "We must profoundly understand the importance and urgency of modern educational technology in education and teaching, and fully understand the application of modern educational technology is modern science and technology and social development to education. The requirements are the need for education reform and development." Vice Minister Lv Fuyuan also emphasized in many speeches that modern education technology and various disciplines should be integrated as a "breakthrough" for deepening education reform. Therefore, exploring how to apply modern educational technology to build a new teaching model is a very urgent and important issue for our educators.

# 2. Definition of modern educational technology and physical education model

Educational technology is the sum of all the technical means and methods that human beings use in educational activities. From the process of the formation of educational technology, we can clearly see the increasingly rich, perfect and mature concept of educational technology. Due to the different processes of educational technology development in different countries, the methods and methods used are also different. Therefore, there are obviously certain differences in the definition of educational technology concepts. At present, the American Association of Educational Communication Technology (AECT), which is recognized internationally, defines education technology as: "Education technology is the theory and practice of designing, developing, using, managing and evaluating learning processes and learning resources." It is clearly stated that the research object of educational technology is the learning process and learning resources. It can be seen that educational technology is a process of applying systematic methods to analyze and solve

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human learning problems. Its purpose is to pursue the optimization of education. Educational technology is divided into two categories: tangible technology and intangible technology. The tangible technology refers to the technology that uses the results of natural science and engineering technology to apply the technology of materialized form to education, so as to improve the efficiency of teaching. It includes traditions such as blackboard and chalk. Teaching aids to multimedia computers and networks, etc. All equipment, facilities, equipment, etc. that can be used for education and corresponding software; Intangible technology mainly refers to the technology that uses education, psychology, systems science, communication and other aspects to optimize the educational process. Educational technology relies on the development and use of all learning resources to achieve its goals. Learning resources are divided into information, people, materials, equipment, skills and environment. These resources come from two aspects. One aspect is resources designed for the purpose of learning, such as teachers, textbooks, teaching TV, computer courseware, chalk board., projectors, classrooms, playgrounds, lectures, class discussions, etc., another aspect is the original resources available in the real world, such as experts from all walks of life, newspapers, film and television, exhibitions, museums, production sites, games, competitions. Wait.

### 3. Pros and cons of traditional teaching mode

The so-called teaching mode refers to the stable structural form of the teaching activity process under the guidance of certain educational thoughts, teaching theories and learning theories, that is, the process of organizing teaching activities according to what kind of educational thoughts and theories, is the educational thought and teaching. The concentrated expression of theory and learning theory. At present, our teaching mode is basically centered on the faculty, and is represented by Kailuo's five-segment teaching method (exciting engine – reviewing old lessons – teaching new lessons – using consolidation – checking results). Traditional classroom teaching mode. Its advantage is that it is beneficial to the leading role of the instructor, facilitating the organization and monitoring of the entire teaching process, and facilitating the emotional exchange between the instructor and the trainee. With the transformation of people's educational concepts and the development of educational technology, the drawbacks of the traditional classroom teaching model are increasingly obvious, mainly in the following aspects: First, the faculty has a single function; second, the students are only passively accepted; third, the teaching methods are single.

## 4. Subject-based teaching mode based on network resource utilization

The main teaching mode is a new teaching mode with the goal of developing intelligence and taking the students' independent activities as the main line, making teaching truly a world of independent activities and exploration. The main mode of network resource teaching is based on network resources, using modern educational technology to solve the specific performance of teaching problems. It is a new teaching mode that integrates the traditional teaching education mode with the independent education of students based on the use of network resources. This model has two major advantages: one is to emphasize the orientation of the instructor in the teaching process; the other is to attach great importance to the subjective position of the students throughout the teaching process. Not only can it fully guarantee the scientificity, purpose and planning of teaching, but it is important to greatly enhance the enthusiasm and creativity of students' independent learning and enhance the effectiveness and pertinence of education and teaching.

The teaching process design of the subject-based teaching mode based on the utilization of network resources is to rationally arrange the various elements in the network learning environment, organize the learners to learn independently, and construct the process of self-constructed knowledge control and management. Compared with the teaching design of the traditional learning environment, the instructional design in the network environment is to arrange the teaching process on the basis of more emphasis on the learner's independent learning. The teaching process is generally carried out in a learning context constructed by a variety of educational media. The

teaching design object of the network environment is mainly the learner in the network environment and the teaching process in the network environment. The design of learners in the network environment is mainly reflected in the analysis of learner characteristics and the measurement required for learning. Learner characteristics analysis is to analyze the learner's general characteristics, learning style and learning preparation based on the learner's media use ability. The analysis required for learning is in instructional design, where the learner recognizes why teaching and what learning content the learner needs. The design process of the teaching process in the network environment is to achieve a good learning situation, organize the various elements of the teaching design pattern in the network environment, and form an orderly system. The design of the network learning environment is mainly composed of three parts: network hardware environment, resource environment and cultural environment. The hardware environment mainly refers to the physical facilities that constitute the network environment, and is composed of various network communication facilities. The resource environment is a carrier for the normal support of the teaching activities of the network environment, including various teaching support platforms with interactive functions and diverse network learning tools. The cultural environment mainly refers to the sum of factors such as learning objectives, learning motivation, learning strategies, learning evaluation and interpersonal relationships under the influence of social and cultural background and contemporary educational thought theory. According to the order of implementation of the instructional design process, it is divided into three parts: the preliminary analysis stage of the instructional design, the implementation stage and the evaluation stage of the instructional design organization. Pre-analysis is the stage in which the instructional designer collects relevant information and prepares for instructional design. Organizational implementation is the implementation of specific aspects of instructional design. According to the analysis results of the previous period, determine the learning objectives, design appropriate learning strategies for learners, select appropriate learning resources and organize them, design friendly cognitive tools for learners, and build good learning situations to help learners complete successfully. Learn. Evaluation is the post-evaluation analysis of instructional design, which examines the effectiveness of teaching facilities by measuring and detecting the development of learners. Through analysis and modification, the teaching design is improved, and the learner can obtain a good learning situation and finally complete the teaching purpose.

Prepare adequately before class and complete courseware design. According to the teaching tasks, the instructors should optimize the processing content, propose teaching objectives and requirements, guide the students to use the network, or collect resources, or pre-study, or question the discussion, or complete the homework; guide the students to access the network materials, quickly organize, and from a variety of The information extracts new ideas, demonstrates new topics, and guides students to exchange information online and demonstrate self-learning processes and ideas.

The forms of learning are diverse and the interactions are equal. Use the BBS of the campus network to conduct special debates, discussions, and Q&A. You can also use chat-style answers. For example, in the forum area where the relevant courses are opened on the BBS, the exchanges between the students and the trainees, between the trainees and the trainees, and the opinions and ideas of the trainees are uploaded to the forum area, thus forming a warm atmosphere for discussion. Free to speak, especially in some teaching cases, let the students analyze, put forward their own views and management methods, and cultivate students' ability to analyze and solve problems.

The operation layout is flexible and the research is convenient. Teaching and doing exercises in the classroom have always been the main part of the faculty to complete the teaching tasks. Due to the convenience of using the campus network, the instructors can also arrange assignments on the Internet in the form of postings, asking students to go online, guiding the students to the online to find information to find answers, the instructor plays the role of the navigator, in the infinite "net sea", Guide the trainees to the right route and find the essence of knowledge. After the student registers, he submits the assignment in the form of a reply. The instructor can modify the assignment online and can provide targeted guidance to individual trainees. This has changed the

ills of the traditional teaching in the faculty-centered, passive learning of the students, and extended the learning to the extracurricular. (4) The teaching process is unlimited and the teaching space is broad. The instructor can arrange part of the course teaching in the network laboratory, breaking the traditional teaching mode in which the class was taught only in the classroom. For example, after completing one or two topics or one or two chapters, arrange the students to go to the network lab to teach, guide the students to the relevant topic learning website, let the students combine the learning content, check the information on the Internet, and organize the learning content. And exchange experience in the class.

### 5. Conclusion

At present, modern educational technology is not widely used in physical education. School physical education does not make full use of modern educational technology as a means of physical education in schools. It is only the most basic elements of modern educational technology, such as recording and video recording. Applying modern educational technology to physical education is the trend of college physical education reform. The combination of modern educational technology and physical education is a new and effective teaching method in the reform of physical education. Modern educational technology is conducive to the development of physical education in schools. The use of modern educational technology can greatly improve the efficiency of physical education; through modern teaching management software, the workload of physical education teachers can be greatly reduced.

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