

# The Dilemma and Breakthrough of Preschool Teacher Training from the Perspective of Embodied Cognition

Yimeng Zhang<sup>1,\*</sup>, Shuanghua Zhang<sup>1</sup>

<sup>1</sup>School of Education and Physical Education, Yangtze University, Jingzhou, 434023, China

\*Corresponding author: Zhang Yimeng (Email: ym15536143056@163.com)

**Abstract:** Preschool teacher training is an effective way to promote the professional development of Preschool teacher. Embodied cognition emphasizes the important role of body participation in teachers' learning and advocates the harmonious unity of body, mind and situation. Using the embodied cognition theory, Preschool teacher training has the realistic dilemma of "de-somatization" of training objectives, "de-practicality" of training content, "de-experientialization" of training methods, and "de-contextualization" of training places.

**Keywords:** Embodied cognition, Preschool teacher training, Dilemma, Breakthrough.

## 1. Introduction

Preschool education is an important part of basic education in China, and its quality has a significant impact on the healthy growth of children and the improvement of the overall level of basic education. The key to improve the quality of preschool education is to promote the professional development of preschool teachers. To this end, the Party Central Committee has attached particular importance to the professional development level of preschool teachers over the years, such as the "Several Opinions of the Central Committee of the Communist Party of China and The State Council on Deepening the reform and Development of preschool Education" issued in 2018 clearly put forward: "We should strengthen the construction of teachers' ethics, improve teachers' professional literacy, and cultivate the professional feelings of loving early childhood education and loving children." This provides policy guarantee for the professional development of preschool teachers. Preschool teacher training is the main way to promote the professional development of teachers, which is of great significance to the improvement of the comprehensive quality of preschool teachers.

At present, there have been some research results in the academic circles on the exploration of preschool teacher training. For example, Wan Zhong and Cheng Min introduced the concept of competency-based education to promote the professional growth of preschool teachers in view of the shortcomings of traditional training. [1] Li Huanhuan and Huang Jin built preschool teacher training models from the three stages of pre-training, training and post-training to help preschool teachers improve their ability of "high-quality and good education". [2] Hui Jinyu and Chu Yuanhui considered that quality preschool teacher training should have 12 characteristics, such as the penetration and internalization of preschool education concept, the externality and potential of training effect. [3] Zhang Yunliang, Wang Deming, Shi Li and others found, through the investigation and research of preschool teachers in central, western and northern regions of China, found that the prominent problem in training lies in "insufficient training practice", and insufficient training time and theoretical training are the main factors that hinder teachers from participating in training. [4] Based on the lack

of subjectivity in rural preschool teacher training, Zhang Wenjuan proposed that the dialogue with preschool teachers should run through the whole process of training [5].

It is undeniable that existing studies provide a visual window for us to understand the current situation of preschool teacher training, but few scholars realize that the essence of preschool teacher training is formed according to the various interactions and experiences between teachers' own functions and the surrounding environment. Therefore, based on the perspective of embodied cognition, this study will explore the realistic dilemma of preschool teacher training, and construct a breakthrough path of preschool teacher training from embodied, situational and generative aspects, so as to better promote the professional development of preschool teachers.

## 2. Embodied Cognition Theory

Embodied cognition theory surpasses the traditional mind-body dual cognition theory. Descartes advocated the separation of "body" and "mind", paying attention to "mind" and neglecting the role of the body. Nietzsche believed that the study of the body can better understand the existence of human beings, Heidegger further proposed the uniqueness of the body to the objective existence, and Merleau Ponty profoundly interpreted the body as the carrier of human understanding and perception of the world. In the 1960s, the establishment of ecological psychology theory and the discovery of mirror neurons provided strong support for the development of embodied cognition theory [6], thus realizing the transformation of traditional "disembodied" cognitive theory to mind-embodied contextualization.

Embodied cognition refers to the dependence of cognition on the body, emphasizing the interaction between cognition, body and situation, which has the following three characteristics. One is embodied. That cognition depends on the natural state of the body. On the one hand, understanding comes from the body's sense of taste. On the other hand, the natural characteristics of the body will affect the cognitive process, for example, observing the same object from different angles will present different characteristics of the object, and then affect the understanding process of the object. The second is situational. Human cognition cannot exist apart from the situation. In the process of interaction between the

body and the environment, on the one hand, the body will produce sensory experience about the situation, which directly affects the cognitive content of the individual. On the other hand, the body is not independent of the situation, but exists as a part of the situation, and the individual's cognitive performance under the influence of the situation will change the existing situation and lead to the generation of new situations. The third is generativity. Individual cognition is generated in the continuous interaction with the situation, which is a dynamic development process. In different stages of individual development, individual cognition is also different. Because people themselves and their environment are constantly shaping and changing, people's cognition is always in long-term change.

The training of preschool teachers is an important way to promote the professional development of teachers and enhance the ability of nursing and teaching. At present, China's preschool teacher training presents a "disembodied" dilemma, and embodied theory emphasizes the importance of body participation and attaches importance to the interaction between body and situation. On this basis, examining the existing problems of China's preschool teacher training can effectively get rid of the "disembodied" dilemma of teacher training and improve the effectiveness of teacher training.

### **3. The Dilemma of Preschool Teacher Training from The Perspective of Embodied Cognition**

The value of preschool teacher training lies in improving teachers' comprehensive quality and ability, which requires teachers' physical and mental participation and situational experience. However, under the influence of traditional cognitive psychology, the current preschool teacher training mainly presents the realistic difficulties of "de-physicalization", "de-practicalization", "de-experientialization" and "de-contextualization" of training places.

#### **3.1. Training goal "de-body"**

The traditional mind-body dual cognitive theory opposes the existence of the spiritual level such as cognition and thinking to the body in the material world, and holds that human cognition has nothing to do with the body, and regards the body as an instrument carrying the soul, which directly leads to the separation of rational thinking and body participation. In fact, the development of rational thinking does not mean the development of cognition, and the real sense of learning cannot be separated from the participation of the body, just as Dewey advocated "learning by doing". Under the influence of the traditional mind-body dual cognitive theory, the training of preschool teachers has a tendency of "dephysicalization". At present, there are two kinds of target orientation of preschool teacher training: one is to focus on improving teachers' theoretical knowledge level; The second is to focus on the improvement of teachers' nursing ability. For the training organizers, more attention is paid to the improvement of preschool teachers' theoretical knowledge level, but this will obviously cause the problem of teacher training. The lack of physical participation in theoretical knowledge learning is obviously completely difficult to internalize, and it is difficult to truly improve the theoretical level of teachers. For teachers themselves, they pay more attention to the improvement of their own

professional ability, but this orientation will undoubtedly lead to teacher training becoming the study of technology, making teachers only according to the established procedures of teaching technicians. The training goal of preschool teachers should focus on the cultivation of teachers as "people", not only the growth of knowledge and the improvement of ability, but also the health of physical quality and emotional attitude.

#### **3.2. Training content "de-practical"**

Embodied cognition emphasizes the importance of body participation in learning, and believes that individual learning is based on the interaction process between body and environment, which is directly reflected in teachers' educational practice. The practicability of the training content can effectively increase the physical participation of teachers and strengthen their practical ability. However, the current pre-school teacher training focuses on theory in the training content. It is undeniable that the starting point of such theoretical training is good, but it ignores the recent development area of most preschool teachers. For preschool teachers with weak professional foundation and generally low educational background, the theoretical knowledge of training, such as expert lectures, is more profound to them. Because the premise of knowledge acquisition needs to be based on a certain amount of experience and ability, theory is difficult for them to understand and internalize, and it is more difficult to apply to practice. When training is disconnected from the actual parenting work of teachers, it is obviously not conducive to the physical participation of teachers. A survey shows that teachers generally think that the content of training problems is outstanding, especially reflected in the "insufficient training practice". Other related studies also show that preschool teachers pay more attention to theoretical knowledge than practical ability in training content. As a result, preschool teachers have doubled their

confidence during the training period. However, once they return to the grass-roots units, they lack practical guidance, and many theories cannot be applied. This disconnection between theory and practice will ultimately be detrimental to the improvement of teachers' professional quality.

#### **3.3. "De-experiencing" training method**

Under the influence of traditional education methods, the current preschool teacher training activities mainly take the form of expert lectures, experience sharing of famous teachers, etc. On the one hand, such training activities are mainly focused on teachers' listening, which is inevitably difficult to pay attention to the personality characteristics of teachers, which is not conducive to the satisfaction of teachers' individual training needs. On the other hand, this kind of "filling" teaching will mechanically instill the training content to trainees, which not only reduces the enthusiasm of teachers to participate in the training, but also is not conducive to teachers to effectively improve their own quality through training activities. For preschool teachers with poor professional foundation, they are more inclined to the form of observation class, because it is vivid, graphic and intuitive, and they are easier to imitate and transfer, while pure theoretical teaching is difficult to internalize and guide teachers' practical work. However, not all knowledge can be presented through the observation class, so the practical link should be appropriately added to the theory teaching. Embodied cognition theory holds that learning is the process of the body's construction of the external situation from the

inside out, including the participation of the sensory, perceptual and motor systems, rather than one-way knowledge transfer. The current training activities try to imbue teachers with preschool education theories in a one-way way, while ignoring the involvement and learning experience of teachers' learning, making teachers become knowledge containers, which is not conducive to the interaction between teachers and trainers, as well as between teachers and peers, resulting in the effectiveness of training is difficult to play.

### **3.4. "De-contextualization" of training places**

Embodied cognition theory advocates the interaction between the body and the surrounding environment in the process of individual learning. The body exists as a part of the environment and influences the reshaping of the environment. Changes in the environment will in turn affect the body and promote the generation of new cognition. At present, the training of preschool teachers as a whole presents the dilemma of "de-contextualization", and the training venues are basically in conference rooms and academic lecture halls, rather than real kindergartens. Based on the theoretical perspective of embodied cognition, this de-contextualized training blocks the interaction between individuals and the environment, making it difficult for teachers to connect with practical problems and real situations in early childhood education, which is not conducive to the substantial progress of early childhood teachers in training activities. Knowledge is actively constructed by an individual in the interaction with the situation, and only the knowledge that is assimilated or adapted by an individual can be truly owned by an individual. What preschool teachers are exposed to in the training far away from the kindergarten is only the result knowledge, which is not self-constructed, so it is not long-lasting. Only when teachers truly incorporate these knowledge into the existing cognitive schema can they really promote the improvement of their professional level, otherwise there will be a "dissociation" dilemma in preschool education practice. Learning under embodied cognition theory is experiential learning based on the situation, in which trainees internalize the training content into their own cognition through their own feelings, listening and seeing.

## **4. The Breakthrough Path of Preschool Teacher Training from The Perspective of Embodied Cognition**

From the perspective of embodied cognition, teacher training should pay attention to the interactive experience between teachers and situations. In view of the realistic difficulties existing in the training of preschool teachers, such as "de-physicalization", "de-practicalization", "de-experientialization" and "de-contextualization", the following breakthrough paths are proposed.

### **4.1. The goal of the training is to free the body**

Embodied cognition theory advocates the participation of the body, which is not just the physical property of the body without the mind, but the participation of the whole body. Without the participation of the body, the cognitive activities of teachers are like water without a source, which is difficult to improve the quality and ability. Through whole-hearted participation, teachers can achieve physical and mental coordination, stimulate the inner vitality of preschool teachers, enhance the professional experience of teachers, and

ultimately improve the effectiveness of training. Specifically, the training goal of teachers should not only pay attention to mental training, but also emphasize the important role of the body in cognition. The body is the basis of mental training, and mental learning without the body is inevitably difficult to be applied to practice. Training objectives should not only include preschool teachers' theoretical knowledge and ability, but also include comprehensive qualities such as physical quality, professional ethics, emotional attitude and values. For a long time, China's preschool teacher training has mainly presented the value orientation of instrumentalism, and has not really paid attention to the main value of "human" as a preschool teacher. The trainers only regard teachers as "workers" who are about to enter the assembly line production. The final result is that the human value of teachers cannot be brought into play, and the harmonious development of individuals cannot be realized. They may even bring this instrumentalist approach to the nursery, treating young children as products to be processed. Therefore, attaching importance to the liberation of the body and emphasizing the full participation of the participating teachers should become a major direction of reform in the future teacher training.

### **4.2. The training content emphasizes in-depth practice**

Embodied cognition theory holds that the body's sensory, perceptual and motor systems provide sensory materials for cognitive activities. Compared with theoretical knowledge, practical training content can present richer sensory experience, which can deepen cognition and help preschool teachers internalize the training content and ultimately improve the effectiveness of training. To enhance the practicability of the training content, on the one hand, we should closely combine the actual work of the current preschool teachers to meet the actual needs of teachers. Before training, the training organizer should carry out actual research on preschool teachers, and go to the front line with questionnaire survey, interview and classroom observation to understand the actual needs and learning characteristics of teachers, so as to involve preschool teachers in the design of training courses and improve the practicability of training courses. On the other hand, we should pay attention to the pertinence of training. Design different training contents according to different teacher categories, job responsibilities and specific tasks. At present, teachers in kindergartens can be divided into management staff, teaching staff and nursing staff. Different teacher groups have different requirements on training content, so the content of training for preschool teachers should be classified and set in a targeted way. Meanwhile, the pertinence of training content should also be reflected in teachers of different age groups. Young teachers who have just entered the profession obviously need to improve their practical skills.

### **4.3. The training approach highlights interactive experiences**

Based on the perspective of embodied cognition, the learning process of an individual is reflected in the interaction with the environment. Only effective interaction between teachers and the surrounding situation can promote the deepening of the training content, and then help teachers apply the knowledge they have learned to practical activities. In the process of teacher training, the surrounding physical implementation, personnel and training methods will

affect teachers' cognition as environmental factors, and ultimately shape teachers' behavior. The traditional training method mainly adopts the centralized "full classroom irrigation", which undoubtedly blocks the interaction between the participating teachers and the surrounding situation, excludes the shaping function of the situation from the teacher training, and dissipates the enthusiasm of teachers to participate in the training. The training method from the perspective of embodied cognition should be to make teachers' learning into an effective dialogue. By combining various forms such as expert teaching, exchange between kindergartens, participatory training, guidance from famous teachers, case study, teaching reflection, inspection and observation, and practical operation, the training method can learn from each other's strengths and make overall optimization, so as to strengthen communication and discussion among teachers. Arouse the enthusiasm of teachers to participate in training, and then enrich the training experience of teachers. At the same time, the misunderstanding of "form for form" should be avoided, and the ultimate purpose of enhancing teachers' interactive experience is to improve the quality of training, rather than pursuing the fancy of form.

#### 4.4. Training place to create a suitable atmosphere

The acquisition of preschool education knowledge and ability of preschool teachers is not only theoretical learning, but also practical work exercise. In the practice of preschool education, teachers accumulate practical experience through observation, transfer, self-examination and other forms, and improve various qualities and abilities in the interaction with the situation. Embodied cognition theory holds that learning comes from the interaction between the body and the surrounding situation, and the professional development of preschool teachers can only be effectively promoted through the interaction of body, mind and environment. As an important part of the environment, the training site has supportive conditions that will directly affect the quality of teacher training. In view of the fact that the traditional training site is separated from the real kindergarten and does not form a classroom atmosphere that triggers the practical motivation of teachers, it is inevitable that it is difficult to obtain the effectiveness of training. Since the teacher's learning cannot be separated from the supporting role of the situation, the profession of preschool teacher has a strong practicality, so the choice of training places should be based on a certain practical support role. The training place should be as close to the real child classroom as possible, and try to create a common atmosphere in parenting practice. Only in the on-site training, the mind, body and situation of preschool teachers can continuously and effectively interact, and then generate the impulse to solve problems. This atmosphere with practical support is not only conducive to the realization of the training goal, but also conducive to the improvement of the subject

status of preschool teachers.

## 5. Peroration

With the attention of the Party and society to preschool education, the quality of preschool education has become a hot topic. As the main undertaker of preschool education, the professional development level of preschool teachers directly affects the quality of preschool education. Preschool teacher training is the main way to promote the professional development of preschool teachers, and the quality of training directly determines the professional level of teachers. Based on the perspective of embodied cognition, this paper examines and finds that there are some practical problems in the current training of preschool teachers in China, such as "de-physicalization", "de-practicalization", "de-experientialization" and "de-contextualization" of training methods. In order to improve these problems, it is proposed that the training goal attaches importance to liberation of the body, the training content emphasizes in-depth practice, the training method highlights interactive experience, and the training place creates a suitable atmosphere. In order to achieve the goal of improving preschool teacher training and improving the quality of preschool teachers.

However, there are still some problems in this study, such as insufficient academic language expression, systematic research content, speculative research methods, and lack of operability of research results, etc. Therefore, it is hoped that this paper will play a role in attracting more scholars to focus on the research of preschool teacher training. Based on the shortcomings of existing studies, future studies can be carried out from multidisciplinary perspectives such as pedagogy, psychology, management and sociology.

## References

- [1] Wan Zhong, Cheng Min. A view of preschool teacher training from competency-based education [J]. *Preschool Education Research*, 2005(02):44-45.
- [2] Li Huanhuan, Huang Jin. Construction of preschool teacher training Model of "High-quality Good Education" [J]. *Chinese Journal of Education*, 2019(02):11-17.
- [3] Hui Jinyu, Chu Yuanhui. Characteristics of "quality" preschool teacher training [J]. *Educational Exploration*, 2015(06):142-145.
- [4] ZHANG Yunliang, Wang Deming, Shi Li, Song Yinzhe, Jiang Yong. Current situation, evaluation and demand of rural preschool teacher training [J]. *Preschool Education Research*, 2012 (01): 33-38. (in Chinese)
- [5] Zhang Wenjuan. Dialogue with Preschool Teachers: Through the whole process of training -- On the training of rural preschool teachers [J]. *Journal of Inner Mongolia Normal University (Education Science Edition)*, 2012, 25(04):62-64.
- [6] Yin Ming, Liu Dianzhi. Mind-body integrated learning: Embodied Cognition and its educational implications [J]. *Curriculum. Teaching Methods*, 2015, 35(07):57-65.