



## *Research article*

# **Comparison and learning from international experience in the development of physical literacy education**

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## **ABSTRACT**

By comparing the development of physical literacy education in China with that in the international arena, in-depth discussions are conducted in terms of educational policies, curriculum, teaching contents and methods, teacher strength and teaching resources, and students' physical literacy assessment. At the same time, it analyzes the evolution process and characteristics of international physical literacy education from the initial stage to the mature stage, and introduces the framework, curriculum planning, educational models and characteristics of physical literacy education in developed countries such as Australia, the United Kingdom, the United States and Canada. This paper aims to provide international experience and inspiration for the development of physical literacy education in China in order to promote the quality of physical literacy education in China.

**Keywords:** physical literacy; educational development; international experience

## **Introduction**

Physical literacy, a new focus in international sport, emphasizes the close relationship between physical activity and active living, focusing on the holistic development of the human being. It is based on the embodied cognitive view and aims to stimulate intrinsic motivation, cultivate comprehensive abilities, and form the habit of lifelong participation in physical activities. With the acceleration of globalization, countries are actively exploring physical literacy education and forming diverse educational models. Although China has made certain achievements, physical literacy education still faces challenges, such as lagging educational concepts and uneven distribution of resources. Therefore, it is crucial to compare and learn from international experiences. This study aims to explore the advanced concepts and practices of global physical literacy education to provide reference for China's education reform. By comparing and analyzing the experiences of various countries in terms of policies, curricula, and teaching, we can discover the commonalities and differences, reveal the laws of development, and optimize the concepts and methods of education and improve the quality of education by combining them with the reality of China. In addition, the study can promote international exchanges and cooperation, jointly address global health challenges, and cultivate internationalized talents. Through in-depth research and reference, we can better promote the development of physical literacy education and contribute to the cultivation of a

physically and mentally healthy next generation.

## **1 The state of teaching and learning of physical literacy education in China**

### **1.1 Education policy and curriculum**

In the 21st century, students' physical literacy education has been highly emphasized. By formulating policies and optimizing curricula, our government is committed to improving students' physical fitness and health. Policy documents clarify the goals and implementation measures of physical literacy education, such as the Opinions on Strengthening Youth Sports and Enhancing the Physical Fitness of Young People, which emphasize the importance of school sports work [1]. Meanwhile, the Outline for the Construction of a Strong Sporting Nation takes physical literacy as a national strategy and pays special attention to youth physical literacy [2]. Schools have also integrated physical literacy education into daily teaching, and developed students' motor skills and lifelong exercise awareness through physical education programs and extracurricular activities. However, despite certain achievements, challenges remain. Some schools do not pay enough attention to the physical education curriculum and the quality of teaching needs to be improved; students are burdened with heavy schoolwork and do not have enough time for exercise; resources for physical education facilities are scarce; and primary and secondary schools are overly concerned about student safety, which affects the intensity and duration of physical education classes.

These issues need to be addressed urgently to ensure the effective implementation of physical literacy education for students and to lay a solid foundation for the country's future development.

### **1.2 Teaching content and methods**

Physical literacy is the key to comprehensive development, but in China's education system, its teaching content and methods have yet to be perfected. In terms of teaching content, traditional sports teaching pays too much attention to competition and skills, ignoring the cultivation of emotional, motor and cognitive dimensions, and the content fails to keep up with the times and fails to cover the physical literacy needs of modern society. This makes it difficult for students to experience the joy of sports and understand the importance of physical literacy. Physical literacy should be integrated into life to realize the embodiment and systematization of knowledge and understanding. In terms of teaching methods, despite some innovations, problems remain prominent. The lack of effective interaction in traditional methods leads to the illusion of "disembodied cognition", which makes it difficult for students to deeply understand and master knowledge. Although emerging methods such as game-based teaching have some effect, they lack systematicity and relevance, and fail to deeply grasp the essence of sports from personal experience. Therefore, physical literacy education in China needs to further optimize the teaching content and methods to promote the overall

development of students.

### **1.3 Teacher strength and teaching resources**

In today's society, physical literacy education is crucial to the overall development of human beings, but China faces two core challenges in this field. First, there is a shortage of resources for teachers of physical literacy education. Such teachers need comprehensive professionalism and educational philosophy, but they are currently insufficient in number and of varying quality. The limited understanding of physical literacy by traditional teachers and the scarcity of young teachers with advanced concepts limit the development of physical literacy education. Secondly, there is a lack of teaching resources, including site facilities, equipment and equipment, and teaching materials and aids. Despite the increase in investment, they are slow to be updated and unevenly distributed, especially in remote areas and rural schools. The lack of these resources not only affects the improvement of students' physical literacy, but also limits the depth and breadth of physical literacy education. Therefore, strengthening the construction of physical literacy education teachers and optimizing the allocation of teaching resources has become an urgent problem for us to solve.

### **1.4 Students' Physical Literacy Level and Assessment**

China's education system has a tendency to "emphasize literature over martial arts," and school sports have been marginalized and students'

physical literacy education has been neglected. Exam-oriented education and classroom safety concerns have led to a loss of interest in sports and a decline in physical fitness. Although parents recognize the importance of physical education, their knowledge and actions are not the same. The biased understanding of the concept of physical literacy and the lack of research have resulted in a single assessment system that falls short of international standards. At present, physical literacy assessment in China mainly focuses on students, but lacks comprehensive research on different populations and life stages. In addition, China lacks mature assessment tools with international perspectives and local characteristics, which limits in-depth research and understanding of physical literacy. Therefore, China urgently needs to strengthen the building of teachers and optimize teaching resources for physical literacy education, as well as to deepen the understanding of the concept of physical literacy and develop a more comprehensive assessment system, in order to promote the all-round development of students' physical and mental health.

## **2 The evolutionary process and stage characteristics of the development of international students' physical literacy**

### **2.1 Characteristics of the initial stage of international physical literacy: the development and conceptualization of physical literacy**

The concept of physical literacy originated in the 19th century and experienced an evolution from describing physical ability to emphasizing the overall development of the individual. In the early days, physical

education focused on skill training and competitive sports, neglecting the overall development of physical literacy. With the emergence of the health crisis and deeper research, the concept of physical literacy emerged, emphasizing the motivation, confidence, physical ability, and intellectual understanding needed for individuals to engage in physical activity throughout their lives [3]. Physical literacy is widely recognized internationally and its structural system consists of four key areas: physical competence, knowledge and understanding, motivation and confidence, and everyday behaviors. Physical ability involves motor skills and fitness levels; knowledge and understanding emphasizes the mastery of knowledge about health and exercise science; motivation and confidence focuses on the intrinsic motivation and self-confidence of individuals to participate in physical activities; and daily behaviors refer to the actual physical activity behaviors of individuals in their lives. The concept of physical literacy is of great significance to global education, and it promotes a paradigm shift in education from the single transmission of academic knowledge to the development of comprehensive quality training. This concept not only enhances public health awareness, but also promotes social consensus on healthy lifestyles. At the global level, the advancement of physical literacy contributes to the realization of broader health goals and the improvement of the physical literacy level of the whole population.

## **2.2 Characteristics of international physical literacy development stages: Embodied cognition lays the foundation for physical literacy education**

Since the 1980s, body literacy has gradually received attention, and there has been a profound shift in human understanding of the relationship between the body and cognition. The embodied cognition view became the key theory, which is rooted in phenomenology and the phenomenology of the body, breaks the limitations of the mind-body dichotomy, and emphasizes that the body and the mind are inseparable. The embodied cognition view holds that the body occupies a central place in cognitive activity, and that the interaction between the body and the environment shapes the mind and cognition, facilitating the integration of mind and body. The body is no longer a vehicle for psychogenesis, but the subject of cognition and the core of experience. Physical literacy education aims to develop physical abilities, skills and healthy lifestyles through sport and physical activity. The embodied cognitive view provides theoretical support for physical literacy education, revealing the key role of the body in cognitive development and emphasizing the mutual promotion of physical activity and cognitive ability. Through physical literacy education, individuals can better understand and utilize the body, improve body perception and movement ability, and promote cognitive development and overall literacy.

British scholar Whitehead's theory of physical literacy further emphasizes the importance of physical literacy and advocates the integration of mind



and body, arguing that physical literacy is the cornerstone of human survival and development. Physical education can cultivate students' physical literacy and help them establish a correct concept of the body, master physical skills and cope with life challenges. In international practice, educators have begun to pay attention to the application of embodied cognition theory, designing challenging physical activities so that students can experience the power and beauty of the body and develop physical literacy. At the same time, students are guided to pay attention to body perception, establish correct body awareness, and improve their cognitive level. The theory of embodied cognition lays a solid foundation for physical literacy education and helps to create a comprehensive and in-depth educational environment that promotes healthy physical and mental development.

### **2.3 Characteristics of the mature stage of international physical literacy: the trend of internationalization of physical literacy promotes the development of education**

In the 21st century, the concept of physical literacy has been studied in depth by Professor Margaret Whitehead, combining the concept of embodied cognition and emphasizing the unity of body and mind, and has rapidly become a focus of global attention. As lifestyle changes and sedentary lifestyle lead to an increase in chronic diseases, physical literacy has become the key to preventing and controlling diseases. whitehead's research has provided new theoretical support for physical

literacy education, and its concepts have been internationally recognized and practiced.

International sport science and education organizations emphasize the importance of physical literacy in education, advocate its inclusion in the curriculum, and promote policy development to improve physical literacy. The European Union adopts policies to encourage citizens to participate in physical activities and enhance physical literacy. The United Nations Educational, Scientific and Cultural Organization (UNESCO) emphasizes that physical literacy is at the core of quality physical education, and promotes scientific research and universal access to education. The World Health Organization calls for increased collaboration to establish comprehensive coverage of physical literacy development and to develop relevant policy support. Educators in various countries have begun to incorporate physical literacy into their education systems and explore localized practices. International exchanges and cooperation have been strengthened to jointly promote the development of body literacy education. These efforts aim to promote comprehensive individual development, prevent chronic diseases and improve the health of global citizens through physical literacy education.

### **3 Division and Typical Models of Physical Literacy Education for Students in Developed Countries**

#### **3.1 Australia's Physical Literacy Education Framework**

As a sports and education powerhouse, Australia is a global leader in

physical literacy standards (APLS). The Australian Physical Literacy Framework released in 2019 provides clear guidance for national physical literacy development. The framework emphasizes physical literacy as a lifelong, holistic learning process, covering four key domains - physical, mental, social and cognitive - each containing specific elements, 30 in total. These elements reinforce each other in movement and work together to shape an individual's overall literacy.

APLS maps out five key stages of physical literacy cultivation, from basic to proficient, and then to transfer and empowerment, forming a dynamic and non-linear development path. This personalized and diversified approach to cultivation encourages individuals to explore growth paths according to their own characteristics, and to achieve comprehensive improvement in physical, mental, social and cognitive abilities. The implementation of this framework not only promotes the development of sport in Australia, but also provides a healthy and fulfilling lifestyle for the nation. Improved physical literacy not only helps to prevent and manage chronic disease, but also helps individuals to excel in a variety of life situations.

### **3.2 Curriculum Planning for Physical Literacy Education in the UK**

The UK has long adhered to the welfare state system and has maintained a clear government management strategy in the field of physical education. The concept of physical literacy, initially used as a key assessment indicator for physical education programs, has come to

prominence over time as a central element of physical education curriculum reform and national physical education and education programs. After in-depth reflection on physical education policy, the concept of physical literacy has been widely recognized and embraced by the community.

In 2015, the UK formally incorporated physical literacy into its national sports strategy, defining it as an integrated competency designed to promote sports participation. In the field of education, the UK actively promotes the concept of physical literacy through two major organizations, the Youth Sport Trust and the Association for Physical Education, and invests a lot of resources in teacher training. Take the "Getting Started: Physical Literacy" program as an example, the program has successfully trained more than 7,000 elementary school teachers, providing strong support for them to incorporate physical literacy education in their daily teaching. The UK Physical Literacy Framework for Primary Schools comprehensively covers physical education, out-of-school physical activity and competitive sport in schools, ensuring that school sport programs are highly aligned with the framework. The government ensures that the delivery of physical education in schools is aligned with the requirements of the Physical Literacy Framework through the provision of funding. In 2016, Physical Education England established the enhancement of physical literacy as a key objective of its strategic plan, further underlining its commitment to the promotion of

physical education for young people. In 2019, physical literacy is even more of a key objective of the NDPE, and to this end, the government has enacted the "Action Plan for Physical Activity in Schools," emphasizing the importance of developing physical literacy to motivate youth to actively participate in sports and to help realize the ambitious vision of building a world-class education system. The Plan clearly states that physical literacy should be the basic principle in designing and organizing competitions and sports activities for children and young people to ensure their all-round development in the process of participation.

### **3.3 Physical Literacy Education Models and Characteristics in the United States**

The management of sports and athletic competitions in the United States is not overseen by a unified government agency, resulting in a lack of direct federal funding for the concept of physical literacy in the early stages and relatively decentralized development. However, as the concept of physical literacy gained recognition, organizations such as the Aspen Institute and the U.S. Olympic Committee began to focus on and promote the concept.

In the field of education, the U.S. federal government has pushed for standardized education reform through national standards tied to federal education funding. The American Association of Health and Physical Educators revised the K-12 National Physical Education Curriculum Standards to include physical literacy as a core objective and has successfully promoted the concept in a variety of ways. Today, most

states have adopted state standards that are aligned with the national norms, and physical literacy has grown significantly in school sports.

The United States, as a country heavily influenced by a pluralistic democracy, has historically valued the contributions of social and market organizations in the public service system. Although the development of physical literacy has been diversified in social and competitive sports, it is noteworthy that in the arena of school sports, through the strong support of the federal government and the active promotion of authoritative organizations, the development of physical literacy has rapidly risen to become a core component of the National Physical Education Curriculum Standards, and has been widely covered to the majority of adolescents and children in the K-12 school years[4]. . This initiative not only reflects the importance of physical literacy education in U.S. education policy, but also further demonstrates its strong determination to promote the holistic development of young people.

#### **3.4 Development and Integration of Physical Literacy Education in Canada**

As a pioneer in the field of physical literacy, Canada has cultivated unique physical literacy concepts and evaluation systems in several areas that have become international benchmarks. Among them, evaluation tools such as CAPL, PLAY, and PHE Education Edition, which target community health, competitive sports, and school sports, respectively, reflect the diversity and inclusiveness of Canada's physical literacy philosophy. In 2012, the Government of Canada established physical

literacy as a cornerstone of its physical education policy, and in 2015, it adopted the Canadian Physical Literacy Consensus Statement, which defines physical literacy as a lifelong engagement in physical activity that requires motivation, self-confidence, athleticism, knowledge and understanding, and is divided into four domains: emotional, physical, cognitive and behavioral [5]. This consensus has spurred research and programs focused on specific populations and stimulated broader collaboration and input.

The concept of physical literacy in Canada is firmly supported by the government, with all levels of government adopting the concept of physical literacy to guide their work, extensive community involvement, and a well-developed evaluation system. These achievements have not only enhanced the overall health of the nation, but also strengthened Canada's international influence in the field of physical literacy.

#### **4 Main Experiences and Implications of International Physical Literacy Education**

In response to the development of international physical literacy education, we can distill the following key experiences, which are crucial to the continued development of physical literacy education in China.

**First**, the clarification and strengthening of policies and regulations are the cornerstone of the development of physical literacy education. The government should formulate specific policies to incorporate physical

literacy education into the core of the education system and ensure its smooth implementation through regulations.

**Second,** building a systematic and complete curriculum is the key to improving the quality of education. The curriculum should be designed in a coherent and hierarchical manner, covering aspects such as body cognition, motor ability, physical experience and healthy behavior, to ensure that students gradually master the core skills of physical literacy.

**Third,** innovation in teaching methods is the key to promoting the development of physical literacy education. We should explore teaching methods suitable for students' characteristics, such as contextual teaching and gamification teaching, in order to stimulate students' interest and motivation in learning, and to cultivate their independent learning and cooperative spirit.

**Fourth,** a perfect evaluation and feedback mechanism is a guarantee to ensure the sustainable development of physical literacy education. We should establish a scientific and comprehensive evaluation system to accurately understand students' physical literacy level through regular tests and assessments, and adjust teaching strategies according to the results to ensure the realization of educational goals.

## **5 Conclusion**

Physical literacy education is of great significance in promoting the overall development of students. By comparing international experiences



in physical literacy education, we can find that formulating a clear policy, constructing a systematic curriculum system, innovating teaching methods, strengthening the construction of teachers and improving the assessment mechanism are the keys to promoting the development of physical literacy education. In the future, China should further learn from the international advanced experience, strengthen the practice and research of physical literacy education, and continuously improve the level of students' physical literacy, so as to lay a solid foundation for their future healthy growth and comprehensive development.

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