

# Design of Indoor and Outdoor Space Environment in Kindergartens based on Children’s “Three Natures”

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**Abstract:** Nature is the natural source of children, the mind is the psychological activity of children’s self-awareness and understanding of the world, and personality is the stable social quality formed by children in social interaction and practice. Adhere to the “three characteristics” of children as the foundation of kindergarten space creation, in line with the laws of children’s physical and mental development, deepen children’s interaction with the environment and deepen their understanding of the world and themselves. The specific methods that can be adhered to in practice are as follows: follow nature and create a natural material space, inspire the mind and create a warm and harmonious psychological space; respect individuality and present a rich interactive exploration space.

**Keywords:** Children’s three natures characteristics; Space environment; Child development

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## 1. Introduction

Young children constantly deepen their understanding of the world and themselves through interaction with the environment and are known as the third teacher of young children. To create a child-centered indoor and outdoor space environment in a kindergarten, the term “child-centered” has to be defined. The flourishing of children’s lives includes the internal unity and effective interaction of their nature, mind and personality. Every word and action has its inherent learning and growth significance. In the creation of indoor and outdoor spaces in kindergartens, adhering to the natural, psychological and individual characteristics of children can promote the harmonious development of their physical and mental health <sup>[1,2]</sup>.

## 2. The connotation of children’s “Three Natures” and its significance for spatial environment creation

The three characteristics of children are their nature, mind and personality. The term “nature” comes from the book “The Doctrine of the Mean,” which states that nature is determined by fate. Heaven is nature and

the source. Nature is like the natural laws of Comenius, the natural law of Pestalozzi, the instincts of Froebel, and the instincts of Dewey. The education that humans can receive is nothing more than nature, things and humans. Of these three types of education, natural education cannot be determined by us at all. The education of things can only be determined by us in some aspects and only human education can truly be controlled by us. Kindergarten environmental innovation should follow human nature and prioritize serving human nature, that is, nature <sup>[3,4]</sup>.

Heart nature, derived from Mencius' "Heart-Mind", states that "Those who give their heart know their nature. If they know their nature, then they know the heavens. Things are heavenly if they keep their heart and nurture their nature." From the perspective of Confucianism, psychological activities based on morality or cognitive, emotional and volitional activities, or from an early-psychological perspective, can be considered as self-awareness. Heart nature can be considered to start from cognitive activities and revolve around a person's spiritual life. The development of children's mentality is a process of understanding the world and themselves, pursuing self-worth and self-growth, interacting with teachers, parents and young children, socializing and laying the foundation for their lifelong moral development.

Personality refers to the relatively stable and unique psychological and behavioral patterns formed by the interaction of various innate and acquired factors. The development of personality determines the differences and richness among young children. Children will exhibit different interests, motivations and needs in the process of understanding themselves and the world. Teachers should respect these differences in order to help young children gain a sense of self-worth <sup>[5]</sup>.

The spatial environment of the kindergarten in this study can be divided into indoor environment and outdoor environment based on spatial attributes. The study focuses on outdoor activity areas and indoor environments, mainly in the classroom area. There are two perspectives on the transformation of sex education in the education field. First is randomness, which means advocating for natural and authentic education in the environment, following the internal nature of children's development. The second is to fully enjoy oneself, which is to maximize the vitality and initiative of life and emphasize the maximum presentation.

The "Three natures" together support the orderly development of young children's inner lives, and their education must follow the inherent requirements of the "Three natures" to construct a practical path. Taking children's "Three natures" as the basis for the creation of a kindergarten space environment, conforming to nature, enlightening the mind and respecting individuality, the spatial environment of kindergarten allows children to present their rightful appearance as much as possible, achieving harmonious development of body and mind <sup>[6]</sup>.

Firstly, the indoor and outdoor space environment of kindergarten has truly become the environment for children and teachers. In the process of children's real participation in creation, its significance is not obscured and the educational value of its connotation is maximized. The experience of the kindergarten is not only beautiful and interesting, but also the feeling of home after participation. The subject status of children has been realized, and they are no longer just bystanders but can showcase the charm of young children in multiple aspects. By participating in dynamic processes, children can truly manipulate materials in environmental innovation and propose ideas for a corner where the environment is no longer a predetermined outcome.

Secondly, kindergartens' indoor and outdoor spatial environment promotes the coordinated development of children's physical and mental health. Young children's growth is through playing games, constantly absorbing the influence of the surrounding environment to form their own cognition gradually. The layout design of the spatial environment follows the characteristics of children's physical and mental development, suitable for their age characteristics, personality traits, and activities, helping them explore and discover the novelty around them.

Appropriate height and perspective facilitate teachers to carry out different types of collective teaching and life activities.

Finally, the indoor and outdoor space environment of the kindergarten promotes the linkage between the kindergarten, families and communities. In the field of environmental innovation, more attention is paid to the involvement of microsystems in the theory of human development ecology. Based on the “Three natures” of children, environmental innovation can link the three microenvironments, broaden and extend the breadth and depth of cooperation between home and community, form an educational synergy, and help children’s development.

### **3. Adapting to nature: Creating a natural and realistic material space**

Nature is innate in humans. Fantasy, curious and active are all innate traits within them. The environment created for young children should meet their natural needs, allowing them to develop their original things better and to the fullest in a certain environment.

#### **3.1. Create an ecological spatial environment.**

The nature of children’s curiosity is reflected in their occasional whimsical questions, as well as their curiosity and exploration of nature. The outdoor environment of kindergarten is related to the nature of young children and this environment must be natural and playful. Kindertartens should cultivate suitable soil for the development of young children’s nature and provide them with authentic and natural materials while encouraging children to observe the daily changes of the natural environment in the environment, such as sunrise and sunset. Children’s lives have a sense of identity with nature and kindertartens should create as much ecological space as possible for them. To fully utilize the favorable conditions of the surrounding environment, with the principle of actively utilizing the senses, create a good environment that is suitable for education and provide opportunities and conditions for children’s activities and performance abilities. Establishing the connectivity between various functional zones within the outdoor gaming environment, most kindertartens mainly present large game equipment outdoors, lacking areas for natural exploration, resulting in a lack of elements of humanistic and natural care. In addition to having diverse game equipment outdoors, natural areas based on natural elements such as sand, water and trees should also be created, creating sand, water, aquaculture and planting areas. Children can touch, listen and smell. In this process, they can mobilize multiple sensory organs to directly contact nature, experiencing the changes and laws that nature may bring <sup>[7-8]</sup>.

Various ecological activities can be carried out in indoor environments, such as setting up pottery and dyeing workshops in functional rooms, allowing children to freely explore these spaces and supporting the development of their curiosity. Plant corners can be created inside the class and in the hallway, allowing children to observe, record and take care of plant growth on a daily basis. This enables better development of children’s observation and self-learning abilities. Secondly, it presents a natural environment that is close to nature. If children enjoy climbing, soft and easy-to-clean mats can be laid on the ground.

#### **3.2. Creating a space environment for free exploration**

Children have a natural tendency to fantasize and have magical little worlds in their minds, often interacting and exchanging ideas with them. In the creation of outdoor and indoor environments, a space can be left for children’s imagination, which can be small attics, tree holes in outdoor environments, or small corners in stairwells. Sukhomlinsky mentioned the fantasy corner in his “Happy School”, where young children can share their imaginative thoughts with teachers. The environment created by kindertartens can better develop

children's vitality, initiative and freedom, which can reflect the educational value of the environment and better align with the true pursuit of education <sup>[9]</sup>.

### **3.3. Creating a spatial environment that encourages exercise**

Children have an active nature and need to perceive the world in games. Therefore, in the creation of spatial environments, it is necessary to meet the needs of young children for exercise and encourage them to exercise actively. The "Design Specification for Nursery and Kindergarten Buildings" points out that each class should have a dedicated outdoor activity area, with an area not less than 60 square meters. However, this is also a problem faced by most urban kindergartens. The outdoor environment area is compressed, which cannot meet the needs of young children's sports. Therefore, it is possible to develop a three-dimensional space reasonably, expand the range of indoor sports space and think about how to fully utilize the indoor floor, wall, ceiling and other spaces from different physical qualities such as balance, sensitivity, coordination and strength. Utilize spacious areas such as the central corridor hall to create a game area and add climbing equipment <sup>[10-11]</sup>.

## **4. Enlightenment: Creating a harmonious and warm psychological space**

The process of enlightening the mind is the process of understanding the world and oneself, understanding the world's development, or, in other words, the principles of interacting and dealing with people. Understanding yourself, focusing your gaze on yourself, paying attention to whether your behavior is appropriate, and caring about your past, present, and future.

### **4.1. Pay attention to the inner world of young children and provide an environment where they need and are needed**

Needs start from two psychological activities of young children. The necessary environment refers to paying attention to the needs of young children and their psychological development needs. The needed environment refers to an environment that requires the participation of young children. Before the holiday, teachers can brainstorm new environmental and creative themes with children, and relevant materials can be collected during the children's vacation. Being needed is a process in which young children participate together, envisioning the appearance of their home in the near future, no longer a ready-made environment. The needed environment promotes the development of young children while bringing a sense of security and satisfaction to young children.

### **4.2. Following the development characteristics, increasing interaction and circulation**

The development of the mind has to be sustainable, and when creating indoor-themed environments, attention should be paid to the continuity of the theme. There are two connecting points in indoor and outdoor spaces: class to corridor and indoor to outdoor. How to use these connections to connect class to corridor, indoor to outdoor and achieve a good transition can increase the circulation of the space.

Every place in the kindergarten is a place for different interpersonal interactions. For example, the lobby of the kindergarten can connect the three micro-worlds of kindergarten, society and family. In addition, there are many blind spots in the indoor and outdoor environmental creation of kindergartens, such as the corners of stairs, corridors and ceilings of classrooms. This space can be fully utilized to create educational and interesting content, increase opportunities for children to interact with the space and make the dead space lively and lively.

## **5. Respecting individuality: Presenting a diverse interactive exploration space**

Respecting individuality means that our education is truly humanistic, starting with people and moving toward the end point of freedom. Teachers and young children need to break through the inherent relationship system between educators and learners and evolve into partners for joint exploration <sup>[12,13]</sup>.

### **5.1. Respecting the needs and performance of young children, providing a comfortable and interactive indoor and outdoor spatial environment**

What is the situation of spatial environment creation in kindergarten? Children will find ways to control and change the environment. For example, they will find ways to excavate soil or sand if they need underground holes. If the children need a space for solitude, they will find ways to find a secret base. The spatial environment of kindergarten should be in line with the age of young children and meet the needs of different age groups. In outdoor environmental innovation, kindergartens should give children in the small class a certain amount of play space to meet their needs for independent play, provide various cooperative game equipment for children in the middle and large classes, and pay attention to guiding and educating gender awareness. In large classes, children can play with big brothers and big sisters or take care of the little brothers and sisters to feel the joy of being protected and protecting others. Currently, the outdoor space of kindergartens is mostly for building activity spaces for peers, and it is necessary to increase activity spaces for mixed-age children, which can promote interaction between children of different age groups and different classes of the same age group. The activity area in the indoor environment can also be designed as a mixed-age area with different functions.

Taking indoor environmental innovation as an example, especially within the class, from focusing on creating a warm home feeling in the small class, increasing operational environmental innovation in the middle class, to emphasizing autonomy in the large class, providing as many interactive materials as possible to meet the interactive, exploratory and operational instinctual needs of young children <sup>[14]</sup>.

### **5.2. Respecting the differences and habits of young children, creating indoor and outdoor spatial environments for cultivating abilities**

During the growth process, young children develop different personalities and hobbies and exhibit different strengths in different aspects. Teachers need to understand each child's strengths and create favorable spaces for their strengths in environmental innovation. In spatial environmental creation, attention should be paid to the richness of materials and content, presenting a more diverse indoor and outdoor environment.

Yanush Kozak believes that children are not future citizens. They are considered the current citizens of the society. The understanding of this sentence is that the adult world should fully respect the development of personality in young children and their entire childhood, not only as a theory and slogan but also as consensus and action. As a teacher, adhering to the guidance of children's "Three natures" in the creation of indoor and outdoor spaces in kindergartens is a practical manifestation of respecting children as individuals <sup>[15]</sup>.

## **Disclosure statement**

The author declares no conflict of interest.

## **References**

- [1] Ning Y, 2010, Further Discussion on Evolution, Development and Early Childhood Education. *Research on Preschool Education*, 2010(1): 3–10.

- [2] Wei Y, 2017, "Free Education": Construction and Exploration. *Education Research*, 38(5): 23–32.
- [3] Rousseau E, 1978, *Emile, or On Education*. Shanghai Commercial Press, Shanghai.
- [4] Wei Y, 2000, *Personality Psychology*. Shanghai Education Press, Shanghai, 7.
- [5] Chen Y, 2022, Children's Nature, Mind, and Personality: Basis for Kindergarten Environmental Creation. *Research on Preschool Education*, 2022(6): 90–93.
- [6] Wang L, Zhou R, 2023, Space Structure Design of Kindergartens Centered on Children's Development. *Research on Preschool Education*, 2023(3): 83–86.
- [7] Fan Y, 2020, Returning to the Authenticity of Kindergarten Outdoor Environmental Creation. *Research on Preschool Education*, 2020(9): 89–90.
- [8] State Council Bulletin of the People's Republic of China, 2016, Kindergarten Work Regulations Act 39, [https://www.gov.cn/gongbao/content/2016/content\\_5067918.htm](https://www.gov.cn/gongbao/content/2016/content_5067918.htm).
- [9] Yang E, 2021, The Significance, Characteristics, and Optimization of Outdoor Game Environment in Kindergartens from an Ecological Perspective. *Research on Preschool Education*, 2021(4): 8.
- [10] Ministry of Housing and Urban-Rural Development of the People's Republic of China, 2019, Industry Standard "Design Specification for Nursery and Kindergarten Buildings" JGJ39-2016 Partial Revised Articles and Explanation of Articles. *Engineering Construction Standardization*.
- [11] Liu J, 2020, Creation of High-Quality Indoor Sports Environment in Kindergartens. *Research on Preschool Education*, 2020(6): 93–96.
- [12] Wei Y, 2017, Education is About Protecting Nature, Respecting Individuality, and Cultivating Sociality. *Chinese Journal of Education*, 2017(3): 79–82.
- [13] He J, Wang X, Pan X, 2023, Research on Kindergarten Class Environmental Creation Based on Spatial Production Theory. *Journal of Yuzhang Normal University*, 38(6): 76–81.
- [14] Tang F, Hu Y, Cai Y, 2023, Environmental Creation of Kindergarten Class Role Zones from the Perspective of Children. *Journal of Shaanxi Preschool Normal University*, 39(7): 36–42.
- [15] Xu J, Huang Q, Guan Y, et al., 2024, From Origin to Construction: A Study on the Construction of Indoor Sports Environment in Kindergartens. *Early Education*, 2024(1): 7–9.

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