

# Research on the Pathways for Balancing Academics and Training for College Athletes under the Integration of Sports and Education

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**Abstract:** Using literature review and logical analysis, this study systematically dissects the multidimensional challenges faced by college student-athletes in balancing academics and training. It explores the dilemmas and breakthrough pathways for achieving balanced development in both areas under the framework of sports-education integration. Findings reveal four primary constraints—institutional rigidity, fragmented management, resource scarcity, and cultural conflicts—that severely hinder the holistic development of college student-athletes. The study proposes a three-pronged approach to establish a “tripartite” support system for academic-training balance: implementing flexible and personalized institutional reforms, developing an integrated “academic-training” collaborative management platform, and providing precision academic support alongside scientific training safeguards. Conclusions indicate that resolving this imbalance requires coordinated reforms in institutional frameworks, management practices, and resource allocation to build a flexible support system centered on students’ holistic development.

**Keywords:** integration of physical education and sports, college student-athletes; academic-training Balance; role Conflict; development Pathways

## 1. Introduction

China’s youth sports development model is undergoing a profound shift from “combining sports and education” to “integrating sports and education” (SHI, L.L. & GE, J., 2022)<sup>[1]</sup>, as policies for integrating education and sports deepen, the challenge of balancing academics and training has become increasingly prominent for college athletes—individuals who simultaneously hold the dual identities of “student” and “athlete”. Research by Gretsov (2024) indicates that young athletes commonly face self-management challenges in career orientation, which directly impacts their developmental trajectories<sup>[2]</sup>. In the Chinese context, the academic-training conflict has evolved into a multidimensional, systemic challenge. It involves the interplay of multiple factors: objective constraints, subjective factors, and managerial issues.

## 2. Multidimensional Challenges in Balancing Academic and Training Development for College Student-Athletes

### 2.1 Rigid Institutional Constraints

Institutional rigidity constitutes the fundamental reason behind the irreconcilable conflict between academic and training demands. Existing talent cultivation and evaluation systems fail to adequately reflect the unique circumstances of student-athletes, lacking necessary flexibility and personalized design, many universities directly apply the training models and evaluation standards designed for regular students to student-athletes, overlooking their unique demands on time and energy allocation. A comparative study of university basketball teams across the Taiwan Strait also found that extending study periods and implementing flexible credit systems are crucial directions for alleviating the training-academic conflict—precisely what many institutional designs lack<sup>[3]</sup>.

### 2.2 The Dilemma of Management Fragmentation

The compartmentalized structure of university management systems creates barriers to coordination between academic and athletic training systems, making “integration” difficult to implement in practice. The management of student-athletes typically involves multiple departments, including the School of Physical Education, their respective academic departments, and the Academic Affairs Office. This management model easily leads to unclear responsibilities, poor information flow, and inconsistent standards. When conflicts arise between academics and training, the absence of efficient coordination mechanisms between departments often results in buck-passing or conflicting policies, leaving students confused and uncertain. The fragmentation of administrative oversight directly creates “information silos” separating student-athletes’ academic records from their training and competition data.

### 2.3 Resource Scarcity Dilemma

The widespread lack of supportive resources is a critical shortcoming hindering student-athletes from achieving a balance between academics and training, primarily manifesting in two areas: academic support and training safeguards. Higher education institutions generally lack compensatory teaching resources for learning strategies and time management, making it difficult to bridge academic gaps once they emerge. On the training front, many universities still adhere to relatively traditional training philosophies and methods, failing to leverage advanced sports science techniques to enhance training efficiency. This indirectly encroaches on time that could otherwise be dedicated to academics. Insufficient investment in scientific training approaches, coupled with inadequate support systems for fatigue recovery, sports rehabilitation, and nutritional management, often forces athletes to engage in prolonged, inefficient training sessions just to maintain their competitive level. This undoubtedly exacerbates the conflict between academics and training.

### 2.4 The Dilemma of Cultural Conflict

Deep-seated ideological and cultural conflicts represent the most formidable obstacle to balancing academic and athletic pursuits. These conflicts exist both within societal perceptions of the external environment and within the inner worlds of individual students. In both societal and academic settings, the stereotype that “athletes = poor students” persists, imposing immense psychological pressure on college athletes. High-level athletes in higher education institutions aspire to be “outstanding” on the field while struggling to shake off the self-perception of being “average” in their studies, plunging them into profound inner conflict.

## 3. Building a Three-Pronged Approach to Balancing Academic and Athletic Training

### 3.1 Promoting Flexible and Personalized Reforms in Institutional Systems

Deepening the credit system reform and establishing diverse pathways for learning certification, the sports training program may adopt a four-dimensional selection criterion encompassing “moral character, academic performance, competition results, and developmental potential”. Further implementation of the “credit bank” system should establish recognition standards and methodologies for converting competition achievements and training outcomes into credits or course substitutions, thereby enabling flexible management of learning content. Educational evaluation reform in the new era emphasizes maintaining fundamental “boundaries” while granting sufficient ‘elasticity’ to institutional implementation<sup>[4]</sup>. Colleges should design personalized development plans for student-athletes, allowing them to flexibly adjust their academic duration and course pace while maintaining the core curriculum framework.

### 3.2 Establishing an Integrated Collaborative Management Platform for Academic-Training Synergy

Universities should spearhead the establishment of a substantive coordinating body—the Student-Athlete Development Center—involving the Academic Affairs Office, Physical Education Department, Student Affairs Office, and all specialized colleges. Serving as an information hub and decision-making center, this center will be responsible for: Developing personalized training plans—Approving course exemptions or substitutions—Coordinating pre-competition academic support and post-exam make-up sessions, this approach will systematically break down barriers between training and academic instruction. Simultaneously, an integrated academic-training management platform should be developed to achieve intelligent synchronization between training schedules and academic calendars, real-time tracking and early warning of academic performance, and precise delivery of personalized information. This enables administrators and advisors to intervene promptly, shifting from reactive remediation to proactive support, thereby achieving a dynamic equilibrium in the academic-training process.

### 3.3 Providing Targeted Academic Support and Scientific Training Assurance

Establish a precision academic support system that aligns supply with demand and a dual-track supplementary learning network combining online and offline resources. Offline, organize “Top Student Tutoring Teams” to provide one-on-one or small-group Q&A sessions. Online, leverage intelligent technologies such as the proposed personalized learning path optimization framework integrating reinforcement learning with dynamic knowledge tracking (RL-DKT)<sup>[5]</sup>. This framework dynamically adjusts learning task sequences and difficulty based on students’ real-time knowledge states, enabling true personalized learning. At the training level, it is essential to enhance the scientific content of training, prioritizing ‘quality’ over “quantity” to conserve valuable learning time. By applying cycle integration training theory, rationally arranging training loads, and emphasizing cyclical nutrition planning alongside mental skills training, one can more efficiently enhance athletic performance while promoting recovery and reducing ineffective training time<sup>[6]</sup>. At the psychological and role-integration level, students experiencing anxiety due to role conflicts should receive training in self-regulation learning strategies focused on time management, goal setting, and emotional regulation. This approach helps enhance their metacognitive skills and motiva-

tional-emotional resources,thereby fundamentally alleviating their physical and psychological burdens.

#### 4. Conclusion

The challenge of balancing academics and training for college student-athletes is a systemic issue stemming from institutional rigidity,fragmented management,and resource scarcity.The solution lies in shifting from a “simple addition” approach to “organic integration,”centered on building a flexible,three-pronged support system that prioritizes students’ holistic development and responds dynamically to their diverse needs.This involves coordinated reforms in institutional flexibility,management synergy,and targeted support to achieve genuine synergy between academics and training.Future research may validate this approach through large-scale quantitative analysis or dynamically map student-athletes’ real-world journeys within the support system via in-depth case tracking.Such studies would provide more targeted practical guidance for deepening the integration of sports and education.

#### References:

- [1]SHI,L.L., GE,J. Research on the Optimization of the Training Mode of University Athletes’ Combination of Sports and Education. *Journal of Anhui University of Technology(Social Sciences)*.2022;39(4): 114-117.
- [2]Gretsov A.G.Self-management in professional orientation for young athletes. *Theory and Practice of Physical Culture*.2024; 10: 10–12.
- [3]Song, X.M. (2020). A Study on the Balance Between Academic and Training Priorities in University Basketball Teams Across the Taiwan Strait: A Comparative Analysis of Nanchang University and National Sun Yat-sen University in Taiwan (Master’s Thesis,Nan-Nanchang University).
- [4]Zhu, D.Q. & Li, W. Boundaries and Flexibility: The Institutional Logic of Educational Evaluation Reform in the New Era. *Chinese Journal of Educational Technology*. 2024;(01):1-8.
- [5]Zhiming Fu.Integrating Reinforcement Learning with Dynamic Knowledge Tracing for personalized learning path optimization. *Scientific Reports*.2025;15(1):40202-40202.
- [6]Bompa, T. O., Blumenstein, B., Hoffmann, J., Howell, S., & Orbach, I. Periodization integration for athletic performance enhancement: A systematic integration of training methodology, sports psychology and nutrition. Beijing:People’s Posts and Telecommunications Press;2021.