



Research on the Design Strategy for Rural Learning and Labor Base — A Case Study of the Learning and Labor Base in Bayi Village of Yaoji Town

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Abstract: Taking the design of learning and labor base in Bayi Village of Yaoji Town, Xuzhou City as an example, the research aims to study the influences of users, curriculum system and spatial classification on the design of learning and labor base. In accordance with the design principles of safety, involvement, perceptibility and local feature, based on the space planning for regions with different functions such as perception, practice and exploration, the research analyzes and concludes the design strategy for rural learning and labor base, in order to better conduct related design.

Keywords: rural area, learning and labor base, primary and middle school student

1. Introduction

With the steady progress made in the reform of all-round education in China, on March 25, 2022, the Ministry of Education officially released the Standard for Labor Course in Compulsory Education (2022). Under the current education system, students spend most of their time in classroom and family, with their spare time occupied by electronics and tutoring class. Consequently, both primary and middle school students are strange to the nature and labor practice, which in the end causes mental and physical problems to an increasing number of students.

As early as February 2013, the concept of study tour had been put forward in the Outline for National Tourism and Entertainment (2013-2020) published by the General Office of the State Council. Up to now, study tour has experienced nine years of development. As a form of outdoor practical teaching, the hands-on inquiry-based learning frees students from traditional classroom and teaches them in labor practice. Therefore, the construction of learning and labor base also experiences continuous reform and innovation.

2. Factors influencing the design of learning and labor base

2.1 Factor of users

Learning and labor base is developed with the further reform of all-round education, to improve the comprehensive quality of primary and middle school students. So the users of such base are primary and middle school students in compulsory education. Different from adults, those students have their own physical, psychological, cognitive and behavioral features.

First, as for physical features, primary and middle school students are different from adults in body size, spatial cognition and visual dimension, so the base is required to satisfy the ergonomics of primary and middle school students when considering the design of things in space.

Second, the mental preferences of students are determined by their age characteristics. Instead of monotonous things with an emphasis on logic, they prefer novel information and scenes with interesting graphics. As a result, in the design of base, rational cognition concerning mathematical operation and logical thinking should be applied in a scene that is more close to life, to better serve the situational teaching conducted in labor base.

Last, with regard to cognitive and behavioral factors, since students are still undergoing physical development, they lack the skills in perception, memory, thinking, imagination and expression. Having different behaviors from adults, they dislike rigid activities and need more flexible external assistance in understanding and cognition.

2.2 Factor of curriculum system

In traditional education, curriculum system is based on textbooks and students are often directly imparted with results in learning, which is the reason why students cannot remember knowledge through memory-based learning. At the learning and labor base, the curriculum system bridges the gap in students' cognition caused by traditional teaching, and encourages learning through exploration and experience in labor practice. For bases with diversified themes, their curriculum system is also varying, which includes courses related to life education, geography, artistic creation, manual training as well as the nature and festivals. The space planning for base is also designed in accordance with the setting of curriculum system. They

are complementary with each other.

2.3 Factor of spatial classification

The major objective of setting up learning and labor base is to provide a venue for primary and middle school students to achieve all-round development and improve comprehensive quality. Therefore, the major task of base is to offer adequate infrastructure and diversified activities. Considering the characteristics of primary and middle school students in physiology, psychology, cognition and behavior, based on the design of activity space for those students, this paper divides the outdoor space of learning and labor base into three types, namely perception, practice and exploration.

Perception space can cover the shortage of urban primary and middle school students in the development of spatial sense, and it is mainly divided into tour perception and science popularization perception. The design of this type of space can fully mobilize the visual, auditory, smell, touch and taste sense of students, and promote their sense organs to convey information, thus accelerating the development of mental system. Practice space is centered on “experience” and constructed to facilitate the practical operation of students. Methods such as field work, animal and plant cultivation as well as crop gathering are adopted in this type of space. Students can learn knowledge and build their body in labor. Exploration space is based on the natural environment of the learning and labor base. Giving priority to safety, this type of space stresses diversified and changing forms rather than too many designs. Aimed at the physical and mental characteristics of students in different age groups, this type of space strives to guide them to explore the nature.

3. Design principles for learning and labor base

3.1 Principle of safety

Different from regular activity space, the space design of learning and labor base involves the intensive movement of primary and middle school students, so it regards safety as the top priority. In the process of design and construction, visual blind spot should be avoided, and clear straightforward labels should be set up. As for the decoration of plants, poisonous and spinose plant should be excluded. The selection of flooring should focus on humanized materials such as colorful plastic mat, antiseptic wood, water permeable tile and sand. In specific design, facilities with sharp edge should be left out.

3.2 Principle of involvement

At learning and labor base, students study through participating in all kinds of activities, and build direct or indirect relations with people and objects in space, which influences the degree of involvement. Different degrees of involvement lead to various teaching results. Therefore, in the design of base space, the rigid space formation in traditional education should be avoided to strengthen the flexibility of space and fully mobilize students’ curiosity and desire for exploration. The design should enable students to bring their sense organs into full play to actively immerse in the experience-based environment. For example, centered on farm and pasture, the base can conduct agricultural production activities to help students form the Marxist outlook on labor.

3.3 Principle of perceptibility

Compared with adults, primary and middle school students are more sensitive to space environment, and present more direct and active behaviors. They can find the differences in height, distance and shade. In particular, before the design of rural learning and labor base, natural elements such as soil, sand, stone, plant and river should be preserved and used as long as they can be perceived. Through paying attention to the relationship between human and the nature, students can cultivate their ability of perceiving environment and build unique place spirit. Natural things can be used to arouse students’ interest in exploration, and further train their ability to work.

3.4 Principle of local feature

Rural areas in China have a long history, so they have different life styles, production modes and customs. Folk culture in rural areas can reflect local life style. At the initial stage of building a rural learning and labor base, efforts should be made to focus on local resources, environment and traditions, study local folk, farming and cooking culture, provide driving force for the design of base, highlight local features, and help students truly learn the life style of local residents in labor practice.

4. Design of spaces with different functions in the project

4.1 Functional zone for perception activities

Perception refers to a process of gathering, obtaining, analyzing and summarizing information through sense organs (such as eyes, ears, mouth and nose), which ends up with the acquisition of knowledge. Functional zone for perception

activities mainly consists of factors such as rich and coordinated colors, animal sound in rural areas and fragrance of various flowers. Those rural factors can fully stimulate students' visual, taste, auditory, smell and touch sense, thus facilitating brain development. This functional zone can solve the problem of staying far away from nature in students' growth.

4.2 Functional zone for practice activities (food presentation area in canteen and practical operation area)

Functional zone for practice activities focuses on “experience”. Through practical operation, students learn the nature and obtain knowledge. Specific practices include cooking, farming, animal and plant cultivation as well as crop gathering. In this project, the requirements proposed by the government on primary and middle school students in quality labor education in 2022 will be implemented. In the canteen of the base, a zone for learning cooking will be designed, combined with greenhouse planting for demonstration and practice, which can be seen in Figure 1-2.

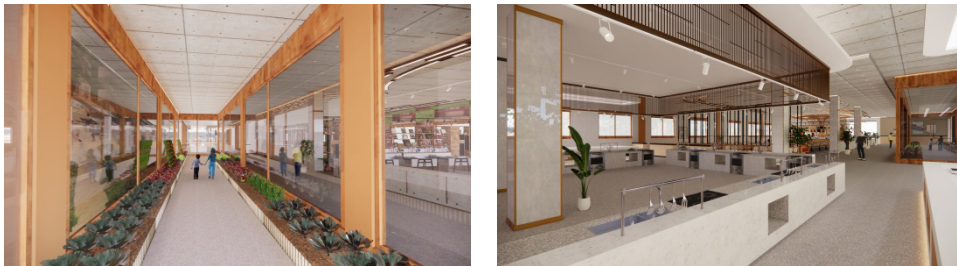


Figure 1-2. Functional zone for practice activities (Source: drawn by the author)

4.3 Functional zone for exploration activities

This zone is based on original nature, avoiding artificial design and ensuring the safety of the place. Without a fixed form, natural exploration depends on the natural condition of the base. Students in different grades should have targeted exploration activities. Those in lower grade can engage in activities such as finding colors in nature, while those in higher grade can participate in trekking and mountain climbing.

5. Conclusion

As quality labor education has been included in the daily education for primary and middle school students, the learning and labor base studied by this paper can provide diversified activity space for the education. In the future, strengths from different sectors should be pooled to further improve the construction of rural learning and labor base, in order to facilitate rural revitalization.

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