Abstract—Good design of children’s books will greatly boost the children to perceive the world and open wisdom. It can improve the children’s aesthetic appreciation and creativity. Meanwhile, it is closely linked with children’s physical and mental health. Design of children’s books should start from humanistic concern, focus on the children’s learning interest point and traits of character, highlight interestingness, curiosity for knowledge, curiosity for the world and help children to grow healthily.

Keywords—children’s books design; humanistic concern; humanization design

I. INTRODUCTION

As the priority among priorities in books design, children’s books are an important way for the children to understand the world, perceive the world and open wisdom. Good children’s books design can improve the children’s aesthetic appreciation and creativity. Design level of children book will greatly influence social progress; it plays an important role of bearing education and spreading knowledge and is closely linked with the children’s physical and mental health. Children’s books design should start from humanistic concern, focus on the children’s learning interest point, traits of character, highlight interestingness, curiosity for knowledge, curiosity for the world and reach the effect of subtle influence.

II. INTERESTINGNESS AND KNOWLEDGE IS CLOSELY LINKED

Loving playing is nature of the children. How to teach through lively activities and allow the children to learn knowledge in playing and develop interest in learning is the highest state for an educator. Thus we should have a full understanding of young children, including their characters, hobbies, habits, temperament, knowledge level, practical ability and so on, then combine with characteristics, features of experience knowledge, make a series of reasonable scheme, make them actively participate in learning and actively seek knowledge. In a world, it is not a easy thing for the children’s books to have the features of intuition, continuity and interestingness.

A. Books with Sound and Pictures

The books have sound of text, song of pictures, even ensemble of text and pictures. The children will not only pay strong attention to pictures, but also possess inborn sensibility and huge interest for sound. As a form of books, the books are not simply adding of text and pictures, but generate rich and inventive connotation through text and pictures and create a miraculous world.

Children’s books with sound can simulate the children’s brain and increase the brain activeness, better improve the children’s attention, meanwhile, bring fresh feeling to the children, expand the children’s imagination to the surrounding environment and different things, develop the children’s intelligence and emotion. Suddenly a bouncing large three-dimensional picture brings strong visual impact to the children; meanwhile, vivid sound allows the children to have an immersive feeling. Secret send of space will immediately attract the children’s attention, motivate the children’s strong exploration desire, cultivate the children’s observation and discovery ability, turn passive learning into active learning. Also matched with graphical text, the books vividly explain every tiny creature found by the children, and greatly expand the children’s horizons.

Early education series products for children, such as books with sounds, speaking children stories books and so on “Fig.1” produced by Shenzhen ESYS Electronics Co., Ltd. make the children hear sound when they see pictorial writing, whose function is that every pattern makes sound, voice and music corresponding to printing contents of books when the children touch sticker of sound box. The appearance is rectangular ABS plastic box; the products are beautiful and elegant, with various styles and exquisite process, external dimension of 22cm x25.5cm x2.3cm, and operating voltage of 3-4.5V, small and easy to carry as well as safe. The products not only make the children read book and listen to story, but also can record sound. The operating principle is that by stimulating the children’s sense of touch, sense of hearing, visual sense and other layers, the products make the children perceive new things in playing games and entertainment, learn pronunciation, read pictures and recognize characters, listen to stories and listen to music, which all can promote the children’s distinguishing and recognition ability, memory ability, observation ability, and sense uniformity and coordination ability of visual sense,
sense of hearing and sense of touch. What matters is that the books include extremely rich contents, a book like this includes Chinese stories, fable tales, poetry of the Tang Dynasty, idiom books, ABC book, fables and English fairy tales, etc. also make animal sound, vehicle sound, figure sound, letter sound and so on, as well as include many languages such as Chinese, Korean, Japanese, German and Hindi.

When the infant is a little older, we can ask him for tastes of different food they have eaten. We should make the infants to understand different tastes and enrich their taste feeling through food.

Nerve cell in cerebral cortex is stimulated in an orderly and proper way and the children’s brain balance and healthy development is promoted through five senses intelligence cultivation method of “visual sense, sense of hearing, sense of smell, taste sense and sense of touch”. Meanwhile, targeting at common mistakes of the parents, parenting strategies effectively combined with physical ability and intelligence are proposed. The purpose of developing the brain potential by scientifically utilizing effective children’s books is not to make the children become brilliant talents, but to help the children fully natural intelligence and physical ability potential and better grow up with no regrets.

B. Touchable and Audible Books

The children’s exploration for touch sense of object is originally conducted from oral activity, and then developed into sense of touch, sense of smell and taste. Research shows that the infants from one and a half years old to two years old cannot accurately touch thing on their noses, so they must make touch activity relying on clues provided by hearing and visual sense. In books design, we can stimulate the children’s cognitive interest through tactile stimulus. For example, we can add some fluffy or stiff materials in book design so as to allow the infants to touch hairy “Fig. 2” smooth metal surface and rough stones and so on with their hands. Providing external information for the infants, the sense of smell is an important item to understand the surrounding people and objects. For example, smell of different flowers and fruits are understood by sense of smell, which will help the infants to comprehensively understand things. To make the infant understand different flavors is taste training, for example, when we let him eat watermelon, we say “red and sweet watermelon, the watermelon is sweet”; when we let taste a little pepper, we tell him “this is the taste of pepper”.

Fig. 1. The child read books with pictures and sounds

Fig. 2. Touchable Book

Fig. 3. Zhiguimantang Children’s Books
As whole brain training of visual sense, sense of smell and sense of touch, a miraculous fragrance book quoted from France, Zhiguimantang Children’s Books “Fig. 3” brings the baby most vivid experience of visual sense, sense of smell and sense of touch, makes the brain develop faster and smarter! The whole set of books introduce fruits, flowers, food and spices, etc. In the corresponding picture position, the children can scrape with hand, smell and will experience the taste of object in the picture. The books can intensify the children’s sense training as well as motivate their infinite imagination! The most vivid sense training will start the first pass of early education!

C. Books Making the Children Use Brains and Hands

It is confirmed by the experts that, the best of developing the children’s intelligence is stimulation of early education. The richer and earlier the children’s experience of using hands is, the higher development of the children’s brain is and the faster the development of intelligence is. Therefore, “using hands” is an effective way to activate intelligence. Sense of touch is an earlier sensory system of the children in current development. One of the most sensory systems for people is sense of touch, which has been developed in embryo, as well as is a complex sensory system most extensively distributed in human body. Just due to this, the children’s cognition for hot and cold, soft and hard, rough and smooth is earlier than cognition for color, taste and sound. Laugh and cry, happiness and fear is original “feeling” of their body for the surrounding things. The main route for them to learn the world is sense of touch. Diversified touch exploration will promote the children’s movement and cognition. Adaptive tactile stimulus is an indispensable factor for the children’s growth. Sense games will make the children develop better, explore the world and develop body and mind. Vice versa, without good sense learning, development of feeling and intelligence will be slow.

A set of Andersen’s Fairy Tales “Fig.4”, parent-children interaction, educational and interesting infant books published by some children's publishing house is a vicesimo quarte small book. Combining with children’s songs and finger movement, it is a finger game book exercising both hands’ flexibility. The children’s songs selected in the books are lively and vivid, clear and easy to understand, conductive to the children’s language development. Movement matched with the children’s songs is vivid and interesting, including movement of single person and movement of two persons, which not only effectively exercises the children’s hands flexibility, but also is taken as parent-child game and promotes emotional exchange between parents and child.

III. HUMANIZATION DESIGN WITH SAFE READING

Young children are in the state without self-protection awareness, so any tiny negligence will damage them. Common thirty-twomo and sixteenmo textbooks include right angle sides and the paper is thin and hard, easy to scratch the body. In fact, this phenomenon often occurs in the children. With low stability and high reflection, papers in inside pages will easily cause the children’s visual fatigue and damage to eyes; the weight of books is large, a dozen books are filled in the students’ school bags, adding other stationery, a bag is even nearly 5 kg, which certainly will increase burden to the children’s immature shoulders and influence physical development. The development trend of children education books in future should be: safety, interest multi-function and humanization. In these several points, safety is very important. Nowadays, most households have only one child, who is regarded as the pearl at home.
Concern extent to the children can be imagined, and design safety position for children’s books is particularly important.

Even of many children cannot walk, they can hold book and look it with an air of importance. In the children’s mind, books play an important role; no matter whether they can understand or not, they will ask for you to buy books as if wanting toys. Just due to this, safety of children’s books design should attract the parents’ attention. We should avoid damage to the baby when we design children’s books.

Firstly, high quality papers should be selected for children’s books. Some printing houses seeking cheapness adopt poor quality papers to print books. We smell pungent smell far away before we take the book, so the books are certainly not suitable for the children. The smell is always toxic and will damage the children. The children are always eating and biting the books, therefore, if the printing materials are not qualified in quality, these toxic materials will be eaten by the children.

Secondly, the papers with high reflectance will easily damage the children’s eyes. Some publishers only pursue the children’s eyeball attention; pursue high grade quality feeling of books, so they will select coated paper with very high glossiness to print. These books are seemingly attractive, but beautiful appearance virtually damages the children’s eyes. The younger the child is, the larger the damage to his eyes is “Fig. 5”. A book suitable for the children should have soft color, the closer to the nature is, the better the book is. And there should be no too strong reflectance. From printing professional level, coated paper can restore true color effect, but its reflectance is very strong; reflectance of offset paper is small, but there is larger color shift; which propose requirements for selection of children’s books. The selected color should restore soft and true color; reflectance should be moderate and not stimulate eyes. We’d better select matt coated paper.

Thirdly, the picture should not be too fine and complex. Pictures and word size of a children book is an important factor to determine whether the book is in place. The adults are willing to see fine and complex illustration pictures, but the children are one the contrary. Book pictures read by them should not be too fine and complex, the word should not be too small, otherwise, the children will be strenuous, or in order to read clearly, they will keep their eyes open and move close to the book, their eyesight will be influence for long time. It can be seen that books with simple picture and large words “Fig.6” are suitable for the children.

Finally, corners of the books should not be too sharp. Many people think that the papers are fragile, but they are very sharp at most time and the hands will be scratched due to a little carelessness. Therefore, we should pay attention to these details when selecting books for the children. We’d better select books with round corners.

IV. CREATIVE DESIGN OF ANIMATION INTERACTION MULTIMEDIA BOOKS

When people are still immersed in traditional page turning reading, the new favorite multimedia interaction e-book has been popular silently. Multimedia interaction e-book creates brand new reading mode and makes students get much fun during use as well as learn knowledge by gathering music, sound effect, animation and book through multimedia interaction program.

Books are always reputed as “speechless teacher” by people; it means that people acquire cultural knowledge and emotional experience through reading and the author and the reader resonate through communication of words. This communication has been renovated by modern technology, and realization of communication is more specific and humanistic and breaks the “silence” of original traditional printing books. Interaction elements are added in the design, which brings rich cognition experience to the reader and makes the cold “book teacher” become warm. For example, targeting at bad habits of the children in reading and learning, the designer can make a device: the book will make warning sound when the child is too close to the book, or the book will make the child not to continue to read the book by adopting principle of optics color change so that bad...
reading habit will be changed; as another example, *The Ugly Duckling* "Fig.7", melodious and soft music flies out when the book is opened, the children just like enter a dreamy fairy tale world, then the children can select to read text by themselves or select listen to the sister’s story, also can select animation, which make the children feel miraculous. The children’s books full of interest fully arouse the children’s desire for knowledge, especially are loved by the children.

![Fig. 7. Screen capture page of The Ugly Duckling multimedia book](image)

Moglue is an interaction e-book producing and publishing company. Multimedia interaction e-book producing platform researched by it can produce e-book by only using user interface. The founder, Taewoo Kim says, you can produce e-book with their application program if you can use PPT. Imagine it, if the parents can produce a fine e-book for their children by themselves as birthday gift or reward of perfect grade, how happy the children will be.

V. CONCLUSION

Design of children’s books has been paid attention to by more and more parents and children educational circles; being taken as one way of cultivating the children’s wisdom and temperament, it occupies a more and more important position in publishing of children’s books. In order to make our children love reading, many professional teams conduct early reading education, solve the problem of children’s early reading for interested parents, build some special “reading experience studios”, take children based as principle in some hardware environment, make efforts to realize experience and game in details; also creatively design fresh experience mode targeting at different children’s books in some activities through modes of listening, speaking, reading, writing, watching and making, acting, pictures, songs and so on. Along with progress and development of technology and attention paid to preschool education by society and family, creation and design and other aspects of children’s books in our country are bound to develop by leaps and bounds. Taking humanistic concern as the core, we should concentrate on our work, strive for this arduous and glorious thing a thoroughgoing manner.

REFERENCES