

# The Characteristics Of European Forest Kindergarten Environment And Its Enlightenment To Chinese Kindergartens

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**Abstract** – This study takes European style forest kindergarten as the research object. Firstly, literature method is adopted to explore the characteristics of forest kindergarten environment creation from four aspects: the concept of forest kindergarten environment creation, the choice and characteristics of natural environment, the choice and use of toys, and the creation of psychological environment. Secondly, through the literature method, the existing problems in the creation of outdoor environment in kindergartens in China are summarized. Finally, using comparative method, according to the characteristics of European forest kindergartens, put forward the following enlightenment for Chinese ones: to create a natural ecological environment, encourage children to grow independently; to use the surrounding rich natural resources to guide children into nature; to advocate the dynamic environment of children, so that children become participants in environmental innovation. This study is expected to help improve the quality of outdoor environment in kindergartens in China.

**Keywords** – Forest Kindergarten; Chinese Kindergarten; Outdoor Environment Creation; Enlightenment

## I. INTRODUCTION

Forest kindergartens generally refer to those kindergartens that use daily outdoor activities (usually in the forest) as their main educational content, often described as "no ceiling and no walls". The core idea of forest kindergarten is to advocate nature, respect children's natural growth, and pay attention to the cultivation of children's practical ability. In the 1850s, the world's first forest kindergarten was founded in Denmark in northern Europe, and then prospered in Germany. Ella Flatau and her neighbors found that children who often play in the forest are more capable than those who don't. Due to the superior natural environment of forest kindergarten, and its attention to the cultivation of children's unique ability in the natural environment, since 1990, forest kindergarten became popular in continental Europe. Nowadays Germany alone has all kinds of forest kindergarten more than 1500, become after Montessori education one of the main forms of European preschool education.

Kindergarten environment creation is that educators fully explore and make use of educational factors in children's living environment according to the law needs of children's physical and mental development and the requirements of kindergarten education, and create

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scenarios and environments that can make children have positive interactions. The creation of kindergarten environment is a process in which educators change environmental factors into educational factors and make them beneficial to the healthy development of children's body and mind. Therefore, the creation of a good environment can not only stimulate children's curiosity and desire to explore, but also conducive to the development of children's cognition, personality and emotion. (Wang Xiulin, 2011) Chinese scholar Xu Jiewei (2017) pointed out that there are such problems in the creation of Chinese kindergarten environment: there are very few natural things, the lack of natural atmosphere, and excessive institutionalization, which restrict children's nature and adult-centered, and ignore the actual needs of children. Therefore, based on the needs of kindergarten environment creation, it is feasible and necessary to introduce the concept and practice of forest kindergarten environmental creation.

## II. CHARACTERISTICS OF THE ENVIRONMENT CREATION OF THE FOREST KINDERGARTEN

The outdoor environment creation of the forest kindergarten is very distinctive. First of all, the forest kindergarten practices the educational concepts of nature, freedom, openness and sustainable education in the environmental creation. Second, teachers are good at choosing outdoor environment. To meet children's needs for free exploration and activity space, teachers reasonably plan the layout of forest kindergarten, so that children can live and explore in a safe and spacious natural environment. The third is that teachers are good at using natural materials to make outdoor facilities and toy materials, which fully stimulate children's imagination and promote children's hands-on ability. Fourth, they pay attention to creating a psychological atmosphere that respects children's subject status and conforms to and liberates children's nature. The following will elaborate in detail the characteristics of forest kindergarten environment creation from these four aspects.

### 1.1 The concept of forest kindergarten environment creation

The concept of forest kindergarten environment creation mainly comes from: Rousseau's natural education theory, Froebel's education view and FEI (Forest Education Initiative) preschool forest education concept. The theory of natural education is the main educational thought of the French Enlightenment thinker Rousseau. In *Émile* which was written in 1762, Rousseau argued that educators should make full use

of natural resources to release children's nature, and carry out activities in line with the laws of children's physical and mental development, so as to promote children's learning and development. Nature education theory provides a theoretical basis for the application of "natural" elements in the environmental creation of forest kindergartens. In his 1826 book, *The Education of Man*, Froebel pointed out that God, nature and human beings are a whole, and that human activities (education) are to achieve the unity of life, so education must follow the laws of nature. Froebel attached great importance to the natural principle of education, and believed that kindergartens should give children the opportunity to contact with nature, so that children can like nature and cultivate their temperament in nature, which played a significant role in promoting the rise of forest kindergarten in Germany at that time. FEI Early childhood forest education concept is a preschool education method proposed in 1952 by Ella Flatau, a Danish preschool educator, aiming at the rich forest resources in Europe. It is to carry out teaching activities in the forest, so that children can understand the wonderful nature by listening, smelling and touching, so as to improve children's physical quality and the ability to adapt to the environment. At the same time, she applied the concept of forest education to practice, creating the first forest kindergarten known as "no ceiling on top and no walls around". Thus, forest kindergarten emphasizes that children should integrate into nature in creating the environment creation, stimulate children's creativity in nature, and improve children's ability to learn independently and perceive things around them. Specifically, the concept of environmental creation of forest kindergarten includes the following aspects:

(1) To practice the concept of nature education

In the book *Last Child in the Woods: Saving Our Children from Nature*, Richard Louv(2005) pointed out that as the growing evidence suggests, exposure to nature is as important for children as good nutrition and adequate sleep, then the trend towards nature among today's children should be advocated and responded to. Rousseau, a famous French educator, advocated that education should follow the laws of nature and promote the development of human nature. In *Emile*, Rousseau proposed that children should leave the noisy city and return to the natural and simple rural life to meet their longing and yearning for nature. Nature is of great significance to children's physical and mental development. The forest kindergarten environment is based on the natural environment, it has no desks, no classrooms, and everything has to be found in the forest. The pure outdoor nature as the classroom, with nature and all the surrounding objects as the object of children's learning, children fully enjoy the sunrise and sunset, wind, snow, the change of all the natural scenery.(Ridgers N.D. et al,2012) The top priority of forest kindergarten environment creation is the configuration of plants, and the configuration of plants needs to be orderly and reasonable according to the alternation of four seasons and space changes, which reflects the novelty and childlike characteristics of kindergarten environment creation, and satisfies children's curiosity and thirst for knowledge.(Moen K., Hakke H.,2007).

(2) To advocate the concept of freedom and openness

Forest Kindergarten advocates the open concept of environment creation, mainly cultivating children's ability to find and solve problems independently, with their own unique opinions and the ability to get along well with peers, help each other, solidarity and friendship. First of all, the forest kindergartens mainly adopt the mixed-age teaching method. They use open curriculum, content and activities to provide children with opportunities to interact with peers of different ages, thus improving their social adaptability and interpersonal skills. These are conducive to meet the needs of children's all-round development (Kane A.,Kane J.,2011) Secondly, children's learning time is flexible, children can learn according to their own ability and speed. Finally, the areas and places for children's outdoor activities are open space, with no walls and boundaries between each other. Children can run and play as they want. The nature, the overall environment, the great society and even the whole world around children's life have all become the free and open learning scope and space for children.

(3) To follow the concept of children-oriented

Forest kindergarten outdoor environment is created for children. They regard children as the main body of the environment, and create the environment that children are familiar with and like and can be fully active. Each child can explore and learn according to his or her own interest and speed of acceptance, which greatly respects the individual differences of children.

(4) To pay attention to the sustainable development of ecology

Forest kindergarten environment creation pays attention to the sustainable development of ecology. They begin to cultivate environmental awareness among children as soon as they enter the kindergarten. As advocated by Joseph Cornell, an American nature educator, in his book *Sharing Nature with Children*, we should awaken children's sensitivity to nature and awareness of the environment as soon as possible. Most of the activity materials and items in the forest kindergarten are recycled materials. On the grass of forest kindergarten, the play facilities for children are basically made by children and teachers using natural materials, and there are few ready-made facilities produced from toy factories. From the beginning of using these environmentally friendly materials, children can gradually establish the awareness of environmental protection (Clarke D.,2014)

### 1.2 Selection and characteristics of the natural environment of Forest Kindergarten

The selection of forest environment is very strict, because they believe that the quality of the natural environment is directly related to the degree of children's integration into nature. On the one hand, the forest Kindergarten has a set of clear standards that have been verified and determined, ranging from the details of mobile phone communication signals, whether there are dangerous and fierce animals, traffic conditions and so on. Before each activity, teachers should assess the danger degree of the natural environment in advance, and do a careful and safe job before children enter the activity area to ensure that children can learn safely, spontaneously and independently in this area. On the other hand, the woodland is

assessed for its educational potential every semester. If the educational potential is not enough, the woodland cannot be used. (Feng Hui, 2013) The forest Kindergarten covers an area of about 6-10 hectares and the forest vegetation is characterized by mixed woodland, mainly beech and spruce trees (Schäffer, S.D., Kistemann T., 2012) In all forest kindergartens, the landscape is shaped by hills and valleys, dikes, depressions, ditches or fallen trees and different types of shrubs. (Liu Jinfei, 2018) Forest kindergarten also attaches great importance to the use of air, soil, fire and water in the natural environment of the four major educational resources. There is usually only a caravan or abandoned house for storing materials and supplies. Abandoned houses are usually made of natural materials such as stone and wood. The Forest Kindergarten has no walls and other redundant houses, let alone fixed building facilities. The terrain of the kindergarten is undulating, and different areas are created, such as sand area, water area, animal and plant area, etc. They covered the space for collective activities with fallen leaves, broken wood, stone and other natural elements, so that children can fully contact and understand nature (Kane A., Kane J., 2011) Influenced by different geographical locations, teachers' educational concepts and parents' needs, each forest kindergarten has its own characteristics. Some forest kindergartens are located in remote suburbs, some are in the transition between urban and rural areas, and some are located in cities (Sun Lu, Liu Xiaoye, 2014) However, the selection of natural environment for all forest kindergartens must meet three requirements: safe, spacious and beautiful environment, rich natural elements available for use, and reasonable site layout.

#### (1) Safe and spacious and beautiful woodland natural environment

First of all, the forest Kindergarten takes safety as the premise of all principles. This is because children are not mature in all aspects of body and mind, do not have the basic judgment and independent choice ability, prone to various safety problems. Forest Kindergarten attaches the most importance to safety work. Teachers and kindergarten managers will arrive at the activity site in advance before carrying out activities, clean and tidy the activity site for children, arrange the items needed in the course, and carry out risk assessment for the activities on that day. There are daily safety checks at the forest kindergarten, and children will be fitted with GPS devices.

Secondly, spacious and beautiful is the second element of forest kindergarten environment selection. The beautiful natural woodland environment can relax children's mood, make children get a pleasant emotional experience, provide children with a real experiential environment, spacious environment can let children run and play at will, spontaneous participation in learning experience. Relevant research shows that if children live in a narrow space for a long time, easy to produce irritable, anxious emotional problems.

#### (2) The activity site of Forest Kindergarten makes full use of natural elements

The forest kindergarten does not have any luxurious decorations and large toys, nor modern sports facilities and

equipment. Teachers of forest Kindergarten make full use of natural elements, because natural materials not only have their own unique vitality, but also can stimulate children's various senses, which is conducive to stimulate children's imagination and creativity. As scholars Susan Herrington and Ken Stutman found in their study in 1998, traditional recreational facilities are only conducive to the development of children's physical abilities, but the intervention of wooden materials and other natural landscape elements can enable them to acquire a direct understanding of nature (Austin C. et al., 2016). In 1952, Ella Flatau founded the first forest Kindergarten in Denmark, "Walking Kindergarten". The Kindergarten uses slides, balance beams and sticks made of wood materials, as well as sand and slopes made of sand piled up. The swing is made of discarded tires and hanging ropes. The ground is less plastic and more natural mud, grass, sand and gravel. A variety of natural elements, let children contact with nature, real experience of nature, improve children's sense and perception of the natural environment (Moen K. et al., 2007).

#### (3) The natural environment layout of the forest kindergarten is reasonable

The natural environment of forest kindergarten is a place for children to live, study and play. Kindergartens often use logs, bushes, sand and gravel and other natural materials to divide the area for children's activities, and reasonably plan the sand playing area, water playing area, animal feeding area, caves and tunnels, hills and other Spaces. They also build cabins or tents as a place for young children to rest and socialize. Forest kindergarten pays attention to the overall aesthetic requirements, and the layout of children's activity areas is orderly and reasonably divided, so that children can live and play happily and comfortably. The rational layout of the natural environment in the forest kindergarten is conducive to promoting the cognitive development of children and meeting their needs for perceiving and exploring the environment, social interaction and private space. Idstein Forest Kindergarten in Germany, for example, offers exploring Spaces where children can learn about forests while also providing privacy. Private space can bring children a sense of security, help children establish individual self-identity, improve children's self-discipline, enhance children's independence and independent choice of consciousness, is conducive to personal emotional catharsis. (Kahn P. et al., 2022) Tommekollen Forest Kindergarten, located in Norway, provides children with places to choose freely, such as places for all kinds of games and activities (such as hide-and-seek, maze, etc.), places for small tasks (such as building shelters, discovering flora and plants, etc.), places for training skills in natural forest, etc. There are no distinct boundaries between these places of outdoor exploration, and they can even be shared (Wang Di, 2017)

### 1.3 Selection and utilization of toys in forest kindergartens

Chen Heqin, a famous Chinese educator of children, proposed that teachers should understand toys from a broad perspective. Toys are not limited to items sold on the street and provided for children to play, as long as children can see, hear, smell, touch and other things that can be perceived, can be called toys. Toys are an important channel for teachers to understand children and valuable educational resources.

Strengthening the selection and introduction of toys in kindergartens is an important way to promote the comprehensive development of children and carry out targeted education (Kang Dan. et al.,2013) The toys in forest kindergarten come from everything in nature. Teachers will encourage children to discover natural materials in the forest and make their own toys. This not only exercises the development of children's life skills, but also helps them build up the courage and confidence to face future difficulties (Jackman A. et al.,2013) According to the functional division of toys, there are five types of toys in the forest kindergarten: toys for hand exercise, toys for body exercise, toys for nature exploration, toys for natural aesthetics and toys for social interaction.

The toys for hand exercise are that children actively collect branches, wild flowers, stones and other objects in the forest to make simple tools and their favorite toys. In the process of making toys, children can more truly experience the nature, form the perception of nature and the awareness of environmental protection, at the same time, such activities are also conducive to cultivate children's independent ability. Starting from the age of four, teachers will provide children with real tools such as nails, hammers, saws, etc., and teach them how to use them safely. Children can choose tools freely to make their own favorite items.

Secondly, body exercise toys. Children will practice climbing fallen trees and climbing steep hills in games and activities to build their endurance and balance. At the same time, teachers will also guide children to use forest materials such as branches, leaves and so on, to build small houses or tents. These activities expand the children's range of free movement, while also improve their limb coordination and muscle development (Chen Mengyuan, 2013)

The third is the toy of nature exploration. Forest kindergarten will be divided into different areas, including animal area, plant area, etc. Teachers encourage children to make full use of their body's various senses to perceive the flora and fauna, climate and the changes of the four seasons. Precisely under this kind of encouragement, children will be more active to explore new things, more active to learn.

The fourth is the toys of natural aesthetic. The natural landscape is also a resource and tool for children's diverse learning (Nicola D. et al.,2012) Nature has endless resources for children to appreciate and enjoy, such as wind, rain, snow, sunshine and so on. Children can freely use their imagination and creativity to enjoy various interesting natural phenomena in the vast nature, appreciate the change of the four seasons, feel the fresh air and abundant sunshine, and play freely in the clear water.

Finally, toys for social interaction. At all forest kindergartens, groups are equipped with a cart filled with craft materials such as knives, saws, magnifying glasses, shovels, ropes, spare clothes, children's picture books, etc. Children use trolleys to complete cooperative tasks. Fostering social competence and responsibility in groups of young children is a prominent feature of forest kindergartens, and many tasks in the forest naturally lead children to participate in cooperative activities (Schäffer S.D.,Thomas T.,2012)

#### **1.4 Construction and characteristics of psychological**

#### **environment in forest kindergarten**

Psychological environment is a basic concept proposed by German psychologist Kurt Lewin in his book of *Principles of Topological Psychology*. It refers to the environmental fact that the brain has an effect on all human activities, that is, the environment that has an actual effect on human psychological events. The creation of the psychological environment of the forest kindergarten aims to provide a primitive, unrestrained, comfortable and rich activity space for children, so that children can meet their psychological needs in the interaction with the environment, so as to promote their physical and mental development (Xu Jiewei , 2017) Montessori emphasized in her book *Educational Psychology* that a free and relaxed environment is of great significance to the spiritual needs of children. She believed that in order to adapt to the development period of children's life, children's spirit and needs are spontaneously and actively revealed, rather than passively suppressed, and adults need to make efforts to create a free environment for children. Claire Cooper Marcus (2001 ) agrees that the psychological environment for your children is especially important. She believes that only by providing diversified activity environments for children can teachers meet the physical and mental development of children, adapt to the differences among different children, and constantly meet the development needs of children.

At the forest kindergarten, teachers respect the subjectivity of children, and the status of teachers and children is equal. For example, in Nayland Forest Kindergarten in Britain, teachers not only teach children basic communication etiquette skills and moral codes of conduct, but also focus on inspiring and guiding children in games and activities, encouraging children to express their own ideas, behaviors and emotions independently. Regardless of children's appearance, parents' social status and family economy, teachers treat and tolerate every child fairly and respect their individual differences. Children can choose their companions and decide the type of games they want to participate in according to their own wishes and interests. Children can also decide where to play and what to play. Sufficient autonomy makes the teaching requirements from the external force into the motivation of children's internal active pursuit, which fully stimulates children's subjective initiative (Liu Jinfei, 2018)

### **III. PROBLEMS EXISTING IN THE CREATION OF OUTDOOR ENVIRONMENT IN CHINESE KINDERGARTENS**

Through literature review, it is found that there are some common problems in the creation of outdoor environment in kindergartens in China, even in provincial demonstration kindergartens with a high degree of standardization (Xu Jiewei,2017) Through sorting out and summarizing the literature, the creation of outdoor environment in Chinese kindergartens mainly has the following three problems.

#### **2.1 Few natural elements affect the sustainable development of kindergartens**

There are few natural elements in the outdoor environment of Kindergartens in China. On the one hand, the green space of kindergartens is insufficient. In order to be beautiful and tidy and avoid trouble in managing, children can only watch but cannot play freely on the lawn, which cannot

satisfy children's desire for exploration and knowledge, and is not conducive to releasing children's nature of freedom and autonomy. On the other hand, some Chinese kindergartens simply put game equipment in the outdoor space, such as slides and swings, and rarely use green materials. Moreover, this equipment has the characteristics of high cost, immobility and not easy to replace, so the outdoor environment of Chinese kindergartens is monotonous and lack of change. The materials and objects of the forest kindergarten are mostly recycled materials, which not only protect the environment, but also cultivate children's environmental awareness.

### **2.2 Lack of time and space for outdoor activities limits children's nature**

In order to avoid safety accidents, to save time and efficiently complete the required teaching tasks, Chinese kindergarten teachers often design kindergarten activities that do not focus on children's interests and needs. Chinese child educator Chen Heqin said, "Although we can't take our children outside every day, we should make sure that they have more time for outdoor activities and should not keep them indoors all the time." (Lu Jing, 2012) For the sake of safety and hygiene, Chinese kindergarten teachers rarely let children play with sand and mud to avoid scratching them, which inhibits children's intrinsic need to explore outdoors. Even if they can lead children to outdoor sports, they just let them stay beside large equipment and spend a short time in outdoor activities. Moreover, the limited time and uniform pace of outdoor activities are not conducive to the personalized development of children (Wu Yanyan, 2014) In the forest kindergarten, children can freely choose the content and curriculum of activities, and have more time to explore in the outdoor forest, which not only releases their nature, but also develops their independent thinking and problem-solving abilities.

### **2.3 The creation of kindergarten environment is adult-centered, ignoring the actual needs of children**

The outdoor environment of kindergartens in China is mainly designed according to the aesthetics of adults. For the convenience of adult work, children can only watch them from a distance and not close to them. The plastic and paper flowers and patterns used to decorate corridors and stairs are almost handmade by teachers. Although delicate and beautiful, children do not participate in the process of making them (Han Ying, 2015) In order to reduce the trouble of cleaning and maintenance, many kindergartens in China do not set up sand area, water playing area, animal area, etc. In an outdoor environment, children have few opportunities to manipulate or make objects, and their hands-on abilities are limited. Therefore, the creation of outdoor environment in kindergartens in China neglects children's subjective initiative, which is not conducive to the cultivation of children's hands-on ability and innovation ability (Han Ying, 2015) In the forest kindergarten, children can freely choose different outdoor activity areas, play freely and make their favorite toys as they like.

## **IV. ENLIGHTENMENT OF FOREST KINDERGARTEN ENVIRONMENT CREATION TO CHINESE KINDERGARTEN**

Forest kindergartens have the characteristics of sustainable development, adaptation to nature and child-centered, which has important reference and guiding significance for the problems existing in the outdoor environment of kindergartens in China. We should learn from the practice of forest kindergarten to create a suitable natural environment for children, so that children can make full use of natural elements in the kindergarten outdoor environment, interact with the nature and explore freely. European forest kindergartens can provide the following four inspirations for the creation of outdoor environment in Chinese kindergartens.

### **3.1 Create a natural outdoor environment for kindergarten and support children's independent growth**

First of all, in the selection of natural elements, local natural elements should be introduced into the kindergarten according to the needs of children's own healthy development and learning. The forest Kindergarten has a spacious woodland environment and makes full use of the natural elements of the site, so that children can experience the nature more truly and improve their perception of the natural environment. According to the actual situation, natural elements can be actively introduced in the creation of outdoor environment in kindergartens in China. For example, kindergartens can plant some trees suitable for local growth, such as apple trees, pear trees, winter jasmine and so on. These trees can not only decorate the outdoor activity environment, but also fully mobilize children's senses, so that they understand different plants and colors, which is conducive to children's basic knowledge of life and improve the ability to adapt to life. Children also develop a love of nature by observing the environment closely. Teachers can teach children how to identify plants suitable for local growth, so that children can better understand the seasonal changes of plants, the shapes of different leaves. Forest kindergarten attaches great importance to safety, all kinds of facilities and equipment can ensure the safety of children. Kindergartens in China also need to consider safety while utilize the natural elements, such as avoid planting poisonous plants (such as oleander), prickly plants (such as rose, cactus), plants with strong pungent taste (such as sulacquer), plants that are prone to breeding insects (such as poplar, weeping willow) or plants with flying catkins (such as poplar). In addition, kindergarten can choose animal species that are harmless, gentle and easy to domesticate, such as frogs, turtles, rabbits, fish, so that children can observe them under natural conditions, so as to understand the external characteristics and living habits of these common animals. Kindergartens should also do regular cleaning and inspection, and do a good job in health and epidemic prevention. Forest kindergarten does not use any luxurious decoration and large toys, nor modern sports facilities and equipment, but the children are very independent and happy, which has reference significance for the creation of outdoor environment in kindergartens in China. Chinese kindergartens should also try to use natural and original materials in the selection of other materials, such as the use of

sloping slope to build children's favorite slide, used tires and strong iron rope to make swings, etc.

Secondly, in the selection of game equipment and toys, teachers should try their best to provide new materials with sustainable development and innovative gameplay. The toys in forest kindergartens all come from nature, and different natural toys have different functions. When setting up game equipment, kindergartens in China should try to choose primitive and semi-structured game equipment to create a natural activity environment. Relevant foreign studies show that semi-structured game equipment can arouse children's curiosity, stimulate their desire for independent exploration, and develop children's imagination and creativity in outdoor activities. As semi-structured game equipment has no fixed functions and gameplay, children can choose game content and playmates according to their own wishes and carry out physical movement freely. By handling, building, and assembling play materials, children develop motor skills as they explore new ways of playing. In addition, the natural outdoor environment can not only bring children to experience the feeling of beauty, but also add certain challenges to children's sports. When children play toys and materials, in addition to understanding the characteristics of various materials and master the basic gameplay, but also can continue to find and explore some new gameplay. In the process of creative play, through mutual observation and imitation, children quickly grasp the essentials of the activity. At the same time, teachers should pay high attention to the exchange and experience between children, so that children can realize the transfer of experience.

Finally, kindergarten outdoor activity environment should be reasonable layout, to create a variety of outdoor sports venues for children. Whether the outdoor environment of kindergarten can effectively promote the physical and mental development of children largely depends on the scientific layout of the regional environment (Li Xiaojing,2018) Reasonable layout of outdoor environment can not only fully develop the function of each area, but also produce superposition effect between two adjacent areas, so as to obtain better educational effect. The activity areas of forest kindergartens mostly use natural materials and make reasonable planning of the site to create different areas. In the creation of outdoor activity areas of Kindergartens in China, the scope of children's activities should not be divided by a single functional zone. We can learn from the practice of forest kindergartens and get close to children's perspective. Reasonable planning of climbing area, sand play area, paddling area, new large toy area, etc. Kindergarten can also according to the actual situation, the appropriate planting of clusters of trees, for children to provide climbing adventure opportunities. Climbing toys can also be stationary machines or made from simple materials that are easily available. Teachers should pay attention to the hardness and firmness of materials to ensure the safety of children in the process of using instruments, and use soft materials to lay the ground to reduce the risk coefficient of children when they fall. Kindergartens can also create a sandy area. As one of the basic elements of nature, sand is very plastic and is loved by children. Children develop their imagination and creativity and improve their mobility in sand-making, sand-shooting, sand-shoveling and sand-transporting activities (Liu

Jinfei,2018) Children work together to build hills, long Bridges, dig caves, and build houses using sand. If conditions permit, the kindergarten can also create a splashing area with trees around it. When children play with water, they can not only provide shade, but also integrate the water with flowers and trees, making it a beautiful landscape. The water flow direction is set according to the geographical location of the kindergarten. Some wooden benches or real wooden benches made of cement can be placed at the water side, so that children can feel the difference between hot and cold of wood and cement, and promote the development of children's sense of touch. The water in the splashing area is composed of tap water and atmospheric precipitation recycling, using water circulation, so that children can experience the fun of rising water and draining water when it rains. Some relatively large toy areas can be appropriately surrounded by a variety of green vegetation, so that children can run freely under the cool trees. At the same time, in order to provide private space for children, teachers can make full use of plates, waste tires, water pipes and other waste materials to construct the basic framework. The appearance is decorated with vine plants to construct a real and three-dimensional maze. Children can also train and improve their thinking and analysis ability in playing.

### ***3.2 Use the surrounding natural resources to guide children into nature***

First of all, Chinese kindergartens can carry out themed activities close to nature according to children's existing cognitive level and development goals. Forest Kindergarten holds the education concept of nature, let children return to nature and integrate into nature. For Chinese kindergartens with limited space and resources, outdoor activities of kindergartens can be expanded. For example, kindergartens can organize children to experience nature during festivals. March 12 is China's Arbor Day, teachers can according to the particularity of the festival, advocate children and parents to participate in tree planting activities. April 22 is Earth Day. Kindergartens can take children and their parents to nearby parks to clean up garbage and wash stained buildings, so as to get close to nature and protect the environment during the festival.

Secondly, planting vegetables and fruits is also the form of children into nature. The forest kindergarten divides the plant area reasonably, not only cultivates the children's hands-on ability, but also enables them to integrate into the nature and experience the fun of getting close to nature. In addition to learning from the reasonable planning and layout of forest kindergartens, the outdoor environment of kindergartens in China can also let children grow vegetables and fruits by themselves. Under the guidance of teachers, children can learn how to water, loosen soil, weed, etc. Children can not only exercise, but also experience the process of plant growth. Planting vegetables and fruits can not only let children experience the joy of labor, but also deeply understand the food on the table are hard-won. Finally, teachers can let children taste the fruits and vegetables planted by themselves, so that children can personally experience the close relationship between human beings and nature, stimulate the gratitude of nature.

Finally, flexible use of outdoor playground is also a way for children to get close to nature. The forest kindergarten

takes the pure natural environment as the classroom, and children can freely move and enjoy the natural scenery. However, in order to avoid trouble and be restricted by relevant rules and regulations, kindergartens in China do not allow children to communicate and interact with the natural elements in the outdoor environment. The outdoor activity area of kindergarten is not only a place to provide children with game equipment and equipment, but more importantly, it can provide children with the opportunity to get close to nature. Kindergarten teachers can lead children in outdoor activities, rain or shine, let children experience the difference between sunny weather and rainy weather. It is a way for children to walk into nature more closely, enrich children's precious experience about nature, meet children's need to explore nature and stimulate children's desire to learn wonderful phenomena in nature. Although children will be covered with mud, it is precious for children to follow and release their nature to play.

### **3.3 Advocate children to participate in environmental innovation and create a natural and dynamic environment**

Mr. Chen Heqin, a famous preschool education expert in China, once pointed out: Don't let kindergarten teachers create the environment, but let the children design and decorate the kindergarten environment by their own hands, which has far-reaching educational significance. In kindergarten, teachers should learn how to guide children to use their brains and hands to arrange the environment (Gao You, 2015). Forest kindergarten attaches importance to children's dominant position and creates various opportunities for children to make toys and create new ways of playing. In the process of environment creation, kindergartens in China can practice this concept, fully respect the needs and wishes of children, let children take the initiative to collect and preserve old materials, and participate in the process of environment creation. Kindergartens should give children the right to participate in the creation of the environment, fully believe that every child has the ability to create the environment, encourage and affirm children independent, bold expression of the desire to create the environment, guide children to make simple materials, fully stimulate the potential ability of children. In the environment creation of kindergartens in China, we should draw lessons from the concept of forest kindergartens conforming to and liberating children's nature, and provide children with learning and development opportunities of independent participation, free companionship, self-determined theme, self-selected materials, free exploration, self-communication, emotion transfer and happiness sharing.

## **V. CONCLUSION**

At present, there are some problems in the outdoor environment of kindergartens in China, such as insufficient area, insufficient attention to site design, ignorance of the nature of outdoor activity environment, lack of diversification of outdoor activity equipment, insufficient time for outdoor activities in some kindergartens, and too narrow space for outdoor parent-child activities in kindergartens. So it's important to create an outdoor natural environment for children. The environment of European

forest kindergarten has natural characteristics, and its outdoor environment is more suitable for the healthy growth of children than the indoor environment. The environmental creation of European forest kindergartens plays an enlightening role in the outdoor environment creation of kindergartens in China.

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