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COLOR APPLICATION IN FURNITURE DESIGN OF CHILDREN'S PLAY AREAS

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Color plays a crucial role in children's development, affecting their physiology and overall growth. As parents increasingly focus on early childhood education, the design of children's play areas at home has gained significance. This study explores the impact of color in furniture design for children's play areas, considering factors such as hue, purity, brightness, and the combination of color and emotion.

Key words: children's furniture, color application, furniture design

INTRODUCTION

Human vision of color is not generated by a single refraction of colored light on the retina, but by stimulating the visual nerves after mixing various light colors. The psychological response of the human body to color stimuli is color perception, and color perception is the perception of color generated by the human body when the color of daily objects is affected by various light sources, and there are also many colors in the surrounding environment. Children have a certain ability to distinguish colors at the beginning of their birth, but this color must be in the spectral region, mainly because the neural foundation of newborns is not mature enough. It is not difficult to see from this. Human perception of color is also influenced by the level of visual development at the physiological level, and it gradually develops and matures with age. The importance of color in furniture design for children's playgrounds aims to propose key points for color application.

PURPOSE

The purpose of the article is to analyze the importance of color in children's playground furniture design from multiple perspectives such as color tone, purity, brightness selection, color combination and coordination, and the emotional impact of color. When evaluating color combinations and emotional influences, this article also considers children's visual perception development and aesthetic tendencies.

RESULTS AND DISCUSSION

Children's visual acuity develops gradually, reaching optimal levels by the age of 12-13. Their aesthetic preferences are unique, influenced by direct perception of colors and interesting products. Young children prefer highly saturated, bright colors like red, green, and blue, with gender differences in color preferences. Secondly, children will intentionally or unintentionally "hide"



themselves, and they are very fond of making tents, houses, and drilling holes. They want to create a private small world through their own efforts [1].

Color has a significant impact on children's physiological and psychological development. Harmonious color combinations provide visual pleasure, while chaotic or overly stimulating colors may harm children's visual nerves and emotional well-being [2]. Prolonged exposure to specific colors can affect children's creativity, agility, and IQ. When designing furniture for children's play areas, it is essential to consider the following:

- 1) Select colors consistent with children's physical and mental development.
- 2) Control color saturation and brightness.
- 3) Create a cozy and lively environment through effective color combinations.
- 4) Understand the impact of color on children's psychological development and personality.
- 5) Match colors reasonably to ensure mental concentration and emotional stability.
- 6) Use color to improve personality defects and cultivate good personalities.

Designers should be cautious when using monotonous colors like black, white, and brown, as they may adversely affect children's personality and development. Children's color preferences often reflect their personality traits, such as red for strong and impulsive personalities, yellow for flexible minds, green for curiosity, and orange for creativity. Appropriately applying colors in furniture design can effectively promote children's psychological health and growth [3].

The application of color in children's play area furniture design significantly influences their intellectual development, personality, and emotions. Designers should be mindful that single color use may lead to a loss of curiosity, while overly complex color distribution can cause anxiety and unease. Reasonable color selection is crucial and can have a decisive impact on the overall style of the play area. Children's toy preferences often align with their gender cognition, and color selection is particularly important in home design. Designers should follow children's lively nature while considering color saturation and contrast to minimize negative stimulation. Reasonable color matching stimulates and cultivates children's artistic talent and imagination. Parents strongly influence children's item choices, and comfortable color use can affect their purchasing decisions. As China implements two-child and three-child policies, parents are placing more emphasis on early childhood education, leading to stricter color requirements in furniture design. With improving living standards, children's independence and personalized needs are being valued, and they are more sensitive to popular colors in the market. Designers should pay attention to current popular colors and consider both children's and parents' needs to stimulate consumer purchasing desire while ensuring furniture safety and growth.

The child's bedroom and play area in Figure 1 uses a blue, yellow, and white color scheme, creating a bright, cheerful atmosphere that stimulates curiosity and creativity. Blue promotes relaxation and imagination, yellow encourages happiness and confidence, and white balances the colors while reducing stress. The matching



toys provide diverse experiences, and the natural light from the window enhances mood and health.



Fig. 1. Furniture matching for children's bedroom and play area

CONCLUSIONS

In summary, effective color application in children's play area furniture design involves considering hue, purity, brightness, and emotional aspects. Designers should cater to children's preferences while prioritizing their protection and care. Color selection should promote parent-child communication and provide humanistic care. Reasonable color combinations can support children's healthy physical and mental development.

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ЗАСТОСУВАННЯ КОЛЬОРУ В ДИЗАЙНІ МЕБЛІВ ДЛЯ ДИТЯЧИХ ІГРОВИХ ЗОН

Колір відіграє вирішальну роль у розвитку дітей, впливаючи на їхню фізіологію та загальний ріст. У міру того, як батьки все більше зосереджуються на ранньому дитячому вихованні, дизайн ігрових зон для дітей вдома набуває все більшого значення. Це дослідження вивчає вплив кольору в дизайні меблів для дитячих ігрових зон, враховуючи такі фактори, як відтінок, чистота, яскравість та поєднання кольору і емоцій.

Ключові слова: дитячі меблі, застосування кольору, дизайн меблів