

Exploration on the Whole-Chain Dilemma of “Selection-Training-Cultivation-Retention” and Its Systematic Optimization Path for Teenage Wushu Reserve Talents

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Received: 6 September 2025; **Accepted:** 2 October 2025; **Published:** 17 October 2025

Abstract:

This study employs the methods of literature review, interviews, and field research to focus on the entire chain of training links, namely “selection - training - cultivation - retention”, for young reserve talents in Wushu, and systematically analyzes the existing predicaments in each link. The research findings reveal the following issues: In the “selection” link, there are problems such as inconsistent selection criteria, narrow talent source channels, and severe talent loss; the “training” link is bottlenecked by the lack of scientificity in the training system, insufficient proportion of professional coaches, and inadequate guarantee of resources like training venues, equipment, and funds; the “cultivation” link highlights shortcomings including the disconnection between cultural education and Wushu training, prominent conflict between academic study and training, and weak cultivation of comprehensive literacy; the “retention” link is restricted by factors such as the single career development path and the lack of a sense of belonging among talents. Based on these findings, this study proposes a systematic optimization path for the entire chain from four dimensions: constructing a three-dimensional standardized selection system of “physical fitness - talent - literacy”, improving the phased and personalized training model, building an integrated cultivation mechanism of “integration of Wushu and culture”, and perfecting the diversified retention guarantee system of “competition - education - industry”. This research aims to provide theoretical reference and practical guidance for promoting the high-quality training of young reserve talents in Wushu, and facilitating the inheritance of Wushu culture and the development of sports undertakings.

Keywords:

Adolescent Wushu, Reserve Talents, Selection-Training-Cultivation-Retention

1. Introduction

At present, China is in the stage of advancing towards a sports power, and the importance of reserve talent cultivation has become increasingly prominent. In 2017, the General Office of the Communist Party of China Central Committee and the General Office of the State Council issued the “Opinions on Implementing the Project for the Inheritance and Development of Outstanding Traditional Chinese Culture”, which pointed out: “By 2025, a system for the inheritance and development of outstanding traditional Chinese culture will be basically formed.” [1]. Therefore, at this stage, China’s physical education should focus on the cultivation of future talents. The introduction of this document fully reflects China’s emphasis on physical education and competitive Wushu. As an important carrier of traditional Chinese culture and national sports, the inheritance and development of Wushu depend on the support of high-quality reserve talents. Adolescence is a critical stage for the formation of skills and cultivation of literacy of Wushu talents. Constructing a full-chain cultivation system of “selection - training - cultivation - retention” (hereinafter referred to as “selection-training-cultivation-retention”) is the core means to ensure the echelon construction of Wushu reserve talents. At present, although China’s youth Wushu reserve talent cultivation has achieved certain results, there are many problems of unsmooth connection and low efficiency in all links of the full chain, resulting in the quality and quantity of talent cultivation being difficult to meet the needs of the development of Wushu cause. Therefore, systematically sorting out the realistic dilemmas of the “selection - training - cultivation - retention” full chain and exploring targeted optimization paths are of great significance for promoting the sustainable development of Wushu and inheriting outstanding traditional Chinese culture.

2. The Realistic Predicament of the Whole Chain of “Selection-Training-Education-Retention” for Young Martial Arts Reserve Talents

2.1. Selection Stage (“Selection”): The triple constraints of vague criteria, narrow channels, and talent loss

2.1.1. The selection criteria lack uniformity

Currently, the selection of young martial arts reserve talents is mostly scattered among entities such as schools, amateur sports schools, and martial arts training institutions, lacking unified national or regional selection standards. Some selection activities only focus on basic physical fitness indicators such as body shape and strength, while neglecting the comprehensive consideration of martial arts talent (such as coordination, sense of rhythm), will quality, and cultural learning potential. This phenomenon has led to the selected talents showing the characteristics of “emphasizing skill potential over comprehensive literacy”, which in turn limits their subsequent development and indirectly restricts the retention of reserve talents.

2.1.2. Limitations exist in student recruitment channels

Selection mainly relies on the traditional “sports school model” and a few martial arts characteristic schools, with insufficient exploration of talent pools such as ordinary primary and secondary schools and community martial arts interest classes. At the same time, affected by the current one-sided social perception that “martial arts learning is arduous and has limited career prospects”, most parents tend to let their

children choose “popular” programs such as ball games and dance, resulting in the dilemma of martial arts talent selection facing “small talent pool size and few high-quality talents”.

2.1.3. The loss of personnel in the grassroots team is serious.

Currently, the proportion of teenagers participating in martial arts training is on the rise compared to previous years. However, through field visits and surveys, it has been found that most of the participating students and their parents expect to use short-term martial arts training as a specialty to achieve the goal of entering higher schools. After completing the task of entering higher schools, these students tend to give up subsequent martial arts training activities, which leads to a large-scale loss of participants and a significant reduction in the number of students available for selection.

2.2. Training Phase: Prominence of System Imbalance and Insufficient Support

2.2.1. Insufficient scientificity of the training system

On one hand, the training content presents a “polarized” trend. In the amateur training stage, there is an excessive focus on imitating routine movements. In order to quickly meet the requirements of the school syllabus, the learning of routine movements is relatively superficial, with neglect of basic skills and actual combat ability training. In the professional training stage, there is an over-pursuit of competitive results, with repeated strengthening of high-difficulty techniques, while ignoring the athletes’ physical recovery and long-term development. There is great difficulty in the transition from the amateur stage to the professional stage, and personnel loss also occurs during this period. On the other hand, the training methods lack personalized characteristics, mostly adopting a “unified standard” model, failing to formulate differentiated training plans according to the physiological and psychological characteristics of teenagers at different age stages and their technical shortcomings, which is very likely to cause sports injuries or training fatigue.

2.2.2. Inadequate guarantee of training resources

Most grassroots training institutions (such as county-level amateur sports schools and private martial arts schools) face difficulties such as underdeveloped venue facilities and outdated training equipment, making it difficult to meet the requirements of systematic training. At the same time, the most critical shortage of training resources is manifested in the lack of high-quality coaches with high level and seniority. To strengthen the cultivation of reserve talents for Chinese youth martial arts, it is necessary to enhance the teaching level of school martial arts teachers and improve the professionalism of the school martial arts teaching team. Prompt school martial arts teachers to have a high level of teaching ability [2]. During the investigation into the basic situation of coaches in grassroots martial arts teams in multiple regions, it was found that there are problems such as coaches lacking teaching experience and having relatively weak theoretical knowledge reserves, which to a certain extent will have an adverse impact on the cultivation of the reserve talent echelon (as shown in Tables 1, 2, and 3). In addition, training funds mainly rely on government appropriations and tuition income, and the participation of social capital is low, which restricts the introduction of advanced training equipment and the employment of high-level coaches, making it difficult to improve training quality.

Table 1. Coach's Teaching Years (N=10).

Teaching years	Less than 5 years	6-10 years	11-15 years	More than 15 years	Total
Number of people	2	5	2	1	10
Proportion	20%	50%	20%	10%	100%

As can be seen from the results in the table, the proportion of coaches with 6-10 years of teaching experience is relatively large, and the proportion of those with no more than 5 years is also relatively significant. However, such coaches are generally graduates of institutions of higher learning, lacking teaching experience and needing to be gradually trained.

Table 2. Coaches' Educational Qualifications (N=10).

Educational background	Master's degree or above	Undergraduate	Junior college	Technical Secondary School or below	Total
Number of people	1	6	2	1	10
Proportion	10%	60%	20%	10%	100%

As can be seen from the above table, there are fewer coaches with a master's degree or above. Because most coaches need to start practicing from an early age, this makes their general educational background not too high at the source, and undergraduates account for the largest proportion.

Table 3. Coaches' Further Education Status (N=10).

Further Study	No further education	Intermediate Position Training	Senior Position Training	National-level Training
Number of people	1	8	1	0
Proportion	10%	80%	10%	0%

From the results in the above table, it can be seen that less than 10% of the surveyed coaches have not participated in further training, and more than half have participated in intermediate-level on-the-job training, but none have participated in national-level training. However, the level of coaches directly affects the development of athletes. Of course, coaches' coaching level is influenced by their own professional theoretical knowledge and physical fitness, but through the survey, we found that coaches' theoretical knowledge is not strong, which also affects the training of reserve team personnel to a certain extent.

2.3. Cultivation Stage: Prominent shortcomings of cultural deficiency and disconnection from literacy

2.3.1. The Disconnection Between Cultural Education and Martial Arts Training

At present, the cultivation of reserve talents for youth martial arts in China mainly adopts a dual-track management mechanism of the education system and the sports system [3]. The phenomenon of "valuing martial arts over academics" is prevalent in the cultivation of reserve martial arts talents. In pursuit of competitive results, some martial arts schools and sports schools have compressed the time for cultural courses, and even allowed students to be detached from systematic cultural learning for a long time. In regular schools, martial arts training is mostly concentrated in after-school interest classes, lacking integration with subjects such as Chinese (martial arts cultural allusions) and history (martial arts development history). As a result, young reserve

martial arts talents are “skilled in martial arts but lacking in academic knowledge”, with weak comprehensive cultural literacy, which affects their long-term development such as further education and employment. During in-depth interviews with young martial arts athletes in grassroots training, it was found that the athletes’ attitudes towards academic learning were not good. Most of them had a neutral attitude, and the proportion of those who were very serious was small, leading to a lack of correct learning attitudes (as shown in Table 4).

Table 4. *Athletes’ Attitudes Towards Academic Course Learning (N=120).*

Learning attitude	Very seriously	Rather serious	Ordinary	Not very serious	Not at all serious	Total
Number of people	29	40	56	5	0	120
Proportion	24.17%	33.33%	46.67%	4.17%	0%	100%

2.3.2. Weak cultivation of comprehensive literacy

In the training process, excessive emphasis is placed on technical and physical training, while neglecting the cultivation of athletes’ professional ethics (such as awareness of fair competition), psychological adjustment ability, and social skills. Some young athletes are prone to negative emotions when encountering competition failures and training setbacks, and lack a sense of teamwork, making it difficult to meet the dual requirements of high-level competitions and social life.

2.4. Retention Phase (“Retention”): Core Challenges of Uncertain Prospects and Weak Sense of Belonging

2.4.1. Athletes have a narrow development path in the later stage

When transitioning from the competitive sports arena to society, one is inevitably faced with various difficulties in re-employment. The contradiction between the comprehensive skill requirements of employers for recruitment positions and the single skill of martial arts athletes is particularly prominent. The pure martial arts technical ability of martial arts athletes cannot meet the social requirements for the quality of employees [4]. Young martial arts reserve talents face the dilemma of “single outlet” in their growth process. A small number of top talents can enter professional teams to become professional athletes, but it is difficult to transform after retirement; most ordinary people choose to take the college entrance examination as the final way out after years of training. However, in our previous interviews and field investigations, we found that athletes have attitudes towards cultural courses and difficulties in learning cultural courses, so their cultural level is relatively low. The number of athletes entering first-class universities is relatively small, and most of them enter sports colleges to study for undergraduate degrees. The number of people continuing to pursue further studies after undergraduate is also extremely small. After undergraduate graduation, the types of jobs are single, and the salary is generally low, which leads some teenagers and their parents to give up martial arts training in middle school because they “can’t see a way out”.

2.4.2. Insufficient sense of belonging and identity

Grassroots training units lack humanistic care for young athletes and have failed to establish a sound communication mechanism and psychological counseling system, resulting in only a “training relationship” between athletes and training units without

emotional connection. At the same time, society pays little attention to the reserve talents of Wushu, lacks publicity and recognition for their growth process, making it difficult for athletes to form professional pride and sense of belonging, which further exacerbates the talent loss.

3. Optimization Path of the Whole Chain System of “Selection-Training-Education-Retention” for Teenage Wushu Reserve Talents

3.1. Establish a standardized and diversified selection system

3.1.1. Develop unified selection criteria

Led jointly by sports authorities and education departments, and in accordance with the laws of adolescents' physical and psychological development, a three-dimensional selection standard covering “physical fitness (body shape, strength, endurance), talent (coordination, reaction speed), and literacy (willpower, cultural foundation)” has been formulated, with supporting standardized testing tools (such as the Wushu Talent Assessment Scale) developed simultaneously. Professional coaches are invited to conduct comprehensive evaluations of the participating athletes from a professional perspective. This not only helps to exercise professional control over the selected athletes but also plays a demonstrative and guiding role for other athletes. Furthermore, it clarifies the training objectives and directions for Wushu teams in primary-level schools, clubs, and other institutions in their subsequent training, thereby achieving the scientization and standardization of the selection process.

3.1.2. Expand student recruitment channels

On one hand, efforts should be made to promote the regular development of the “Wushu Entering Campus” initiative: offering Wushu popularization courses in regular primary and secondary schools, organizing school-level selection competitions, and establishing a four-tiered talent supply network covering “school - district/county - city - province”. On the other hand, cooperation should be carried out with community sports centers and Wushu training institutions to launch “Wushu Talent Audition” events, and short-video platforms should be used to initiate “Youth Wushu Talent Challenge Competitions”, so as to identify potential talent groups among the general public.

3.2. Improve the scientific and personalized training model

3.2.1. Construct a phased training system and strengthen the connection between training teams at all stages

Teenagers are divided into three stages based on their age: the “Foundation Stage (6-12 years old)”, the “Improvement Stage (13-15 years old)”, and the “Specialization Stage (16-18 years old)”. In the Foundation Stage, focus is placed on interest cultivation and basic skill training; in the Improvement Stage, emphasis is laid on technical integration and physical fitness reserve; and in the Specialization Stage, priority is given to enhancing competitive ability and practical skills. This approach ensures the gradual and progressive advancement of training. Efforts should be made to strengthen the connections between different levels of the reserve talent transfer channels. Upper-level training organizations should increase technical guidance for

lower-level ones and promptly feed back the training status of transferred athletes. This is of positive significance for improving the quality of transferred athletes and can reduce the sense of gap experienced by athletes during the transition between stages.

3.2.2 Strengthen the Guarantee of Training Resources

Increase government funding for grassroots martial arts training venues and equipment, and promote resource sharing among “school sports venues, social martial arts venues, and sports school training bases”; guide social capital to participate in the construction of martial arts training facilities, and introduce advanced training equipment through the “school-enterprise cooperation” model; build a “high-level coach talent pool”, enhance coaches' scientific training capabilities through regular training and cross-regional exchange activities, invite outstanding coaches to share training experience, regularly organize teams from various cities to conduct exchanges and joint training, and arrange athletes to conduct external training with excellent sports teams in a planned manner during vacations to expand their horizons and increase opportunities for training experience exchange.

3.3. Build an integrated cultivation mechanism of “Integration of Martial Arts and Culture”

3.3.1. Promote the Coordination of Cultural Education and Wushu Training

For martial arts schools and sports schools, a “Cultural Course Compliance Assessment” shall be implemented to strictly ensure the daily duration of cultural courses. Wushu culture (such as the history of Wushu schools and Wude norms) shall be integrated into the teaching of Chinese language and history courses. Athletes who have reached the age for senior high school education shall be placed in unified classes, and professional cultural course teachers shall be hired to provide cultural course training for the athletes in accordance with the requirements of the Special Enrollment Examination for Sports Majors and the Unified Enrollment Examination for Sports Majors. As for regular schools, they need to develop integrated “Wushu + Subject” courses. For instance, physical mechanics knowledge can be explained through the analysis of Wushu movements, so as to achieve the goal of “promoting academic learning through Wushu”.

3.3.2. Strengthen the Cultivation of Comprehensive Literacy

Add an “Athlete Literacy Course” to the training system, which includes content such as professional ethics, psychological adjustment, and social etiquette; regularly carry out activities such as “martial arts culture research” and “teamwork development”, and invite outstanding retired athletes to share their career development experience to help teenagers establish correct career concepts; introduce professional psychological counselors to provide regular psychological counseling services for athletes.

3.4. Improve the long-term retention guarantee system

3.4.1. Broaden career development paths

Retired athletes often lack expertise other than Wushu skills and tend to be disconnected from social demands. To address this issue, efforts must start with active

athletes: attaching importance to the “integration of sports and education”, not neglecting cultural literacy while enhancing their athletic skills, and making academic completion and academic qualification acquisition an integral part of the training process. This will ensure that athletes are no longer labeled as “having well-developed limbs but a simple mind” [5]. A diversified output channel of “competition - education - industry” should be built. Firstly, the career transition path of “athlete - coach - sports management personnel” shall be improved, providing retired athletes with coach qualification training and further study opportunities in sports management majors. Secondly, in line with the needs of the Wushu industry, efforts shall be made to cultivate compound talents capable of Wushu event planning, spreading Wushu culture by integrating self-media and artificial intelligence technologies, and providing Wushu fitness guidance in campuses, communities and other venues. This will promote the flow of reserve Wushu talents to the entire industrial chain of the Wushu industry .

3.4.2. Enhance Employees’ Sense of Belonging

Grassroots training units establish “athlete development profiles” to record the entire process of athletes’ training, study, and life, and regularly communicate with parents about athletes’ development status; through activities such as “excellent martial arts reserve talent commendation” and “growth story promotion”, they increase social attention to and recognition of young martial arts reserve talents; build an “alumni mutual assistance network”, organize retired athletes and active young athletes to form help pairs, and strengthen the professional identity and sense of belonging of active young athletes.

4. Conclusions and Recommendations

4.1. Conclusions

The whole-chain training of “selection - training - cultivation - retention” for young reserve Wushu talents is a systematic project. At the current stage, there are urgent predicaments to be resolved in each link of selection, training, cultivation, and retention. The specific problems are mainly manifested in the following aspects: the triple constraints of vague selection criteria, narrow selection channels, and talent loss; the prominent contradiction between the unbalanced training system and insufficient guarantee mechanisms; the obvious shortcomings of the lack of cultural education and the disconnection between literacy cultivation; and the core difficulties of unclear development prospects and weak sense of team belonging.

4.2. Recommendations

Only by constructing a standardized selection system, improving a scientific training model, building an “integration of Wushu and culture” cultivation mechanism, and perfecting a long-term retention guarantee system—thereby achieving the connection and coordination of all links in the entire chain—can the bottleneck in talent cultivation be broken, and more high-quality reserve forces be cultivated for the inheritance and development of the Wushu cause. Future research can further integrate regional differences to explore differentiated optimization strategies for the whole-chain cultivation of young reserve Wushu talents in regions with different economic development levels.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

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