

# Research on the Construction of Fitness Service Platform in Colleges and Universities

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## Abstract

**In the current development of national fitness, social sports resources are in short supply. In the special sports space of colleges and universities, it is necessary to integrate existing equipment, human resources and other resources to construct a scientific fitness service platform to meet social needs. In this paper, literature, expert interviews, research, logical induction and other research methods are used to study a network platform for college fitness services.**

## Keywords

**Ordinary colleges and universities; Fitness service platform; Construction.**

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## 1. Introduction

At present, the contradiction between the increasing diversification and multilevel sports demands of the Chinese people and the insufficient effective supply of sports is still outstanding. The public service systems for nationwide fitness need to be further improved, and the role of sports cultures in the construction of the socialist core value system has not been effectively played. Therefore, in order to adapt the development of China's sports industry to the rapid development of global information, the implementation of the Internet plus strategy in the sports field will be conducive to accelerate the informatization of sports service. The network platform breaks through the limitation of time and space and enhances the initiative, interactivity and effectiveness of communication. In recent years, more and more colleges and universities use the network fitness service platform to carry out sports activities, which can also improve students' comprehensive abilities and enable students to carry out professional sports practice. Therefore, on the basis of the theoretical research on the construction of the network platform of fitness service in colleges and universities, this paper provides some theoretical reference for the construction of the network platform of fitness service in colleges and universities.

## 2. Research methods and objectives

From the perspectives of education, management, sports training, sociology and sports science, the practical value of the information network construction of fitness service in colleges and universities are analyzed by the literature, expert interview, investigation and logical induction methods. Combined with modern information technology, database technology, website production technology and other technical knowledge, the general university fitness service platform construction strategies are elaborated. Starting from the aspects of physical education, sports management and competitive sports training, this paper studies the influences of the construction of fitness service platform in colleges and universities on these aspects, so as to further explore the value and era requirements of the construction of fitness service platform in colleges and universities.

### **3. Technical process of fitness service platform of ordinary colleges and universities**

The browser and server structural pattern are adopted. The server structural pattern is that data collection and processing are carried out by the server and information is sent out. Users can receive sports data information through the browser. The server browser pattern is that physical data are browsed by the browser, the system has good extensibility and openness, the distribution is wide, data update and maintenance is very convenient. According to the needs of users, functions can be increased and deleted at any time. The platform system has perfect backup and restore functions, and the stability of the platform is improved, the phenomenon platform system crash is much less. The platform build a reliable software and development technology, improve the ability to respond to various circumstances of rapid strain. At the same time, the platform system sets the user's access rights to ensure the security and reliability.

### **4. Information collection of fitness service platform of colleges and universities**

#### **4.1 Methods of information collection**

Sports information is the important content in the construction of ordinary university fitness service platform, also is an important window for college students. It has a wide range contents and a function of direct access. The content classification impenetrate the main interface of system. The ultimate goal of this platform is to provide information services to users. So, the information collection is the technical support platform. In order to ensure the accurate and authoritative information collection, data manager uses the big data analysis method, research method, literature material method, interview method, acquisition methods to gather information. Big data analysis method is that data manager accurately deliver information to users according to user's personal attention information, information access habits, and the domestic and foreign professional sports collect information database. The collect information databases include Sci-hub, CNKI Database, China Sports News Network, Chinese Science and Technology Journal Database, the General Administration of Sports Network, China Sports Information Network, China University Sports Association Network, Wanfang Database and other Chinese and foreign databases. The research method is to collect dynamic information and collect pictures, texts and videos through on-scene observation and live broadcast of the game. The interview method is to collect first-hand training and competition information through interviewing coaches and athletes. The literature method is to consult relevant articles of Chinese and foreign sports academic journals, relevant articles of sports newspapers, relevant reports on the internet, and information of previous major competitions, etc., to collect relevant dynamic intelligence information.

#### **4.2 Steps of information collection**

The course of the information collection mainly divided into the following three steps: First, source choice. The choice of network information resources can make list, gathering information in professional sports web site or an electronic database acquisition, the information sources are mainly from the General Administration of Sports Network, China Sports Information Network, and China Sports News Network. Second, information processing. The collected information is screened and filtered. The information is transformed and standardized according to the information collection standards. The contents include page link extraction and processing, web page text extraction, content extraction specification and accuracy, etc. Third, information storage and release. By connecting database to sports information web site, the network client can extract and release data, can see the platform information display and browse link. The platform can provide integration, information retrieval, information sources, information customization and push, expert advice and services, finally realizes the open sharing of information.

## **5. Structure and functions of fitness service platform in colleges and universities**

### **5.1 exercise and fitness guidance**

Physical fitness belongs to the category of comprehensive sports activities. Nowadays, there are various ways of physical fitness in the society. However, there are few systematic fitness guidance. According to different user needs, the platform system is divided into a variety of fitness methods. Users can choose them according to their own needs, and it is very convenient to find suitable fitness methods, so as to achieve a more ideal fitness effect. Sports fitness guidance system set three functions, including online expert consultation, popular exercise guidance, sports fitness lecture hall. In the online expert consultation system, the expert will answer all kinds of questions raised in the user's message. In the universal exercise guidance system, it includes the most popular fitness exercise methods, aerobic exercise methods, slimming exercise methods and strength exercise methods for college students. Corresponding exercise pictures, short videos and relevant text guidance documents are provided in the system for users to read and browse. In the sports and fitness lecture system, it provide science publicity knowledge in the process of sports and fitness in order to further improve the fitness level of users . Users can click the system button, and choose their own fitness method according to these theoretical knowledge targeted.

### **5.2 National physical fitness test**

National student physical health standard is adapt to the full-time ordinary college, high school, primary school, secondary vocational school students. It is the basic guiding document of the national school education work and the basic standard of education quality. It is the important basis for evaluating the comprehensive quality of students, evaluating the school work and measuring the development of education in different regions. In the national physique health test system, the user has access functions, and can click on the access to the system for self testing. Testing is divided into two aspects: one is the standard implementation rules, the other one is students' physique health test score rules. Through comparing the self-check result with the national health standard result, the user can know physical health results. Another function is the application software for performance query. Physical performance query can be realized by the "physical health test results calculator" program software . The user can input all the relevant information of personal physical test, and the program automatically calculate the score. So the user can easily and quickly get personal test results.

### **5.3 Sports venues**

Sports venues are the basic conditions for sports activities. The application of network platform system in sports venues greatly improves the utilization efficiency of sports venues. The main functions of the platform system include venue introduction, fixed opening hours and charging standards, venue renting and charging standards, real-time dynamic of venue opening, contact information of venue and online booking. The introduction of sports venues is to introduce the facilities of university venues, present them to users by combining pictures and words, and explain the matters needing attention and rules of use of the venues. The opening hours, venue renting and charging standards of the stadiums and gymnasiums are explained in the system. According to the introduction of the sports venues, the suitable venues are selected for sports activities. The charging standards are clear and detailed information is published in the website. The real-time dynamic system for the opening of the stadium will timely reflect the use of the stadium and determine the number of people to be accommodated according to the opening hours. If the stadium cannot be opened for use during the opening hours, the platform system will timely notify online., users can log in the online booking system to book time , it is more convenient and efficient and is conducive to venue personnel management.

#### **5.4 News and information center**

With the vigorous development of sports in China, sports news and sports competition information increase. The news and information center is operated by background managers, who are mainly responsible for the update and release of news information in the system, the collection of videos and information of well-known events at home and abroad, as well as the addition, modification and deletion of sports information content, so as to ensure the timeliness of sports information. The system functions include timely information release, sports news release, events, training and activity information notification.

#### **5.5 Training center**

In the training center system, users can click to log in and register relevant online sports. There are currently popular sports on the platform. Users can choose reasonable training institutions for training and learning according to their personal interests, site size, training philosophy, teacher profile and other objective conditions. Specific functions include training information release, online registration, training publicity, member information management.

#### **5.6 Exercise prescription**

Exercise prescription has very strong pertinence, a clear purpose, the choice, and the control exercise therapy. Experts use online interactive communication system to answer questions, according to the user's age, gender, sports experience, health status, motor organs and other characteristics. They can pick up prescriptions to set the appropriate exercise load and training content. According to the purpose of exercise, they can control the intensity, time and frequency of college students exercise, at the same time, put forward sports attention and plan to carry out scientific training. The main function of the sports prescription system is that college students can know the general knowledge of sports, understand the role of physiology, and master the scientific methods of physical exercise and so on.

#### **5.7 Nutritious diet**

The combination of nutritious diet and physical exercise plays an increasingly important role in enhancing human quality and health. Nutritious diet and moderate physical exercise are the most effective ways to improve health and physique. Social survey shows that most contemporary college students do not pay attention to reasonable eating habits. They usually eat some harmful food and their diet is not regular. Therefore, reasonable nutritional dietary habits are particularly important. Nutrition diet system is composed of three aspects, nutrition knowledge lecture, diet and exercise combined formula, nutrition survey. Nutritional knowledge lecture is to introduce the scientific knowledge of dietary and sports nutrition supplements to users. The combination of diet and exercise is the most reasonable nutritional formula. The nutritional survey mainly investigates the nutritional diet of users, and then analyzes the rationality of nutritional diet supplement of users.

### **6. Conclusion**

In theory, this paper discuss how to utilize the information technology to construct health service network platform of colleges and universities in the environment of information network technology development. The construction of the network platform of fitness service in colleges and universities is studied systematically. The resources advantage of colleges and universities to lay a good foundation for the fitness service platform construction. The main purpose of the platform construction is to achieve social service function, improve service efficiency, and promote the sports cultural transmission. The main content of platform construction include sports fitness guidance, national fitness testing, stadiums sites, news information center, exercise prescription, training center, nutritional meals. At the same time, The value of the construction of the fitness service platform in colleges and universities is excavated and a new opportunity for the process of the network and informatization of sports information in colleges and universities is provided by learning from the

research results on the construction of the existing sports service platform. This is of great significance for the healthy development of colleges and universities students.

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