

Retraction

Retracted: Construction of the Teaching Quality Monitoring System of Physical Education Courses in Colleges and Universities Based on the Construction of Smart Campus with Artificial Intelligence

Mathematical Problems in Engineering

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

In addition, our investigation has also shown that one or more of the following human-subject reporting requirements has not been met in this article: ethical approval by an Institutional Review Board (IRB) committee or equivalent, patient/ participant consent to participate, and/or agreement to publish patient/participant details (where relevant).

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity. We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

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Construction of the Teaching Quality Monitoring System of Physical Education Courses in Colleges and Universities Based on the Construction of Smart Campus with Artificial Intelligence

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With regard to the development of colleges and universities, ensuring the quality of education is the fundamental goal and main task of teaching daily management. With the continuous improvement of the application level of the Internet and other information technologies, the construction of smart campus in colleges and universities in China is rapidly advancing. This paper studies the construction and innovation strategy of the public sports quality monitoring system and discusses the changes in college students' sports quality after the introduction of smart campuses from the perspective of artificial intelligence and the creation of smart universities. In this paper, the field survey method and other research methods are combined to study, and in the process of data storage, SQL Server database platform is used to store the data. This study shows that the proportion of each element of physical state management has changed significantly before and after college entrance. According to the data, since the introduction of smart campus real name system identification, tracking data, and evaluation functions, the number of college students' physical exercise has increased significantly. The number of students with exercise plan in school 1 has increased from 70 to 222, and that of school 2 has increased from 49 to 199. Before the introduction, the students were very satisfied with the learning effect of physical education, which was 40.12% and increased to 45.70% after the introduction. Before the introduction, the students were very satisfied with the sports equipment, which was 30.12% before the introduction and increased to 35.24% after the introduction. Therefore, building a system for monitoring the quality of public sports in universities is very important for improving the quality of education in public sports in universities and plays an active role in promoting the physical and mental health of students.

1. Introduction

The evaluation of classroom teaching quality in colleges and universities is of great significance in terms of achieving educational goals and promoting the development of education, or strengthening the macro-management of school education and improving the effectiveness of educational decision-making. It is helpful for teachers to summarize teaching experience, further improve their own teaching level, and improve teaching work. For evaluators, especially peers, the evaluation process is a learning process. While discovering the other party's problems, they can also summarize the evaluator's teaching experience, thereby further improving their teaching level. Said that through evaluation and information feedback, they can discover their own problems and deficiencies in their teaching work, so that they can improve their teaching work in the future and realize self-improvement.

In recent years, with the continuous improvement of information technology, the society has a greater demand for resources in the development process, and various fields have actively invested in the construction of "intelligent system." In the past, resources will be presented and stored in the form of printed version, but after the development of



computer technology, the acquisition of resources will enter the advanced development state of paperless office. The emergence of information platform of various sports colleges and universities makes the development of resource sharing and utilization have a greater growth prospect. With artificial intelligence as the main technology and smart campus as the main concept, building a platform for sharing and utilizing college sports resources can better improve overall efficiency, promote the construction of college sports quality monitoring systems, and better carry out physical education.

Dong puts forward that the construction of smart campus platform should fully implement the concept of "Internet plus," make full use of the existing information technology such as Internet, cloud computing, big data, etc., and integrate his technology and hardware resources through IS platform, so as to create a "garden for everyone learning, learning at any time, and not stopping learning." His research does not fully consider the relationship among environment, individual students, and tasks, so its research needs further improvement [1]. In the concept of smart campus proposed by Tabuenca, in order to promote the integration of information and education technology with teaching and improve the teaching effect, the Internet of things and other new technologies are used; cloud computing and data analysis are taken as basic technologies, so as to realize a new university integrating teaching, scientific research, management and life services, and provide information and regulations on education and teaching. Although the concept of Tabuenca is relatively advanced, in practical application, the consistency is not complete, and there is no actual implementation management plan, which needs further improvement [2]. Ahmed introduced the concept of smart campus into universities under the background of big data, analyzed the typical characteristics and development goals of smart campus in colleges and universities, designed a smart campus architecture combining physical space and digital space, and discussed the key to realize smart campus in colleges and universities. In Ahmed's research, there are still some deficiencies; that is, the role of students is not fully considered, and the practicability is not strong [3]. Pei believed that the complete construction of smart campus should include teacher-student relationship, teacher-student relationship, learning relationship, and effective integration of environment and information. To build a smart campus in a comprehensive way, Pei needs technical support such as the Internet of Things, cloud computing, big data analytics, and an intelligent learning environment for understanding, intelligence, data, networks, and collaboration. However, Pei's research is only from the perspective of technology, which is divorced from human nature and has little practical significance [4].

This paper analyzes the data collection in the smart campus environment through field investigation and other methods and analyzes the advantages of smart campus. Facts have proved that smart campus has achieved the objective response to the observation points of each index, solved the problem of lack of evaluation in the current classroom, and has been proved to be an effective quality control method in the physical education classroom.

2. Smart Campus and College Sports

2.1. Artificial Intelligence. In the field of artificial intelligence monitoring system construction and processing, the convolution of the signal is multiplied by the corresponding frequency domain [5, 6]. Assuming that the clear image is f(i, j) and the noise function is n(i, j), the fuzzy image function g(i, j) obtained is the corresponding relationship between the three as follows:

$$g(i, j) = f(i, j) * h(i, j) + n(i, j).$$
(1)

Then, the corresponding relationship in the frequency domain is

$$G(m,n) = F(m,n) \times H(m,n) + N(m,n),$$
 (2)

where G(m, n) is the Fourier transform of the degraded image g(i, j), inversely deducing the frequency domain of the clear image:

$$F(m,n) = \frac{G(m,n)}{H(m,n)} - \frac{N(m,n)}{H(m,n)}.$$
(3)

Then, the corresponding inverse Fourier transform is

$$f(\hat{i},) = F^{-1}[F(m,n)] = F^{-1}\left[\frac{G(m,n)}{H(m,n)} - \frac{N(m,n)}{H(m,n)}\right].$$
 (4)

It can be seen that the original image f(i, j) can be obtained by the inverse Fourier transform. However, when the value of H(m, n) is close to zero, then N(m, n) will be infinitely magnified, and the image restoration effect will be poor. Therefore, we have to constrain H(m, n) and exclude the zero point of H(m, n) from a certain range, so that the problem of amplifying the noise term can be solved. Usually, we will use a restoration function W(m, n) to restore the image, and W(m, n) is defined as follows:

$$W(m,n) = \begin{cases} 1, & m^2 + n^2 \ge w_0^2, \\ \\ \frac{1}{H(m,n)}, & m^2 + n^2 \le w_0^2. \end{cases}$$
(5)

Among them, the zero point is excluded in the circular area with w_0 as the radius, so that the noise in the restored image can be suppressed. However, this method will produce a ringing effect. In order to avoid the ringing effect, the formula is optimized to the following formula. Both k and T are constants less than 1.

$$W(m,n) = \begin{cases} k, & H(m,n) \le T, \\ \\ \frac{1}{H(m,n)}, & \text{other.} \end{cases}$$
(6)

Another main purpose of Wiener filtering on an image is to eliminate image noise. The principle formula is as follows:

$$e^{2} = \min\{E\{[f(i,j) - \hat{f}(i,j)]^{2}\}\},$$
(7)

where $\hat{f}(i, j)$ is the least square estimate of f(i, j) when the degradation function is given, and e^2 is the mean square error. The frequency domain expression of filter m(i, j) is

$$M(m,n) = \frac{1}{H(m,n)} \times \frac{|H(m,n)|^2}{|H(m,n)|^2 + \gamma \left[S_n(m,n)/S_f(m,n)\right]}.$$
(8)

Therefore, the basic principle of Wiener filter restoration can be expressed by the following formula:

$$\widehat{F}(m,n) = \left[\frac{1}{H(m,n)} \times \frac{|H(m,n)|^2}{|H(m,n)|^2 + \gamma \left[S_n(m,n)/S_f(m,n)\right]}\right] G(m,n).$$
(9)

If γ is a variable, then the above formula is a Wiener filter with parameters. Since $S_n(m, n)$ and $S_f(m, n)$ are unknown, K is often used instead of $S_n(m, n)/S_f(m, n)$, so it evolves into the following formula:

$$\widehat{F}(m,n) = \left[\frac{1}{H(m,n)} \times \frac{|H(m,n)|^2}{|H(m,n)|^2 + K}\right] G(m,n).$$
(10)

Among them, K is called the power spectrum ratio of noise to signal, which can be assumed to be an appropriate constant. The iterative contraction equation is

$$f(i,j)^{k+1} = f(i,j)^k \left[h(-i,-j) * \frac{g(i,j)}{f(i,j)^k * h(i,j)} \right].$$
(11)

Among them, $f(i, j)^{k+1}$ is the result of the k + 1 iteration of the original clear image. When the image does not contain noise, transform g(i, j) to obtain

$$f(i,j)^{k+1} = f(i,j)^k \left[h(-i,-j) * \frac{f(i,j) * h(i,j)}{f(i,j)^k * h(i,j)} \right].$$
(12)

As the number of iterations continues to increase, $f(i, j)^{k+1}$ will gradually converge to $f(i, j)^k$. When the image contains noise, there are

$$f(i,j)^{k+1} = f(i,j)^{k} \left[h(-i,-j) * \frac{f(i,j) * h(i,j) + n(i,j)}{f(i,j)^{k} * h(i,j)} \right].$$
(13)

At this time, when the image contains noise, the noise information will be amplified in the iterative process.

2.2. Application of Informatization in Physical Education. Because physical education is carried out in the external area of the classroom, although many teachers realize the importance and benefits of applying information to their teaching, they cannot find the appropriate entry point and specific scope [7, 8]. The following will explore the application of information in physical education.

2.2.1. Information Preparation. Preparation before class is the premise of all teaching activities, and physical education is no exception [9]. However, in the actual teaching, many

physical education teachers do not prepare lessons; let alone preparing lessons before receiving the notice. Therefore, to increase sports information, we should start from updating lesson preparation [10]. In particular, most PE courses should start with the following, depending on the content of the education: physical education teachers can use the Internet to collect educational projects, educational cases, and educational software for super-grade teachers. For research and research, when PE teachers ask questions about preclass content and methods, they absorb the best available and their educational ideas and innovations to achieve preclass standards. Ideas can be extended to the classroom. Education allows you to use the Internet to find answers, leave messages in relevant forums, discuss, exchange, and discuss with colleagues. Thirdly, physical education teachers can also collect pictures, documents, and various teaching resources, such as videos, music, and tables, and convert them into teaching software or use them directly.

2.2.2. Information-Based Classroom Teaching. Teaching process is the most important link in the whole teaching activities, and also the most important link in physical education. First-class physical education teachers can teach according to the following information. At present, many schools have gymnasiums equipped with multimedia equipment. Physical education teachers can choose the appropriate course content, teach in the gym, or use in the ordinary classroom. Courseware (such as ppt), videos, and images show the basic principles of action, introduce specific rules, and share wonderful moments. Physical education teachers can also use information technology to enable students to learn independently. Specifically, in some new courses, physical education teachers can use the form of micro class, use small-scale production tools such as smallscale software to record teaching video demonstration in advance, guide students to watch and discuss, and imitate and correct basic knowledge in groups in class [11]. The specific process of informatization classroom teaching is shown in Figure 1.

2.2.3. Realization of Computer Teaching Evaluation. The effectiveness of teaching needs a set of scientific evaluation system and measurement means. The traditional evaluation of physical education is based on whether students have mastered the basic elements of sports. In order to realize the basis of teaching evaluation information, physical education teachers can first use the Internet to collect more scientific evaluation methods and apply them to their own evaluation activities [12, 13]; secondly, they can create a platform for teachers, parents, and students by using the network. The joint evaluation and exchange platform can also carry out joint evaluation on teachers. Thirdly, the embedded smart campus platform can also carry out online evaluation and mobile teaching evaluation, without worrying about the shortage of teaching equipment in batch evaluation [14]. In a word, a new teaching evaluation should not only realize the scientific evaluation method, but also diversify the evaluation problems and update the effectiveness of the evaluation.



FIGURE 1: Specific flowchart of informatization classroom teaching.

2.2.4. Implementation of Information-Based Student Management. Physical education is different from other courses. It requires students to devote themselves to physical exercise. Once there are students with abnormal physique, or students with abnormal physique temporarily, physical education teachers must be aware of this and take appropriate measures. Using information technology, the basic physical condition indicators of students can be archived to guide the whole school physical education teachers and monitor the physical condition of students [15]. Moreover, in addition to providing guidance standards for students, the integrated smart campus platform also provides educational technology support for physical education curriculum management, including the introduction of student list and scores, student learning progress tracking, learning project tracking, online examination, and performance management [16].

2.3. Characteristics of Teaching Quality Monitoring of Public Physical Education Courses in Colleges and Universities from the Perspective of Smart Campus Construction

2.3.1. Intermediate Application of Internet Technology. The implementation of Internet technology is the technical basis of the information age, and the Internet is an important prerequisite for the realization of information society. Public physical therapy: from the perspective of smart campus, college public sports pay more attention to the Internet and the Internet of things. On the basis of effective interconnection between natural persons, people and equipment, and equipment and equipment, the establishment of public monitoring system to ensure the quality of physical education teaching application is a kind of work that can be realized at any time and any place [17].

2.3.2. Making Full Use of Intelligent Terminal to Monitor Teaching Quality. Intelligent terminal equipment can realize real-time collection, calculation, and analysis of public physical education field information, which is an important research theme and basis, in the process of monitoring the quality of public physical education in schools. At the same time, with the wide application of intelligent motion detector

and other equipment, various information monitoring of public physical education teaching in smart campus, as well as the real-time interaction between students and sports equipment, teachers and environment have become a reality [18]. Monitoring the use of intelligent devices has become an important prerequisite for the quality of public PE reform. Figure 2 shows the work flowchart of the intelligent terminal monitoring education model.

2.3.3. Promotion of Team Cooperation in Public Sports. The cooperation between public sports training groups is the premise of teaching quality monitoring. The construction of smart campus can provide more communication methods and more advanced communication equipment support for team members. These conditions have become the basis for the integration and mutual promotion of physical education learning between teachers and students [19]. For example, in the process of physical education teaching extending to extracurricular activities, teachers can use WeChat platform to extend teaching to the classroom, in a broader and more convenient virtual network space [20].

2.3.4. Realizing the Integration and Intercommunication of External Wisdom. As the communication between smart campus and the outside world is more convenient, the sustainability of talent training and curriculum reform is enhanced. For example, if the analysis of the teaching data of table tennis elective course of public physical education in a university shows that students' interest in learning needs to be improved. In view of the needs of this curriculum reform, the school uses the intelligent teaching system to monitor students' interest in table tennis, compares table tennis teaching methods in different places, and carries out targeted reform on table tennis teaching in combination with the methods of cultivating students' interest [21]. For example, through the analysis of social employment demand, talent quality demand, and other major data, schools can obtain more targeted talent training indicators, pointing out the direction for public sports reform.

2.4. Importance of Constructing the University Sports Information Platform Based on Smart Campus

2.4.1. Timely Joint Use of User Resources. Under the background of big data, the application of creating cloud computing university sports information platform is very extensive, the value of user resources is very obvious, and the number is also very large. How to make these huge data give full play to its value and play a role in industrial and social development is the main direction of information and data development in the era of smart campus. Guided by the concept of smart campus, the construction of information platform of sports colleges and universities can make the construction of information platform of sports colleges and universities become a reality, and it can be applied to resource and user information management [22, 23]. In the big data environment, it can realize the management and



FIGURE 2: Work flowchart of the intelligent terminal monitoring teaching model.

sharing of resources and improve the work efficiency of users as a whole. University resource exchange platform can better let the university management and teaching into the information manufacturing channel. Colleges and universities can quickly access resources and information, rather than through traditional manual and search operations to improve service efficiency [24–26].

2.4.2. Improving the Consistency of Social Development. In the era of smart campus, the construction of information platform of sports colleges and universities is not only related to the allocation of resources, but also related to the development of sports colleges and universities. The era of smart campus gave birth to the development of computer technology. With the help of virtual reality technology, the construction of college sports information platform has become a reality, and the construction of this platform will eventually play a positive role in the development of society. The teaching development supported by the data has an obvious strengthening effect, which makes college sports service more targeted for local talent cultivation and economic industry development [27].

3. Research Methods and Data Storage Design

3.1. Research Methods. In this paper, the following research methods are used in the research process:

(1) Field Investigation Method

Through in situ research, we will understand the existing comprehensive aspects of qualitative indicators and how to obtain performance data and analyze the role of smart campus deployments, paving the way for data collection schemes in a smart campus environment. From October 1, 2019, to March 1, 2020, we visited two universities in the city and randomly selected student data for analysis.

(2) Questionnaire Survey

Taking the learning satisfaction of college students in physical education as the research scale, this questionnaire is a closed questionnaire. The questionnaire is divided into two parts. The first part is the basic part of information in the form of multiple choice questions. The second part is the main part. Using Likert scale, the grades were 5, 4, 3, 2, and 1, respectively. The higher the score, the higher the satisfaction.

3.2. Data Storage Plan. Data collection will create a lot of behavior data for teachers and students, including video, image, sound, and other file information data. The complete and effective retention of all data requires a high level of data storage. On the basis of requirement analysis, the conceptual structure of database is designed. The E-R diagram of sports health is shown in Figure 3.

Logical structure is the data model supported by database management system. The design of database logical structure is based on the concept design of structure, which transforms ER diagram into relative model and optimizes the relationship. According to the normative theory of related database, the relational process of database table and table is formed. The design of database table is mainly carried out from four aspects, including column name, data type, whether it can be empty, and description part. The database table designed in this paper is shown in Table 1.

It can be seen from Table 1 that the design of the database in this paper can basically meet the needs of the database for comprehensive quality evaluation. The database management system should meet the following requirements by comprehensively analyzing the database design scheme and improving the use and management efficiency of the database:

- Have system software to ensure the security of the database; meet the needs of user connection verification and authority allocation; and create backup and restore copies. Different users have different permissions.
- (2) The database system should ensure the integrity of key functions such as data transmission, query, modification, reception, and deletion. Among them, the transport mode must be different, allowing different terminals to transfer. The content is different and should support unstructured data such as video, images, audio, and structured data. The data problem supports the filtering of keyword combination, and the secondary keyword problem can be executed in the problem result to meet the requirements of various problems.
- (3) It provides data processing and analysis functions and provides analysis results in real time.
- (4) It provides compression and decompression functions. Students, teachers, and assessors can choose rar for data extraction and other types of compressed files. In addition, the compressed file can be input into the database, and the database system can be



FIGURE 3: E-R diagram of physical health entities.

TABLE 1: Physical health information sheet.

Name	Туре	Can be null	Description
ID	Number (6)	Not null	Fitness code (primary key)
Date	Date	Null	Participation time
Туре	VARCHAR2 (10)	Null	Physical test type
Sore	Number (3)	Null	Physical test score
Content	VARCHAR2 (20)	Null	Result description

automatically decompressed into data to improve its efficiency and facilitate user operation.

- (5) Providing a snapshot, students can selectively monitor teachers' teaching content in the course and organize them in a separate learning resource library.
- (6) It provides image and text capture capabilities for students to process classroom snapshots.
- (7) Real-time storage function is provided to eliminate data loss caused by transaction failure, system failure, and instrument failure.
- (8) Add new modules and adjust existing modules to provide convenient interface, improve the flexibility of the database, and extend the use time of the database.

The project in this study uses SQL Server database platform, combined with the characteristics of users and actual needs, to provide the following backup and data recovery solutions: database denial technology. The database shall be replicated at the specified time and frequency. If the database is accidentally damaged, the backup data of basic backup and full backup should be selected to restore the database according to the actual needs. After the data recovery is completed by discarding recovery technology, all transactions of the recovery node will be reexecuted.

3.3. Quality Monitoring. After class, the quality score of physical education class is calculated by inputting personal data from smart campus data. The formula is as follows:

score
$$=$$
 $\frac{S1}{7} + \frac{S2}{3} + \frac{S3}{2}$. (14)

Among them, S1 is the score of students' classroom sports data, S2 is the score of physical indicators, and S3 is the evaluation of students.

The pass rate of physical education is calculated by the scores of all students. The formula is as follows:

$$F\% = \frac{N}{D} \times 100\%. \tag{15}$$

Among them, F% is the qualified rate, D is the total number of people, and N is the number of qualified scores.

4. Analysis and Discussion of Research Results

According to the school survey, two college students who were introduced into smart campus to monitor the teaching quality of physical education in 2019 are selected to conduct a field survey, and the survey is completed before and after the introduction. Its "wisdom" is reflected in.

4.1. Changes of Various Elements of Student Fitness Management under the Construction of Smart Campus. Content includes fitness plan management, fitness time management, fitness intensity, fitness activity mode, and data comparison. See Table 2 for specific data.

It can be seen from Table 2 and Figure 4 that under the background of smart campus, the proportion of college students' fitness management elements has changed significantly before and after the introduction. Through the data, it can be seen that the number of college students' fitness management elements has increased significantly after the introduction of smart campus and real name authentication. The number of students with exercise plans in school 1 increased from 70 to 222, and school 2 from 49 to 199.

4.2. Average Number of Physical Exercises of Students under the Construction of Smart Campus. Using intelligent terminal equipment to collect data and analyze the weekly practice times of college students. According to gender, male and female students are investigated separately. The results are shown in Table 3 and Figure 5.

It can be seen from Table 3 and Figure 5 that the *p* value of boys is 0001, that of girls is 0040, that of boys is 0001, and that of girls is 0026. P values were less than 0.05, with statistical significance. Before the introduction of smart campus, the average weekly exercise time of boys in school 1 was 4.98 ± 1.02 days, which was 6.32 ± 0.79 days after the introduction; the average weekly exercise time of girls was 3.23 ± 0.98 days, which was 3.99 ± 1.24 days after the introduction. The average weekly exercise time of boys in school 2 was 3.72 ± 1.00 days, which was 5.43 ± 0.23 days after introduction; the average weekly exercise time of girls was 3.21 ± 0.87 days, which was 5.20 ± 1.09 days after introduction. According to the smart campus monitoring test, students can exercise independently on the platform, actively participate in extracurricular sports activities other than sports, and exercise actively without the guidance of teachers. The number of subjects has increased significantly

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Elamonto/numbon	School 1		School 2	
Elements/number	Before introduction	After introduction	Before introduction	After introduction
Self-fitness plan management	70	222	49	119
Self-fitness management	130	336	36	173
Self-fitness activity management	298	396	235	388
Self-fit time management	366	544	253	399
	600 400 			

activity management

School 1 After introduction

School 2 After introduction

time management

TABLE 2: Statistics on the number of college students' self-fitness management elements from the perspective of smart campus.

FIGURE 4: Statistics on the number of college students' self-fitness management elements from the perspective of smart campus.

Elements

management

plan management

School 1 Before introduction

School 2 Before introduction

TABLE 3: Average number of fitness activities for college students.

Dractica timas/gandar	School 1		P School 2		Р	
Practice tilles/gender	Before introduction	After introduction		Before introduction	After introduction	
Practice times (male)	4.98 ± 1.02	6.32 ± 0.79	0.001	3.72 ± 1.00	5.43 ± 0.23	0.001
Practice times (female)	3.23 ± 0.98	3.99 ± 1.24	0.040	3.21 ± 0.87	5.20 ± 1.09	0.026



FIGURE 5: Average number of fitness activities for college students.

than before. Smart campuses help students improve their self-management skills and extend the impact of their PE curriculum beyond the classroom.

4.3. Satisfaction Survey on Physical Education Learning Effect before and after the Introduction of Smart Campus. Through the questionnaire survey, the satisfaction of college students on the learning effect of physical education before and after the introduction of smart campus was investigated. The problems of this dimension include "satisfaction with the examination results of physical education," "satisfaction with the examination methods of physical education," "satisfaction with the exercise effect of physical education," and "satisfaction with improving self-confidence in physical education." Each question is weighted to get the total score of satisfaction, and the result is shown in Figure 4. As can be seen from Figure 6, before the introduction of smart campus, the very satisfied rate was 40.12%, and increased to 45.70% after the introduction. The satisfactory rate was 30.23% and increased to 36.60% after introduction. It was 16.45% in general and increased to 10.34% after introduction. The dissatisfaction rate was 8.12%, and decreased to 5.12% after introduction. The rate of very dissatisfaction was 5.08%, which decreased to 2.24% after introduction. From this, the satisfaction of the students with the introduction of physical education was significantly higher than that of the students before and after class.

4.4. Satisfaction Survey on the Safety of Sports Equipment before and after the Introduction of Smart Campus. Through questionnaire survey, the satisfaction of college students on the safety of sports equipment before and after the introduction of smart campus was investigated. Each question is weighted to get the total score of satisfaction, and the result is shown in Figure 5.

It can be seen from Figure 7 that before the introduction of smart campus, 30.12% were very satisfied with sports equipment, and after the introduction, the value increased to 35.24%. The satisfactory rate was 35.23% and increased to 40.55% after introduction. The dissatisfaction rate was 9.92%and decreased to 7.34% after introduction. The rate of very dissatisfaction was 12.08% and decreased to 7.53% after introduction. The *P* value of total satisfaction score before and after introduction was 0.0023, less than 0.01, with significant difference. Compared with curriculum



FIGURE 6: Satisfaction survey on the learning effect of physical education before and after the introduction of smart campus.



FIGURE 7: Satisfaction survey on the safety of sports equipment before and after the introduction of smart campus.

satisfaction, college students' satisfaction with sports equipment is lower, but after the introduction of smart campus supervision, satisfaction has increased. Nowadays, school physical education is increasingly concerned by the society. In addition to ensuring normal school sports activities, safe sports equipment is an important guarantee for teachers and students to have good physical education. The safety of sports equipment not only includes the hidden danger caused by the lack of maintenance of sports equipment itself, but also includes the safety behavior of students in the use process. Only when the safety of sports equipment is guaranteed, can students have a good PE class. This requires schools to make good use of the smart campus platform, regularly check sports equipment, and supervise the use of safety in the process of physical education.

4.5. Overall Situation of the Teaching Quality of Physical Education in Colleges and Universities

4.5.1. Investigation on the Development of Extracurricular Track and Field Activities. Schools should actively encourage the development of extracurricular sports activities, increase support for sports club organizations, provide appropriate activity funds, and guide and promote club organizations to carry out extracurricular sports activities. The specific situation is shown in Figure 8.



FIGURE 8: Ways for students to improve sports skills before the construction of smart campus.

It can be seen from Figure 8 that 40.2% of students learn from each other. At this time, the track and field backbone of the student group will play a great role in helping the students around them improve their skills and explain the rules of the game. 34.5% of the students are self-study and self-training, watching videos online, and learning. 18.1% of students would consult a teacher, and 7.2% of students would choose other ways. A survey of students' theoretical knowledge of athletics revealed that they really lacked their understanding of the theoretical knowledge of athletics and had little understanding of the rules of athletics. Therefore, students should strengthen the study of theoretical knowledge of track and field.

4.5.2. Investigation of Students' Interest in Track and Field Sports. It can be seen from Table 4 that only 14.1% of students like track and field class, 86.1% of students do not like track and field class, and more boys than girls like track and field class. This shows that the track and field class has lost its status in the hearts of current college students. Few students are interested in the track and field class, even though most of the students think the track and field class is more important. Through the subjective survey of students participating in sports meets, it was found that only 28.9% of the students said they would take the initiative to participate in the track and field games organized by the school, and 71.4% of the students still chose to be "silent."

4.5.3. Investigation on the Reasons Affecting Students' Interest in Track and Field Class. It can be seen from Table 5 that 25.5% of the students think that track and field events are tired, and muscle aches easily after exercise, so they do not like track and field classes. 18.5% of the students think that the track and field courses are boring, lack of interest, repetitive teaching content, and lack of novelty, which makes some students gradually lose interest in track and field courses. 17.0% of students dislike track and field classes because they fail to meet the assessment standards set by the teacher. 16.2% of students dislike track and field classes because of the weather.

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TABLE 4: Investigation on the interest level of college students in track and field courses under the construction of smart campus.

Select	Male	Female	Percentage
Like track and field class	42	26	14.1
Do not like track and field class	186	228	86.1
Will take the initiative to participate in the sports meeting	83	54	28.9
Will not take the initiative to participate in the sports meeting	138	184	71.4
Agree to cancel the track and field class	149	198	75.2
Disagree to cancel the track and field class	71	53	25.6

TABLE 5: Reasons why college students do not like track and field classes under the construction of smart campus.

Select	People	Percentage
Tired from the project, body aches after exercise	123	25.5
The course is boring and not interesting	89	18.5
Fail to meet the assessment standards prescribed by the teacher	82	17.0
Afraid of cold, heat, and sun	78	16.2
Poor self-quality, difficult to master technical movements	68	14.1
Poor facilities and equipment shortage	27	5.6
Track and field lessons are useless for the future	15	3.1



FIGURE 9: Statistics of the physical fitness test results of the experimental group before the construction of the smart campus.

FIGURE 10: Statistics of the physical fitness test results of the control group before the construction of the smart campus.

F-After the experiment

4.6. Test Results of Students' Physical Fitness before and after the Construction of Smart Campus

4.6.1. Analysis of the Test Results of the Physical Fitness of the Experimental Group before the Construction of the Smart *Campus.* After a semester of track and field optional course teaching experiments, the physical fitness data of students measured before and after the construction of the smart campus were compared. From Figure 9, we can see that after the track and field content teaching experiment of the smart campus construction, the physical fitness indicators of the students have improved in different ranges. Among them, the men's scores for 50-meter dash, vertical jump, chin-up, and 1000-meter endurance were significantly higher than before the experiment, and there was a significant difference (P < 0.01). The test results of male flexion in the sitting position showed that although the postexperiment was improved compared with before the experiment, the difference was not significant (P > 0.05).

4.6.2. Analysis of the Physical Fitness Test Results of the Control Group before the Construction of the Smart Campus.

The control group compared the physical fitness data of students measured before and after the experiment after a basketball optional course teaching experiment in the construction of a smart campus. It can be seen from Figure 10 that after a semester of basketball content teaching experiment, boys' 50-meter running, standing long jump, pull-ups, and sitting posture were significantly higher than before the experiment (P < 0.05). There was no significant improvement in the 1000-meter running (P > 0.05); the girls in the control group had significant improvement in standing long jump and sitting forward bending test scores (P < 0.05).

5. Conclusions

F-Before the experiment

From the intelligent construction to improve the construction of the quality monitoring system of public sports in colleges and universities is an important starting point to promote the improvement of public sports quality and realize the improvement of physical education teaching quality, which is conducive to the cultivation of university talents. This experiment analyzes the self-sports management and sports habit management of college students, tests the sports level and physical condition, and confirms the role of smart campus in the quality of physical education teaching, which is conducive to improving the physical level.

This study investigated two schools; the changes of students' physical fitness before and after the introduction of smart campus as a monitoring platform were collected and analyzed. Research has shown that the construction of smart campuses has changed the elements of student fitness management, allowing students to begin to increase their time and frequency of exercise, gain a better understanding of exercise, and improve their exercise habits. Before the introduction of smart campus, students were very satisfied with the learning effect of physical education, which was 40.12%, increased to 45.70%, 30.23%, and 36.60%, respectively. It was 16.45% in general and increased to 10.34% after introduction. The satisfaction rate of sports equipment was 30.12%, which increased to 35.24% after introduction. The satisfaction rate was 35.23%, which increased to 40.55% after the introduction of the system.

The results of this study show that after the introduction of smart campus, college students' physical exercise habits are improved. The real name certification on the platform can increase the enthusiasm of physical exercise, and students are willing to evaluate physical education on the platform. Thus, the smart campus platform is of great help to the construction of the quality monitoring system of physical education in colleges and universities.

Data Availability

The data used to support the findings of this study are included within the article.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

Authors' Contributions

All authors have read the manuscript and approved to submit it.

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