



A Study on the Current Situation of the Development of Kindergarten Physical Intelligence Curriculum in Enshi Prefecture

Li Shen^{1,2}, Qinglong Song³

¹Hubei Enshi College, Enshi, China

²Philippine Christian University Center for International Education, Manila, 1004, Philippines

³Hubei Minzu University

Email: 494454828@qq.com

Abstract: Early childhood is a critical period for human growth and development, during which various physiological organs of young children are not yet fully developed. The physical quality development in early childhood significantly impacts future bodily functions. Therefore, it is crucial to enhance physical intelligence exercises for young children. This study is based on survey data from Wuhan Happy Smart Beans Culture Communication Co., Ltd., which is a well-established institution providing physical intelligence education training for children in Enshi. Additionally, insights from interviews with industry experts were also considered. The study emphasizes the subconscious regulation of children through joyful activities, promoting coordination development, enhancing sensory abilities, and fostering flexible thinking and a healthy mental model. By examining the current state of kindergarten physical intelligence curriculum development, including policy adherence, goal setting, activity content, organization, and evaluation of effectiveness, this research provides a practical foundation for further exploration of kindergarten physical intelligence curriculum and teacher training for kindergarten physical education teachers in Enshi.

Keywords: Enshizhou, kindergarten, physical intelligence curriculum, current situation, teacher training.

I. Introduction

The State Council's Opinions on the Current Development of Preschool Education (State Council [2010] No. 41) highlight the significance of preschool education as the foundation for lifelong learning, an integral part of the national education system, and a crucial social public good. Since the reform and opening up, especially in the new century, China has made significant progress in the development of preschool education, with increasing popularity. However, overall, preschool education still remains a weak link within the education system. Preschool education plays a pivotal role in the healthy growth of millions of children, the well-being of numerous families, and the future of the country and its people.

Body intelligence, also known as Kinesthetic intelligence, is a teaching concept that focuses on improving physical strength, stimulating potential, enhancing social adaptation, and fostering independent personalities in children through sports and games. It encourages them to comprehend diverse perspectives and develop multiple thinking patterns. The early childhood physical intelligence program represents a novel approach to teaching physical education for young children in China, and its unique "playful" education concept resonates well with young learners. In recent years, as the promotion of sunshine sports activities gains momentum, there has been a significant emphasis on implementing early childhood physical intelligence programs and other related projects within school campuses. These initiatives not only cultivate the interest of young children and enhance their enthusiasm for participating in sports activities but also contribute to the overall improvement and enrichment of the school's physical education curriculum. The quality of kindergarten physical activities in Enshi not only directly impacts the physical well-being and holistic development of young children but also determines the overall quality of early childhood education in Enshi. Therefore, it is imperative to promote the kindergarten physical intelligence curriculum.

II. Literature review:

Foreign studies:

Friedrich Froebel, known as the father of German early childhood education, believed that the world of young children is a realm of play. He emphasized that through play, young children can express their inner world. Physical intelligence, combining physical education and play, greatly contributes to promoting the physical functions, mental abilities, and learning efficiency of young children [1].

The recognition of early childhood physical education in the UK not only enhances motor skills and physical fitness but also fosters a fulfilling childhood experience for young children. In the UK, emphasis is placed on choice of sport,



sustained movement, and acknowledging individual differences as crucial factors, emphasizing the value of the individual. In contrast, China's concept of children's physical education centers more on societal values [2].

In Japan, kindergartens prioritize the training of early childhood physical education teachers, emphasizing technical skills, cultural competence, a liberal and open educational philosophy, and a diverse range of physical culture activities [3].

In the United States, early childhood education centers design outdoor activities based on children's developmental patterns and individual characteristics, with a focus on fostering their experiences in physical activities. This approach promotes unstructured, spontaneous play among children, regardless of their class or age. Research has indicated that such physical activities provide greater freedom and ample time, which contribute to the development of positive character traits in young children [4].

Domestic research:

According to Liu Junyang [5], the incorporation of sensory training methods, engaging sensory training props, and the guidance of professional male physical intelligence teachers not only enhance children's sensory integration and motor skills but also ignite their enthusiasm for physical activity. This creates a pleasant exercise atmosphere and promotes the development of children's physical health.

Pu Hongling and Yang Dan [6] emphasize that the world of young children revolves around play. Utilizing vibrant and uniquely shaped equipment and props in physical intelligence classes generates strong interest among young children, encouraging active participation, physical exercise, and consequent improvements in physical fitness, intelligence, and social interaction skills.

Cui Weiyong [7] highlights that the lively and captivating gamified content in the physical intelligence curriculum enhances children's interest and enthusiasm for participation. Games such as "The Brave Rabbit" and "The Little Girl Looking for Balance" enable young children to fully immerse themselves in physical exercise and effectively promote the development of their sense of balance and flexibility.

To summarize, there exist significant disparities between the teaching modes, philosophies, and content of early childhood sports in foreign countries and traditional early childhood sports in China. Foreign early childhood sports extend beyond the confines of the classroom and emphasize physical and mental exercise for young children as a whole. Games and entertainment take center stage, creating an open and unrestricted environment for physical activities. Ample time is provided for physical activities, making the teaching and learning experience enjoyable.

III. Methodology

Employing techniques such as interviews and literature review, this study investigates the current situation of early childhood physical and intellectual education in Enshi Prefecture by examining the well-established Wuhan Happy Smart Beans Cultural Communication Co., Ltd., which operates in the field. The aim is to explore the essence, characteristics, educational value, and practical approaches of physical and intellectual education programs for young children in Enshi Prefecture. Additionally, on-site visits and research are conducted at various kindergartens in Enshi Prefecture to observe the implementation of physical and intellectual education classes and extracurricular activities. Through firsthand observations, this research ensures the accuracy of the arguments presented in the study and the authenticity of the conclusions, enabling the formulation of objective, scientific, feasible recommendations, and strategies based on the actual circumstances.

IV. Research Findings and Analysis

1. Overview of Somatic Intelligence Education

1.1 The Somatic Intelligence Education Method

The Somatic Intelligence Approach encompasses a series of educational concepts that integrate physical play, cognitive development, and behavioral growth centered around the child. It prioritizes active participation, exploration, and self-expression, aiming to foster holistic, healthy, harmonious, and integral development. Based on movement play, it encourages children to cultivate creative thinking patterns and positive social adaptation habits, enabling them to engage in games and achieve the three-dimensional goals of physical, mental, and character development.

1.2 Physical Intelligence

The "three major areas of the physical intelligence curriculum," encompassing physical, intellectual, and humanistic aspects, not only provide children with ample physical exercise but also stimulate their potential abilities and foster flexible thinking. Furthermore, it cultivates moral values and enhances their social adaptability.

2. Analysis of the current situation of the physical intelligence curriculum in kindergartens in Enshi

2.1 Implementation of physical activity curriculum policy documents

Through a survey of policies related to kindergarten physical activity courses, such as the "Guidelines for the Development of Children Aged 3 to 6," "Kindergarten Work Regulations," "Kindergarten Management Regulations," and "Kindergarten Education Guideline," it is evident that kindergartens in all counties and cities in Enshi have diligently implemented relevant national policies and regulations. Private kindergartens, driven by intense student competition, have demonstrated a deeper and more timely implementation of national policy documents in the teaching and management of physical activity courses compared to public kindergartens.

2.2 Setting of the physical education curriculum

Kindergartens in all counties and cities in Enshi have established general objectives for their physical activity programs in alignment with national policy documents. Each kindergarten has also determined specific objectives tailored to its unique circumstances. Some kindergartens have further enriched and refined the objectives of the physical activity curriculum by procuring physical education props and integrating them into specialized physical education lessons with corresponding objectives. Interviews revealed that physical activity content in Enshi kindergartens primarily revolves around easily organized and safe activities, with relatively limited practice involving higher intensity and difficulty. To better implement the guidelines' spirit, some kindergartens offer specialized physical education programs, such as football classes, basketball classes, scooters, folklore classics (e.g., dragon dance classes for young children), and hockey.

2.3 Teacher qualifications

Currently, the number of early childhood physical education teachers in China is relatively limited, and there are shortcomings in training talented individuals for this role, resulting in a shortage of teachers to meet the demands of physical education instruction. Private kindergartens generally have better staffing of full-time physical education teachers compared to public kindergartens, which often rely on part-time physical education teachers to organize activity programs. This trend in public kindergartens is primarily due to staffing constraints. Overall, only a small number of kindergartens in Enshi have dedicated physical education teachers to coordinate and manage physical activity programs.

2.4 Teaching content

2.4.1 Developmental objectives

To fully implement the principles outlined in the "Guidelines for Children's Learning and Development Health for 3-6 years old," children are instructed in the eight areas of walking, running, jumping, climbing, crawling, sliding, throwing, and balancing. Physical education games are incorporated throughout the term.

Exercise	Age 3-4	Age 4-5	Age 5-6
Walking	Walk straight with a balance height of 20cm	Walk straight, curved, with a balance height of 20cm	Walk straight, curved, sideways, with balance, and cross forward
Running	Run straight, fast	Run straight, change direction, fast without falling over within 30 meters	Run straight, change direction, fast within 40 meters
Jumping	Jump with both feet, jump forward, long jump from standing position	Jump with one foot, both feet, scissors jump, jump forward, long jump of 50cm from standing position	Jump with one foot, both feet, scissors jump, jump forward, long jump of 70cm from standing position
Crawling/Rolling	Crawl with hands and feet, crawl with knees bent	Crawl with hands and feet, crawl with knees bent, side rolls, able to climb on balance beams	Crawl with hands and feet, crawl with knees bent, side rolls, various climbing on balance beams
Climbing	Climb in a single loop	Climb in a single loop, multiple loops, continuous climbing of 3 loops	Climb in a single loop, multiple loops, continuous climbing of 5 loops
Throwing	Throw on the shoulder with one hand, throw on the head with both hands within 2-4 meters	Throw on the shoulder with one hand, throw on the head with both hands within 5-7 meters	Throw on the shoulder with one hand, throw on the head with both hands within 7-10 meters
Balance	Walk along a straight line on the ground or on narrow, low objects. Walk up and down stairs with alternating feet. Jump forward with both feet in a stable manner. Avoid collisions when running. Throw and catch a ball with both hands upwards.	Walk along a straight line on narrow, low objects in a stable manner. Crawl and climb in various ways, with knees off the ground. Run and jump with a running start over a certain distance or height. Play chasing and dodging games with others. Continuously throw and catch a ball by oneself.	Walk in a stable manner on slopes, swinging bridges, and objects with certain intervals. Safely climb and traverse structures such as climbing frames and nets using hands and feet. Continuous skipping with a jump rope. Dodge balls rolled by others or sandbags thrown. Continuously hit a ball.

2.4.2 Purpose of Teaching Implementation

The early childhood physical education and games curriculum aligns with the play-based nature of young children's lives. Teaching physical intelligence in early childhood focuses on nurturing children's spontaneity and motivation.

Teachers must activate their intrinsic drive, encouraging active participation and fostering a sense of accomplishment to build self-confidence.

The purpose of teaching implementation includes:

- Guiding the development of children's potential abilities and promoting physical strength.
- Teaching self-defense skills and fostering independent personalities.
- Providing opportunities to experience teamwork and enhancing adaptability to the social environment.

2.4.3 Physical Fitness

In the early stages, the primary focus is on basic strength training, targeting the upper body, core, and lower body. As children progress, training shifts to emphasize speed, endurance, flexibility, agility, and coordination.

Basic strength training involves exercises such as crawling, which integrates the use of various body parts, including hands and feet. Crawling is a compound movement that facilitates the development of neural pathways between the brain's hemispheres. By providing equal stimulus to both limbs, proprioception improves, enhancing adaptability to the environment and enabling more efficient motor coordination.

2.4.4 Curriculum Implementation

Compared to traditional physical education, physical exercise for young children adopts more innovative and diverse methods and content. It is taught in group settings, subgroups, and individually, incorporating games, physical fitness activities, enjoyable exercises, and structured lessons.

Some kindergartens have successfully implemented early childhood physical intelligence programs with a certain level of systematicity. They collaborate with external institutions specializing in early childhood physical intelligence, allowing these institutions to teach the curriculum and employing physical education teachers skilled in the relevant techniques. Both kindergarten teachers and external institutions combine physical intelligence exercises with games to engage children, stimulate their interest in sports, increase participation, and achieve better exercise outcomes.

Many early childhood physical education institutions employ male teachers. The presence of male teachers in kindergartens helps address the historical gender imbalance in early childhood education and contributes to the healthy development of children's personalities. This can bring a positive change to the prevailing feminized nature of kindergarten education. A passionate and masculine male teacher can enhance children's functional capacity, improve physical fitness, stimulate interest in sports, and foster a lively, cheerful, courageous, determined, and confident personality.

2.4.5 Teaching Term Plan

Main Unit	Week	Weekly Unit	Equipment	Physical Fitness Factors	Behavioral Objectives
New Recruits Reporting	1	New Recruits Reporting	Empty-handed	Formation and Posture	1. Ability to correctly use and discern body language. 2. Ability to sit, stand, walk, and perform daily activities such as alternating feet, going up and down stairs with proper posture and coordination. 3. Willingness to imitate, think flexibly, and be adept at creativity, actively utilizing the body to observe different things in the surroundings. 4. Actively participate in various sports and game activities, possessing good cardiovascular fitness, muscle strength, proper body fat proportion, flexibility, and demonstrating quick reaction, balance, agility, coordination, speed, and strength. 5. Mastering the application of conceptual knowledge, controlling body movements, and coordinating to perform basic motor skills such as
	2	Rainbow Appears	Rainbow Umbrella	Arm Strength	
	3	Drift Scooter	Skateboard	Courage, Teamwork	
	4	Dancing Disc	Frisbee (Inflatable)	Arm Strength, Balance	
Small Trial	5	Golden Hoop	Air Baton	Leg Strength, Agility	
	6	Animal Imitation Show	Slide Cloth	Leg Strength, Coordination	
	7	Here Comes the Bomb	Sandbag	Arm Strength, Agility	
	8	Treasure Hunters	Resistance Rope	Coordination, Endurance	
Self-challenge	9	Joyful Collision	Bumper Ball	Coordination, Balance	
	10	Little Paratroopers	Running Parachute	Lower Body, Core	
	11	Fun Athletics	All-round Combo	Burst, Coordination	
	12	Space Tunnel	Sunshine Tunnel	Basic Crawling	
Overcoming Challenges	13	Little Dwarf	Sponge Stick	Thinking, Teamwork	
	14	Body Side One	Testing Tool	Body Strength	
	15	Speedy Movement	Traffic Cone	Speed, Reaction	

	16	Transforming Bench	Bench	Coordination, Jumping	single-leg jumps, double-leg jumps, and throwing. 6. Creating an enjoyable game experience for children, with an atmosphere of traditional games.
--	----	--------------------	-------	-----------------------	--

2.4.6 Teaching Methods

The teaching methods consist of 16 hours per semester, with 4 hours per month and one class per week, specifically on Mondays. The entire semester follows this schedule, unless there is a national holiday, in which case it will be postponed once.

The teaching schedule for each term is categorized as follows: 1 formation class, 14 physical education games classes, and 1 physical fitness assessment. The physical education teacher is responsible for bringing all the necessary equipment required for the physical education games classes.

- a. The curriculum is designed for each term, and the lessons are taught based on the curriculum unit schedule.
- b. Each lesson provides 25-35 minutes of instruction for every child.
- c. An appropriate class size ranges from 25-35 children.
- d. Each lesson is divided into three stages: an introductory warm-up, a thematic lesson, and a relaxation session at the end.

① Allocation based on time:

For example, in a 30-minute class, the distribution is 5 minutes for warm-up, 15 minutes for the main lesson, and 5 minutes for cool-down. In a 40-minute class, the distribution is 5 minutes for warm-up, 20 minutes for the main lesson, and 5 minutes for cool-down.

② Allocation based on content:

The curriculum is divided into three stages:

The first stage serves as an introductory warm-up.

The second stage focuses on the main thematic lesson.

The third stage aims to gradually ease into the conclusion.

V. Analysis of Curriculum Effectiveness and Evaluation Survey

The physical intelligence courses offered in Enshi's kindergartens have significantly developed children's coordination and flexibility, enhanced their self-confidence, and contributed to the establishment of a healthy physique. The activities are highly appreciated by the children, who enjoy the well-designed activities, the engaging atmosphere, rhythmic elements, and props.

However, there are several safety hazards identified in the curriculum, including:

1. Physical accidents and injuries during the course of the program.
2. Digestive system injuries during the course of the program.
3. The exercise intensity in the program exceeds the capacity of children.
4. Poor quality sports equipment in the program leads to accidents and safety issues for children. Additionally, the arrangement and selection of sports grounds are unreasonable, and the lack of safety education for children contributes to safety hazards.

Furthermore, there is a significant shortage of full-time physical education teachers for physical activity programs, exacerbating the challenges faced in implementing the curriculum effectively.

VI. Problems and Analysis of Causes

1. Environmental influences and changes in lifestyles have resulted in reduced physical activity for children. Urbanization and the rise of technology, particularly the internet, have limited children's time for activities. Instead of engaging in exercise, they spend more time watching TV and playing video games. This issue has indirectly affected kindergartens as teachers have reduced exercise time for safety reasons.

2. Social influences and teachers' philosophies have not aligned with promoting physical activity. There is a mix of teacher quality, varying levels of attention from parents, and a shrinking space for children's activities within the overall social environment. Opportunities for physical activity among children have been diminishing. Additionally, education today emphasizes intellectual development, with examinations primarily focused on academic achievements. Knowledge-based education has taken precedence over physical development.

3. In terms of health education, compared to kindergartens in Europe, America, and Japan, domestic kindergartens have made efforts to allocate more time for free activities and have introduced professional physical intelligence courses. However, more than 90% of kindergartens rely on cooperation with external early childhood physical intelligence

institutions, and physical intelligence teachers are often part-time. Financial considerations sometimes hinder these institutions from prioritizing teaching effectiveness. Moreover, class time is limited, making it challenging to deliver comprehensive and standardized instruction on technical movements.

VII. Countermeasures and Recommendations:

1. Sequential organization of outdoor physical activities is essential. When engaging in various sports games, exercises for different body parts should follow a specific order. These exercises can be sequenced from bottom to top, top to bottom, or from large joints to small joints and large muscle groups to small muscle groups. Paying attention to details and including relaxation activities to stretch ligaments after each exercise promotes limb flexibility.
2. Kindergartens should consider recruiting professional physical education teachers or hiring external specialists who can provide expertise in health education and movement skills. At the critical age of movement development, children's movements need guidance to ensure they are standardized (excessive practice can be harmful) and that skill movements are correctly executed. Having full-time health and physical education teachers enables better understanding of children through daily interaction. Developing an interest and habit in sports from an early age is crucial to addressing the poor physical fitness among young people.
3. Strengthening the quality of physical education teachers is fundamental to the successful implementation of the physical intelligence curriculum. Teachers play a crucial role in emphasizing the importance of physical activities and the significance of the curriculum itself. Kindergartens should enhance teacher training programs and foster a stronger sense of responsibility among teachers.
4. Develop a scientifically and logically designed teaching curriculum. The physical intelligence curriculum should align with the physical and mental characteristics of young children. Early childhood teachers should adopt appropriate teaching concepts and philosophies, respecting the children's development and taking on the role of facilitators. Physical activities should be simple, diverse, and engaging, capturing the interest of young children and encouraging them to participate actively.
5. Enhancing children's physical fitness is a long-term endeavor. It requires adhering to the regulations and guidelines outlined in the Kindergarten Work Regulations and the Kindergarten Education Guideline. This ensures that children have ample time for outdoor physical activities and are taught correct exercise methods. The cooperation and support of parents and the community are also crucial in enabling children's motor skills to develop effectively and in a balanced manner.

Acknowledgments: This research work is the result of 2022 Hubei Provincial Education Science Planning Key Project (Project number: 2022GA096); the study is also the result of 2021 National Commission for Nationalities Higher Education Research Project on Teaching Reform in Higher Education ((Project number: ZL21047).

References:

- [1] Zhang Xin. The impact of teaching physical intelligence classes on young children's health and fitness [D]. Jishou University,2018.
- [2]Liu Lingnan. A comparative study on the philosophy of early childhood physical education in China and the United Kingdom[D]. Beijing University of Physical Education, 2018.
- [3]Xie Yongjuan,Xu Zhiping. Early childhood physical education in Japan and its inspiration to China [J]. Neijiang Science and Technology,2016,37(08):111+110.
- [4]Lv Xiaochang. A comparative study of physical education for young children in China and the United States [J]. Journal of Tianjin Institute of Physical Education,2004(04):96-98.
- [5] Liu Junyang. Research on the influence of physical intelligence classes on young children's sensory integration ability based on sensory integration theory[D]. Sichuan Normal University,2017.
- [6]Pu Hongling,Yang Dan. An experimental study on the influence of "physical intelligence" and "fun athletics" on the physical quality of young children[J]. Shenyang Sports College Journal,2017,36(01):124-128.
- [7] Cui Weiyong. An experimental study of physical intelligence on the development of physical fitness of 5-6-year-old children[D]. Mudanjiang Normal College,2017.
- [8]Zhang Qinmei. The practice and reflection of physical education in our garden under the framework of the "Guidelines for Children's Learning and Development from 3 to 6 years old"[J]. Western Quality Education,2015,1(12):118.
- [9] Hu Yuqiang. A literature review on the development of young children's physical intelligence based on contextual sports games [J]. Contemporary sports science and technology,2017,7(20):207-208.
- [10]Huang Gui, Lin Yongjun. On the modern value of Chen Hechen's theory of physical education for young children [J]. Sports and Science,2012,33(04):120.