Research on fast feedback system of computer physical education teaching based on Digital Theory

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Abstract. The emergence of exam oriented education has led many schools to attach great importance to students' achievements in cultural courses. However, the physical quality of today's students is very poor. The health of students has attracted the attention of the Ministry of education. The Ministry of education has denied the theory of exam oriented education. Scholars believe that we should pay more attention to the study of physical education curriculum. With the introduction of digital theory, people find that the application of digital technology in physical education is relatively excellent. This paper describes the specific application of fast feedback system in physical education. Finally, this paper also describes the construction strategy of digital teaching.

Keywords: Digital Theory, Physical Education, Rapid Feedback

1. Introduction
Many schools do not pay attention to the study of physical education. This is a very pessimistic situation. Many students' health is greatly affected. The emergence of exam oriented education makes the physical education curriculum of many students decrease sharply. People gradually found the loopholes of traditional education [1]. The physical and mental health of students should be paid attention to by schools. On this basis, many schools began to use computer sports teaching technology to help students learn sports knowledge. On this basis, people found an important branch of computer sports teaching project.

This branch is a fast feedback system supported by digital theory. This system structure can effectively improve the efficiency of computer sports teaching. The theory of digital teaching was first put forward by foreign scholars. On the basis of computer teaching, the advantage of digital teaching is huge. It can make the classroom more vivid. This paper describes the current situation of modern physical education (see Figure 1). On this basis, this paper explains the history and concept of digital teaching. Finally, the main applications of digital fast feedback system are proposed.

2. Analysis of the basic situation of traditional physical education

2.1. Backward educational theory
As we all know, the concept of education determines the ideology of education in every school. The renewal of educational concept also represents the innovation of curriculum teaching ideas. It can also reflect the specific working style of every educator. The backward education concept makes many physical education courses difficult to be accepted by students. Generally speaking, this kind of teaching concept will seriously affect the application of modern sports technology in physical education.

2.2. The level of backward PE Teachers
According to the above description, we know that many schools do not attach importance to physical education curriculum. Many parents even think that students' sports performance is secondary. This situation leads to the decline of the professional level of physical education teachers in many schools [2]. Many teachers don't even need to participate in many courses. Some PE teachers in private schools don't even have professional qualifications. This leads to the poor level of physical education in many schools.

2.3. The limitation of physical education is very big
The practice environment of physical education curriculum is outdoor place. In many schools in the north, the capacity of snow outside the house is very large. This leads to a lot of physical education courses can not complete the outdoor practice. On this basis, teachers advocate the form of indoor teaching. However, the limitations of the indoor theory course are also great. Due to the school curriculum requirements, a lot of physical education is occupied.

2.4. Development of backward teaching software products
With the continuous improvement of social requirements, people find that traditional teaching has been unable to adapt to today's society. Many scholars put forward multimedia teaching. This has led to the emergence of a lot of teaching products [3]. People find that hypertext link technology can effectively combine with multimedia technology. Unfortunately, however, the functionality of many teaching products is seriously damaged. Moreover, the development technology of many teaching products is backward.

3. Brief analysis of digital teaching
3.1. Analysis of main concepts
In fact, the theory of digital teaching mainly comes from the digital survival theory of the United
Students. This theory mainly expresses that the foundation of the development of modern society is the emergence of digital mode. With the emergence of computer technology, digital technology is gradually applied to every field of our life. Moreover, the emergence of digital technology promotes the development of multimedia teaching technology and software teaching technology.

3.2. Analysis of the historical process of digital physical education
At the beginning of the development of modern society, people found the importance of information teaching. With the deepening of foreign information teaching in China, we find that foreign scholars have studied a lot of digital teaching system [4]. With the development of foreign technology, the combination of digital information system and multimedia system accelerates the renewal of physical education. Moreover, according to the development of video technology in Japan, digital three-dimensional video technology of physical education has also been developed.

3.3. Main advantages of digital physical education
The process of digital course customization is complicated. The course arranger should carry out the specific teaching plan according to the customer's requirements. However, these situations also show the main advantages of digital physical education. Traditional physical education has the limitation of time and space. Digital physical education teaching can effectively avoid these two main limitations. This is also the main reason why digital teaching is valued.

3.4. Optimization of digital teaching scheme
In the early development of digital teaching, people's technical level is unable to support the teaching program. In order to improve the main benefits of digital teaching, people began to optimize the digital teaching program [5]. People have added the idea of innovative teaching into the teaching plan. On this basis, in order to establish a virtual relationship between teachers and students, people join the chat system in the digital system. This can help teachers and students communicate online.

4. Analysis of digital fast feedback system based on sports theory learning

4.1. Mode of synchronous information feedback system
In the process of learning sports theory, teachers may explain many examples. For example, all kinds of requirements in track and field competitions, all kinds of requirements in ball games. In the process of learning outdoor courses, teachers can use synchronous information feedback system to give students various instructions. In addition, students can get some information through the self perception of various sensors. The system can also provide students with some theoretical instructions.

4.2. Mode of interrupt information feedback system
Many people think that the time of information given to students by digital system is fixed. Some people even think that systems should be thought of as controlling use. In fact, digital system is a branch of computer system. The digital system can set the interrupt information feedback system. Different from synchronous information feedback system, interrupt system can judge the ending point of students' action according to the sensor. At this point in time, the digital system will provide information.

4.3. Lag feedback information system mode
After learning the practical course, teachers use the digital fast feedback system to collect a lot of students' information. Teachers can use digital systems to organize this information. In the process of students' class, teachers can provide students with some specific information analysis [6]. This way can effectively help students review some sports information. This can also help students better understand the feedback system of information.
4.4. System mode of mixed feedback information
In fact, in the process of physical education, the mode of information feedback should not be fixed. The amount of information in the study of sports theory is very huge. The synchronous feedback information system can track the movement information of students. The interrupt feedback information system can track the action nodes of students. Lag feedback can summarize students' information after class. The hybrid feedback system can combine these three systems.

5. Digital fast information feedback system based on motion capture

5.1. Prompt system of wrong action
The fast feedback system of motion capture can set many motion sensors. These sensors can clearly capture students' wrong actions. The internal programming of the prompt system is the node setting of the correct action [7]. When the students' action exceeds the node control, the system will give an alarm. The prompt system can provide some action error information. Students can find the mistakes of their actions according to the information (see Table 1).

Table 1. Characteristic analysis of main application of digital fast information feedback system based on action

| Motion feedback system | Internal application | Computer application |
|------------------------|----------------------|----------------------|
| Error warning          | Motion capture       | Sensor               |
| 3D simulation          | Action description   | 3D software          |
| Movement improvement   | Action innovation    | Movement analysis    |
| Project feedback       | Targeted training    | Informational feedback |

5.2. Three dimensional simulation action information feedback
Teachers can use 3D drawing software and information feedback system together to realize the teaching of sports action. After the prompt system of wrong action appears, teachers can find students' unified action errors through the system. Teachers can use the three-dimensional simulation system to make the corresponding sports action simulation model. Students can see realistic action details in the process of learning feedback information system.

5.3. Intelligent action information feedback improvement system
The technical basis of information feedback system is programming. The information feedback system can analyze the accuracy of students' actions according to their action information. On this basis, the updating of information feedback system can improve students' sports movements. It can not only analyze the muscle range of physical exercise, it can also analyze the best visual effect of physical exercise. The improvement of intelligent action information feedback system is also very powerful.

5.4. Design of different students' action plans
Traditional physical education can not make every student understand the meaning of action perfectly[8]. Each student's proficiency in basic knowledge is different. Teachers can not take into account the hearts of many students. Intelligent action information feedback system can analyze every student's action error. It can also provide movement improvements. Therefore, teachers can use the rapid information feedback system to provide each student with a specific program of physical education learning.

6. The construction strategy of the fast feedback system of computer physical education based on digital theory

6.1. Update of computer equipment
Generally speaking, the equipment foundation of digital fast feedback system is computer. Many schools don't have enough money to get enough computer equipment[9]. This is a common
phenomenon. In order to ensure the complete establishment of the school's internal sports fast feedback system, the school must ensure the update of computer equipment. In addition, schools should also ensure the compatibility of computer systems.

6.2. Introduction of digital talents
The infrastructure of digital system is computer system. Many school computer graduates have very strong programming ability. If the school does not have enough talents to support the updating of digital rapid feedback system, the school can introduce some available talents into the society. The school can arrange some practical interview questions. These questions can help schools effectively screen talents.

6.3. Cross School Cooperation Mode
Many schools are relatively small in scale. Many local governments will not provide a lot of money for these primary schools. The school can adopt the business cooperation mode of alliance[10]. Small schools in the same area can carry out cross school cooperation mode. For example, the three schools can jointly take out funds to build a rapid feedback system of physical education. The system can be used by students in three schools.

7. Conclusion
Digital physical education is a bold innovation. Although the period of exam oriented education has fallen behind, many schools still do not pay attention to physical education. I hope that the rapid feedback system of digital physical education introduced in this paper can make more schools clear the importance of physical education curriculum.

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