

# *Research on the Development Path of High Quality Cultivation of Youth Sports Literacy Based on WSR Methodology*

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**Abstract:** Currently, China's sports industry is developing rapidly, and the strategy of building a strong sports country and promoting national fitness is advancing rapidly. As the future and hope of national development, the level of sports literacy of young people plays a crucial role in the construction of a strong sports country. School physical education should play a role in educating people and accelerate the improvement of young people's sports literacy. This article is based on the WSR methodology and takes the physics, matter, and human dimensions of WSR methodology as the content dimensions to construct a three-dimensional model for high-quality cultivation of youth sports literacy. It proposes effective path measures for the operation of the three-dimensional model, further improving the quality and effectiveness of youth sports literacy cultivation, and achieving the goal of high-quality cultivation and development of youth sports literacy.

## **1. Introduction**

China has clarified its strategy of building an education and sports powerhouse by 2035, promoting the work of "strengthening youth sports work and improving youth sports literacy". Youth sports literacy includes multiple contents such as sports awareness, physical health, sports behavior, sports skills, etc. To achieve high-quality cultivation of youth sports literacy is a comprehensive and long-term shaping process. However, the current development of youth sports is still relatively lagging behind, with insufficient exercise and a lack of awareness seriously constraining the goal of healthy development. Among them, the inherent level of sports literacy among young people is greatly lagging behind, and urgent solutions are needed. Therefore, this article focuses on the current situation of the development of youth sports literacy, guided by the WSR methodology, constructs a training model from three dimensions of physics, reason, and human nature, and proposes a high-quality training path for youth sports literacy in combination with the strategic policy of building a strong sports country. It accelerates the construction of an integrated system for school social sports talent cultivation, accelerates the reform and development of school sports work, and better realizes the mechanism of resource coordinated development among multiple entities, Promote the improvement of youth sports literacy level through multiple

maintenance, coordination, and unity, and provide a certain theoretical basis and intellectual support for the study of school sports promoting youth sports literacy.

## 2. WSR Methodology

The WSR (Physics Theory Human Theory) methodology is a soft system methodology proposed by renowned Chinese system science experts Professor Gu Jifa and Dr. Zhu Zhichang at HULL University in the UK in 1994<sup>[1]</sup>. This methodology helps to analyze complex problems from multiple dimensions, thus systematically solving the problems and difficulties faced. It is an effective tool for systematically analyzing problems based on the principle of overall coordination and consistency. At the same time, it is necessary to consider three levels of the research object, namely the physical dimension (W), the rational dimension (S), and the human rational dimension (R). Respectively refer to the object itself, the principles of its application, and how it can be better utilized. The basic content is shown in Table 1, and the problem needs to be analyzed from different dimensions as entry points.

Table 1: WSR Methodology Content

Elements	Physics	Reason	Human Sense
Reason	The Theory of Material World, Regulations, and Planning	The Theory of Management and Doing Things	The Theory of Human, Discipline, and Norms
Objects	Objective material world	Organization, system	People, groups, relationships, intelligence
Emphasis	What is it? Functional analysis	How? Logical analysis	What should be done? The humanities analyze
Principles	Honesty, truth, and being as correct as Possible	Be coordinated, efficient, and as smooth as possible	Human nature, be effective, and be as flexible as possible
Required knowledge	Natural sciences	Management Analytics, Systems Science, Operations Research	Human Science, Behavioral Science

Source: Tan Yuejin Quantitative Analysis Method (3rd Edition) Beijing: Renmin University of China Press, 2012

## 3. Construction of a High Quality Cultivation Model for Youth Sports Literacy Based on WSR Methodology

### 3.1 Analysis of Factors Influencing the High Quality Cultivation Model of Youth Sports Literacy Based on WSR Methodology

From the perspective of the concept of sports literacy, although there has not yet been a unified definition in the academic community, Chen Sitong, Liu Yang, and others have combined foreign scholars' research on physical literacy and domestic scholars' research results on sports literacy to define sports literacy as a comprehensive set of sports elements that benefit the survival and development of humanity in the process of life <sup>[2]</sup>. The cultivation of youth sports literacy involves various influencing factors, including physical education curriculum, sports activities, teaching models, sports venues, sports awareness, and so on. Therefore, from the perspective of WSR system methodology, this article divides the factors that affect the improvement of youth's sports literacy level into three categories: physical dimension, matter dimension, and human dimension.

### 3.1.1 Analysis of Factors Influencing Physical Dimensions

The physical dimension is the internal and external physical foundation faced when dealing with complex problems, highlighting the characteristics of objectivity and being a factor that exists in reality, manifested as the problem of "what". The material foundation, such as relevant school sports venues, equipment and facilities, faculty allocation, and sports projects, is an important support for the efficient operation of the high-quality cultivation mode of youth sports literacy.

### 3.1.2 Analysis of Factors Influencing the Dimension of Reason

The rational dimension refers to the system and operational methods used when facing a system problem, analyzing the existing management and operational forms of the problem, and highlighting the issue of "how to do it". The theoretical dimension mainly includes teaching models, management systems, policy guidelines, etc., which are important guarantees in the cultivation of youth sports literacy.

### 3.1.3 Analysis of Factors Influencing Human Factors

Human reason is the most macroscopic dimension in WSR methodology. In scientific research, we should draw on and integrate our professional knowledge, humanistic knowledge, and social science knowledge, and jointly explore the practical issues of "how to do" and "how best to do" in research <sup>[3]</sup>. The human dimension focuses on the guidance of one's own consciousness and concepts when systematically handling problems, the coordination between humans and the external environment, the interrelationships and coordination mechanisms between subjects. The human dimension mainly answers how to do it to produce the best effect. The human aspect refers to the satisfaction of the needs of stakeholders, including adolescents, parents, teachers, and social stakeholders, the improvement of sports cultural literacy and cognitive level, and the promotion of effective inspection and evaluation during the process <sup>[4]</sup>.

Table 2: Factors influencing the high-quality cultivation mode of youth sports literacy based on the WSR system methodology

Category	Factors Influencing Youth Sports Literacy
W: Physical dimension	Sports venues, sports equipment, funding investment, teacher allocation, traditional sports projects, inclusion in work assessment, sports management departments (testing group, full-time leadership group), etc
S: Rational dimension	Various policy guidelines, guidance documents, rules and regulations, teaching activities (course content, teacher skills, teaching plans), extracurricular activities (interest classes, sports teams, clubs), sports meetings, health monitoring (physical fitness, physical examination, vision), etc
R: Human dimension	Collaborative ability, cultural education, cultivation of subjects, cognitive level, problem-solving and problem-solving awareness

Using the WSR system methodology, the complex constituent elements are divided into three dimensions: physics, reason, and human reason, which facilitates the clear construction of a youth sports literacy training model.

## 3.2 Dimension Construction

Based on the various dimensions of the WSR system methodology and combined with the characteristics of youth sports literacy, a content dimension model of the youth sports literacy cultivation system is constructed, as shown in Figure 1.

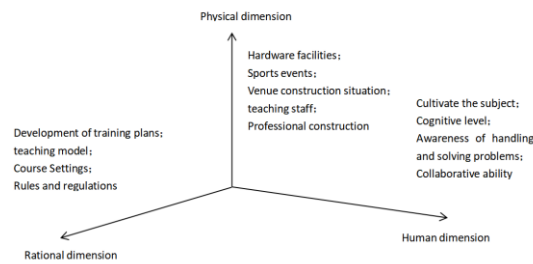


Figure 1: System Dimension Construction of Youth Sports Literacy Training Mode

In the dimension model, each indicator has different directions and infinite extensibility, is in a dynamic development form, and each contains many related factors. The internal elements of these dimensions are closely related, and need to be comprehensively considered and coordinated to promote the operation and development of the system.

## 4. Strategies for High Quality Cultivation of Youth Sports Literacy Based on WSR Methodology

### 4.1 Physical Dimension Development Path

#### 4.1.1 Optimize the Construction and Management of Sports Venues to Enhance the Ability of Youth Sports Exercise Services

Support areas with conditions, based on the actual economic and social development of the region, explore and improve the sharing mode of sports venue resources between schools and communities, with schools as the management subject, schools and communities as the joint management subject, market operation as the management subject, and youth clubs as the management subject, in order to achieve optimal allocation of public sports resources<sup>[5]</sup>. Strengthen the construction and intelligent transformation and upgrading of school sports venues, based on internet technology and intelligent management systems, do a good job in the operation and management of venues, and provide high-quality services for youth physical exercise. Increase investment in sports funds and cooperation with social sports resources, accelerate the updating and iteration of sports facilities and equipment, and arrange professional management personnel for regular maintenance to improve usage efficiency and extend the life cycle of equipment use.

#### 4.1.2 High Quality Construction of Teaching Staff to Improve the Ability of Physical Education to Nurture People

Accelerate the construction of a high-quality team of physical education teachers and achieve the development goal of "matching and strengthening". Increase the assessment of teacher abilities and skill training, and enhance the teaching ability and skill guidance level of physical education teachers. In the construction of the teaching staff of physical education teachers, it is necessary to cultivate backbone teachers and professional leaders<sup>[6]</sup>. At the same time, inject fresh blood and new vitality. Vigorously introduce young and specialized physical education teachers to drive the development of school physical education with new sports concepts and teaching methods; And expand the channels for school sports talent input, increase policy support and optimize admission regulations, and recruit more professional and outstanding retired athletes and coaches to provide sports guidance and event training for teenagers. Cooperate with sports associations and surrounding sports training institutions to authorize some organizations and institutions to carry out youth sports training and guide teaching work in the form of cooperation, and introduce professional sports talents to construct collaborative strategies to alleviate the reality of insufficient

physical education teachers.

### **4.1.3 Exploring Traditional Sports Projects and Improving the Sports Skills of Teenagers**

Schools should clearly define the specific projects for the construction of "One Class" and try to choose projects supported by the state as much as possible, such as football, ice and snow sports, etc<sup>[7]</sup>. Secondly, with a goal oriented approach, specific implementation measures should be formulated to refine work requirements and construction paths, strengthen the sports skills that students need to master, and construct an integrated physical education curriculum and textbook system based on the age and sports characteristics of teenagers. This will create a school sports characteristic of "one school, one grade, and one school with multiple grades". And promote traditional Chinese sports such as martial arts, archery, dragon and lion dance, vigorously explore local traditional sports, cultivate socialist core values, and demonstrate cultural confidence. At the same time, we should actively respond to the requirements of the national fitness strategy and the needs of the new era of youth sports, integrate more sports projects, and broaden the field of youth sports skill learning.

## **4.2 Development Path of Rational Dimension**

### **4.2.1 Accelerate the Transformation of Teaching Models and Enhance the Autonomy of Sports Knowledge Learning**

As the main gathering place for teenagers, schools are duty-bound to improve their sports literacy. First of all, set up physical education teachers' theoretical training on physical education literacy, strengthen their own physical education awareness, and cooperate with school leadership departments to strengthen communication so as to enhance the importance of physical education. Physical education teachers should actively change their teaching models, formulate targeted teaching plans, integrate more interactive links and competition activities, so that teenagers can better transform theoretical knowledge and behavioral concepts in participating in physical exercise and sports activities, and shape the concept of self-learning and lifelong physical education. Create a school physical education teaching model of "health knowledge+basic sports skills+specialized sports skills", and integrate more knowledge about sports health, sports moral literacy, competition rules, healthy behavior and lifestyle, safety emergency and risk avoidance in teaching methods and content. Combining blockchain technology and virtual reality technology, create a sports literacy teaching scene and method that combines entertainment and sports, Enhance the interest of teenagers in learning sports knowledge, improve the autonomy of course learning, and achieve online and offline interactive sports literacy cultivation incentive models.

### **4.2.2 Strengthen the Construction of Rules and Regulations, and Enhance the Enforcement Efforts**

The goal determines the path, and the path originates from the goal. The General Provisions of Chapter 1 of the Sports Law state that "the state prioritizes the development of youth and school sports, adheres to the integration of sports and education, coordinates cultural learning and physical exercise, places equal emphasis on physical fitness and personality, and promotes the comprehensive development of youth", which has strategic, guiding, and long-term significance for the development of youth sports. At the same time, national policy provisions have put forward multiple task requirements for youth sports work, and should actively respond to policy guidelines to accelerate the implementation of campus sports work. And authorize professional regulatory agencies to carry out the entire process supervision and management of school sports work, accelerate the efficiency and effectiveness of implementation, and implement the requirements of high-quality development goals. It is also necessary to provide real-time feedback on the sports

literacy of young people, develop dynamic management and execution plans, establish a networked communication platform between diverse execution departments, and accelerate the communication and sharing of information and resources.

### **4.2.3 Increase the Design of Sports Literacy Indicators and Develop a Comprehensive Sports Literacy Evaluation System**

Evaluation is the baton, and sports literacy evaluation is an important factor related to the development direction of school sports work. Sports literacy evaluation provides a specific goal and evaluation standard for sports literacy. On the one hand, the results of sports literacy evaluation can intuitively reflect the level of sports literacy, and on the other hand, sports literacy evaluation itself can play a role in promoting construction through evaluation<sup>[8]</sup>. Schools, governments, and social resources cooperate to establish project research teams, build expert think tanks, and authorize professional research institutions to develop authoritative youth sports literacy assessment tools, and carry out assessment work on campus. At the same time, changing the evaluation of school youth sports literacy from a result based evaluation to a "result+process based" evaluation can better reflect the impact of school sports on students' physical health, sports participation, and sports skill development. Thus, we shift to focusing more on process evaluation, exploring value-added evaluation, and ultimately achieving a comprehensive evaluation. In addition, a student sports literacy intelligent service platform with independent intellectual property rights needs to be established to provide computing power services and data processing, providing effective data support for the evaluation system.

## **4.3 The Development Path of the Humanistic Dimension**

### **4.3.1 Building a Good Ecosystem for Cultivating Youth Sports Literacy**

Improve the mechanism of collaborative cooperation among multiple entities, and create an ecosystem for cultivating youth sports literacy. Build a comprehensive network for cultivating sports literacy through the concept of "home school society", leverage the collaborative role of multiple entities, achieve the connection of tripartite resources, and jointly promote the comprehensive improvement of youth's sports awareness, behavior, and knowledge<sup>[9]</sup>. For example, it is necessary to strengthen communication and communication, enhance parents' support for sports work, enhance the sense of value identification in sports literacy training, and personally guide teenagers to participate in physical exercise and shape healthy sports behaviors in the family stage. At the level of school physical education, it is necessary to increase the optimization and design of physical education teachers' curriculum plans, integrate sports literacy content into teaching methods and event activities, and include it in the preparation and evaluation of lesson plans. Establish a cooperation mechanism with social sports organizations to guide young people to participate in extracurricular sports activities and competitions, and form school level, district level, and city level sports leagues to accelerate the implementation and promotion of youth running bar projects in various regions, thereby improving youth sports literacy.

### **4.3.2 Creating a Good Social Environment for High Quality Cultivation of Youth Sports Literacy**

Firstly, clear legal regulations should be introduced in the system to support and clarify the importance of cultivating young people's sports literacy. Secondly, tilt resources towards sports literacy research institutions or universities, increase funding for various sports funds and research funds, broaden funding channels, and increase the number of approval quotas for related projects<sup>[10]</sup>. In addition, we will establish a networked collaborative public service mechanism for youth sports, promote the integration of sports and medicine, collaborate with sports charity resources, research

institutions, sports management departments, education bureaus, etc. to accelerate the promotion of youth sports literacy cultivation, and thus create a good social environment and atmosphere for high-quality youth sports cultivation.

## 5. Conclusions

The high-quality cultivation of youth sports literacy is a development requirement for the construction of a strong sports country, and it is also a key link in school sports education work, which is conducive to promoting the high-quality development of youth sports in China. Using WSR methodology to construct a three-dimensional model for high-quality cultivation of youth sports literacy, and providing multi-dimensional solutions for high-quality cultivation of youth sports literacy, has important theoretical and practical significance for in-depth, systematic, and scientific research on youth sports literacy. At the same time, in the high-quality cultivation of youth sports literacy, attention needs to be paid to building a systematic and feasible sports literacy evaluation system, and building a linkage mechanism between multiple subjects. In the future, it is necessary to increase the on-site promotion and verification of youth sports literacy cultivation models, better forming a multi-dimensional effective connection between youth sports literacy materials and people, and enhancing the overall effect. The cultivation of youth sports literacy cannot be separated from the collaborative cooperation of multiple entities. School sports should leverage its own advantages, combine internal and external sports resources in promoting the improvement of youth sports literacy, and comprehensively consider the three dimensions of physics, reason, and human nature, jointly coordinate and promote the work of youth sports education, better achieve the healthy development of youth sports, and promote the construction of a sports power, To achieve the goal of high-quality cultivation and development of youth sports literacy.

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