

# Research on Strategies for Physical Experience in Early Childhood Labor Education: A Perspective Based on Embodied Cognition Theory

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## Abstract

**Under the current educational goal of all-round development in morality, intelligence, physical fitness, aesthetics, and labor, there are still many deficiencies in the implementation of labor education for young children in China. The most prominent problem is the lack of sufficient physical experience in labor education for young children, which directly leads to the superficial and formalized predicament of labor education. The embodied cognition theory proposed in the 1980s indicates that cognition is "embodied", and it has the characteristics of embodiment, experience, and contextuality. Introducing this theory into labor education and fully exploring the core content of physical experience in early childhood labor education can provide a solid theoretical basis and feasible practical paths to solve the problem of insufficient physical experience. Based on the embodied cognition theory, strategies for the return of physical experience in early childhood labor education can be proposed from five aspects: concept, content, environment, teacher guidance, and evaluation, providing a guarantee for the scientific implementation of labor education.**

## Keywords

**Labor education; Physical experience; Embodied cognition theory.**

## 1. Introduction

In March 2020, the Central Committee of the Communist Party of China and the State Council issued the "Opinions on Comprehensively Strengthening Labor Education in Primary, Secondary and Higher Education Institutions in the New Era" [1], clearly stating that labor education should be integrated into the entire process of talent cultivation, covering all educational stages and aspects, and be integrated with moral, intellectual, physical and aesthetic education. There are also clear policy guidelines for preschool education. The "Guidelines for Preschool Education (Trial)" [2] requires guiding children to understand workers and respect labor achievements. The "Guidelines for the Learning and Development of Children Aged 3-6"[3]. incorporates labor education into the five major fields, such as guiding children to participate in collective labor and experience the joy of service. These policies fully demonstrate the country's high regard for labor education in early childhood and highlight the important position of labor education in the field of education.

However, in the current implementation of labor education for young children in China, there are still many difficulties. Regarding the content of labor, Min Huizhu et al. (2020) pointed out in their research on children's labor education that there are problems such as monotonous and rigid content and perfunctory and disordered processes [4]. In terms of labor practice, Zhao Ronghui (2012) pointed out that there are problems such as the neglect of labor and labor

education becoming a transitional link in current preschool education [5]. In terms of labor evaluation, Zhang Jiangkun et al. (2023) pointed out that labor evaluation shows a tendency to focus on results rather than processes, with the evaluation results of labor education becoming the main goal, and excessive emphasis on performance indicators such as labor achievements and labor resources [6]. The core problem of such formal and superficial issues is mainly the lack of physical experience in children's labor.

Physical experience refers to the direct perception of labor objects, tools, and the environment through the body's senses during the labor process, participation in the labor process through body movements, and the comprehensive internal experience of physical sensations, cognitive construction, and emotional attitudes generated in this process. Children aged 3-6 mainly rely on concrete image thinking and action thinking, and their cognition depends on intuitive experience and body movements. Piaget's (1970) theory of cognitive development stages points out that children in the preoperational stage establish connections with the external world through direct body perception, and the body has a certain priority in cognitive development. Piaget also explicitly stated that knowledge comes from action [7]. Therefore, sufficient physical experience is indispensable for the development of children's cognitive abilities such as perception, memory, imagination, and thinking. Only when children's bodies truly participate in labor practice, directly perceive, personally experience, and actually operate can "manual labor" and "mental labor" be combined to achieve the purpose of labor education. Embodied cognition theory, as the "theoretical foundation" of physical experience, provides a scientific theoretical support for addressing the problem of the lack of physical experience in children's labor education.

## 2. The Meaning and Characteristics of Embodied Cognition Theory

The German philosopher Heidegger (1927) proposed "being-in-the-world" in his book "Being and Time", emphasizing that humans are already embedded in and participating in the world, and through labor and interaction, they become integrated with the world. Humans understand the world through bodily interaction rather than rational reflection [8]. This critique of the mind-body dualism represented by Descartes overturned traditional philosophical understanding. Later, the French philosopher Merleau-Ponty (1945) in his book "Phenomenology of Perception" concretized Heidegger's "being-in-the-world" as bodily existence, explicitly proposing the core position of the body in cognition, arguing that the body is the subject of perception and action, and that cognition must be realized through the body [9]. Subsequently, with the confirmation and promotion of numerous scientific experiments in experimental psychology and neuroscience by Varela (1991) [10], Damasio (1994) [11], and others, this theory has transformed from a philosophical idea to a scientific empirical one. It is now widely held that knowledge is the result of the interaction between the learning subject, the learning object, and the environment. Since the 1980s, this view has gradually developed into today's "embodied cognition theory", which can be summarized as: cognition does not merely occur in the brain but is rooted in the body and its interaction with the environment; the structure and sensorimotor system of the body shape cognition; the formation of thought, emotion, and concepts cannot be separated from the physical experience of the body.

Embodied cognition theory points out that cognition has three characteristics: embodiment, experience, and contextuality, which provide theoretical support for the necessity of bodily experience in children's labor education. First, cognition is embodied; it depends on the human body to occur and is "embodied" rather than "disembodied", which is in line with the fundamental position of materialism that "consciousness depends on matter". This characteristic aligns with the feature of children that "action precedes thought", and children need to perceive and understand labor through physical actions in labor rather than abstract

concept explanations. Second, cognition is experiential; in the process of interaction with the outside world, the body acquires different cognitive contents about things, thereby generating corresponding cognitive methods, ultimately influencing the individual's different cognitive results about the outside world. This also matches the cognitive feature of children that they "perceive intuitively", and different bodily experiences of children will form different cognitions about labor content, and bodily experience enables children to truly understand the meaning of labor. Finally, cognition is contextual; cognition occurs in a context, and the body is part of the context, so cognition is the result of the interaction between the mind, the body, and the environment. [12] This characteristic aligns with the feature of children that they "learn in life", and labor should be carried out in real scenarios, allowing the body to interact with the environment to deepen cognition.

### **3. Core Contents of Bodily Experience in Children's Labor Education**

According to the domain division of the "Guidelines" and the "Outline", the physical experience in children's labor education is not isolated but deeply integrated with the development goals of each domain, with labor education permeating all domains.

#### **3.1. Health domain: Physical experience in self-care labor**

The "Guidelines" in the health domain emphasize the cultivation of children's "basic self-care ability", and the "Outline" also requires the "cultivation of good living and hygiene habits" and "the development of children's motor skills". Based on these, when children are learning to dress and undress, wash their faces and hands, organize items, and eat independently, teachers can take these opportunities to create interesting physical experience activities for children. For example, "tunnel crawling" and "button maze" dressing games, as well as "toy transportation" and "small cart delivery" organizing games. Through repeated practice of physical actions such as pulling, buttoning, pinching, rubbing, reaching, and bending, children can continuously build an intuitive understanding of "self-service", develop body control ability, and form a "clean and orderly" embodied understanding, thereby meeting the requirements of cultivating children's self-care ability and hygiene habits, and laying a physical foundation for embodied experiences in other domains.

#### **3.2. Social domain: Physical experience in service labor**

The "Guidelines" in the social domain goal emphasizes the cultivation of children's "participation in simple collective labor" and "respect for others' achievements", and the "Outline" also proposes the "cultivation of cooperative awareness" and "respect and understanding of others". Based on this, teachers can guide children to participate in labor such as wiping tables and distributing plates to serve the collective or peers, and design single-person tasks such as "table helper" and cooperative labor such as carrying tables. Through physical experiences such as pushing, pulling, lifting, and squatting, children not only exercise their labor skills but also develop a sense of achievement in serving others; through the interaction of body and eyes to perceive the state of others, they achieve the embodied development of empathy, and gradually understand abstract concepts such as "cooperation" and "respect", thus achieving the educational goals of the social domain.

#### **3.3. Science domain: Physical experience in exploratory labor**

Centering on the goals of the "Guidelines" such as "being close to nature and enjoying exploration" and the "Outline" such as "guiding children to be close to nature and love nature" and "developing children's exploration ability", children can have physical experiences in exploratory labor such as planting, breeding, and handicraft making. For example, in the small vegetable garden, they can carry water and transport fruits, in the breeding activities, they can

reach out to feed and clean the cages, and in the natural material collection activities, they can pick up leaves and stones. Actions such as digging, carrying, moving, squatting, standing, and stretching can strengthen children's large muscle strength, improve their endurance and coordination. Through embodied experiences, children can obtain intuitive perceptions of natural phenomena such as the growth cycle of plants and the habits of animals, deepen their interest in scientific exploration, and feel the joy of nature in exploratory labor, achieving the deep integration of the science domain and labor education.

### **3.4. Art domain: Physical experience in creative labor**

The "Guidelines" in the art domain goal emphasizes the cultivation of children's "bold artistic expression and creation", and the "Outline" also has corresponding requirements such as "using items or waste materials around to make toys and handicrafts". Based on this, children can engage in creative labor with practical or decorative value. For example, teachers can organize children to carry out decoration activities such as cardboard box construction and bottle decoration. Through the experience of actions such as kneading, cutting, and pasting in the activities, children can develop their fine motor skills. At the same time, children can transform their inner imagination into concrete works through body movements in the activities, receive artistic influence in labor, perceive the beauty of color, shape, and order, and ultimately achieve the embodied unity of aesthetic experience and labor achievements.

### **3.5. Language domain: Physical experience in the labor process**

The phrase "willing to express one's thoughts and feelings" in the "Guidelines" is highly consistent with the "Encourage children to express their thoughts and feelings boldly and clearly" and "Develop children's language expression ability" in the "Outline", both emphasizing the importance of children's self-expression. Combined with embodied labor, teachers can carry out activities through communication during the labor process and the narration of labor results. During the labor process, teachers can encourage children to express their feelings while doing labor actions, such as saying "Bending over is necessary to sweep the floor clean" when bending over to sweep. After the labor, teachers can guide children to narrate the labor process and results based on their own labor actions, such as "I used a cloth to wipe the table and it became clean". Through the synchronous coordination of body movements like pulling, wiping, watering, and sweeping with language, the expression of language helps children achieve the embodied connection from labor actions to labor cognition. This not only roots language expression in real labor body experiences but also enhances the authenticity of language description, developing children's language expression ability.

## **4. Practical Strategies for Preschool Labor Education under Embodied Cognition Guidance**

The core content of preschool labor education body experience aims to enable children to achieve comprehensive development in cognition, ability, and emotion through "hands-on, personal experience". However, in current preschool labor education, there is a common "disembodied" predicament where the body experience is detached, such as overemphasizing the inculcation of labor knowledge and the evaluation of labor results, thus neglecting children's body participation and experience. This leads to labor education remaining at a superficial and formal level, unable to realize its comprehensive educational value of moral cultivation, intellectual enhancement, physical strengthening, and aesthetic education. Based on the core propositions of embodied cognition theory and the core content of body experience in preschool labor education, preschool labor education needs to achieve a comprehensive return, giving the body experience back to children and allowing labor education to truly take root.

## **4.1. Return of Concepts**

### **4.1.1. Establish the core principle of body participation**

Combining the core requirements of labor experience in the five domains, preschool labor education should focus on the experience and feelings of the labor subject, taking body participation as the core principle. Through the embodied interaction of children's personal, hands-on, and firsthand experiences, they can perceive the interaction relationships among labor tools, objects, and the environment, and understand the importance of action development, sensory experience, and social development in the labor process, achieving "learning by doing" and "learning through labor".

### **4.1.2. Clarify the theoretical support of the unity of body and mind**

It is necessary to abandon the traditional dualism of body and mind and attach importance to the value of the body. Viewing the body and mind as a whole, it is recognized that the growth of intelligence, the refinement of skills, and the emergence of emotions all depend on the actual experience of the body. The bravery, empathy, and cooperation in labor, as well as the fatigue, satisfaction, and joy after energy consumption in labor, all allow children to gain more self-perception and understanding of the outside world. This is the concrete manifestation of the unity of body and mind in labor education.

## **4.2. Return of Content**

### **4.2.1. Establish the content foundation of labor education**

Based on the situational nature of cognition, labor education must be rooted in children's actual life and follow the concept of "life is education". Content selection should be in line with age characteristics, covering self-service in the health domain, serving others in the social domain, and serving the environment in the science domain. Ensure that labor content is closely combined with the development goals of the five domains, so that children's body experiences originate from life and ultimately serve life.

### **4.2.2. Build body participation paths and strengthen sensory experiences**

Based on the differences in embodied labor experiences in the five domains, teachers need to design operable, targeted, and hierarchical labor content, setting different difficulty tasks according to children's age and ability differences to ensure that children of different levels can have opportunities for body participation. At the same time, activities should fully mobilize children's multiple senses, using rich sensory stimulation to enhance the sense of labor experience and fun, providing a source for body experience and cognitive construction.

## **4.3. The Return of the Environment**

### **4.3.1. Creating a Low-structured Labor Environment**

To integrate children's embodied experiences into their daily lives, it is necessary to create a low-structured environment that allows for labor, touching, operating, and exploration at any time, and to abandon the teacher-prepared, toy-like labor environment. Provide children with real labor materials and tools of appropriate size, enhance the contextuality of the environment, naturally attract children's interest, and enable them to participate in labor personally.

### **4.3.2. Offering Scenarios with Diverse Participation Opportunities**

The return of the environment also requires ensuring that children have sufficient labor time and diverse participation scenarios, avoiding the weakening of labor education implementation due to tight schedules. Teachers should systematically arrange personal services and collective tasks in each link of the daily life, and reserve dedicated collective labor time, allowing children to deepen their body perception through repeated hands-on activities and continuous experiences, ensuring that labor activities are fully and effectively carried out.

## **4.4. The Return of Teacher Guidance**

### **4.4.1. Respecting Children's Body Experience Process**

Teachers are guides rather than dominators in children's activities. The core is to respect children's body experience process. When providing guidance, teachers should focus on children's body experiences and feelings during labor, ensuring that children have sufficient time for independent exploration and trial and error. Teachers should focus on observation and encouragement. When children encounter difficulties, they should be allowed to try repeatedly, and the process of experience should not be deprived. When children need teacher intervention, teachers should pay more attention to physical demonstration and guidance, rather than directly interfering or doing it for them, allowing children to grow through independent experience.

### **4.4.2. Accepting Diverse Experience Results**

Children's physical and mental development has limitations, and there are differences among individuals, which determines that the results of labor must be diverse. Teachers should respond to these different labor results with an inclusive and encouraging attitude, not using the result as the only criterion for evaluation, but paying more attention to the process of body experience and active participation, cherishing children's every bit of progress. This imperfect result is the true feedback of each unique individual's exploration and is also positive. This can also enable children to learn to accept themselves and respect others in the experience.

## **4.5. The Return of Evaluation**

### **4.5.1. Focusing on the Evaluation of the Labor Process**

The evaluation of children's labor education needs to shift from focusing on the labor result to focusing on the labor process. Focus on children's body participation, concentration, persistence, the degree of motor development, efforts to solve problems, and changes in emotional attitudes during activities, emphasizing the overall shaping of children by labor.

### **4.5.2. Adopting Dynamic Evaluation Methods**

To comprehensively reflect children's growth and progress in labor, dynamic evaluation methods should be adopted, discarding the single and static evaluation model. Process evaluation methods such as observation records, anecdotal records, and children's self-reports should be used to reflect children's progress and dynamic growth, pay attention to changes in children's feelings, and highlight children's subjectivity. Let the evaluation truly serve children's embodied experiences and all-round development.

## **5. Conclusion**

Based on the perspective of embodied cognition theory and in combination with the current reality of labor education for young children, this article analyzes the predicaments faced by labor education for young children in practice, clarifies the core content and value of physical experience in labor education, and proposes targeted practical paths. The research finds that current labor education for young children has problems such as rigid content, superficial practice, and result-oriented evaluation, with the fundamental issue being the lack of physical experience for young children. This article takes embodied cognition theory as the theoretical support, explores the high degree of consistency between this theory and the physical and mental development laws of young children, deeply integrates physical experience with educational goals, and further explores the significant development value of physical experience in labor education for young children. Finally, it is proposed that labor education for young children needs to achieve a comprehensive return in terms of concepts, content, environment, teacher guidance, and evaluation systems. Only by truly returning physical

experience to young children can labor education be effectively implemented and its comprehensive educational value of fostering virtue, increasing intelligence, strengthening the body, and cultivating beauty be realized.

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