Interactive Design Study of Children's Game Picture Book

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Abstract: The existence of picture books can have an important impact on children's growth. The existence of picture books can effectively improve children's reading ability and reading interest, and cultivate their reading habits through picture books. In the process of designing and creating the picture book, the designer should pay attention to the growth characteristics of the preschool children, the interest in the things and the level of cognition. In the children's gamification picture book, the interaction is fully integrated to promote the picture book reading. It can create fun and gameplay, and make the picture book more interesting and educational for children. This paper studies the interactive design of children's gamification books, and fully explores its expressions, techniques and creative methods to ensure the interactiveness of children's gamification books.

1. Introduction

At present, the number of young children in China continues to increase. Especially after the opening of the "second child policy", many young children speak out every year. This provides a relatively broad market for the picture book, and has great potential for development in the future. The development space, while more and more people pay more attention to the education of young children, hoping to have a higher quality picture book can promote children's intellectual development. The current preschool education theory is quite important for games. One of the main ways for children to survive is to play games. Therefore, designing an interactive, gameplay and educational picture book has extremely high value and significance. Children's psychological characteristics, interactive principles, choose some design styles with rich themes and various forms. This paper discusses the characteristics and significance of the existence of children's gamification pictures, and further explores the interactive design of picture books for preschool children.

2. The main characteristics of children's gamification picture book interaction and the value of design

2.1 Main features of the interactive nature of children's gamification pictures

Preschool children's physical development, mental development and intellectual development are all at a relatively important stage of development. Through reading and playing games, children's healthy growth can be guaranteed. This is in line with children's own love for games. Close contact, the development of reading through the game can greatly protect children's love of reading, making reading a habit. In the picture book, you can add gamification, guidance and interactive experience, so that children can experience the game experience of reading and exploring things [1] in the picture book. Mainly manifested in the following three characteristics:

The first is to use a variety of senses to explore and recognize the picture book. Sensory education is an important learning method for school-age children. Through the stimulation of children's five senses, children can be more sensitive to these senses, and improve the ability and level of information processing, so that information can be faster and more accurate. The process of sensory training is an important expression of gamification and interaction. It demonstrates the ability to induce children's senses and enhance their understanding and acceptance of children's stories and different content in the picture book [2].

The other is to improve the experience of the game. Games are one of the main ways children can get happiness and achieve the purpose of exploring the world. Using different games can express

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children's own emotions and gain more emotional expression and self-awareness. Through gamification, children can recognize the complex relationship between different people and things, understand the activities and life in daily life, grasp more social roles, and encourage children to exercise their thinking in language. Experience the emotions and connotations expressed by different games in the game picture book, and inspire children's imagination, emotional intelligence and ability to recognize themselves.

Finally, children can develop a dynamic understanding of themselves through gamification. The existence value of gamification picture books is to satisfy children's cognitive needs, and to use children's psychological characteristics and emotional desires as the basis for creation and design, to ensure that children can produce a sense of identity for gamification pictures, children's concerns It is very easy to be attracted by different things. In the game picture book, because of its dynamic process, its picture can produce a kind of rich and varied hierarchical changes under the children's operation, and further capture and attract children's reading interest. [3].

2.2 The value of interactive design of children's gamification pictures

First of all, the child's attention can be attracted. The continuous development of information technology has prompted more children to use functional products such as computers and mobile phones, which has led to the continuous decline of children's own attention. There is no way to invest their own concentration in the picture book. The gamification picture book is full of interactivity, which can make the children's senses receive different stimulating feelings, which makes these preschool children's reading interest greatly improved, and enhances the reading ability during the exploration. At the same time, the gamification picture book is due to its Strong interactivity can capture children's interest in reading, and in the process of reading, enhance their imagination, knowledge and corresponding hands-on ability, and cultivate more inquiry ability in the process., curiosity and the ability to transform the world [4].

In addition, the gamification picture book can further satisfy the children's physical and mental development characteristics. In the process of reading gamified interactive picture books, children can use their hands to participate in the game interaction of the picture book, so that children can have different interests in the picture book in the process of hands-on, and can make the children effective in the process of using both hands. Using the brain to explore, to ensure the construction of children's way of thinking and the development of thinking ability. At the same time, the existence of gamification pictures can effectively cultivate children's curiosity, and can cultivate children's exploration of knowledge earlier, and fully develop children's intellectual development and imagination.

The last is to enable children's self-reading ability to be improved in the interactive nature of the game picture book. The main purpose of children's reading is to enable them to lay a good foundation for reading and to actively read. The ability of children to read is not born, but formed under the training and exercise of the day after tomorrow. The use of interactive game books can enable children to develop their understanding, expression, observation and thinking in the process of reading, so that these children can get better reading in the future development. Ability and foundation.

3. Children's gamification picture book interactive design

3.1 The performance of interactive design of children's gamification books

3.1.1 The story in the picture book should be gamified

In addition to being able to satisfy the interactive conditions of their expressions, the existence of the picture book will also ensure the possible interactivity of the story content. To ensure the harmonious expression of the story's expression and interactive content, for example, in the "Little Dot" picture book, the book's interactive and gameplay are fully integrated, so that children can explore and discover in the game. The principle of the book is mainly to use the human visual experience and the visual illusion that will occur during the book turning process, and to enable

children to fully focus their attention on the book. This form of picture book can use children's reading deconstruction, and promote reading into a kind of entertainment game in the eyes of children, and further integrated into the game story of the picture book [5].

3.1.2 Illustration design fun

The indispensable part of the picture book is the illustration. The quality of the design of the illustration has an important influence on the quality of the picture book itself. A picture book with excellent quality is closely related to children's psychological and physiological growth characteristics. At the same time, it is necessary to take the artistic design of the gamification picture book illustration from the perspective of children, and further ensure that children feel the way in the process of accumulation. Expressing aesthetic values.

3.1.3 Express emotions in color

The existence of color can express human emotions in a figurative way, further promoting the reader to have an emotional resonance and interaction with books. Preschool children's identification, cognition and choice of different things are easily guided by more intense colors and deeper appeal. Through the use of color in gamification pictures, children and picture books can be fully connected. An important part. Color can fully highlight the content and story in the picture book, and express the whole story background, atmosphere and emotion rendering, and fully influence the children's emotions and emotions.

3.1.4 The use of a variety of materials

Different materials can effectively stimulate the visual sense of preschool children. The material itself has a texture touch, which further brings a unique experience and feeling, and also gives the child a tactile feeling. Through contact with different picture materials, children can enhance the fun of children's reading, and let the content in the story convey the vivid and playful emotional value, and enhance the interaction [6].

3.2 Interactive design method for children's game-making books

With the increasing number of children and the importance of parents' education for children, more and more parents are turning their attention to the choice of picture books. Many gamification and interactive picture books are needed. The design and preschool of such pictures are required. Children's own love of the game's psychological characteristics is consistent, the education and entertainment are fully integrated, and the fun and learning are highlighted in the gamification picture book, using different materials, production techniques and production techniques to strengthen the picture book. The gameplay and interactivity are mainly designed through the following three kinds of books for children's gamification:

3.2.1 Hidden organs in the picture book

This method is mainly designed to be able to design some places in the picture book that can be moved, split and rotated. The design of these places is mainly made of special materials, and some gamified content or objects are placed in it. Being able to fully interact with children, through the children's operation of the hidden organs of the picture book, to change these pictures and content, to promote the story's plot more extensible, to ensure that children can enhance the fun in the process of reading the picture book And the level of participation. Moreover, the design of the picture book mainly trains the children's turning, pulling and turning operations, and promotes the child's own flexibility to effectively improve. For example, in the picture book "Chameleon Hide and Seek", the design of the spicy strip and the turntable is adopted, which enables the child to change the body color of the chameleon. In the process of going to different scenes, the child can operate and urge the chameleon to The self-dressing and decoration is more suitable for the current scene, training children's thinking ability, scene recognition ability and hands-on ability, showing full interactivity and gameplay [7].

3.2.2 Destroy the "face" in the picture book

The "face" of the existence of the picture book is destroyed by various methods such as cutting and digging, so that different pictures can be displayed, for example, the hollow design can be combined with the picture of the next layer. To make the picture more complete and vivid, and children can selectively use the form of the picture book to participate in such picture book reading in a game mindset, showing an interaction and game.

3.2.3 Break through the plane of the picture book to extend

Breaking through the plane creation space of the picture book, transforming the picture of the picture book from a two-dimensional space into a three-dimensional space, etc., by integrating different illustrations and three-dimensional spatial structures, the language of the picture book is further enriched, and the picture book is promoted. Can produce more information transmission. In the design process of the picture book, a three-dimensional effect can be constructed by using various methods and means such as stretching, plugging, and falling. The paper carving art, paper-cut art, etc. are designed on the shape, and the appropriate materials and techniques are used to realize the expression of the design idea. The interactive design of such a gamification picture book requires the designer to have a strong space mastering ability, and the cost is also high, but in fact can show a very shocking expression, enabling children to On the basis of these pictures, the picture book itself is very aesthetic and artistic, which enables children to interact with the stories and expressions in the picture book in the process of reading the gamification picture book, which is in line with the psychological characteristics of children's growth and development. For example, in "Mystery Night", the Alien Organ is used in the design of the game picture book, combined with the form of "folding", so that children can use their hands-on ability to change their shape and promote children in the game. Strong interaction with picture books [8].

4. Conclusion

The existence of gamification picture books is very interesting and interactive. It can enhance children's interest and is popular with parents and children. The educational, gameplay and interactive nature of the game is the future game picture book. The main direction of the design. This paper discusses the characteristics and value of the interactive design of the game picture book, and expresses its main design methods, in order to bring more new possibilities and exploration value to the interactive design of the game picture book.

References

- [1] Ge Jiahua. Design of gamification picture book for children with autism [J/OL]. Design, 2019(17): 149-151[2019-09-25].
- [2] Cao Jie. Analysis of the Use of Interesting Picture Book in the Background of Curriculum Gamification[J]. Reading and Writing (Educational Teaching Journal), 2018, 15(06): 208.
- [3] Jia Hong. Analysis of the Application of Interesting Picture Book in the Background of Curriculum Gamification[J]. Reading and Writing (Educational Teaching Journal), 2018, 15(09): 191.
- [4] Cao Xiaomeng. Application of gamification thinking in picture book design--Taking interactive picture book as an example[J]. Design, 2018(21): 130-132.
- [5] Zhu Jing. The practice and research of early childhood reading "gamification"[J]. Jiangsu Education Research, 2015(35): 69-70.
- [6] Zhu Xuehua. Thoughts on gamification construction in picture book reading[J]. Huaxia Teacher, 2016(05): 52.
- [7] Leng Xueying. Analysis of the Application of Interesting Picture Book in the Background of

Curriculum Gamification[J]. Reading and Writing (Educational Teaching Journal), 2017, 14(02): 228.

[8] Gao Haiying. Application of illustration in picture book design [J]. Art Education, 2017 (Z5): 189-190.