

Research on Campus Productive landscape Design from the Perspective of Children's Cognitive Education

Jing Zhang, Yizhou Shen

Wuhan Donghu University, Wuhan 431700, Hubei, China.

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Abstract : This paper mainly discusses the impact of campus productive landscape design on children's cognitive education, analyzes and summarizes the agricultural activities that meet the needs of children's cognitive education and are suitable for children's participation, and takes the design and practice of "returning to the field" campus landscape project functional planning as an example to verify the feasibility of the combination of campus productive landscape design and children's cognitive education.

Keywords : Productive Landscape; Children's Cognitive Education; Agricultural Activity Planning

Integrate productive landscape design elements into campus landscape design, and realize the purpose of cognitive education for campus children by organizing children to participate in agricultural activities. Under the scientific and reasonable productive landscape planning and design, children can realize the cognition of animals and plants, plant growth process, crop production process and agricultural production experience, and personally participate in some agricultural activities, which cannot help children enrich their knowledge, strengthen their physique, and improve their coordination ability, but also enable children to know themselves in collaborative labor, expand their interpersonal communication ability, and obtain a sense of achievement satisfaction, so as to improve their cognitive level of the external world, and establish correct values and life goals in their labor perception. It can also reflect on their current behavior and make changes, and promote their thinking to mature continuously.

1. Agricultural activity planning based on children's cognitive education

In order to achieve the goal of cognitive education for children, productive landscape must carry out diversified agricultural activities. Firstly, we should give full play to the characteristics of landscape elements and plan agricultural activities suitable for children's acceptance and cognition. Secondly, we should take the pure natural rural landscape style and regional cultural characteristics as the starting point and integrate rural representative agricultural elements. Finally, we should divide various agricultural activities into reasonable sites, strive to build an educational park for children to carry out outdoor activities on campus, and realize the intention of children's cognitive education in participating in agricultural activities. The main forms of agricultural activities suitable for children on campus are as follows:

1.1 Visiting and experiencing the museum of agricultural customs

Let students understand the history of agricultural development, experience rural life and understand agricultural production tools, including representative projects of folk culture such as agricultural instruments, agricultural calligraphy and painting, local snacks and local specialties. We can display the characteristic culture with local flavor in the form of market, so that children can understand the agricultural customs in a novel and lively environment. Modern virtual simulation digital technology can be used to let children simulate the process of astronauts bringing seeds into space and space breeding in a three-dimensional virtual space, so

that children can master the knowledge of advanced space agriculture in a fantastic environment. We can use science and technology to meet children's growing desire for knowledge, so as to acquire advanced knowledge of space agriculture and stimulate students' creativity and imagination.

1.2 The curriculum design of “the second classroom” is combined with the experience of agricultural production and life

In the “second class”, students can understand agricultural culture in the practice of green planting experience and experience agricultural activities in the game. The specific contents of the project are as follows: ① The curriculum design is a project of personally planting green plants and flowers. Each class can apply for a small area of their own land, cultivate their favorite plants under the guidance of teachers and gardeners, and observe the whole process of plants from seedling to maturity. It can especially design a project of cultivating “birthday tree” for children, make children grow and progress together with small trees, and greatly mobilize children's participation and interaction. ② The course designs agricultural production experience projects enable students to participate in crop sowing, seedling transplanting, ploughing, harvest during harvest and picking, animal feeding, fishing, cooking and other agricultural activities, deepen children's understanding of rural life and production and environmental and ecological protection, and inspire children's ecological awareness of loving and protecting nature. ③ We can design agricultural folk culture experience projects, combine the regional folk culture characteristics of the school, and explore the local handicraft characteristics, such as embroidery, weaving, paper cutting, pottery, clay sculpture and other handicraft production projects. Students can also be regularly organized to watch folk culture performances and carry out folk culture festivals. ④ The outdoor expansion projects of relevant courses in the school is carried out, outdoor courses such as science, art, biology and physical education can be opened, including outdoor sketching, animal and plant cognition, ecosystem analysis, etc., the opening of these activities will make use of the natural textbook of rural culture to effectively make up for the lack of practical experience of the courses in the school, and combine the popularization of educational popular science activities and life knowledge with the school curriculum, which meet children's psychological and behavioral characteristics in the curriculum, exercise children's ability in thinking and practice, cooperation and interpersonal communication, and promote children to find themselves in the interaction between people and the environment, in order to cultivate comprehensive abilities such as love, exploration, cooperation and innovation in free space.

2. Practice of campus productive landscape design from the perspective of children's cognitive education——Taking the campus landscape design of “returning to the field” as an example

In order to realize children's cognitive education, the campus landscape design project integrates the traditional farming methods into the campus landscape, creates productive landscape experience areas with different themes, and divided into four landscape functional plates, so that the activity space is reasonably organized and planned by using the topographic characteristics.

2.1 The undulating slope land is transformed into an agricultural crop platform

Taking advantage of the prominent terrain and wide field of vision, a rest terrace and animal feeding area are designed to form a dune paradise. Children can grasp the surrounding natural environment from a macro perspective on the sand dunes. The ups and downs of the terrain also provide some positive stimuli for children and encourage children to explore in the environment, which are conducive to stimulate children's curiosity and adventure spirit, and promote them to experience and recognize nature more actively.

2.2 The concave terrain is a place where water gather

The water is used to make a wetland hydrophilic area to realize the interactive experience between children and water, aquatic animals and plants, and also form a wetland ecological education base. Meanwhile, in order to ensure the safety of children's hydrophilicity, the overall water depth shall be controlled between 0.3 m-0.6 m. For the deep water level in the site, guardrails higher than 1.1 m shall be set around. Hand washing and foot washing pools are set around the wetland hydrophilic area to facilitate children's personal cleaning. A wetland experience park is built in this area, which can carry out experiential activities such as fishing, hydroponics, cultivation, lotus flower viewing, loach catching, lotus root digging, lotus pond fishing songs, and taste water food such as lotus root, water chestnut, arrowhead and so on. Different ornamental fish cultivation pools allow children to enjoy sightseeing and carry out popular science education. Children's tumbling and frolicking are carried out on the water bank slope, and children's activity ability and physical fitness are trained, perseverance and teamwork spirit are cultivated in combination with slide, hill tunnel, climbing corridor and other game facilities. We can deeply excavate the characteristics of local folk culture, integrate the characteristics of game, knowledge and participation in agricultural activities, and enhance the diversification of experience forms on

the premise of safe play, which enable students to acquire knowledge in happy games, stimulate children's desire to explore nature, and achieve the teaching purpose of teaching in fun.

2.3 Colorful orchard

This area is divided into a fruit picking experience garden to carry out fruit picking activities. Children can plant plants, cultivate vegetables and pick fruits here to feel the continuous spiritual satisfaction brought by crops. This beautiful and rich crop garden has a strong attraction for children, diversified popular science education can be carried out here, so that children at different stages can get in touch with characteristic crops and have close communication with them, and mark the color, growth situation and growth conditions next to each growing crop to make a series of instructions, so that children can know more about these vegetation under their own physical experience, rather than just absorbing knowledge from books. Personally experience the hard work and sweat of planting and the fun and smile of harvest.

2.4 Cultural park

Through visiting the agricultural museum, experiencing folk culture projects, the rural cultural history and cultural landscape can be deeply understood. Cognitive education activities in the museum include: Cognition of agricultural production and living tools, cognition of traditional farming culture, characteristic folk culture experience projects, viewing folk culture festivals, etc. Cognitive education activities are carried out in various forms, such as: For dominant varieties, unique precious plants or animals in the park, combined with specimen and living body display, and young children can participate in personal games, dining chairs, DIY potted plants with their parents, organic vegetable planting experience, and older children can participate in the children's expansion training area in the forest, such as seedling transplanting, harvesting, picking, tug of war, etc., which educate students to cherish and be grateful in production and labor, strengthen team awareness in cooperation, loving Chinese traditional culture in folk culture experience, and cultivate environmental protection awareness from childhood. Taking rural revitalization and development as the responsibility can establish the long-term ideal of prosperity and strength of the Chinese nation.

This paper studies the relationship between campus productive landscape and children's cognitive education. The starting point of the problem is related to the healthy growth of the next generation of children. It is expected that this research can provide reference for campus landscape design and similar planning and design. It is also expected that more scholars will pay attention to the research in related fields.

References

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