

Research on the Innovative Design of Children's Educational Toys based on Traditional Cultural Experience

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Abstract

The integration of outstanding traditional cultural elements has become a central theme in the development of modern toys, aimed at achieving both innovative design and high-quality growth. Building on this idea, this article examines the innovative design of children's educational toys infused with traditional cultural experiences. It begins by exploring the significance of designing educational toys for children and proceeds to analyze the principles of traditional culture that guide such innovation. Lastly, the article outlines the pathways for innovative design from two key perspectives: modeling conception and functional design. The goal is to provide meaningful references and insights for future research in this field.

Keywords

Traditional Culture; Children's Educational Toys; Innovative Design.

1. Introduction

This paper seeks to explore the feasibility of integrating Chinese traditional cultural experiences into the innovative design of children's educational toys. By extracting and adapting traditional cultural elements, it addresses the challenges faced in the current design of educational toys and investigates how to inherit and develop traditional culture through innovative approaches. The study emphasizes strengthening children's understanding of Chinese traditional culture and fostering their cultural identity.

Focusing on children aged 3 to 6 as the target group, the research identifies key intersections between educational toys and traditional culture, refining design processes and concepts while conducting practical design explorations. From a product design perspective, the study adopts a cultural innovation approach, seamlessly combining traditional culture with educational toys. It reflects the core concept of "creativity driving cultural promotion, and culture supporting children's growth," offering valuable insights and references for the development and innovative design of children's educational toys.

2. Research Status

With increasing attention focused on children's education, the integration of games with educational products has become a significant trend in the development of children's toys. In ancient China, there were similar designs aimed at fostering the intelligence and creativity of preschool-aged children [1-2]. These traditional architectural structures offer fresh inspiration and innovative directions for the design of children's toys, such as cars. Furthermore, they serve as a medium to pass down elements of Chinese traditional culture and craftsmanship, enabling more people to better understand and appreciate the rich heritage of Chinese culture [3].

Toys such as puzzles and building blocks encourage children to assemble and operate them independently, prompting them to think actively about how to complete the task during play. Additionally, with toys like Lego blocks, children are free to unleash their imagination and engage in creative play. Parents can join in, participating in the play process and offering

guidance, which further supports the development of children's cognitive and problem-solving abilities. While domestic children's toys are gradually evolving toward educational and even programming-related designs, they often lack distinctive stylistic features, strong brand identity, and significant product innovation. As a result, there is an urgent need to integrate elements of Chinese traditional culture into children's educational toys to enrich their value and enhance their uniqueness [4-6].

3. Innovative Design Methods

The core concept of introducing traditional cultural experience into children's toys is to combine education with entertainment and cultural inheritance, including the extraction of traditional cultural elements, children's toy design principles, children's characteristics, program design, and design practice. Based on the collection, extraction, and sublimation of cultural symbols in Chinese traditional culture, according to the safety principles, educational principles, entertainment principles, and interactive principles of children's toy design, as well as children's behavioral characteristics, traditional cultural elements are integrated into the program design to complete the program design, and according to the program design, design practice is carried out to verify the feasibility of the program.

First, the traditional Chinese cultural elements of mortise and tenon structures and traditional children's toys are analyzed, refined and sublimated; second, the design analysis of the function, shape, structure, color and other aspects of children's educational toys is carried out to determine the product positioning; the design theme is determined by combining the extraction of traditional cultural design elements and product design positioning; the user's usage scenario is set in combination with the characteristics of children aged 3-6, and the children's use process of educational toys is considered; the design plan is expressed and improved in combination with the four principles of children's educational toy design, and finally the design practice is carried out to make actual products of innovative design plans.

4. Design Practice

Design Case Study - Ouyue Heritage Rubik's Cube. The "Ouyue Heritage Rubik's Cube" is a culturally-themed children's toy designed to celebrate and promote the regional heritage of Wenzhou. By incorporating iconic landmarks such as the Wuma Street New Guoguang Building, Taishun Bridge, Wenzhou Grand Theater, Wuhua Tianbao, and the Guomao Building into its pattern design, the Rubik's Cube enables children to explore the rich history and diverse culture of Wenzhou while engaging in play.

Each face of the Rubik's Cube features a distinct cultural element, brought to life with vibrant and engaging colors, making it both educational and visually appealing. As children manipulate the Rubik's Cube to solve its puzzles, they simultaneously gain knowledge about Wenzhou's cultural landmarks, fostering a deeper understanding of and connection to local heritage.

The goal of the "Ouyue Heritage Rubik's Cube" is to spark children's interest in traditional culture, instill a sense of pride and identity, and serve as an interactive tool to bridge younger generations with Wenzhou's rich cultural legacy. This innovative approach not only enhances the educational value of the toy but also offers a meaningful way to preserve and pass on regional traditions.

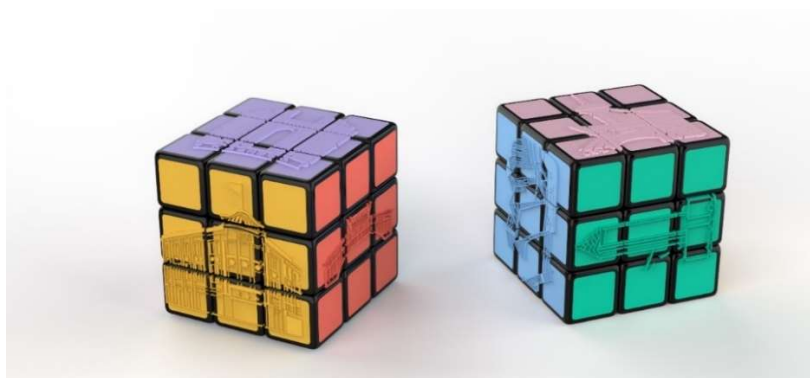


Figure 1. Ouyue Heritage Rubik's Cube

5. Conclusion

The innovative design of children's educational toys based on traditional cultural experience has important theoretical value and practical significance. From a theoretical point of view, it integrates traditional culture with modern design concepts, and expands the cross-research in the field of cultural inheritance and children's education; from a practical point of view, it integrates traditional culture into children's growth in the form of entertaining and educating, provides an innovative carrier for cultural inheritance, and at the same time meets parents' demand for high-quality educational toys, promotes children's cognitive development, enhances cultural identity and national pride, and injects new vitality into the cultural industry.

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