The development and application of computer aided software in college physical education

Guiqi Yang
Nantong Institute of Technology, Jiangsu, China, 226000

Abstract: The development and application of computer aided software in college physical education has many benefits, such as, it is helpful for stimulating students' subjective initiative and improving their innovative spirit and practical ability. The computer aided software can promote the physical education teaching in colleges and universities to be modernized, scientific and standardized. This paper first defines the meaning of computer aided software application, and then it analysis the frame design and ADDIR modeling. Finally, this paper briefly analysis the application of CAI and CAT to improve the overall teaching level of college physical education.

1. Introduction
With the development of science and technology, China has entered the information age. In the information age, the economy and society can not get long-term development. Colleges and universities should also be in line with the development of society, and the information technology will bring new development for colleges and universities in the teaching and daily work. The development of computer aided software is the main content in the development of university computer network. Computer aided software can effectively improve the ability of college computer network construction, and it can also improve the flexibility of college computer utilization. Computer aided software provides a new development direction for physical education in colleges and universities.

2. The significance of computer aided software development and application

2.1 Meet the needs of society
The development of computer network technology is very rapid, the way of work in various industries have tended to automation and information. The needs and requirements for talents in various industries are gradually improved, and most jobs require the ability of using computers. Modern software needs to be updated and maintained in real time. Colleges and universities should try their best to speed up the development of computer aided software and enhance its application functions.

2.2 Rich and effective teaching situation
CAI courseware plays a unique role in creating rich teaching situations. Sports teaching competition rules should be enforced in sports teaching performance. The multimedia courseware can restore the scene of the competition, such as displaying slogans and visual effects. It can express multimodal language and improve the diversity of teaching content expression. Which will help to create a rich teaching environment.
2.3 Improve the depth of information transmission and understanding
CAI courseware information symbol has the numerical value, the writing, the graph, the image, the video, the sound and so on. There are elements for seeing and hearing, which can be static, moving, synchronous or asynchronous, colorful. These elements make sports teaching competition rules more fully and comprehensively expressed. Rule learning is relatively boring, and single words tend to cause fatigue. CAI courseware allows different types of information expression. Any information can be expressed in the most effective way, or even in more than two ways to express the same information. This brings the intuitiveness to sports teaching and can improve learners' understanding and memory of rules.

2.4 Strengthening teachers' control over the teaching process
Multimedia CAI courseware has strong interactivity, navigation directory is clear and convenient. Teachers can choose the content module needed for teaching at will and switch, jump and return the content page. Multimedia CAI courseware is more interactive and convenient. It can enhance the teacher's control over the classroom.

3. The computer aided software development in college physical education

3.1 The computer aided software design patterns
The traditional computer aided software design pattern has the multiplicity. The development model of course software is diverse, and the most commonly used one should be ADDIE model. ADDIR builds the model in five steps. And the five steps are analysis, design, development, implementation and evaluation. With these five steps, we can increase the flexibility of software design and development. The ADDIR instructional development model is shown as the table 1.

| Steps      | Characteristics                                                                 |
|------------|---------------------------------------------------------------------------------|
| Analysis   | Integrate the teaching content or learning content, and analyze the content to get the characteristics of learning. |
|            | In this way, we can strengthen students' cognition of themselves by taking factors such as learning resources and situations as tools. And then judge the rationality of the software design from the students' autonomy and strengthen the implementation strategy of the software. |
| Design     | The curriculum and learning content are summarized according to the software analysis and software design concept, and then curriculum development is carried out.       |
| Development| Based on the results of curriculum development, we carry out training.             |
| Implementation| We should discuss the process, practicability and operability of the training course software, and then judge the application result of the software. |

3.2 The framework design of computer aided software
The framework of sports teaching assistant computer aided software is shown in figure 1. After entering the software is the function selection interface. Click the button to enter the work module we want to complete. There are two select selection interface including the demo and edit interface. And the demo interface is including the Local and Comprehensive sports technology, the edit maintenance interface is including the Add and Delete interface.
4. The computer aided software application in college physical education

4.1 CAT analysis
Computer aided test (hereinafter referred to as CAT) is implemented primarily through a backend database. At present, CAT in college physical education teaching needs to rely on Php, ASP and other technologies for correction processing. After correction, the corrected parameters will display and reflection in the user side. The dynamic and humanization of computer aided teaching in physical education have been realized. Students can browse relevant course content by typing sports-related terms on their own users. The difficult problems have been standardized and decomposed, which reduces the difficulty of students' understanding.

4.2 CAI analysis
Computer-assisted instruction (hereinafter referred to as CAT) is a teaching tool for teachers. Physical education teachers need to master sound processing, image processing, courseware making, Animation processing and so on. In addition, it is necessary to study the existing physical education textbooks and teaching methods. Physical education teachers need to constantly improve all aspects of the software system functions. Only in this way can we improve the level of computer-aided software development. Finally, we can ensure the performance of college physical education assistant software.

5. Conclusions
With the development of modern computer technology, it is an inevitable trend to use computer aided software in physical education. The development and application of CAI can help to improve students' interest in Physical education courses. At the same time, it expands students' knowledge and creates students' opportunities to know more and more comprehensive basic sports knowledge. Computer aided software can improve the overall level of physical education in colleges and universities.

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