

Research on the Construction of Internet + College Students' Physical Fitness Test Platform

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Abstract: Based on the analysis of college students' physique test, this paper puts forward the composition of Internet + college students' physical fitness testing platform, including intelligent sports cloud platform, monitoring workstation, monitoring management system and monitoring APP application, to realize the modernization, informationization and intellectualization of the trinity of dynamic collection, analysis and data release of College Students' physical health. The establishment of the most advanced physique health monitoring center for college students is to guide the physical and mental health of college students in the new era.

1. Introduction

Education in the new century is inseparable from online teaching, and physical education is no exception. In recent years, the number of obese and chronic diseases among college students has increased year by year, and the number of students failing to pass the test has also increased year by year. How to make college students successfully complete the test and become a healthy person can effectively get out of the university's school gate, which has become a problem we have to consider. Therefore, we should make full use of "Internet +" to build a physical fitness testing platform for students to meet the functional requirements such as precise identification, large-scale data acquisition, professional convenience, simple compatibility, low cost, high efficiency and stability, effective data aggregation and data mining in depth. It is an extremely necessary and urgent requirement to provide an open data platform for various departments' information systems.

2. Necessity of constructing "Internet +" College Students' physical fitness test platform

2.1 Successful Experience of Developing Physical Fitness Testing System Abroad

The representative development of physique testing system abroad is the United States. In 1860, the United States began to test the physical fitness of adolescents. In 1958, AAHPER published the National Standard Handbook of Youth Fitness Test (YFT). FITNESSGRAM mainly assesses the physical health of students, including cardiopulmonary function, muscle strength, muscle endurance, flexibility, body composition and so on. An ACITVITYGRAM reporting software system was added as an evaluation tool. The software includes a 7-day physical activity review of three questions, an introduction to the comprehensive problem of physical activity level, and a new activity log (ACITVIYLOG) to record individual behavior activities. Used to help track their physical activity levels, as well as statistical analysis of aggregated data. At present, FITNESSGRAM has been widely used in the assessment of physique health in the United States, through the FITNESSGRAM test. School sports can be used to evaluate the effectiveness of teaching, students and parents can understand the physical condition of the individual, and can also give scientific advice through the report to promote the participation of young people in sports activities. The successful case of FITNESSGRAM test system software has brought a very good reference for the construction of "Internet +" college students' physical fitness test platform.

2.2 The inevitable requirement for implementing the Outline of the "Healthy China 2030" Plan

The promulgation and implementation of the "Healthy China 2030" Planning Outline aims to better promote the construction of healthy China and improve people's health. The "Healthy China 2030" Planning Outline mainly follows the principles of health priority, reform and innovation, scientific development, fairness and justice, and defines the strategic theme as "co-construction and sharing, and health for all." Emphasis is placed on popularizing healthy living, optimizing health services, and developing healthy industries. The platform for college students' physical fitness testing is a modern, informative and intellectualized system that integrates the dynamic collection, analysis and data release of College Students' physical fitness. It is also the most advanced monitoring center for college students' physical fitness. In order to achieve a new era of College Students' physical health, mental health as a guide, and ultimately improve the level of College Students' physical health. The construction of Internet + College Students' physical fitness testing platform is in line with the spirit of the "healthy China 2030" planning document, and can effectively promote the early realization of the strategic goal of "healthy China 2030".

2.3 Breaking the Inevitable Requirement of Physical Fitness Testing for College Students

The promulgation and implementation of the "Standard" implements the guiding ideology of "health first", mainly in order to strengthen the school's physical education work and better promote students to participate actively in sports activities and exercise under the pressure of achievement. And through four years of university to develop the habit of self-conscious exercise and the idea of lifelong exercise [1]. However, in reality, the completion of College Students' physical fitness test violates the original intention of the implementation of the Standard. There are two main phenomena, one is that college students have a fear of physical fitness. Hearing the "physical examination", I was frightened, afraid that I would fail in the test process, not get credit, affect my evaluation, scholarship and postgraduate entrance examination and other concerns. Therefore, this type of students in order to pass their physical examination results in the physical examination before a simple assault exercise. Another phenomenon is that college students don't care about physical testing, and what kind of results are measured will not do anything for physical testing. These two types of students have not become more proactive in participating in physical exercise because of physical fitness tests, nor have they developed good exercise habits. Therefore, in order to reform and improve the physical fitness test of college students in China. It is especially urgent to improve the students' enthusiasm for exercise, improve the methods of exercise, strengthen the physical examination management, improve the physical fitness and physical fitness test of students, and establish an Internet + college student physical testing platform.

3. Construction of "Internet +" College Students' Fitness Test Platform

The teaching work of college students in sports health measurement and health consultation is still largely at the level of teaching and testing. It does not really achieve health measurement and health intervention, and provides practical help to students' physical health. Therefore, based on the "Internet +" action plan, the construction of the college student physique testing platform, this platform includes four parts, namely, smart sports cloud platform, monitoring workstation, monitoring management system, monitoring APP application. To realize the modernization, informationization and intellectualization of the trinity of dynamic collection, analysis and data release of College Students' physical health, and to build the most advanced monitoring center of College Students' physical health, which will guide the realization of College Students' physical health and mental health in the new era.

3.1 Establishment of Intelligent Sports Cloud Platform

Complete docking and sharing with the test data of the Sports Test Center, and close-loop communication with the teaching process of the Sports Cloud Platform. On the basis of

comprehensive basic data and physical data, the establishment and training of college students' physique health, nutrition and exercise models are carried out to build a college students' physical fitness test platform based on big data.

3.2 Establish monitoring station

The monitoring workstation is a PC workstation deployed on-site by the University Student Testing Center. It is used by field management personnel (also can be implemented in an unattended manner), and is responsible for the real-time collection and storage of student test data. According to the evaluation algorithm of college students' physique, the evaluation report and the guidance of sports and nutrition are generated. The report is pushed to the APP terminal of mobile phone. College students can query and read the report through mobile phone and feedback their opinions.

3.3 Establishment of Monitoring Management System

Monitoring and management system is the system function used by teachers. Its main objective is to make a comprehensive statistical analysis of college students' physique. Achieve a multi-dimensional physical analysis according to class, college, school, major, sports type, gender, etc., to guide the planning and setting of college physical education.

3.4 Establish monitoring APP application

Monitoring the application of APP to achieve the basic situation of college students, including natural information collection, dietary situation collection, and sports information collection. Realize the physical monitoring report, sports guidance report, nutrition guidance report, and real-time query and feedback. College students can also receive all kinds of intramural communication and inquire about the help of the monitoring center through mobile APP in real time.

4. Conclusion

With the Internet monitoring in people's daily life, APP has been developed. As a new application platform, APP has received the support of students and played a very important role in physical exercise. Physical education in Colleges and universities should also seize this opportunity for development and actively carry out physical education reform. Under the background of "Internet +", the construction of college students' physique testing platform will realize the modernization, informationization and intelligence of the trinity of dynamic collection, analysis and data release of college students' physique health. The establishment of the most advanced physique health monitoring center for college students is to guide the physical and mental health of college students in the new era.

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