

# Research on the Current Status and Strategies for the Development of Gross Motor Skills in 3-6-Year-Old Children in Private Kindergartens — From the Perspective of Operative Movement Development



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**Abstract:** 3-6 years old is the critical period for the development of children's gross motor skills. The motor skills of this stage, such as running, jumping, climbing, balancing and throwing, not only reflect the growth of physical fitness, but also directly relate to the overall development of children's coordination, self-confidence, and cognitive and social skills. Through scientific motor training, children can achieve both physical and psychological growth in the improvement of motor skills, laying a solid foundation for future learning and life. This paper focuses on the current situation and problems of the development of gross motor skills of children aged from 3 to 6, takes private kindergartens as the research object, and conducts in-depth discussions from theoretical basis to specific countermeasures. By analyzing the key factors affecting the development of children's gross motor skills, combined with practical cases and scientific methods, it aims to provide theoretical guidance and feasible suggestions for the educational practice of private kindergartens, and help children get comprehensive support and healthy growth in the critical development period.

**Keywords:** private; kindergarten; gross motor skills; operational movements

## Introduction

The development of gross motor skills is not completed naturally. It requires systematic educational guidance and good environmental support. Kindergartens, as an important place for children's daily life and learning, play a vital role. As an important part of my country's preschool education, private kindergartens are flexible and focus on the development of characteristics. However, due to the limitations of venues, resources and teachers, some private kindergartens are insufficient in supporting the development of children's large motor skills. In terms of optimizing the allocation of educational resources, strengthening the professional ability of teachers, designing scientific courses and improving home-school cooperation, private kindergartens need to explore more effective paths to meet the diversified needs of children in motor development.

## 1. Theoretical Basis for the Development of Gross

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## Motor Skills in Children Aged from 3 to 6

### 1.1. Characteristics of gross motor skills development

The development of gross motor skills in children aged from 3 to 6 years has obvious staged and progressive characteristics. With the maturity of the nervous system and the increase of muscle strength, their movements gradually transition from basic rough control to coordination, stability and precision. At this age, the development of gross motor skills in children mainly includes operational movements such as running, jumping, climbing, balancing, and throwing. The progress of these movements is not only reflected in the increase of movement amplitude, but also in the improvement of flexibility and endurance (Ma, 2023). For example, 3-year-old children can usually complete simple running and standing jumps, but their sense of rhythm is weak; at the age of 5-6, children can try continuous jumping, crossing obstacles or throwing with direction and force control, showing higher athletic ability. The development of movements at this stage is also accompanied by the simultaneous

improvement of hand-eye coordination and whole-body coordination ability. Operational movements are gradually combined with spatial sense and rhythm sense, laying the foundation for more complex skills in the future. The characteristics of children's gross motor development also include an interest in exploring new and challenging movements. They continuously improve their skills through repeated practice and imitation, and gain confidence and a sense of accomplishment in the practice of movements. However, due to differences in individual growth and development and the influence of the external environment, the specific manifestations of gross motor development vary from person to person, which requires educators to promote children's operational motor ability in a targeted manner in practice.

### **1.2. Physiological and psychological mechanisms of motor development**

The physiological and psychological mechanisms of gross motor development in children aged from 3 to 6 are closely related, mainly reflected in the maturation of the nervous system, the growth of muscles and bones, and the support of psychological cognition. In terms of physiological mechanisms, with the gradual development of the cerebral cortex and motor center, children's motor control ability is significantly improved, especially the continuous improvement of the vestibular balance system and proprioception, which enables children to better coordinate various parts of the body to perform gross muscle movements, such as running, jumping, climbing, etc. (Yang, Li, & Jia, 2022). At the same time, the growth of muscle strength and bones also provides a foundation for children to perform higher-intensity and more delicate manipulative movements, such as balance and accurate throwing. Children at this stage not only have significant improvements in physical fitness, but also gradually enhance the accuracy and coordination of their movements, laying the foundation for the development of complex motor skills. In terms of psychological mechanisms, children at this stage have a significantly increased interest in sports and desire to explore. They constantly challenge themselves through playing and imitating. This positive exploration behavior provides psychological kinetic energy for the development of large muscle movements. In terms of social and emotional aspects, children gain emotional satisfaction and recognition through interactive activities such as group games,

which has a positive effect on their sports performance and self-confidence.

## **2. Current Status of Gross Motor Development of 3-6 Years Old Children in Private Kindergartens**

### **2.1. Current status of children's motor development levels**

The gross motor development level of children aged 3 to 6 years old in private kindergartens shows a certain degree of diversity and imbalance. Specifically, individual differences are significant and the development level is affected by multiple factors. In terms of operational movement development, such as running, jumping, climbing, balancing and throwing, some children can show high coordination and flexibility, but there are also a considerable number of children who have difficulty in the speed, strength, accuracy and speed of their movements. There are shortcomings in durability. This difference is closely related to the limitations of private kindergartens in resource allocation, such as small activity venues, insufficient equipment or lack of specialized design, which limits children's opportunities to practice complex movements (Zhao & Song, 2020). At the same time, due to the uneven professionalism of private kindergarten teachers, some teachers fail to scientifically organize and guide motor development activities according to the age characteristics of children, resulting in insufficient exercise and practice of children's motor skills. In the teaching content of private kindergartens, the development of operational movements is often ignored, especially the lack of guidance on complex movement combinations and challenging movements, which limits the development of children's motor experience and abilities. Although some children may receive supplementary exercise opportunities at home or in the external environment, overall there is still room for improvement between the gross motor development level of children in private kindergartens and their physiological potential.

### **2.2. Analysis of current educational practices in private kindergartens**

In the educational practice of promoting the gross motor development of children aged from 3 to 6, private kindergartens provide children with certain exercise opportunities through daily activities and curriculum design, but overall there are problems of formality and fragmentation, making it difficult to systematically support the development of

operational movements in young children (Li, Sun, Jiang, Yang, Ren, & Wang, 2019). On the one hand, private kindergartens generally focus on pre-school knowledge education, which results in the time and space for sports-related activities being compressed, especially in terms of skills such as running, jumping, climbing, and balancing involving large muscle movements. There is a lack of targeted curriculum content and guidance strategies. . On the other hand, although some kindergartens are equipped with basic sports equipment and venues, the equipment has a single type and limited functions, making it difficult to meet the diverse and progressive motor development needs of children. At the same time, teachers often lack a deep understanding of the key stages of movement development in educational practice, and fail to teach students in accordance with their aptitude when organizing activities. For example, they ignore the individual differences of children, and the design difficulty and activity form are too uniform or single, which limits the participation of some children. Enthusiasm and skill improvement (Xie, Lai, & Wan, 2018). In addition, the sports activities in private kindergartens are mostly based on free play and lack clear development goals and evaluation mechanisms. Children's movement development progresses slowly in a disorderly and haphazard state.

### **2.3. Main problems faced by 3-6 years old children in the development of gross motor skills**

The main problems faced by 3-6 years old children in the development of gross motor skills are reflected in the lack of venues and equipment, the lack of teaching design and teacher quality, and the lack of family and social support, which have comprehensively restricted the comprehensive development of children's operational movements (Sun, Li, & Liu, 2017). In terms of venues and equipment, many private kindergartens have limited resources, narrow outdoor activity spaces, insufficient equipment and single functions, making it difficult to provide children with diverse and challenging movement experiences. For example, the height of climbing equipment is insufficient or the balance equipment is monotonous, resulting in the lack of necessary conditions and stimulation for children to practice running, jumping, climbing, balancing and other movements. Insufficient teaching design and teacher quality also constitute a constraint. Some kindergartens do not pay enough attention to the development of operational movements in the

curriculum arrangement, and the teaching activities lack pertinence and innovation. They fail to design in layers according to the age characteristics and development needs of children (Chen, 2017). At the same time, some teachers lack professional knowledge and have unclear understanding of the stage characteristics of gross motor development, which makes it difficult to implement scientific teaching strategies during the guidance process, such as being unable to adjust the intensity or difficulty of activities in time to adapt to the individual differences of children. The lack of family and social support further exacerbates the problem. Some parents do not adequately understand the importance of developing gross motor skills and fail to provide their children with sufficient outdoor activity time and a suitable exercise environment. The lack of sports facilities and public activity resources at the community level also limits the improvement of children's motor skills.

### **3. Countermeasures to Promote the Development of Manipulative Movements in Children Aged from 3 to 6**

#### **3.1. Optimizing the allocation of teaching resources**

Children's manipulative movements, such as running, jumping, climbing and throwing, require not only physical support, but also a suitable activity environment and tools and equipment to provide opportunities for practice and exploration. However, many private kindergartens currently have deficiencies in resource allocation. Problems such as narrow activity venues, single types of equipment, and lack of targeted design directly limit the improvement of children's motor abilities. To address this situation, optimizing teaching resources should start with site planning, equipment selection, and activity design. It is necessary not only to ensure the safety and diversity of resources, but also to provide educational resources that match the development needs of children aged from 3 to 6 years old based on their motor development characteristics. For example, the planning of the site should fully consider the zoning design of movement types, providing open space for running and jumping activities, and setting up specific areas for climbing and balancing activities; the selection of equipment should focus on the complexity of functions, so that it can not only meet the needs of children of different ages, but also stimulate children's interest in trying various

movements (Yang, 2017). Take the practice of a private kindergarten in designing a "climbing and throwing challenge area" as an example. In order to improve children's climbing ability and strength control, the kindergarten introduced a set of multifunctional climbing frames in the venue, including a climbing rope with adjustable height, a grid frame and a slide combination, and added a cushioned area to ensure safety. Under the guidance of the teacher, the children first familiarized themselves with the equipment through free climbing, and then carried out an activity called "climbing to get the ball": the teacher hung colored soft balls at different heights on the climbing frame, and asked the children to climb to the specified height in turn to take the ball down and throw it into the target box. This activity not only combines the two types of large muscle movements of climbing and throwing, but also meets the ability levels of children of different ages through the adjustment of height and throwing distance. During the activity, children need to coordinate their bodies, control balance and throw accurately and forcefully. In the challenge, the flexibility and accuracy of large muscle movements are improved, and at the same time, interest and sense of accomplishment are enhanced through teamwork and individual competition.

### **3.2. Strengthen teacher training and curriculum design**

The development of operational movements requires professional guidance and scientific teaching plans, but many private kindergarten teachers still have deficiencies in theoretical cognition and practical guidance ability for the development of large muscle movements. The curriculum design is often lacking in pertinence and systematization, making it difficult to effectively support the development of children's large muscle movements. Therefore, strengthening teacher training should focus on improving their understanding of the laws of children's movement development, and master scientific teaching strategies and practical skills in combination with the stage characteristics of operational movement development. At the same time, curriculum design needs to start from the actual needs of children, break the problems of formalization and fragmentation in traditional teaching, and ensure that the goals of movement development are clear, the content is specific, and the activities are arranged in a clear hierarchy. For example, through special training, teachers can

design movement development activities suitable for different age groups to help children gradually move towards advanced levels in skills such as running, jumping, climbing and throwing. Taking the "Balance Trail Adventure" activity carried out by a private kindergarten as an example, this course combines the dual results of teacher training and optimization design. The kindergarten first organized teachers to participate in special training on children's movement development, focusing on learning the stage characteristics and guidance methods of balance ability development. On this basis, the teacher designed the "Balance Trail Adventure" activity, setting up a simulated adventure path, including a single-plank bridge, jumping mat, balance board and slide. The activity is divided into two stages: primary and advanced. In the primary stage, teachers guide children to practice maintaining balance on flat ground to help them establish basic control of movements; in the advanced stage, children are encouraged to walk on single-plank bridges with gradually increasing heights, while completing the task of "passing adventure items". This link not only improves children's balance ability, but also strengthens the coordination and concentration of movements. Throughout the activity, teachers adjust the difficulty of the activity according to the different ability levels of children through a combination of individual guidance and group demonstration, and record and analyze the performance of each child after the activity, so as to better support the improvement of motor ability in the future.

### **3.3. Strengthening home-school cooperation**

To promote the development of operational movements of children aged from 3 to 6 in private kindergartens, it requires not only scientific educational practices in the kindergarten, but also the active participation and support of the family. Currently, many private kindergartens have problems in home-school cooperation, such as insufficient communication, insufficient specific guidance and lack of interactivity, which makes the potential of family support not fully utilized. To solve this situation, it is necessary to strengthen scientific guidance and effective communication in home-school cooperation, such as through parent lectures, parent-child activities and sports guidance manuals, to help parents understand the importance of large muscle movement development and master movement training methods suitable for family

scenes. At the same time, through the interactive design between the kindergarten and the family, parents can truly integrate into the movement development process of their children and jointly provide children with a variety of sports experiences. A private kindergarten achieved remarkable results through home-school cooperation in the "Parent-Child Obstacle Race" activity. The activity teacher provided parents with a training on the development of children's operational movements, focusing on the characteristics of skills such as climbing, balancing and throwing, and provided some simple exercises that can be carried out at home. The kindergarten then designed a parent-child obstacle race with the theme of "exploration", integrating running, jumping, climbing and other movements into the track, including climbing over a cushioned mountain, climbing over a slide net and throwing a target ring. Each group of children and their parents need to complete the task together and complete the entire track through cooperation and interaction. During the activity, parents not only participated in the children's sports, but also learned how to help children break through the difficulties of movement through action encouragement and appropriate physical assistance under the guidance of teachers. After the game, the teacher organized parents to share their experience of the activity and recommended simple action games that can be practiced at home to each family, such as "family throwing practice" and "living room obstacle challenge", which further continued the effect of sports education.

### **3.4. Introducing professional support**

Introducing professional support can make up for the lack of resources and capabilities in the kindergarten and provide more scientific and high-quality movement development support for children. Private kindergartens often have difficulty in achieving ideal results in terms of venue equipment, curriculum design, and teacher guidance due to limited conditions. Professional institutions and personnel can optimize kindergarten movement education practices through systematic technical support and guidance. The introduction of professional support can include hiring children's motor development experts to provide consultation and training, cooperating with professional sports or sports organizations to develop special courses, and regularly inviting external expert teams to guide teaching activities. Through these methods,

kindergartens can obtain more comprehensive theoretical support and practical guidance to help them build a scientific and personalized motor development system. The key to introducing professional support lies in its pertinence and sustainability. The pertinence is reflected in the fact that the professional team can design highly adaptable teaching strategies for the kindergarten based on the actual situation of the kindergarten and the specific needs of the development of large muscle movements of children aged from 3 to 6. For example, by scientifically evaluating the motor development level of children, kindergartens can clarify the key points and difficulties of teaching; provide professional improvement suggestions for the course content to make it more in line with the stage characteristics and individual differences of children's motor development; guide teachers to master more effective motor training methods, such as how to help children gradually improve their motor abilities by refining motor guidance, regulating the intensity and rhythm of exercises in activities. Sustainability is reflected in the fact that professional support is not only short-term guidance, but also a long-term cooperation mechanism should be formed through regular training, evaluation and feedback to ensure that kindergartens can continuously optimize and improve their teaching systems and constantly adjust strategies in line with academic frontiers and practical development.

### **Conclusion**

In conclusion, the development of large muscle movements is not only related to the physical health of children, but also has a profound impact on their psychological quality, social interaction skills and future learning ability. Private kindergartens play an important role in promoting this process. Their flexibility and diverse educational models provide children with abundant exercise opportunities. To achieve more efficient support for movement development, kindergartens need to optimize teaching resource allocation, teacher training, curriculum design and home-school cooperation, and further improve the quality of education by introducing professional support.

### **Conflict of Interest**

The authors declare that they have no conflicts of interest to this work.

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