

Research on the Sustainable Operation Mode of Youth Football Training Base under the Background of the Integration of Industry and Education

Yue Hu^{*}

1 Jiangxi Institute of Technology,
Physical Education Institute,
Nanchang 330098

^{*} Corresponding author.

Email: justinhu6677@outlook.com

Abstract:

China's football development is at a critical stage. Although many youth training bases have emerged under national policies, high costs, staff shortages, and single training models hinder sustainability and youth talent development. Existing research primarily looks at sports-education integration or industry-education integration separately, with little focus on their combined role in maintaining youth football training bases. Therefore, this work investigates an operational model for such bases under the combination of education and industry. By analyzing the current status and bottlenecks of training base operations in China and drawing on successful foreign experience, the study found that the sustainable operation mode should take the integration of industry and education as the core, integrate the resources of educational institutions and the football industry, and form a collaborative mechanism of "joint talent cultivation, joint process management, and shared outcomes". Market-oriented operation elements should be introduced to broaden the source of funds and enhance the influence of the base. This model offers useful advice for strengthening sports-education integration, enhancing the youth training system, and advancing the strategy of turning China into a sporting power. It also helps address resource shortages and operational challenges and encourages alignment between football talent cultivation and industry needs.

Keywords: Youth football training bases, Industry-education integration, Sustainable operation, Collaborative talent cultivation, Sports-education integration

1. Introduction

In recent years, China's football development is in a critical transition period from quantitative change to qualitative change. "In the general plan for the reform and development of Chinese football" issued by the State Council Office in 2015, it is proposed that football is a widely influential sport with broad public participation [1]. At the same time, it is of great significance to improve the physical quality of the people throughout the country, develop the sports industry and realize the dream of sports power. Therefore, youth football training bases began to emerge nationwide. However, there are also many practical problems behind the rapid opening of youth football training bases, such as high operating costs of training bases, lack of football professionals, limited training methods. The survey shows that most private youth football training bases in China are facing similar problems, and a considerable number of them are under financial pressure or forced to transform after three to five years of operation. This unsustainable operation not only reduces the opportunities for youth to participate in football training, but also affects the long-term cultivation of high-level reserve talents.

Under the background of the national policy of promoting the coordinated development of education and industry, the integration of industry and education provides a new idea for the sustainable operation of youth football training base. At present, the proposed integration of sports and education and the integration of industry and education has formed a preliminary framework, which has been studied from multiple perspectives. Zhang S.D studied the local youth football training base in Lanzhou [2]. According to the actual needs of the training base, he pointed out that the base construction faced problems such as insufficient funds and imperfect operation and management mechanism, which needed to seek breakthroughs in policy support, resource integration and diversified investment. Zhu J.P and Wang Y took Kaifeng "Mantianxing" training base as a case, sorted out the literature according to the field theory, and interviewed the relevant persons in charge of the Mantianxing training base. They found that the training camp had problems in the field construction, personnel distribution, capital investment, coach allocation, training content, training mode and other aspects, and built a development field of multiple integration of family, school, society and government [3]. The research focused on transforming the integration of sports and education into the allocation of field resources. Zhou and li focused on the integration of industry and education from the perspective of talent training in sports colleges [4]. However, this line of research pays less attention to the specific application within youth football training systems. It is proposed that the integration of industry and education to

cultivate applied sports talents has become an important measure to promote the transformation and development of sports colleges and universities, and the mechanism of cultivating talents is more emphasized because of the needs of the industry. However, the above two studies respectively studied the "integration of sports and education" and "integration of industry and education", and did not combine the two to analyze the sustainable operation of the football youth training system.

From the perspective of international experiences, the integrated development of professional football clubs and campus football has become an important development strategy for cultivating football talents in the world. The research of Wang L et al. shows that the school club linkage program in the Japanese professional football J League has established more than 200 partnerships, which significantly improves the retention rate of youth players in the professional league [5]. At the same time, different football powers have different models of training young players. Coutinho D found, by comparing the elite U18 players in Brazil and Spain that in Brazil, young players entered the high-intensity training environment earlier and participated in more competitive games, while in Spain, young players received more systematic technical and tactical training, and this structural difference shaped different training systems [6]. In addition, Wan B and Guan Y analyzed the characteristics of the youth training system of some professional football clubs in Germany, and pointed out that Germany has effectively improved the youth training guarantee system of German professional football clubs by establishing unified youth training standards, improving the club selection mechanism, and strengthening the cooperation between clubs and schools, which has provided a useful reference for China's football youth training system [7].

Therefore, the research on the sustainable operation mode of youth football training bases within industry-education integration is of practical significance. By analyzing the current situation and bottlenecks of the operation of China's youth football training bases, learning from foreign successful cases, and taking the integration of industry and education as the core, this paper constructs a youth football training system with Chinese characteristics.

2. Case 1 Zizhong Vocational and Technical School: Double Track Training, Tying Education and Playing Football Together

2.1 Case Background

In January 2026, Zizhong vocational and technical school was successfully selected as the pilot of the national new

football school, and it is also the only pilot program in Sichuan Province. This indicates that the national policy supports the combination of campus football and vocational education [8].

2.2 Operation Mode Analysis

The local government introduced a talent training program one year before the pilot project was launched. The county youth sport school and vocational and technical school jointly run a new football school, which specializes in sports training (football-focused specialization) in vocational schools. Their core practice is the parallel arrangement of academic coursework and football training within the daily curriculum, which is the so-called "double track training". Its more specific practice is to arrange cultural courses and professional training in the daily curriculum system at the same time.

More importantly, they also designed a "3+4" through training mechanism, that is, three years of vocational education plus four years of bachelor training, so that students who play well and learn well can be promoted from vocational education to bachelor education, substantially widening the pathway for further education. This mode of institutional arrangement effectively alleviates the time conflict between students' cultural learning and football training.

2.3 Mode Highlights And Values

The key contribution of this case is the institutional integration and innovation of sports and education. It solves the pain point that the traditional youth training addresses the common issue that traditional youth training prioritizes training while neglecting general academic coursework, so that the players can ensure their own cultural quality; Through the "3+4" through training mechanism, this study will clarify the route from vocational school to bachelor school, and enhance the long-term development expectation of football specialty.

3. Case 2 Rugao Jianghai Technical School + Nantong Zhiyun Football Club: Players' Dual Development in Football and Vocational Skills

3.1 Case Background

On September 14, 2025, Rugao Jianghai senior technical school and Nantong Zhiyun Football Club successfully held a cooperation signing and awarding ceremony, aiming to address the dilemma of "players can only play football and lack professional skills" [9].

3.2 Operation Mode Analysis

By integrating classroom teaching and football training, the two sides provide multiple paths for players' athletic development and vocational preparation.

The U17 and U19 youth training echelons of the club have laid the foundation for the reserve of youth training talents through the training mode of "training, learning and combining training and learning". The club has screened potential professional players through technical evaluation and physical fitness tests.

At the same time, Rugao Jianghai technical school, through the integration of technician skills and sports resources, has developed skills-oriented courses related to the football industry, such as venue management, athlete support, and equipment maintenance, leading the high-quality development of campus football.

However, for some players who fail to meet the selection criteria of professional teams after systematic training, the employment problem has become the top priority. Therefore, players can obtain relevant professional skill certificates by completing football-related coursework and strengthening their vocational skills.

3.3 Model Value

This case provides athletes with multiple paths of competitive and professional development. The traditional youth training base only cares about the competitive level and physical quality of the players, and rarely considers the career planning for the players after retirement. Rugao Jianghai technical school has well integrated the mechanic elements into the youth training system, thereby achieving dual benefits in football development and vocational skills, while reducing the risk of youth training investment.

4. Case 3 Guangxi Bushan Football Club and Bowen High School: a "One-stop" Training System for Football

4.1 Case Background

From March 29 to 31, 2025, the new campus of Guangxi Guiping Bowen senior high school hosted the national U15/U16 football elite selection and the first Guiping Bushan Bowen football invitational tournament, attracting youth teams from many regions to participate. The event not only provides a platform for football fans to display and select, but also aims to build a complete football talent training system and advanced the integration of sports and academic education while in incorporating systematic career planning. At the event site, Guangxi Bushan football club and Bowen high school signed a cooperation agreement

on the establishment of a youth football training base and held an inauguration ceremony [10].

4.2 Operation Mode Analysis

Guangxi Bushan football club has established a professional team composed of a number of professional coaches, including former international Chi M.H and indoor five-man consultant and head coach Cai S as technical consultants. The club has built a complete training system from enrollment to selection to career development.

Different from the traditional football youth training base, Guangxi Bushan aims to explore a variety of development

paths such as professional players, college entrance examination and sports management, and realize the diversified cultivation mode of professional route, college further education and development of interdisciplinary football professionals, so as to lead the high-quality development of football in China.

5. Case Comparison and Enlightenment

5.1 Case Comparison

Table 1. Typical Cases of Collaborative Models for Youth Football Training Bases under Industry–Education Integration

Case name	Cooperation subject	Core mechanism	Innovation highlights
Zizhong vocational and technical school	Vocational school+Sports School	Double track training, 3+4 through	Institutionalized integration of academic education and football training
Rugao Jianghai technical school+Nantong Zhiyun	Technical school+professional club	Both training and learning, double career development	Double guarantee of football skills and professional certificates
Guangxi Bushan+Bowen high school	Club+high school	One stop cultivation and diversified export	Classified training of vocational/higher education/compound talents

By listing three typical cases, the table shows three different operation modes of youth football training base under the background of the integration of industry and education: Zizhong County mode focuses on the integration of academic education and football training system, and Rugao Jianghai technical school mode prioritizes ensuring both football competency and vocational qualifications. The Guangxi model has built a talent training system with multiple exports. Together, the three reveal that sustainable operation requires broadening access to higher education, expanding career development opportunities, and build multiple paths, breaking the traditional single-track training mode of youth training (See Table 1).

5.2 Enlightenment

The above cases provide the following enlightenment for the sustainable operation mode of youth football training base under the background of the integration of industry and education:

It is crucial to open up the channel for the rise of academic qualifications. The common point of the three cases is that they link football training with the education system, provide access to higher education, and dispel the parents' concern that playing football will delay learning.

The football training system must expand the space for career development. By cultivating professional skills of players and expanding industrial posts, the football training system can reduce the risk of cultivating young

football players, not only as professional players, but also realize "playing football, employment and transformation". The football training system need to build a diversified development path. Given the varying ability levels among young athletes, a differentiated model such as that of Guangxi Bushan is needed to cultivate professional players, college students, football coaches, referees and other football talents, allowing athletes and their families to select appropriate pathways based on individual circumstances.

All sustainable development paths need policy support. The success of the above cases is closely tied to sustained policy support and institutional innovation. At the same time, school enterprise cooperation and resource sharing are also the solid cornerstone of the integration of sports and education and the integration of industry and education.

6. Conclusion

This study focuses on the sustainable operation mode of youth football training base under the background of the integration of industry and education. Through the analysis of three typical cases of Zizhong County Vocational and technical school, Rugao Jianghai technical school and Nantong Zhiyun club, Guangxi Bushan football club and Bowen high school, combined with the reference of international experience, this study draws the following conclusions: the sustainable operation of youth football

training base needs to take the integration of industry and education as the core, integrate the resources of education and football industry, and form a collaborative mechanism of "Joint cultivation of talents, Joint management of processes and shared enjoyment of achievements". The three cases respectively show three feasible paths: the institutionalized integration of academic education and football training, the double guarantee of football skills and professional qualifications, and the classified training of talents with multiple exports, which jointly reveal the key elements of the sustainable operation mode.

Based on the research and the analysis of three typical cases, this paper puts forward the following suggestions: first, open up the channel for the rise of academic qualifications, link football training with the depth of the education system, and eliminate parents' concerns about "playing football delays learning"; Second, expand the space for career development, and provide players with multiple ways of "playing football, employment and transformation" through vocational skills training; Third, build a diversified development path, and cultivate professional players, college graduates or football compound talents according to different levels of players; Fourth, strengthen policy support and school enterprise cooperation to provide institutional guarantee and resource support for the integration of production and education.

In theory, this study organically combines "sports and education integration" with "industry and education integration", and expands the path of youth football talent training; In practice, it offers a workable and replicable framework for China's youth football training base to solve the operation dilemma and achieve sustainable development, and has positive practical significance for deepening the reform of sports and education integration, promoting the healthy development of football youth

training system, and serving the strategy of sports power.

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