Construction and Application of Web-Based Resource Repository of College Physical Education

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Abstract. The construction of college physical education network teaching resources is based on teaching needs, guided by curriculum innovation, aimed at integrated teaching, and follows relevant national policies to realize the development and sharing of resources. By using the methods of literature, questionnaire, data analysis and action research, this paper studies the related problems, expounds the concept, value, significance and basic structure of the network teaching resource database of physical education in colleges and universities, and studies its construction and application status. On the basis of learning from the good practices of other schools and other disciplines, and taking our school as an example, we have established a physical education network teaching resources database with strong pertinence and practicability, namely AI sports. It basically covers the main courses of physical education and can meet the teaching needs of teachers and students. It not only enriches the means of physical education teaching, but also realizes the integration of physical education teaching and plays an active role in physical education teaching.

1. Introduction

The database of physical education resources refers to the integration of physical education resources with information technology and the construction of a large-scale interactive and multimedia Shared resources database integrating teaching, learning, management and transmission [1]. With the progress of science and technology, especially the development of computer network, human beings in the 21st century are stepping into the information age at an amazing speed. The combination of network and education makes school education more and more networked, virtual, international and personalized. This is not only a severe challenge to the traditional way of education, but also a once-in-a-lifetime opportunity for development. Therefore, all countries in the world take education technology as a breakthrough and use it to promote the deepening of education reform. How to promote students to use the network resources for learning, learn to explore learning in the virtual environment, learn to use information tools for creative learning, are important issues in front of us.

The process of physical education is mainly based on students' repeated physical exercise. Through the teacher's explanation, the demonstration, through the student's each kind of physical exercise, causes the student to master the physical education knowledge, the technique and the skill. Sports network teaching can make students set up the concept of sports faster, such as through sports video slow down, let students further understand the key and difficult points of relevant sports technology, so as to improve the effect of sports teaching. At the same time, in addition to learning, students can watch sports teaching video resources repeatedly without time and space restrictions, learn the technical movements of elite athletes, consolidate technical points, correct technical movements, and promote the improvement of teaching and training levels [2].
2. Methods
Through physical education courses to understand students' interest in sports, and the use of the Internet to collect those can stimulate innovative thinking sports scenes and problems, typical stories and classic cases, together constitute the content of the sports network resources database, the physical education network teaching resources database is constructed to meet the needs of teachers and students.

The data analysis method is used to analyze the related data and the construction of the network teaching resources database, analyzes the existing problems and causes of the network teaching resources database construction in colleges and universities, and combines these problems, puts forward the corresponding solutions.

At the same time, in the process of the database construction and application of physical education of universities and colleges, using action research method to solve the existing problems, and continuously through from planning to implementation, from the feedback to adjust, according to the design, building database, application, evaluation and correction of logical thinking, gradually improve the physical education teaching resources database based on network technology.

3. Current Situation of Physical Education Information Resources Construction in College
For a long time, college physical education teaching has a single structure, outdated content, traditional methods and insufficient interaction. Teachers are the absolute possessors of knowledge. Students can only learn from teachers in class. As a result, students lose their independence, making it difficult for them to use existing knowledge and experience to actively explore the occurrence and development of knowledge. Lack of communication and sharing in teaching makes it difficult to carry out education and teaching activities creatively.

The construction of college physical education resources database under the network technology environment is of great significance. On the one hand, teachers and students can transcend the narrow educational content, integrate their own life experience into the process of physical education, and make physical education live. On the other hand, it can change the status of students in teaching, make students change from passive recipients of knowledge to constructors of knowledge, and thus stimulate students' learning initiative and enthusiasm [3]. At the same time, it can also broaden the educational horizon of teachers, change the educational concept, make it possible to exchange and share various educational resources, especially physical education resources, and make it more and more possible for curriculum resources inside and outside the school to transform each other.

At present, some companies, schools and individuals have built a large number of sports network teaching resources. There are many kinds of resources, but most of them are pure sports material resources, and the selection and application environment of materials are different. In the face of their own students, teachers sometimes do not know how to start in the process of selection, or to change, teachers need to spend a lot of energy to do this, some have gone against the original assumption, and even affect the quality of physical education teaching.

How to make teachers get the teaching resources they want in a limited time, so that the teaching resources can be really used for teaching, to promote the development of new ways of school-based curriculum, and to form an effective learning model for students, which requires the development of curriculum resources in line with the students of our school. The construction of curriculum resources suitable for schools should not only rely on teachers to develop materials and courseware for the first time, but also for the second time. Through screening, evaluation and reorganization, the curriculum experience is integrated to achieve value-added. The focus of resources development will shift to secondary development, and the role of teachers will be transformed from a demander of resources to a builder, distributor and commentator of resources.

Through the practice of the new curriculum reform, the construction and application of the college physical education teaching resources database has put forward more urgent requirements. Therefore, the construction of high-quality and abundant physical education resources database based on network environment will be the core of the construction of physical education resources database in colleges and universities, which can meet the needs of diversification, socialization and subjectivity in the process of physical education teaching.
4. Values and Meanings of College Physical Education Network Resources Database Construction

4.1. Values of College Physical Education Network Resources Database Construction
With the development of computer, multimedia technology has made great progress at home and abroad, which also provides a new direction for the construction of college sports network resources database. The construction of college physical education network resources database is not only to adapt to the current trend of physical education learning, but also an effective means to enrich physical education teaching resources and promote students' independent learning [4].

At present, multimedia technology is increasingly mature in the field of physical education, and many professional services and education websites stand out. However, in front of a large number of information resources, how to make, adapt and screen the information resources to effectively serve the teaching of physical education and students' independent learning is still a brand new field.

Using college sports network resources database to help teachers more convenient, more efficient, more scientific in sports teaching and management work, for the teaching, training, management and competition information integration of information resources, interactive network and personalized information service, and solve the tedious offline process and way of working, to consolidate all data online, and improve overall control and data accumulation, effectively improve the quality and level of physical education teaching.

4.2. Meanings of the Construction of College Physical Education Information Resources Database
First of all, its meaning is to speed up the informationalization of the physical education and sports information infrastructure construction, strengthen the development and application of high quality sports resources, establish the school sports management information system, in the college sports teaching and promote information technology application research, for our country college sports education informatization construction and the development of clear direction, but also to the research of college sports information technology determines the basic targets and tasks.

Secondly, make full use of college physical education website, make it meet the needs of physical education, meet the needs of physical and mental development of students, enrich college physical education resources; Using information technology to cultivate students' innovative spirit and practical ability, to achieve the purpose of innovative education, improve the quality of college physical education.

Thirdly, cultivate students' independent learning, comprehensive practice ability and innovation consciousness under the network technology environment. Based on students' own direct experience and experience, the research content of this topic guides students to explore and discover independently, guides students to combine theory with practice, improves students' information literacy, and promotes students to form lifelong physical exercise habit.

Fourth, the concept of information education to enhance teachers' information teaching ability, optimize the educational resources of school-based physical education curriculum. Through the research of this topic, this paper discusses the change of the teaching mode of college physical education under the environment of reasonable application of network technology of physical education resources, and at the same time enables students to study effectively, promotes students' exercise by using physical education information resources, fundamentally changes, optimizes students' learning strategies, and improves students' learning level and health level.

5. Ideas of the Construction of College Physical Education Information Teaching Resources Database

5.1. Improve Facilities and Equipment
We will strive for technical and financial support from all sides to further strengthen the construction of information resources for physical education websites and improve the information conditions for physical education. It mainly refers to the material basis and technical support of schools, which
include devices such as perception, storage, computing and network, while technical support includes cloud computing, mobile Internet, Internet of things, artificial intelligence and deep learning.

5.2. Collect Data Resources Related to Physical Education
Through wearable devices to collect students' data in real time, and access teaching related instruments to upload data, the establishment of an intelligent physical education database, to assist teachers to formulate teaching content. Through the real-time display of teaching data to help teachers more scientific and effective teaching, help students choose a more suitable for their sport. The electronic files of the game videos, training techniques and effect analysis of elite athletes are uploaded to the resources database to provide teachers and students with technical support for big data analysis and management decisions. Through the integration of complex data collection through artificial intelligence technology and sensors, various aspects of teaching work can be dynamically evaluated in full time and dimension. And get specific information from the data, find the key points that affect the quality of physical education teaching, and implement effective solutions dynamically and intelligently.

5.3. Improve the Quality of Teachers
On the one hand, it is to strengthen learning, to organize researchers to study modern educational teaching theories, accept modern educational thoughts and master modern educational technologies. The forms are: outside training, expert lectures, group lesson preparation, teacher discussion, and so on, trying to improve the theoretical level of researchers. On the other hand, it is active practice to organize researchers to conduct classroom teaching competition step by step and in a planned way, and evaluate physical education teaching papers under modern education technology. Through these activities, researchers' practical operation ability, information technology application ability, experience summarization ability and overall quality of researchers can be improved.

5.4. Strengthen Institutional Construction
Subject research and subject research management by the person in charge of overall responsibility, and specific organization and implementation; Members of the project shall strengthen the collection and arrangement of research data, strengthen information feedback, supervision and control, timely find and solve problems in the project research, and ensure the research work is organized and planned. We should establish and improve the experimental system and incentive mechanism, formulate incentive measures, and fully mobilize the enthusiasm and creativity of researchers.

5.5. Establish a Scientific, Systematic and Shared Physical Education Resources Database
Combined with the research results, the physical education teaching resources database is analyzed and designed. By using the official website of the physical education department of the school, we independently designed and developed the resources database of school-based physical education curriculum, designed learning approaches, teaching evaluation and other modules. Make use of the existing resources of the school and the textbooks selected by the school to construct the resources database, so as to maintain the integrity of the resources database system. What's more important is "secondary development", through screening, evaluation, reorganization, integration of curriculum experience, to realize the value-added of resources. Through the physical education resources database, the integrated teaching mode of physical fitness testing, data analysis, sports report, sports prescription, course introduction, online feedback and offline communication can be formed.

6. Content and Function Guarantee of the Construction of College Physical Education Network Teaching Resources Database

6.1. Distinctive Physical Education Teaching Resources System
The construction of physical education network teaching resources includes the collection, selection, processing and organization of network information resources, the integration and integration of network resources and non-network resources. Web content of sports teaching resources in addition to
the core of teaching with video data, related sports disciplines and organization of special resources, other schools open resources, network of public resources, especially the international sports teaching and sharing of resources utilization, can greatly to teaching basic information play the role of complement, perfect [5]. However, due to the complexity of these resources and their wide range of contents, resources construction is not a simple accumulation of original resources. It needs to be screened, screened and classified according to the teaching needs of physical education, so as to form a coherent and easy to search Shared resources system.

6.2. Three-dimensional Application Mode of Physical Education Teaching Resources Database
The application of network teaching resources must have certain conditions, the spread of the network, the classroom environment also has certain hardware and software requirements, we are going to build from the sports teaching the overall network environment, have a video on demand, network teaching platform, resources downloads, network classroom recording, live, from the application of deep level analysis, covered a variety of network streaming media application type, corresponding to the application scope of study covers online browsing, data download and exchange the diverse needs of each link, formed a three-dimensional teaching video application patterns [5].

6.3. Data Standardization of Physical Education Network Resources Database
The establishment of the physical education resources database with uniform data standards of resources is the basis for realizing the application of resources in the network teaching of physical education [5]. At the same time, it also solves the problem of avoiding a large number of repetitive work and how to face the increasing variety of educational and teaching software systems and the sustainable development of co-construction and sharing[6]. The online sports video resources should not only present the classification of physical education, but also be easy to retrieve. Therefore, in the process of establishing the unified supported physical education resources database, according to the classification standards of physical education books, the materials are classified according to the structure of physical education. The retrieval and query method of physical education teaching resources database is the focus of teachers' most concern in application. A reasonable design scheme can greatly improve its application level [7]. The retrieval and query of this database are compiled according to name, classification and input time. Teachers and students can input relevant information according to their own needs for independent selection, which is very convenient.

6.4. Intelligent Management of Physical Education Service
In physical education class, students' amount of exercise, exercise heart rate, lactate threshold, blood oxygen, blood pressure and poles can be displayed in real time through the system and intelligent hardware devices. With the accumulation and research of data volume, combined with artificial intelligence algorithm, the system will be more perfect and accurate. The system will manage teachers' plans and effects of each physical education class, and make statistical analysis of teachers' teaching results and students' progress. Teachers can modify and refine the training content of each part according to the recommended training plan, and form their own teaching plan. It can help managers to grasp the situation of teaching work in real time and provide data support for dynamic adjustment of management strategies, provide guidance for students' scientific exercise and teachers' teaching according to their aptitude, so as to improve students' health level accurately.

7. Conclusion
This study takes the construction and application of college physical education curriculum teaching resources as the leading factor, gives full play to the internal function of campus network, and grasps the fusion point of emerging sports culture and school physical education, and the combination point of classroom teaching and teaching research [8]. The construction of physical education network teaching resources in College can solve the problem of short and unsystematic theoretical teaching in practice class and provide students with different needs for personalized learning on the Internet. The use of network means to vividly explain the key points of technical movements, and unified movement standards, for students to repeat online observation and learning, so as to achieve the purpose of
extracurricular exercise. Can use the conditions provided by the network to guide interested students to discuss and answer questions. Group participation strategy is adopted to construct a new paradigm of education and teaching culture, optimize physical education teaching methods and learning methods, strengthen mutual integration of physical science cognition and humanistic care, promote the coordinated development of students' intelligence, non-intelligence and physical factors, and improve students' information literacy and health level, etc. [9].

The application and development of physical education network teaching not only involves the reform of teaching methods and teaching means, but also affects the development of physical education teaching model and educational theory. In the future, the research focus should be to explore the methods and approaches in line with the development of college physical education and teaching resources.

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9. References
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