

# *Systematic Research on the Integration Model of Sports and Education under the Background of Campus Football Based on Big Data*

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**Abstract:** At present, there is a serious problem of internal non coordination in the cultivation system of football reserve talents in China, which is an important reason restricting the effect of reserve talents cultivation. This article mainly studies the integrated model of physical education under the background of campus football based on big data. This paper selects 60 front-line coaches from 10 clubs who are sent to the school by the youth amateur football clubs to understand the students' daily training time and training content, including the teachers' qualification information of the coaches and whether they understand the inner spiritual value of campus football. If the correlation between the two retest coefficients is high, it means that the reliability of the questionnaire is high, and the survey can be carried out. Through the analysis of the survey results, the reliability coefficient of the two questionnaires is  $r = 0.89$ ,  $P < 0.019$ , which shows that the design of the two questionnaires is reasonable and the reliability is high. At the end of the questionnaire survey, the data collected from the questionnaire are sorted out and analyzed by Microsoft Excel, which provides a reference for this study. The data shows that only 11.8% of the students are very satisfied with the football teaching. The results show that deepening the integration of sports and education can promote the development of school sports activities and promote the all-round development and healthy growth of teenagers.

## 1. Introduction

Since the 1990s, problems such as the slow improvement of China's football competitive level,

the lack of training modernization and the weakness of youth reserve force have become increasingly prominent. The weak reserve force and poor development quality of youth football are the fundamental reasons for the long-term failure of Chinese football. However, with the vigorous implementation of football development reform and increasing investment in the development of youth football, Chinese football is standing at a new starting point, and the dream of the rise of football is set off again.

Through the social space theory, this paper analyzes how different fields of campus football obtain various kinds of capital and their own development habits, so as to explain the root cause of the unbalanced and insufficient development of campus football [1-2], and explore the future trend of campus football development, and improve the unbalanced and insufficient development status [3]. Give full play to the enthusiasm and respective advantages of campus football, integrate and innovate a scientific and more specific football reserve talent training mode to guide the development direction of football reserve talent training in the new era [4-5], and improve the training of football reserve talent, make it more scientific, more effective, more systematic and more comprehensive, and improve the emerging benefits of youth football reserve talents training [6-7]. As a means of technology, organization and system, innovation, combined with the actual situation and target demand of youth football reserve personnel training [8], innovates youth football reserve personnel training mode and enriches China's football reserve personnel training theoretical system [9-10].

Previous research has gone through several stages, such as current situation and problems research, comparative research between China and foreign countries, system construction research and so on. It has become a basic consensus that football reserve personnel training is a systematic topic. For campus football, the school should play the role of advocacy and support, and actively cooperate with the sports department to formulate corresponding countermeasures to improve the level of campus football and create a beautiful base for the future of football. Under the guidance of national policy, we should pay close attention to the project advantages brought by football, excavate the value and educational significance of football itself, improve the interest of students' participation in football, and bring the sunshine sports function into full play by the spring breeze of campus football.

## **2. Integration Mode of Sports and Education**

### **2.1. Campus Football**

The development of campus football activities is to start from childhood, from teenagers, combined with campus education, introduce football culture, football training and football skills into the teaching of primary and secondary schools. The focus is to cultivate students' interest in football, let students learn football at the same time, achieve the effect of combining work and rest, and achieve the effect of exercise quality and physical fitness through football activities. In addition, the development of campus football activities provides a large number of excellent young football players for our country's youth football matches, and then through the docking between the school and the education department or sports department, further improve this kind of excellent campus football talents, so as to lay the foundation for the cultivation of young football talents in our country. It provides a new direction and thinking for the development and construction of campus football, and puts forward corresponding suggestions for the integration of campus football and social resources, so that more children have the opportunity to get in touch with football and love football through the guidance of professionals; youth amateur football club makes use of its own

professional advantages to enter the campus to improve students' football skills, the quality of physical education curriculum and school team training.

## 2.2. Integration Mode of Sports and Education

The utilization rate of virtual central processor at t time is as follows:

$$U_{vcpu}(t) = \frac{t_u + t_s + t_{io} + t_{irq} + t_{si}}{t_{total}} = 1 - \frac{t_{idle}}{t_{total}} \quad (1)$$

The expression of the prediction model is as follows:

$$U_{vcpu}(t) = \prod_{i=1}^{t-1} w_i(L) \quad (2)$$

Among them,  $w_i$  is the affine transformation based on the principle of statistics.

The occupancy rate of virtual CPU is calculated by weighted average, and the expression is as follows:

$$\bar{U}_{vcpu}(t) = (1 - \gamma) \times \bar{U}_{vcpu}(t-1) + \gamma \times U_{vcpu}(t) \quad (3)$$

Theory teaching and technology teaching are inseparable in college physical education. Theory teaching is the basis of college physical education, and technology teaching is the practice of college physical education. So in college physical education, the unity of theory and practice is very important. College physical education also needs to pay attention to the timely communication and interaction between teachers and students in the teaching process.

## 3. Sports and Education Integration Model Experiment

### 3.1. Questionnaire Survey

This paper selects 60 front-line coaches from 10 clubs who are sent to the school by the youth amateur football clubs to understand the students' daily training time and training content, including the teachers' qualification information of the coaches and whether they understand the inner spiritual value of campus football. If the correlation between the two retest coefficients is high, it means that the reliability of the questionnaire is high, and the survey can be carried out. Through the analysis of the survey results, the reliability coefficient of the two questionnaires is  $r = 0.89$ ,  $P < 0.019$ , which shows that the design of the two questionnaires is reasonable and the reliability is high.

### 3.2. Mathematical Statistics

At the end of the questionnaire survey, the data collected from the questionnaire are sorted out and analyzed by Microsoft Excel, which provides a reference for this study. SPSS software is used to analyze the data of the questionnaire, and the correlation coefficient  $\alpha$  is above 0.9, which indicates that the validity of the questionnaire is high.

## 4. Discussion

### 4.1. Sports Teaching Integration Analysis

The survey results of school leaders' attention to campus football are shown in Table 1. It can be seen from the table that in the survey of 100 school leaders in charge, nearly 68% of the schools support campus football activities, and 21% of the schools maintain neutral or reserved support for campus football. However, about 2% of the schools do not pay attention to the implementation of campus football. The main body of education is students, and teachers are in the leading position in teaching activities. Especially in the educational activities for young people, because the brain and body development of young people is not complete, often need a good guide to guide learning, therefore, in educational activities, teachers play a very important role. In the process of campus football activities, as an educator with enlightening significance, coaches play an important role in the long-term accumulation from the discovery of seedlings to daily training and then to the competition. Therefore, the quality of football coaches directly affects the quality of campus football. In the survey, it is found that the enthusiasm of students to participate in football games is not high. With the growth of students' age, the pressure of entering a higher school is increasing, the time to participate in the game is also less and less, and the school no longer organizes the school football games. However, 70% of the schools have participated in the inter school and district level football league matches. These schools select high-level athletes for training, and improve the popularity of the school by participating in the competition.

Table 1. Survey results of school leaders' attention to campus football

Degree of support	Number of people	Percentage
Very concerned	37	33.6%
Value	38	34.5%
General	23	21%
Disregard	2	1.8%
Very little attention	0	0%

### 4.2. Analysis of Time Mode of Campus Football Training Camp

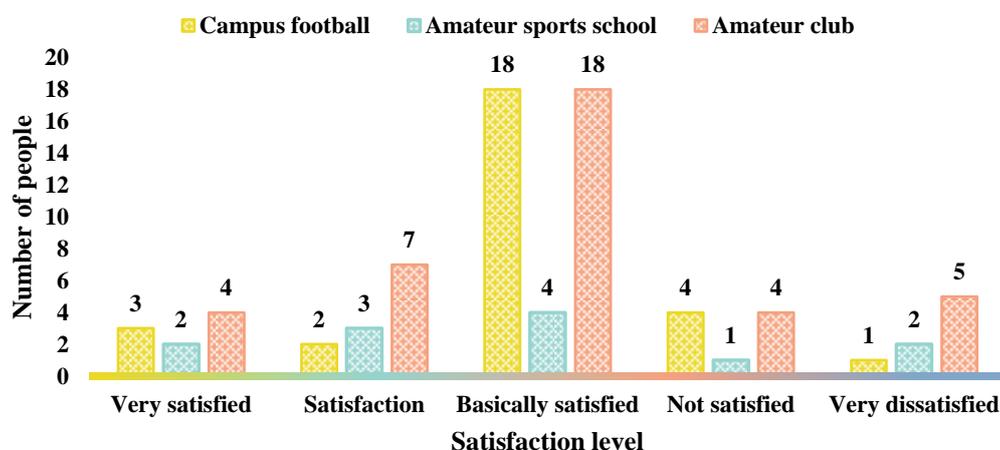


Figure 1. Statistics of job satisfaction of various coaches

As the main body of the whole training system, whether athletes can persist in high-intensity sports training for a long time depends on the motivation and intensity of their participation in sports training. The statistics of job satisfaction of various coaches are shown in Figure 1. Most (72%) primary and secondary school teachers are satisfied or very satisfied with their coaching work, all (100%) amateur sports schools are basically satisfied with their work, and the vast majority (86%) amateur football coaches are very satisfied or basically satisfied with their work. The campus football training camp cooperates with the local education committee and rents with the school. In the spare time of the school, the coaches of the training camp are sent to the relevant schools to carry out extracurricular interest classes, enrich the campus culture and implement the positive football concept. Coaches and network school teachers bring some potential players to the training camp through propaganda and selection, and use the weekend time to gather together for training. In order to promote the healthy and all-round development of young people, we should take the future development of young people as the starting point and cultivate the all-round development of young people with football specialty as the educational goal. The influence of football training on teenagers' cultural class learning has always been a hot topic between the education system and the sports system, and the contradiction between learning and training also comes from it.

The students' satisfaction with football teaching is shown in Figure 2. 53.7% of the students are generally satisfied with the football class, the teaching content can not fully arouse their interest, the teaching methods and means are also very common, and the training methods are boring, so the students' enthusiasm for football teaching is general. Only 11.8% of the students are very satisfied with the football teaching. This part of the students have a certain football foundation, and the teachers can fully mobilize their enthusiasm in the classroom. The whole classroom performance of this part of the students is relatively active, and the teachers also give feedback in time, so they are very satisfied with the football teaching. The training of sports quality is usually interspersed with the training of sports skills. For teenagers, amateur training if specialized in sports quality training will be more boring, not attractive to students, so many campus football coaches will be in the way of game to speed, strength, sensitivity and coordination training. Endurance training is mostly in the form of long-distance running after training. To establish a complete guarantee mechanism for the cultivation of reserve talents in competitive sports, we should adhere to and implement the people-oriented scientific outlook on development, and realize the inevitable requirement of comprehensive, coordinated and sustainable development of reserve talents cultivation. The state mainly ensures the effective implementation of security policies and measures, the continuity, stability and effectiveness of the security system through the formulation of a series of laws and policies and the construction of certain organizations; and provides security and development guarantee for the training subject by economic or material means.

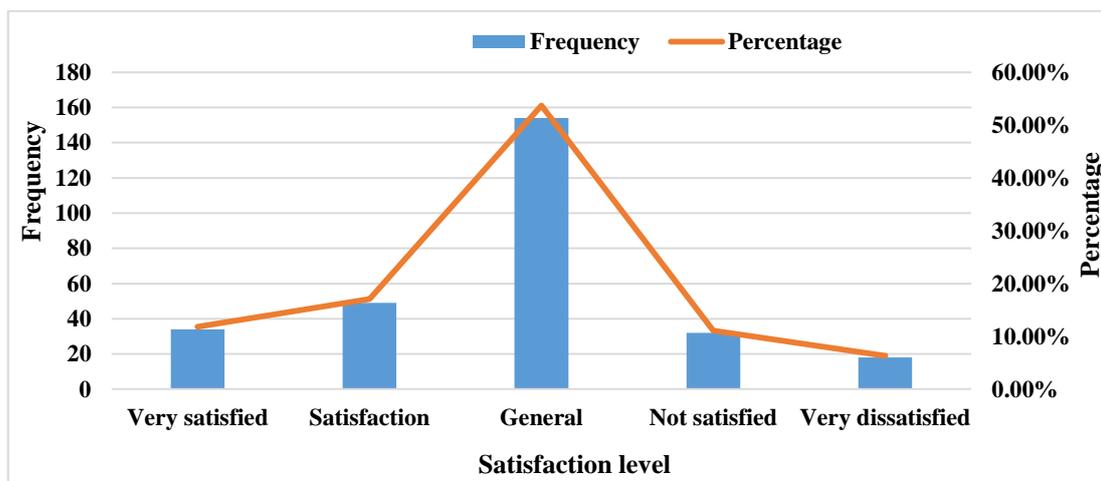


Figure 2. Students' satisfaction with football teaching

## 5. Conclusion

With the rapid development of youth campus football activities, the training system and competition system are gradually improved, creating a good youth football atmosphere; the development of amateur sports schools is gradually shrinking, but high-level coaches still play a leading role in the regional scope.

Physical education is an important part of education, personality education first in sports, not only can promote the development of school sports activities, promote the comprehensive development and healthy growth of young people, but also can properly resolve the contradiction between learning and training, expand the scope of selection.

"Integration of sports and education" has the characteristics of long-term training goal, unique training subject, amateur training object and scientific training process. It is conducive to attracting more potential young people to engage in amateur training and ensuring the sustainable development of competitive sports.

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## Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

## Conflict of Interest

The author states that this article has no conflict of interest.

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