

# An Innovative Study on the Cultivation Model of Reserve Talents in Wushu Under the Background of the Integration of Sports and Education

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**Abstract:** *The concept of the integration of sports and education provides new theoretical support for the transformation of the cultivation model for reserve talents in Wushu. This study examines the particularity of Wushu talent cultivation from the perspective of the integration of sports and education. Through conceptual reconstruction, it defines the cultivation model as comprising four dimensions: the selection mechanism, the training system, cultural education, and the channel for talent transmission. It also delineates the model's evolution from the empirical master-apprentice inheritance model to the specialized institutional cultivation model. This study focuses on the collaborative mechanisms of cultivation subjects under the integration framework, exploring the path of integrating sports and educational resources, strategies for resolving the conflict between academic study and athletic training, as well as the mechanisms for the transfer of rights and responsibilities among multiple stakeholders and the connection of their interests. Furthermore, it proposes an optimization plan for the architecture of a Wushu-specific cultivation system, encompassing the interlocking structure of traditional skill inheritance and modern scientific talent selection, the bidirectional design of talent transmission channels, and the dual-axis evaluation criteria of competitive performance and humanistic literacy. This study aims to provide theoretical reference and practical direction for the innovation of the cultivation model for reserve talents in Wushu under the background of the integration of sports and education.*

**Keywords:** *integration of sports and education; reserve talents in Wushu; cultivation model; collaborative mechanism; system architecture*

## Introduction

The cultivation of reserve talents in Wushu carries the dual mission of enhancing competitive performance and sustaining cultural inheritance, and its model selection directly impacts the sustainable development of Wushu as a sport. For a long time, the cultivation of reserve talents in Wushu in China has relied primarily on the specialized training system within the sports sector. This model has achieved remarkable results in terms of competitive performance; however, with social development and the evolution of educational concepts, its limitations regarding the integrity of cultural education and the comprehensiveness of character development have gradually become apparent. The emergence of the concept of the integration of sports and education offers a new approach to overcoming this predicament, as its core lies in reconnecting the educational functions of the sports and education systems, thereby returning athletic training to the essence of education. Against this backdrop, exploring innovative pathways for the cultivation model of reserve talents in Wushu holds significant theoretical value and practical relevance. This study attempts to redefine the conceptual connotation of the cultivation model within the overall framework of the integration of sports and education, systematically analyze the collaborative mechanisms of the cultivation subjects, and conduct an in-depth exploration of the architectural optimization of the cultivation system, in order to respond to the inherent requirement for the organic integration of the developmental laws of Wushu talents and the physical and mental growth patterns of adolescents, thereby providing theoretical support for the transformation of the cultivation model.

## **1. Conceptual Reconstruction and Theoretical Foundation of the Cultivation Model for Reserve Talents in Wushu**

### ***1.1 Academic Origins and Contemporary Connotations of the Concept of the Integration of Sports and Education***

The formation of the concept of the integration of sports and education is rooted in the rediscovery of the intrinsic educational value of sports. Viewed through the lens of academic evolution, this concept breaks through the traditional separation between the sports system and the education system in terms of their objectives and modes of operation, emphasizing a profound alignment of their educational functions. Within the specific domain of Wushu talent cultivation, this concept not only demands the incorporation of athletic training into the holistic consideration of the educational process, but also points toward a deep understanding of the intrinsic connection between the transmission of Wushu culture and the comprehensive development of adolescents. The essence of the integration of sports and education lies in dismantling the entrenched mindset of a binary opposition between academic study and athletic training, and through the integration of values, it provides a theoretical basis for the synergistic enhancement of the knowledge structure and physical competence of Wushu talents.

In the contemporary context, the connotations of the integration of sports and education manifest a series of logical shifts. It is no longer confined to the formal resource sharing between sports departments and education departments, but instead delves into the intrinsic integration of training objectives, curriculum systems, and evaluation standards. For reserve talents in Wushu, this implies that their developmental pathways must simultaneously undertake the dual mission of advancing competitive capabilities and accumulating cultural cultivation. The deeper implication of the integration concept lies in regarding Wushu training as a unique educational means, allowing it to strengthen physical fitness and temper willpower while also nurturing humanistic spirit, thereby achieving an organic unity between the developmental laws of athletic talents and the physical and mental growth patterns of adolescents.

### ***1.2 Core Elements and Type Evolution of the Cultivation Model for Reserve Talents in Wushu***

As a systematic framework, the cultivation model for reserve talents in Wushu encompasses four core elements: the selection mechanism, the training system, cultural education, and the transmission channel. The selection mechanism concerns the identification of innate endowments and the prediction of athletic potential; the training system involves the pathways for skill instruction, physical development, and tactical awareness formation; cultural education points to the process of knowledge acquisition and character cultivation; and the transmission channel determines the vertical direction of talent flow from foundational training to high-level competition. The combination and weight distribution of the above elements in different historical stages constitute the essential characteristics of the cultivation model in a given period<sup>[1]</sup>.

From the perspective of type evolution, the cultivation model for reserve talents in Wushu has undergone a transformation from the empirical master-apprentice inheritance model to the specialized institutional cultivation model. The early model relied on the transmission of skills between masters and apprentices, emphasizing the purity of techniques and the continuity of martial arts schools. With the systematic development of competitive Wushu, the specialized training model gradually took shape, characterized by centralized and standardized training arrangements, which significantly enhanced the efficiency of technical training. However, while strengthening the competitive orientation, this model also partially fragmented the integrity of the educational function of Wushu. Current explorations centered on the integration of sports and education represent an attempt to build on the advantages of previous models while promoting the evolution of cultivation types toward integration and interconnection.

### ***1.3 Integration of Theoretical Resources for Model Innovation from an Interdisciplinary Perspective***

The innovative research on the cultivation model for reserve talents in Wushu requires the support of theoretical resources from multiple disciplines to expand its analytical perspective. Sport Training Theory provides a knowledge system concerning the laws of skill acquisition, the regulation of competitive state, and the management of training load, thereby laying a foundation for the scientific design of the training process. The perspective of Pedagogy focuses on the cognitive development of learning subjects, the internal logic of curriculum design, and the effectiveness of teaching interactions,

enabling the cultivation process to transcend mere skill instruction and return to the essence of education. Sociological theory helps to reveal the social networks of talent mobility, the formation mechanisms of group identity, and the intergenerational transmission of cultural capital.

A deeper methodological inspiration comes from Cultural Anthropology and Developmental Psychology. Cultural anthropology emphasizes the connection between bodily practice and the world of meaning, suggesting that the acquisition of Wushu skills is not merely the imitation of movements but also a process of internalizing cultural symbols. Developmental psychology focuses on the cognitive, emotional, and physiological characteristics of individuals at different age stages, thereby providing a theoretical basis for stage-based cultivation and differentiated guidance. The integration of the above disciplinary resources helps to construct a comprehensive analytical framework that can simultaneously explain the particularity of Wushu skill inheritance, the universality of adolescent development, and the regularity of competitive sports, thus offering solid theoretical support for the optimization and innovation of the cultivation model<sup>[2]</sup>.

## **2. Collaborative Mechanisms and Kinetic Energy Transformation of Cultivation Subjects Under the Integration Framework**

### ***2.1 Embedded Integration Pathways for Resources Between the Sports System and the Education System***

The integration of resources between the sports system and the education system constitutes the material foundation for the collaborative operation of reserve talent cultivation in Wushu. The sports system possesses specialized training facilities, high-level coaching teams, and mature competition systems, granting it significant advantages in the development of competitive capabilities. In contrast, the education system has deep accumulation in cultural curriculum instruction, degree-granting qualifications, and research on adolescent physical and mental development. The embedding of resources between the two systems is not a simple physical superposition but rather achieves structural reorganization through deep penetration at the elemental level. The extension of training venues into campus spaces enables specialized training conditions to serve a broader student population; the integration of coaches into classroom teaching transforms competitive training experience into curriculum content; and the involvement of sports science research in student physical health monitoring and sports risk assessment provides scientific support for school sports. These embedded configurations break through the institutional barriers between the systems, shifting resource allocation from fragmentation toward integration.

The deeper mechanism of embedded integration lies in constructing a two-way, interconnected resource flow channel. On the one hand, specialized technical resources from the sports system are transferred into the education system, where they are transformed into technical support for the development of school-based Wushu characteristic curricula. On the other hand, cultural and educational resources from the education system permeate the athletic training process, ensuring the continuity of athletes' cultural learning through mechanisms such as credit recognition and student status management. This mode of resource integration not only preserves the efficiency advantage of the sports system in specialized training but also incorporates the functional characteristics of the education system in character development, thereby enabling reserve talents in Wushu to obtain more balanced developmental conditions through the interaction of the two resources.

### ***2.2 Resolution of the Conflict Between Academic Study and Athletic Training and Stage-Specific Adaptation From a Full-Cycle Perspective***

The essence of the conflict between academic study and athletic training lies in the competition for time allocation and the dissipation of energy, and its resolution requires a refined understanding of the full cycle of talent cultivation. From the initiation stage to the specialization stage and then to the high-level competition stage, training loads and academic demands exhibit dynamic characteristics, with significant differences in the carrying capacity for each at different age milestones. The initiation stage should focus on bodily awareness and interest cultivation, with a relatively light training load and a foundational period for academic learning, thus providing favorable conditions for their coexistence. At this stage, the emphasis should be on establishing the learner's initial identification with Wushu through gamified training and engaging instruction. During the specialization stage, training intensity increases significantly while academic demands simultaneously rise, necessitating the coordinated

operation of both through the optimized allocation of time resources to avoid the stagnation of one due to the excessive strain of the other<sup>[3]</sup>.

The core of stage-specific adaptation lies in establishing differentiated combinations of academic study and athletic training based on different age milestones and competitive levels. During the elementary to junior high school stage, a parallel structure that equally emphasizes training and academic learning should be adopted to ensure the cultivation of basic cultural literacy and the consolidation of a foundational athletic foundation. Upon entering high school and beyond, a strategy of categorized guidance can be implemented according to the assessment results of athletes' competitive potential. For those with high-level competitive potential, a combination of a flexible academic system and personalized teaching arrangements can be employed; for those with limited competitive potential but a stronger academic foundation, the training load can be appropriately reduced to ensure the continuity of academic development. This adaptation strategy, grounded in a full-cycle perspective, transforms the relationship between academic study and athletic training from opposition and conflict toward dynamic balance.

### ***2.3 Delegation of Rights and Responsibilities and Interest Linkage Mechanisms Under the Participation of Multiple Stakeholders***

The cultivation of reserve talents in Wushu involves multiple stakeholders, including the sports system, the education system, social organizations, and market entities, each of which differs in resource endowment, functional positioning, and interest demands. The sports system focuses on competitive performance and the efficiency of reserve talent delivery, with its operational logic guided by competition results. The education system emphasizes students' holistic development and the quality of further education, with its evaluation criteria centered on academic achievement and comprehensive competence. Social organizations are committed to the promotion of Wushu culture and public participation, with their driving force stemming from the mission of cultural inheritance and the need to serve their members. Market entities focus on commercial development and brand operations, with their participation based on considerations of market returns. The formation of a pattern involving multiple stakeholders requires the establishment of a clear mechanism for the delegation of rights and responsibilities, specifying the dominant domains and collaborative boundaries of each stakeholder in the cultivation process, thereby avoiding operational conflicts and resource waste caused by overlapping responsibilities.

The construction of interest linkage mechanisms is a crucial link for achieving long-term collaboration among multiple stakeholders. The sports system needs to appropriately cede its exclusive control over elite athletes, acknowledging the foundational role of the education system in the talent development process. In turn, the education system must accommodate the particularities of competitive sports, making corresponding adjustments in curriculum arrangements and evaluation methods. Social organizations can undertake functions such as event operations and skill level certification, while market entities can participate in talent cultivation through sponsorships, training services, and other means. Through resource sharing, joint brand building, and shared outcomes, all parties form a community of interests, transforming the cultivation of reserve talents in Wushu from an internal affair of a single system into a professional field involving the participation of multiple stakeholders. The establishment of this mechanism provides institutional guarantees for the continuous optimization of the cultivation model<sup>[4]</sup>.

## **3. Architectural Optimization and Pathway Breakthroughs for the Wushu-Specific Cultivation System**

### ***3.1 The Interlocking Structure of Traditional Wushu Skill Inheritance and Modern Scientific Talent Selection***

Traditional Wushu skill inheritance, primarily conducted through the master-apprentice model, emphasizes the complete preservation of the technical system of specific martial arts schools and their stylistic presentation. This method of transmission focuses on the deep development of bodily awareness, the intrinsic understanding of movement essence, and the subtle cultivation of martial ethics, with its value lying in preserving the authenticity and purity of Wushu culture. The oral and practical instruction between master and apprentice is not merely a process of technique transfer but also encompasses the intergenerational continuation of Wushu philosophy, ethical norms, and aesthetic

orientations; the acquisition of such tacit knowledge is difficult to fully achieve through standardized curricula. However, the traditional model's approach to talent selection is often confined to empirical judgment, relying on the instructor's intuitive grasp of the learner's physical condition and cognitive ability, and lacking quantitative assessments of physical function, athletic potential, and injury risk. This makes it difficult to meet the precision requirements of high-level competition for talent screening. The introduction of the modern scientific talent selection system provides technical support to address this issue, shifting the selection process from an experience-dominated approach to a dual-judgment model that combines experience with scientific methods.

The formation of this interlocking structure requires integration on two levels. At the technical level, the research findings from sports physiology, biomechanics, and genetics are introduced into the selection process, establishing a multi-dimensional index reference system for reserve talents in Wushu through body shape measurement, functional testing, and athletic ability assessment. At the cultural level, the traditional selection dimensions, such as the learner's temperament, cognitive ability, and willpower, are retained, allowing them to complement the modern scientific indicators. This interlocking structure does not replace traditional experience with scientific indicators; rather, it forms a more comprehensive selection perspective through their integration, ensuring that those selected possess both competitive potential and the capacity to comprehend the deeper connotations of Wushu culture.

### ***3.2 Design of Talent Transmission Channels With Vertical Articulation and Horizontal Integration***

Vertical articulation refers to the orderly flow of reserve talents in Wushu across different educational stages and training levels. The cultivation of Wushu interest and the acquisition of foundational movements at the elementary school stage must form content continuity with the differentiation of specialized skills at the junior high school stage, thereby avoiding talent loss due to gaps in teaching content. The training accumulation at the junior high school stage should be able to smoothly transition to the higher-intensity specialized advancement at the senior high school stage, a process that requires attention to the gradualism of training loads and the coherence of technical requirements. Between the senior high school stage and higher education stage, a comprehensive evaluation mechanism based on competitive level and academic performance needs to be established to ensure the transmission of outstanding talents to higher-level cultivation institutions. The smooth functioning of the vertical chain depends on the consistent design of cultivation objectives, teaching content, and evaluation standards across educational stages. Concurrently, a student growth record system should be established to comprehensively document athletes' training experiences, competition results, academic performance, and physical development, providing a decision-making basis for stage transitions.

Horizontal integration pertains to the construction of talent mobility pathways between the sports system and the education system. Beyond the conventional cultivation pathways, a mechanism for transfer and mutual recognition should be established among sports traditional schools, sports schools, and regular schools. For students with outstanding competitive potential, access to higher-level training guidance can be obtained through the intervention of sports system resources; for athletes with a strong need for academic development, they should be able to smoothly transfer into the regular education track to continue their studies. Horizontal integration is also reflected in the consolidation of competition systems. By establishing a unified system for athlete registration and grade certification, the achievements students obtain in competitions organized by either the sports system or the education system can be mutually recognized, thereby eliminating barriers to talent mobility caused by systemic segmentation<sup>[5]</sup>.

### ***3.3 Multi-Criteria Evaluation Standards With Competitive Performance and Humanistic Literacy as the Dual Axes***

The evaluation of cultivation outcomes for reserve talents in Wushu has long emphasized the single dimension of competitive performance, an orientation that has, to a certain extent, narrowed the educational function of Wushu. Competitive performance serves as one of the core dimensions of the evaluation system, and its importance is beyond doubt; competition results, technical rankings, and athletic potential remain key references for measuring the quality of talents. However, relying solely on competitive indicators makes it difficult to fully reflect the comprehensive competence of practitioners, and the functions of cultural inheritance and the value of character shaping inherent in Wushu require corresponding positions within the evaluation system.

Humanistic literacy, as the other axis of the evaluation system, encompasses multiple dimensions, including the level of cultural knowledge, the understanding of Wushu culture, moral cultivation, and aesthetic ability. The level of cultural knowledge reflects the completeness of the practitioner's foundational education; the understanding of Wushu culture reflects the depth of their comprehension of Wushu history, principles, and philosophical connotations; moral cultivation points to the etiquette norms and behavioral habits formed during the process of Wushu practice; and aesthetic ability concerns the perception and judgment of Wushu's expressiveness and artistic value. Competitive performance and humanistic literacy are not mutually exclusive evaluation dimensions; rather, their weighting should exhibit a dynamic configuration across different cultivation stages. During the foundational cultivation stage, the evaluation weight of humanistic literacy can be appropriately increased; upon entering the high-level competition stage, the weight of competitive performance correspondingly increases, though the baseline requirements for humanistic literacy must still be maintained. The establishment of this dual-axis evaluation structure provides an institutionalized guiding mechanism for the comprehensive development of reserve talents in Wushu.

## Conclusion

This study conducts a systematic discussion on the innovation of the cultivation model for reserve talents in Wushu under the background of the integration of sports and education, addressing three levels: conceptual reconstruction, collaborative mechanisms, and system optimization. At the conceptual level, it combines the academic connotations of the concept of the integration of sports and education with the particularities of Wushu talent cultivation, clarifying the core elements and type evolution of the cultivation model, thereby establishing a theoretical foundation for subsequent analysis. At the mechanism level, it reveals the internal logic of the embedded integration of resources between the sports system and the education system, constructs a framework for resolving the conflict between academic study and athletic training based on a full-cycle perspective, and elucidates the pathways for the delegation of rights and responsibilities and the connection of interests under the participation of multiple stakeholders, thereby providing mechanism guarantees for the collaborative operation of cultivation subjects. At the system level, it proposes an interlocking structure for traditional skill inheritance and modern scientific talent selection, designs talent transmission channels with vertical articulation and horizontal integration, and establishes evaluation standards that equally emphasize competitive performance and humanistic literacy as dual axes, thereby optimizing the architecture of the Wushu-specific cultivation system.

The study concludes that the innovation of the cultivation model for reserve talents in Wushu under the background of the integration of sports and education does not entail simply transplanting existing experiences or directly copying external models; instead, it requires the structural integration of sports and educational resources on the basis of accurately grasping the cultural characteristics and competitive laws of Wushu. Future research can further focus on issues such as the tracking and evaluation of the operational effects of the cultivation model, the comparison of cultivation practices in different regions, and the application of modern technological means in the cultivation process, thereby promoting the in-depth development of research on the cultivation model for reserve talents in Wushu.

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