Sports Application Practice and Innovation Based on Computer Aided Information Technology

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Abstract. The use of modern computer aided information technology teaching means can activate students' interest in learning, stimulate students' thirst for knowledge, and make students devote themselves to learning in a pleasant and relaxed mood. The domestic related research mainly focused on the modern computer aided information technology used to strengthen the traditional school physical education, only took the computer aided information technology as the auxiliary means to affect the level of school physical education, and failed to penetrate the modern computer aided information technology into the teaching elements. The research on school physical education informatization is lack of systematicness, and the research is mainly focused on local research, with less overall grasp. It attaches importance to the study of individual cases and practical problems, tends to be localized and technical, and the theoretical research is not systematic enough.¹

Keywords: Sports, Application, Practice, Innovation, Information Technology

1. Introduction

The progress of information technology makes the society give new requirements to sports knowledge, technical skills and sports quality, and then puts forward challenges to school physical education. The acceleration of the information process will inevitably make the traditional physical education ideas, teaching content, means and methods of strong impact. The reform of contemporary education is based on the platform of modern information technology. At the same time, it is realized through the integration of information technology and school sports resources. This integration process is the process of school sports informatization. Modern information technology with computer and network as its core has gradually become a cognitive tool for promoting students' autonomous learning, a tool for emotional motivation, and a tool for creating artistic conception for a rich teaching environment, and these tools are applied to the scientific education and teaching process. It also makes all kinds of teaching resources, teaching elements and teaching links, through re arrangement, combination, mutual integration, on the basis of overall optimization and mutual penetration, produces the education effect of \(1 + 1 > 2\). Only under the catalysis of modern information technology, can physical education...
and teaching adapt to the continuous deconstruction and new requirements of the whole education system through continuous reform and innovation and leap forward development.

2. Use of computers

Computers are the product of a new era. It has been developed rapidly and applied to different aspects. Sports is one of them. The computer can quickly analyze the advantages and disadvantages of athletes according to their data. With the continuous development of technology, some new machines have been developed. They can more accurately measure some of the measurement work for athletes that human beings can't complete.

2.1. To improve the information quality of PE teachers and promote the reform and innovation of PE Teaching

With the transition of personnel training from one to others, it is more required that college physical education teaching should change the concept in time, innovate actively in teaching practice, implement new curriculum system, and the course content should be guided by modern sports theory. 

The key to the success or failure of the implementation of sports informatization lies in the continuous reform and innovation of teaching concepts of physical education teachers. With the rapid development of social informatization, digitization and network, the information consciousness, information ability and information morality of physical education teachers need to be improved. We should constantly improve our own information literacy, consciously and actively strengthen learning, especially for the constantly updated educational technology, information technology, network technology, more comprehensive and timely learning and updating. Only by constantly exploring and innovating, can we better integrate more and updated professional information into physical education and teaching. Only by keeping up with the pace of the development of the times, devise and meeting and adapting to the challenges of the times, can physical education teachers better serve the modern education. The improvement of physical education teachers' information quality can cultivate and improve students' interest in sports learning, which is not only in line with the characteristics of the development of the times. Physical education teachers master the correct, reasonable and efficient use of information resources, not only can improve their ability to obtain and update information, but also can improve the quality and efficiency of physical education teaching, build a virtuous circle of learning, and cultivate the habit of lifelong physical exercise by instilling them into students in the new teaching mode, To achieve the goal of comprehensive education.

2.2. Through the construction of teaching information management platform, promote the improvement of students' information literacy

It is an important way to integrate information technology into the process of physical education learning activities to construct a scientific and reasonable communication and cooperation platform for physical education teachers and students. By making students participate in the management and control of information resources, students' information awareness, information management and cooperation skills are cultivated, so as to improve their information literacy. Through the teaching information management platform, students can obtain the knowledge of learning and psychology, such as: the arrangement of teaching activities, teaching content, precautions, wonderful sports videos, event appreciation, reference materials, etc; It's OK. Through three exchanges and comments, we can
learn from each other, encourage and encourage each other. This modern communication platform can better improve the enthusiasm of participants, promote their cooperation and communication, and improve their information literacy.[3]

3. Computer aided instruction software in Physical Education

The use of computer-aided teaching in the teaching of physical education teachers can vividly show the relevant sports knowledge to students, and encourage students to find problems, actively explore methods to solve problems, break the traditional logical teaching concept, so that students can acquire more comprehensive knowledge and related skills in learning, improve their interest in sports learning, and then promote students' sports The improvement of the level.

3.1. Poser software

The first is the human body three-dimensional production software, namely poser software. Through this software for the production of human animation, build a flexible three-dimensional model of the human body. Using poser software, the difficulty of designing human body modeling and related actions will be greatly reduced, and a variety of shapes can be produced, and the movements can also be explained in detail. Physical education teaching has certain particularity. We can make use of Poser software to make a single frame of human movement. Through simple and clear key frame making method, we can depict the human body action vividly and save it. It can provide the preparation material for the sports courseware and ensure the development of physical education course in Colleges and universities. Poser software also has a certain introduction function, which can download useful teaching materials on the network, and then decorate the relevant scenes in poser, which enriches the space of human body modeling and action creation. Through poser software, we can realize the three-dimensional animation model display of human body in college physical education teaching, which is conducive to improving students' interest in learning and completing teaching objectives.[4](As shown in Figure 1)

![Figure 1. Poser software](image)

3.2. Flash software

In college physical education, the application of Flash software is also essential. Through this software, teachers can make animation of technology in physical education teaching, lead out the
relevant model of human movement, and then beautify it with PS software, which can produce a series of more coherent and appreciative human actions. These modified actions are imported into Flash software and put into use in practical teaching. Flash software can design the key frame of sports technology, produce more vivid animation of sports action technology, make the information knowledge accepted by students more vivid, and then increase students' interest in learning. (As shown in Figure 2)

![Figure 2. Flash software](image)

4. Development and application of computer aided software in Physical Education

Physical education is an important basic course, which plays an important role in improving students' physical quality and psychological quality. In modern physical education teaching, we should apply various new technical means to promote the development and progress of physical education. In physical education teaching, the use of computer-aided software development, can better skills students in sports learning in the subjectivity, improve the ability of innovation and practice; promote the formation of the correct concept of physical education, is conducive to students to establish the spirit of lifelong exercise. At the same time, it can also promote physical education to be modernized, standardized and scientific.

4.1. CMT

CMT should also be introduced into college physical education teaching to reduce the total amount of teachers' work. In daily work and life, teachers should not only prepare lessons and teach, but also sort out the relevant information of students, and be familiar with it. The total amount of work is more and more cumbersome. Through CMT, we can print out some complicated work such as student achievement statistics and attendance directly in the form of report forms. This paper integrates the students' physical education achievements, classroom performance, absence and teacher evaluation, and further analyzes them, so as to ensure that the registration form of College Sports Qualification Standards is more convenient and standardized. [5]

4.2. CAT

At present, the use of cat in college physical education teaching is mainly completed by using the background database, and other technologies are needed to modify it, and the corrected data
parameters are fully displayed to students through the user end. Through the application of this technology software, the dynamic processing of related web pages in college physical education teaching is realized. Through the computer, students can input some professional terms related to physical education on their own client, and then the corresponding physical education course content will appear, which is convenient for students to preview and understand. In the content displayed to students, the relevant knowledge has been classified and explained step by step, and some specific teaching examples are provided for students with specific analysis and suggestions, so that students can fully understand and reduce the difficulty of learning.

5. Conclusion

The application of computer software (such as poser) can make the original dull sports knowledge vivid, and then enhance students' interest in learning. The development and application of computer software (such as CMT, CAI) can open students' vision, broaden students' knowledge level, reduce the total amount of teachers' work, create a good learning environment for students, make students have more opportunities to contact more comprehensive sports knowledge, and then improve the overall teaching results of physical education.

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