Research on the Application of College Physical Education Teaching Mode in the Cloud Computing Environment

Chao Xin and Xianliang Wang*
University of Jinan, Jinan, Shandong, China, 250022

*Corresponding author email: spe_wangxl@ujn.edu.cn

Abstract. With the development of educational informationization in Colleges and universities, cloud computing technology has become the main means of educational informationization in Colleges and universities. The application of educational information technology in college physical education promotes the integration with physical education. It realizes the transformation of physical education teaching mode and physical learning mode in Colleges and universities, gives full play to the greatest advantage of information technology, and provides students with a good education environment and a scientific and effective learning tool. This paper studies the application of physical education in the cloud computing environment. This paper investigates the current situation of College Physical Education in the cloud computing environment, analyzes and summarizes the problems in the process of college physical education teaching, and gives the corresponding countermeasures and suggestions. It can provide theoretical basis and reference for the future application of cloud computing in college physical education. From the point of view of physical education, this paper studies the relationship between education informatization and physical education, explores new physical education teaching mode, improves the use of school physical education informatization, creates a good teaching atmosphere, and promotes the improvement of teaching quality.

Keywords: Cloud computing college physical education teaching mode.

1. Overview of Cloud Computing Technology

1.1. Concept of Cloud Computing
Cloud computing is to provide high-speed, fast and effective network services. Along with the increase of Internet configuration services, it provides dynamic and easy to expand and often virtualized resources through the Internet. Cloud computing service means that we store the data in the server of the cloud platform through the network service we use, and realize resource sharing by means of browser browsing, application app, video resource playing, etc. [1].

The education platform of physical education cloud is to use cloud computing as the technical support. According to the teaching process and training program of physical education in Colleges and universities, a comprehensive cloud platform of physical education information resources in Colleges and universities is established. It realizes more convenient and effective supervision, management and information feedback of online physical education in Colleges and universities, and realizes the dynamic of health data and physical fitness test of each university State management, according to individual differences, teaching students according to their aptitude.

1.2. Characteristics of Cloud Computing
The data storage and processing center provided by cloud computing server has high security and
reliability. There will be advanced data center for you to save data and manage information. Secondly, cloud computing technology has low requirements for client devices, and data can be shared in real time between resource platforms and applications. Cloud computing technology provides data services through redundancy. In addition, strong economy, editability, dynamic monitoring of computing resources and balance of resource allocation are all the basic characteristics of cloud computing.

2. The Problems of Physical Education Teaching Mode in Colleges and Universities

2.1. Teachers and Students Lack the Correct Attitude Cognition to the Physical Education Teaching Mode in the Cloud Computing Environment

The main reason is that the expansion and application of cloud computing and physical education are relatively less, which leads to the fuzzy cognition of the teachers and students of physical education on cloud computing technology. For the bias of the traditional teaching mode, the author thinks that the network teaching lacks classroom communication, the problems cannot be solved in time and the teaching resources are not updated in time. Not familiar with cloud computing technology and devices, as well as the limitations of network speed and learning environment. These are the important reasons why teachers and students are worried about the current teaching situation.

2.2. The University Sports Management System is Not Perfect in the Cloud Computing Environment

Through investigation and research, it is found that the current college sports management system includes: training program management, teaching plan management, course selection management, examination and score management, student status management, etc. But the development of teaching evaluation system is not perfect. In cloud platform teaching, the factors that affect students' individual differences include: individual differences in students' abilities, differences in thinking, differences in interests and hobbies, differences in personality and emotions, and many other factors. Behaviorism learning theory focuses on the stimulation of teaching environment to students' learning process and results. Each student has his own unique cognitive style in the process of growing up. Different cognitive styles will affect the learning style of students [2].

2.3. The Shortage of College Physical Education Teaching Resources in the Cloud Computing Environment

Compared with other cultural courses, the teaching resources of physical education are relatively backward, and there is a structural shortage. First of all, investment is an important factor restricting the construction of resources, and the proportion of software and hardware is not harmonious. These are important problems restricting the construction of network resource platform. Secondly, there is a lack of effective resource content. At present, the resource content mainly includes teachers' independent design, online download, etc., which is lack of systematization and pertinence. In order to directly download and use the online template for teaching, the cloud computing network service application technology can not connect with teachers' professional knowledge and skills, thus affecting the improvement of teaching quality.

2.4. Lack of Emotional Communication in College Teaching Mode under Cloud Computing Environment

The social interaction mode emphasizes the mutual influence brought by the communication between teachers and students, students and students. According to wigowski, teaching is not only the result of teaching, but also the process of teaching. Different ways of interaction between teachers and students in classroom physical education will produce different results on students' psychology, such as teaching language, body language and other communication means. On the one hand, they will explain the professional knowledge of physical education to students and express their views [3]. At the same time, they also care about and listen to students' reflection and requirements on teaching. But the network teaching is only a one-way knowledge transmission, ignoring the communication between teachers and students in the learning process. Only boring book knowledge, lack of warm emotional exchange.
3. Innovative Reform of College Physical Education Teaching Mode in the Cloud Computing Environment

3.1. Guide Teachers and Students to Correctly Understand the Physical Education Teaching Mode under the Cloud Platform

Cloud computing technology provides a new path, new teaching method and teaching process for network teaching. At the same time, the combination of cloud computing and education enables teachers and students to contact more educational resources and improve their business level. With its unique charm, the application of cloud computing technology and education informatization are not limited by the learning venue and class time. The MOOC platform supports the independent learning of learning groups, so as to share the excellent resources of famous teachers and universities. In the development of physical education, cloud computing has powerful data processing ability, which can help students' physical activity process, provide scientific calculation of exercise intensity and heart rate monitoring, and provide more comprehensive service guarantee. Sports informatization is closely related to the development of computer. Information technology assisted physical education in Colleges and universities, to a large extent, expanded the university teaching resource base. Secondly, enrich the teaching methods and methods, improve the initiative of students to participate in learning, contribute to the improvement of the quality of physical education teaching.

3.2. Adhering to the Principle of Students as the Main Body is the Basis of Teaching

Fully understand the students, find out their uniqueness, actively create a good teaching environment, understand the individual differences of students, and treat each student equally. Quality education advocates students' subjectivity and initiative, so in the process of network teaching, students' subjectivity should be reflected. Teachers and students should change their ideas and set up a teaching idea with students as the main body. In the environment of cloud computing system, teachers pay more attention to the needs of students, resources are allocated on demand, the content of physical education is not limited to the form and location, more flexible and efficient. Teachers should pay attention to teaching design and preparation, guide students to the right direction according to their interests, and focus on explaining necessary sports skills and fitness methods to students, so that students can actively participate in the teaching process. Combined with the network platform, we should combine knowledge learning, skill practice, learning and innovation. Emphasis on individual initiative in teaching. Pay attention to the cultivation of students' personality. To stimulate students' awareness of sports participation, cultivate students' sports habits, and activate the school sports atmosphere.

3.3. Strengthen the Development of Teaching Resources and the Promotion of Physical Education Cloud Platform.

Teaching resource platform can bring sports news hot spot, technology sharing of training competition, real-time feedback of students' class data, etc. The rapid development of educational information provides help for the construction of college sports cloud platform. The use of cloud computing technology has opened up a new way for the management and utilization of sports teaching resources. For example, the construction of physical education cloud platform can not only do well in the data management of College Students' physical fitness test. With the improvement of the application of cloud computing, with the help of cloud computing technology, MOOC platform, mobile phones and other devices for learning, college sports learning is more convenient. Colleges and universities should continue to further improve the level of resource platform construction, and constantly improve service capacity and technical requirements. Strive to provide guarantee ability for the promotion of physical education teaching mode in Colleges and universities. To organize teachers to independently develop high-quality network education resources, to realize sharing within schools and schools, so as to meet the needs of quality education and teaching. [4].

3.4. Reasonable Use of Resource Platform and Communication Platform to Increase Emotional Communication between Teachers and Students

Under the cloud computing environment, teaching is not only to publish the class documents on the
Internet, we should pay more attention to the communication between teachers and students, students and students. Teachers are promoters and guides of learning. Although network teaching separates us, the network provides us with a variety of communication platforms. Teachers and students can communicate with students through posts, QQ and other platforms, and promote teaching and learning through communication. Through IBM (Australian Open tennis, French Open tennis and other IT systems) NBA to watch a game, teachers and students discuss together through the platform to express their personal views. In this way, not only the communication between teachers and students is increased, but also the open and equal network resource platform is used to cultivate students' self creativity[5]. On the other hand, the correct and effective interest guidance and interest enhancement are carried out to guide students to establish lifelong sports awareness.

4. Summary
The application of college sports management system depends on the cloud computing mode. The cloud service platform of teaching management provides a more favorable guarantee for the development and implementation of teaching activities. Cloud computing technology provides a more convenient teaching method for college physical education. Network physical education is a teaching method with students as the main part and teachers as the auxiliary part. Classroom physical education is the teaching goal, teaching process and organization teaching method are all carried out under the arrangement of teachers, and students are only passive acceptance. The teaching platform is to cultivate students' independent physical education learning mode, such as "inquiry and discovery learning mode", "self-study and mutual teaching learning mode", etc. Cloud computing technology provides a convenient and effective two-way feedback channel between teachers and students. Teachers can monitor students' learning progress and homework through the platform. Students can check and make up for deficiencies according to the curriculum resources uploaded by teachers and find their own deficiencies. At the same time, cloud computing provides a network communication platform for communication between teachers and students. After class homework inspection and doubts can be easily solved. It is suitable to change the students' cognition of physical education. On the other hand, we should follow the trend of social development, use the computing and storage functions of cloud service platform and the advantages of information technology to carry out teaching work, so as to achieve the goal of data information sharing and personalized service of resource platform. Promote the development of physical education in Colleges and universities, and create a good physical culture environment.

References
[1] Liu Zhiming. Computer network security strategy in cloud computing environment [J]. Information and computer (theoretical Edition), 415 (21): 179-181
[2] Zhang Junfeng. Effective learning: Based on behaviorism learning theory [J]. Journal of Tianjin Academy of Education (4): 61-63
[3] Bi Qiang. The main body and structure of teacher-student interaction in College Physical Education [J]. Liaoning Sports Science and technology, 2009, 31 (4): 81-81
[4] Cui guanxun. MOOC practical teaching platform based on cloud computing technology [J]. Laboratory research and exploration (8)
[5] zhou shanshan, zhou huijuan. Application of informatization in college physical education classroom [J]. Contemporary sports science and technology, 2019,9(07):118-119.