

Analysis of the Teaching Strategies of Gross Motor Development of Preschool Children in Beijing

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Abstract

This paper analyses the relationship between physical education and gross motor skill development for children in Beijing, and designs exercise programmes for children in the 3-6 year old stage. It enhances children's interest in learning, cultivates their interest in learning, improves their physical fitness and activates their basic motor skills, and provides references for advancing the construction and improvement of physical education mechanisms for young children and developing special early childhood physical education programmes. For children aged 3-6 years old, this programme proposes a reference for physical education bionic exercise, which must pay attention to the development of children's motor skills and give more attention and guidance to those children whose motor skills are lagging behind in their teaching activities.

Keywords

Preschool Children; Gross Motor Development; Teaching Strategies.

1. INTRODUCTION

Education accompanies us from early childhood, especially the development of physical fitness in early childhood. At present, many developed countries have changed the traditional education model and applied a more scientific and perfect education system to the teaching of preschool children. How to enhance the interest of young children in sports. China has also promulgated the National Medium and Long-term Education Reform and Development Plan (2010-2020) and the Opinions of the State Council on the Current Development of Pre-school Education, which shows the importance the country attaches to early childhood education. However, the early childhood education in China is in the embryonic stage, and the physical activities for young children are insufficient and too single, and parents generally hold the attitude of "attaching importance to cultural subjects and neglecting physical exercise", which inadvertently violates the laws of children's growth. This paper provides theoretical support for the improvement of early childhood physical education in Beijing based on the perspective of sports bionics, explores the influence of bionic movements on the development of young children's gross motor movements, and tries to open up new perspectives for early childhood physical education through this analysis. We also try to use this analysis to open up new perspectives for early childhood physical education and promote the positive development of early childhood physical education testing programs.

2. DEFINITION AND DEVELOPMENT OVERVIEW OF SPORTS BIONICS

2.1. Definition of sports bionics

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2.2. Overview of the development of sports bionics

2.2.1. Overview of the development of sports bionics in China

Although there is no clear discussion on the use of bionic movements or bionics in sports in China, there are many ancient records in China, such as the "Monkey Fist" and "Mantis Fist" in martial arts, as well as the traditional health care method "Five Animals" pioneered by Hua Tuo during the Three Kingdoms period. The "Five Animal Play", which covers the "Tiger, Deer, Bear, Ape, and Bird", is a former shadow of bionic movement and is considered a treasure for strengthening the body.

Nowadays, with the development of sports bionics, it is no longer simply imitating biological prototypes, but is widely applied to various fields, such as artificial organs in sports medicine bionics, feedback control of various motor skills in human motion control bionics, sports buildings built by simulating biological delicate architectural structures in sports architecture bionics, such as "Beijing Bird's Nest National Stadium The sports buildings in the sports architecture bionic simulate the delicate architectural structure of living creatures, such as "Beijing Bird's Nest National Stadium", "Sydney Opera House, etc.", and various sports equipment in the equipment bionic, such as "flippers in swimming and diving", etc., which have made outstanding contributions to the development of sports, medical and architecture in China nowadays.

2.2.2. Overview of the development of foreign sports bionics

For example, the ancient Greeks imitated the movements of bears in wrestling; boxing, which originated in England, was modeled after primate fights in heat; the uneven bars, which originated in Europe, were modeled after ape swings in trees, etc., and running, for example. Track and field sports such as jumping and discus javelin were derived from hunting activities such as tracking and throwing to bring improvement to human life. The Japanese have a long history in the long-distance running world. Japan is a world leader in long-distance running. The track and field department of Waseda University in Japan once carefully observed the movement of deer going up and down hills and found that deer needed a lot of strength to go up and down hills. The Department of Track and Field of Waseda University in Japan once carefully observed the movement of deer going up and down the slope, and found that deer

needed a lot of strength to go up and down the slope, and the movement was difficult. It has been widely used in the field of track and field teaching. Gessel, an American psychologist Gessel, an American psychologist, once did a famous experiment called "The Twin Climbing Test", which responded This experiment shows that artificial training to accelerate children's development can only be counterproductive. Parents should follow the natural rules of their children's growth and development.

3. THE DEVELOPMENT STATUS OF EARLY CHILDHOOD SPORTS IN CHINA

In 2012, the Chinese Ministry of Education issued the "Guidelines for Learning and Development of Children Aged 3 - 6", which divided the kindergarten curriculum into five major areas and planned movement development into the health area, which should focus on the cultivation of basic human movement skills and carry out a variety of physical activities that are rich, diverse and age-appropriate for young children. For example, walking, running, jumping, climbing and crawling encourage children to persevere and not be afraid of being tired. The substance of health education is to enhance the physical fitness of young children, cultivate healthy attitudes and behavioral habits, and the content should be in line with the goal of laying the foundation for the subsequent movement learning and lifelong development of young children, aiming to promote the overall coordinated development of young children in physical, moral, intellectual and aesthetic. However, the survey found that there are still some problems in early childhood physical education. 1. most kindergartens are backward in the concept of physical education, the general phenomenon of emphasizing literature over physical education, the development of early childhood physical education curriculum is too single, can provide small venues for children's activities, less equipment. 2. teachers teaching team is not enough capacity, lack of professional field awareness. The majority of teachers are unwilling and afraid to offer physical education courses, and the autonomy of children is lacking for a long time. 3. Parents' attitudes, fearing that their children will be hurt, keep children in "swaddling clothes", which is not conducive to teachers organizing physical activities, and children's motor skills are not properly exercised. It needs the attention of society, teachers and parents to pay enough attention, understanding and support.

4. ANALYSIS OF THE USE OF BIONIC MOVEMENTS IN TEACHING BASIC MOTOR SKILLS TO YOUNG CHILDREN

Table 1. Applicable ages of large muscle movements for 3-4 year olds

Skill Categories	Movement method	Exercise Effect	Applicable age
Imitate a duck walking	Imitating the state of a duck when walking is a foot technique, different from the crawling action, which relies on the lower limbs, squatting as deeply as possible and walking left and right in sequence.	Enhance the tension and flexibility of the hip, thigh, knee and ankle joints. It can fully enhance flexibility and has high exercise value.	Children 3 - 4 years old
Imitate crab walking	Walk on all fours on the ground towards the sky supine, in the movement the hips should not land on the ground, keep the trunk straight.	Excellent exercise for the muscles in the back, especially around the shoulder blades and torso.	Children 3 - 4 years old

In accordance with the Developmental Guidelines, which provide educational objectives on how to achieve positive development in early childhood physical education, 3-4 year olds can walk along the ground in a straight line or on a narrow, low object for some distance and jump forward with both feet in a smooth and continuous manner, upholding the teaching philosophy of "slow is fast, simple but profound " 4 - 5 years old can crawl in a variety of ways, such as crawling, knee suspension, "more fun than training, encouragement than correction teaching philosophy"; 5 - 6 years old can walk smoothly on slopes and objects with a certain interval. The children can safely climb the Pendleton shelf with their hands and feet, achieve a certain level of balance, coordinate and be sensitive, "experience success and failure, and develop a sense of self, peers and rules". (As shown in Table 1-3)

Table 2. Applicable ages of large muscle movements for 4-5 year olds

Skill Categories	Movement method	Exercise Effect	Applicable age
Imitating the crawling of a bear" action	Imitate bear crawling" action, also known as hand and foot walking action, this action practice legs slightly bent, arms must be kept straight, hips high, waist can be slightly bent.	It can fully exercise the muscles of the arms, abdomen and chest, strengthen the stability of the trunk, enhance the mobility of the limbs and train to the coordination of the whole body.	Children 4 - 5 years old
Imitate a tiger lying on its back	In front of the sponge pedal, bend down, stand with both feet together, hands Hold the pedal front head up and turn, into a tiger volt, left and right for ten weeks each, it is advisable to turn slowly at the beginning of the exercise.	Promotes smooth flow of qi and blood, kidney health, the forward bending body posture position also exercises the hamstrings muscles, gluteus and spinal muscles.	Children 4 - 5 years old

With the principles of simplicity, progressiveness, and age-appropriate teaching and learning, the 3 - 3 children are able to learn and develop the skills they need. The physical characteristics of 3-4 year olds are slow, poor balance, and prone to fall. The duck walk and crab walk in the bionic movement are to exercise the body in the form of landing on all fours. The 4-5 year olds are able to run and jump over a distance, but the movement is not as easy as the one they are doing. 4-5 year olds can run and jump over a distance, but their coordination is relatively weak, so they can carry out targeted activities. The children can make up for this characteristic by using bionic movements such as tiger jumping and light frog jumping to improve thigh muscles and hip joint strength to strengthen coordination. The children's balance is greatly improved by the age of 5-6 years, and they can complete the jump in a more natural and coordinated way. By the age of 5-6, children's balance is greatly improved and they are able to perform a variety of complex movements in a more natural and coordinated manner. The children can develop bionic movements such as bear running and lizard crawling, which require relatively high technical movements, and fully exercise the arms, abdomen and chest. arm, abdomen and chest muscles, strengthen trunk stability, enhance limb mobility and training to whole body

coordination. We need to fully understand and respect the individuality of children in the process of sending letters. Remember to use one "ruler" to measure all children.

Table 3. Applicable ages of large muscle movements for 5-6 year olds

Skill Categories	Movement method	Exercise Effect	Applicable age
Mimic frog jumping	To maintain the elasticity of the jump, children can lower their standards and place their palms on the ground between jumps to stabilize their bodies.	Enhance the strength of children's lower limbs, develop the muscles between the legs and calves and hip joints, and strengthen the jumping ability.	Children 5 - 6 years old
Mimic lizard crawling	The limbs "dive" so that the knees and elbows on the same side are in contact with each other. The other side is extended in turn.	This is where this action really activates This is the key to activate the "side chain". The movement is asymmetrical from left to right, making the movement more difficult and exercising the left and right brain.	Children 5 - 6 years old

5. ANALYSIS OF THE ADVANTAGES AND DISADVANTAGES OF THE BIONIC MOVEMENT TEACHING MODEL FOR THE DEVELOPMENT OF EARLY CHILDHOOD TEACHING

5.1. Definition of sports bionics

5.1.1. Promoting children's interest in learning

The role of a teacher is not only to teach, but also to inspire children. When a child is not interested in sports, other scientific methods should be used to fully motivate the child. The teacher will likewise be more motivated to participate in the classroom. For early childhood physical education not to be a single, boring process, it is important to seize the best time for young children to learn. Through visits and observations, the movement skills of physical education bionics are very vivid and can lead children to actively participate in them. Children will spontaneously imitate up by observing the teacher's movements, which greatly increases children's interest in learning. It can help children change from passive learning to active learning, and education should implement the educational concept of "practical teaching as the main focus".

5.1.2. Improve the physical fitness level of young children

Parents tend to ignore children in the process of growing up on the crawling stage, resulting in children's large muscle movement ability is not strong. And bionic movement is able to fill this gap. Under the guidance of the teacher children imitate the movement of animals to enhance the basic motor ability to transport power, so that early childhood physical education is not boring. This is a good thing for active children who are naturally active. Certain specific bionic movements can enhance children's motor functions, enhance coordination, stretching, agility, etc. While exercising children's bodies, they can improve cardiopulmonary function and oxygen supply to the heart, increase blood expulsion and promote the normal development of tissues and organs. The bionic movement includes a lot of asymmetrical movements, which has a special effect on children's brain development.

5.1.3. Optimize and improve the special physical education curriculum for young children

In the future, it will be difficult for private education, which occupies more than 60% of the market share of China's preschool industry, to survive on the basis of quality alone, because kindergartens in China are developing like a homogeneous phenomenon, so both public and private kindergartens must be based on "characteristics", and it needs to inject fresh "blood", the integration of sports bionics into The integration of physical education bionics into the teaching of early childhood physical education can break the old teaching model, provide teaching reform The integration of physical education bionics into early childhood physical education can break the old teaching model, provide teaching reform ideas, and build new teaching methods to improve the current situation.

5.1.4. Government policy support

With the implementation of China's comprehensive "two-child policy", there is a new population peak for young children. By 2020, the scale of the early childhood education industry could exceed 700 billion yuan, and the government will definitely pay more attention to the investment in preschool children's education. Seizing the general direction of development will provide great development opportunities for early childhood education. Early childhood physical education is an indispensable component, and it is imperative to seize this key moment to introduce sports bionics into early childhood teaching. In this way, we can enhance the cause of early childhood physical education.

5.2. Disadvantage Analysis

5.2.1. Early childhood sports bionics are influenced by their own limitations

Although sports bionics has been widely used in the fields of medicine, architecture, and athletics, it has not been shown much in early childhood education against the backdrop of the national emphasis on early childhood physical education, which is affected by its own limitations. The market gap has provided private preschool education with a lot of problems, such as the quality of kindergartens, the weakness of early childhood physical education teachers, the mixed teaching ability, and the lack of physical literacy. Children lack independent thinking skills, self-control and herd mentality, and make more mistakes. Every action of the teacher will directly or indirectly affect the children, if the teacher does not supervise and manage properly, forming a scattered organization, it will seriously affect the progress of teaching, to fully understand and respect the individual differences in the process of children's hair letter remember to use a "ruler" to measure all children. The children's lively and active nature is also a double-edged sword, the students' active interest increased, at the same time, the At the same time, there is a serious tendency of gamification, which becomes "liberalization", and children are obsessed with the pursuit of bringing joy to children. The real meaning of teaching is neglected.

5.2.2. The "herding effect" in the current early childhood physical education market is obvious

The "herd effect" is a metaphor for the fact that people have a herd mentality, which can easily lead to blind following. The herd mentality can easily lead to blind obedience, and blind obedience will often be caught in a scam or failure. China's early childhood physical education China's early childhood sports education has a late start and low starting point, and the domestic children's sports market is complicated and lacks a main The physical education of kindergartens is generally based on the old concept of copying, lacking innovation, and deviating from the old concept. The physical education in kindergartens is generally copied from the old concepts and lacks innovation, which deviates from the core teaching process-oriented goals of early childhood physical education. The goal of physical education for young

children is to focus on the teaching process. The physical education objectives are not oriented to the teaching process. Otherwise, physical education is bound to fall into idle and formal.

5.2.3. Parents conservative to the old model of teaching early childhood physical education

In the bustling city of Beijing, competition is stressful, and so is the education of children. From birth, parents often compare their children to other children. Comparing whose child will walk first and using a toddler to speed up children's learning to walk, children's crawling stage is often always neglected, and this facilitates the development of children's large muscle groups. Bionic action is to crawl as the main exercise goal, because crawling allows the brain and cerebellum through the nerve interconnection, full cooperation, so that the brain nerves are fully exercised to promote children's brain development. In order to make their children's culture "not lose at the starting line" to participate in a variety of extracurricular classes, sitting in the classroom to study, outdoor activities, always ignore the child's exercise, resulting in a decline in physical fitness, contrary to the laws of growth of children, after growing up hunchback, inattention phenomenon is common.

5.2.4. Non-compulsory kindergarten operation is too profit-oriented

Nowadays, China's economy is rising rapidly, and early childhood education is in the stage of climbing up. However, some private kindergartens are too profit-oriented and reduce expenses in order to achieve profitability, and the physical education environment, equipment and facilities are not up to standard, and the quality of education is uneven.

6. CONCLUSIONS

The bionic movement in physical education bionics is consistent with the teaching objectives of young children's movement development and can effectively exercise to the development of children's large muscle pairs. The key to the design of the bionic movement teaching model lies in the physical quality training of young children, which can improve their balance, strength, movement coordination and agility to a certain extent.

However, in the process of actual implementation, there are deficiencies in the quality of teaching in kindergartens, the teaching ability of the teaching staff of early childhood physical education, the weakness of teachers and the lack of physical education. Therefore, we realize that we can only seize the opportunity of strong government support, continue to use the existing experience and resources to strengthen the experience of the teacher team, improve the introduction of context in the curriculum, strive to combine brain and physical strength, create a physical education curriculum for preschool children with characteristics, build a physical education bionics teacher team, promote the mechanism of physical education bionics for young children in line with the localization of China, and build a good teaching places, create teaching products with characteristics, and keep up with the times and international standards.

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