

Research on Visual-Oriented Design of Children's Environmental Education

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Abstract. In the development of modern social construction, with the continuous improvement of social economy and science and technology, scholars from various countries have gradually realized that human beings produce a large amount of waste every day, and this behavior will gradually lead to serious pollution, which has become a huge global problem. As the target audience of the environment, children can correctly understand waste separation at the stage of educational activities and design objects with environmental education components, which can not only guide children to realize the problem of environmental pollution, but also establish correct life values. Therefore, on the basis of understanding the current situation of children's environmental education, this paper designs and studies the content and effective measures of children's environmental education from the perspective of visual orientation, so as to ensure that children can establish ecological and environmental awareness and independently participate in practical activities such as reducing waste pollution.

Keywords: Children; Environmental Education; Visual Orientation; Color; Senses.

1. Introduction

Under the development trend of economic globalization, environmental problems pose a serious threat to the safety of human life and daily life. The causes of waste pollution found by some scholars in their research are closely related to human production and life. We should reduce garbage and protect the environment, which is in line with the basic requirements of sustainable human development. Nowadays, although many countries have put forward the development concept and preferential policies of ecological and environmental protection, there are still no sufficient measures to reduce overall pollution. From the perspective of children's growth and education, they have a natural learning motivation and the ability to explore and absorb the surrounding environment. They can establish the relationship between themselves and the environment according to the experience of exploring the environment. Therefore, this article mainly starts with the characteristics of children's development, and deeply discusses the visual orientation and design content of children's environmental education. And the main direction is to guide children to form a correct concept of environmental protection.

2. Comprehensive Consideration of Children's Physical and Mental Characteristics

Children's environmental education plays an important role in developing children's intelligence and promoting the harmonious development of children's personality, and is the main direction of modern education reform [1]. The relevant documents in the field of education in China should provide children with a healthy and rich living and activity environment, meet their multi-faceted needs, and enable them to gain experience that is beneficial to physical and mental development in a happy childhood life. Because the visual guidance system of children's environmental education contains artificial engineering, cognitive psychology, environmental psychology and other related theoretical knowledge, it is necessary to comprehensively consider the physical and mental characteristics of children in the design and research [2]. On the one hand, children themselves are in the initial stage of growth and development. Their self-adaption ability is poor, and their concentration time is short. Whether it is a learning activity, it is easy to be tired, but they are extremely curious and eager to explore. Although they can have a strong interest in a short period of

time when they are exposed to new knowledge, it Business [3]. On the other hand, children have a very high perception of color. According to practical research, it has been proved that infants of three to four months have a preliminary sense of color; after one year of age, infants have their own preferences for color, and can basically distinguish red, green, blue, yellow, etc.; the color preferences of children aged three to six have changed greatly, and different tones can be slightly found. Characteristics. As the basic part of children's living environment, color will have a positive or negative impact on children's psychological changes. Therefore, in the design of the visual guidance system, it is necessary to comprehensively consider the relationship between children and color. Only in this way can we ensure that children's environmental education can achieve the expected effect [4]. For example, some scholars have incorporated garbage elements into the model design, and the color of the model will be adjusted according to the principles of garbage classification in different regions, and the toys and models used by children will be combined to carry out waste practice, which can not only allow them to learn more about ecological and environmental protection in the interactive experience, but also comprehensively enhance children's ecology. Awareness of protection.

3. Design and Research of Visual Orientation System

Nowadays, the visual-oriented design research on children's environmental education in developed countries abroad is relatively perfect, which can not only provide rich and colorful design content, but also truly meet the basic needs of children's learning and growth. The overall visual guidance system is in line with the people-oriented development concept [5]. Although China has recognized the importance of children's environmental education, there are few researches on visual-oriented design. Most of the visual-oriented design of children's environmental education is limited to theoretical aspects and does not meet the functional needs of practical education guidance.

(I) Thinking based on modeling design

In the creative design of modeling, according to the deep exploration of children's physical and mental characteristics, priority is given to the use of cartoon images, plants, animals and other children's favorite elements, and fully integrate them with the environment. It can not only quickly attract children's attention, but also show the guiding function in concise recognition [6]. For example, some scholars have proposed to present the installation as an art installation in their research, which mainly has the function of carrying garbage [7]. From an educational point of view, this device is combined with the local garbage collection principles, and with the help of the visual image of cartoons and children's toys, we use warning words to remind children that we are currently facing a serious garbage pollution problem. This visual-oriented design mainly uses taste, image, shape, color, etc. to attract children, make the garbage disposal process more interesting, encourage and support people to correctly view the problem of waste pollution, and gradually reduce the bad phenomenon of littering, as shown in Figure 1 below. The systematic design of the application of the principle of waste classification not only gives unique educational value to this device, but also has an essential difference from other children's garbage bins in the current market, which can actively guide children to establish a correct awareness of ecological and environmental protection.



Figure 1. Children's trash can

(II) Thinking based on color design

The color in the visual-oriented system should be combined with the psychological characteristics of children for pathological thinking. Nowadays, the color of children's environmental education should not be limited to simple white, black, etc., but to choose colors with a sense of joy and jumping. They can use a small number of contrast colors, complementary colors, adjacent colors and other design thinking, so as to avoid the monotony and boring environmental colors. It should be noted that color design should not be too strong or too much. It should always be combined with children's preference characteristics and perception. For example, a small amount of high-saturation colors can be added to white or green for weak contrast, so that it can not only meet children's aesthetic needs, but also carry out environmental education in an orderly manner. Practice activities. For example, when designing exhibition posters related to environmental education, some scholars use color as an effective tool to attract children's attention. On the one hand, they choose the polluted green background, and on the other hand, they use white fonts to achieve eye-catching results, as shown in Figure 2 below:

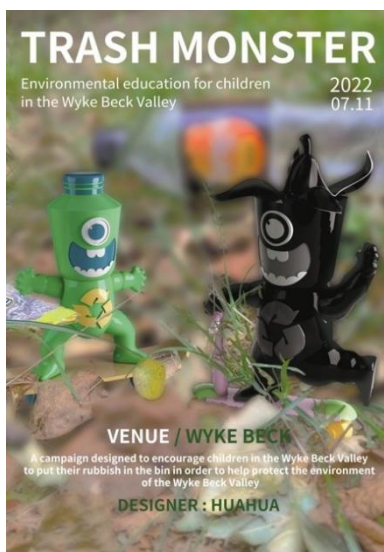


Figure 2. Poster Design Case

At the same time, based on the design inspiration of the French artist Gilles Cenazandotti, the author made a series of ecological animal sculpture installations using beach garbage, as shown in Figure 3 below. The materials selected for this design research are waste, and symbolic objects with implied significance represent the appearance of the model, which can not only represent the threat posed by waste from human life to species, but also call on people to actively participate in environmental protection.



Figure 3. Ecological animal sculpture device

(III) Thinking based on sensory design

Because children are in the initial stage of learning and growth, combined with the sensory design of the visual guidance system, they can place the guidance logo within the height they can touch, give priority to skin-friendly and soft design materials, and pay attention to improving their regional recognition ability and self-thinking awareness . For example, some scholars combine the actual pollution environment with 3D rendering technology to provide a diversified visual experience in a semi-abstract way, so that children can truly understand the application value of Wyke Beck's installation design while understanding the on-site waste pollution situation, and finally highlight the ecological and environmental protection vision. Frequency theme[8] .

4. Conclusion

To sum up, as the basic force of socio-economic and technological development, children design and study visual guidance systems in environmental education, which can not only build a warm and comfortable educational environment, but also guide children to master more theoretical knowledge of ecological and environmental protection. Therefore, in the context of educational reform, China should strengthen the research on the visual-oriented design of children's environmental education, and pay attention to mastering more valuable educational measures.

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