

# Chinese Cultural Values in User Experience Design of Kids' Home Products

Xiaojun Huang and Linong Dai<sup>(✉)</sup>

Shanghai Jiaotong University, No.800 Dongchuan Rd., Shanghai,  
People's Republic of China

Miduol@sjtu.edu.cn, Lndai@126.com

**Abstract.** Home has great influence on kids' formation of personalities because it is the first environment where they grow up. It represents parents' living and educational values. In this study, the authors use the methodology of Ethnography and POEMS, discuss the subject about how to apply the essence of traditional Chinese cultural values to the experience design of kids' home products, and put it into practice.

**Keywords:** Kids' home products · Chinese cultural values · User experience design

## 1 Introduction

According to Freud's psychoanalytic theory of personality, personality is composed of 5 stages. The period from 0 to 6 year old was deemed as the most important stage about personality development, which laid the foundation for the personality patterns in adulthood. In China, kids are raised at home from 0 to 3 year old, and then they go to kindergarten from 4 to 6 year old, at the same time they still take 5 h even more time in their family lives. Huang Baiqing and other researchers believe that in environment factors, the family is the main place for (kids') personality development, because the key period of the formation of (kids') personalities and social behaviors happens in home [1].

The kids' home environment, including the building of space and products, holds family activities, and it represents the parents' living and educational values. As kids live in home for a long period, the environment will shape their habits, influence their perception of the world subtly, and ultimately impact their values and personality formation.

In recent years, the youth in China had good chance to get in touch with the Western culture and their advanced technology. Then there are a great deal of useful ideas about home education introduced, such as respect for humanity, guidance by law, and creativity stimulation. At the same time, the youth also showed backtracking of traditional culture. There come a lot of Chinese culture classes with the courses of calligraphy, Guqin, Chinese zither and Chinese painting. Some areas, especially in educational institutions restored ancient ritual in classes to provide kids with the experience of traditional Chinese culture.

Family education plays a great important role in China. As the old saying goes, regulating the family, country and the world. ‘Home’ is very important as the source and foundation of self-cultivation. Chinese famous education experts Xiong Bingqi noted that the profound traditional culture had already contained rich and valuable resources of moral education [2]. In the home environment, Chinese parents try to cultivate a young generation who has the characteristic of Chinese features and broad perspective of the world through the subtle influence of traditional Chinese culture and the guidance of Western education concepts. It brings higher needs to the design for family environment and home products.

Home environment consist of the space and the products, which must comply with the users’ concept and carry their behavior. However, the kids’ home products in the market are largely identical with only minor differences. The research shows that kids’ furniture products in China pay much attention to the adaption for kids’ physiological changes, which correspond to the human dimensions and security in traditional ergonomic [3]. For the matter, it does not come to the subdivision design with sociological significance of different life style and educational value [4]. In consequence, this study will discuss how to apply the Chinese cultural values into kids’ home products design emphatically, which will facilitate the healthy growth of kids’ personality.

## 2 Methodology

The authors collected the data to analyze the living environment, educational concepts and kids’ home products of different families by the methodology of ethnographic. Then we organized the data with the framework of POMES (people, object, environment, message, service), structured the user needs, and chose out the ones relevant with Chinese cultural values. Then the authors explored the possible development of kid’s home products with Chinese cultural values, and applied them in practice.

### 2.1 Ethnography Research

Ethnography is a field in Anthropology. It is the meaning of “human portrait” and a kind of the same ethnic people “direction or life” portrait [5]. In other words, ethnographic study is to allow designers to understand the lives, behavior, needs, values, and beliefs of real users [6].

This research had conducted a survey of twelve families in Shanghai and recorded data of their living environments, educational concepts and kids’ home products with the methodology of Ethnography by field observation, in-depth interview and focus group (Fig. 1). The authors not only research the kids’ use space, but also recorded the overall layout, furniture style, usage, and style preference of testing families.

### 2.2 POEMS Analysis

Through the accumulation of a long research, we accessed to a rich array of data, and entered all the data into an Excel spreadsheet in accordance with the construction of



Fig. 1. Photos in real families [7]

	B	D	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	Behavior	Time	Behavior Description	Actor Gender	Actor identity	Actor Age	Object	Environment	Information	Service	Behavior Motivation	unsatisfied	Advice	Observation View	Use Evaluation	Motion Evaluation	Recognition Evaluation
1	刚刚入睡	晚上	姑婆来探望	男	孩子	6个月	无	客厅	月子里的孩子	单人行为	月子里的	无	无	只要是	4	4	4
2	在太姥姥	下午	去探望太姥	女	太姥姥	老年人	无	在父亲的	两个大人之	多人行为	太姥姥要	无	无	无	4	4	4
3	在婴儿床	下午	在婴儿床里	男	孩子	6个月	婴儿床	卧室	三个月之内	单人行为	睡觉	无	无	无	4	4	3
4	婴儿床	上午	现在的婴儿床	男	(10月) 与之前的婴儿床	枕头	婴儿床、蚊帐	卧室	现在会翻身	单人行为	睡觉	现在小	空间	整体来	4	4	3
5	在婴儿床	中午	在婴儿床里	男	孩子	6个月	婴儿床、玩具	卧室	这个时期的	单人行为	睡觉	防虫回来	将蚊帐	用户按	5	4	3
6	刚睡醒	下午	在婴儿床里	男	孩子	7个月	婴儿床、玩具	卧室	玩具逗宝宝	、单人行为	哄宝宝	、无	无	无	4	5	3
7	阿姨在逗	下午	在婴儿床里	女	保姆	中年	婴儿床、玩具	卧室	玩具逗宝宝	、单人行为	哄宝宝	、无	无	无	4	5	3
8	婴儿床	上午	婴儿床	无	无	无	婴儿床&大床	卧室	婴儿床与大	单人行为	(一个大人&孩子)						
9	逗孩子玩	下午	逗孩子玩	女	保姆	中年	婴儿床、玩具	卧室	孩子刚睡醒	单人行为	婴儿床	婴儿床	看目录		3	4	5
10	喂奶	下午	在床坐着	女	妈妈	30+	婴儿床、毛毯	卧室	喂奶	单人行为	除了喂奶	干	干	干	4	4	5

Fig. 2. Data with POEMS framework in excel

POEMS (Fig. 2). POEMS is a design analysis framework created by Illinois Institute of Technology School of Design, which considered people, object, environment, message, service and other factors synthetically. It is suitable for analysis of large amounts of qualitative data.

We cluster large amounts of original data, and analyze all the needs of users (Fig. 3). The study found that there are two types of users for the kids' home environment and products. One are the kids, whose needs of physical and mental development vary with their different personalities. And the other are the parents, who are the buyers of the kids' home products, as well as the one using products with kids. Parents' educational values play a main role in the process of decision-making, which contain a large number of traditional cultural values.

We catalogue all the needs of users about kids' home products and environment in Fig. 3. Through re combing and clustering, we divide them into basic physiological needs and psychological needs. Then we divide the psychological needs into individual and group ones. As we can see, group psychological needs are closely related to the sociality, culture, and values of families. Since many family education praise Western values in excess before, the kids will meet problems in integrating into the social groups when they grow up. However, Chinese culture contains a large number of educational perspectives on how to get along well with others, which will lead kids to a positive group psychology. The reason for this is that Chinese culture bases on the

kids needs	common needs of kids and parents	parents needs	
role play, self presentation, communication, privacy, expression of emotion, imitation, please their parents (correspond with the authority)	cultivate temperament, cultivate sentiment, respect	children centered, develop independent personality, family show, family external contact, authority, cultivate habit	group psychological needs
develop independent personality, recognition, exploration, emotion, entertainment, fitness	convenience, comfort, beauty and nattness	privacy, finance, witness growth	indivisual psychological needs
basic physiological needs, well care, mistake tolerance, durability	information, storage, regulation, temperature, ventilation, illumination	guardianship, in the custody of others (correspond with guardianship), hygiene, security, health, movement, products with single feature	basic physiological needs

Fig. 3. Users needs of kids’ home products and environment

group and focuses on individual duties and obligations, while Western culture bases on the individual and focuses on individual freedoms and rights [8].

For example, some parents have the need of “authority” while kids have the need of “please their parents”. This pair of needs reflect the relationship between parents and their kids, which is closely related to the “filial piety” in Chinese traditional education. Besides, “filial piety” is the core of “benevolence” in Confucianism [9]. In the field observation, it shows as parents guide their children’s values, teach them how to get along with others, train their behavior norms, and their children need to comply with the guidance. They are very typical Chinese cultural values.

### 3 Chinese Cultural Values in User Experience Design of Kids’ Home Products

Chinese traditional culture was dominated by Confucianism, which permeates every aspect of traditional social life, and shaped the thoughts, personalities, ways of thinking and feelings of the Chinese nation. It also constructed the unique social structure of China. Confucianism attaches great importance to family education. In Confucian’s view, parents need to train and edify their children, help them to form good views and develop good habits of conduct and ethics in long term from an early age, which will benefit their growth.

Confucianism believes that in family education you should take “benevolence” as the core, “integrity” as the basic premise to conduct yourself, “propriety” as the basic criterion to manage interpersonal relationship, and “rectitude” as the important content to develop your morality [9]. In the above four aspects, “integrity” and “rectitude” are close to contemporary Western educational view.

The traditional educational value of “integrity” refers to keeping promise and conforming deeds with words. For children, “integrity” requires the development of

their self-discipline and honesty. To help children form the moral integrity, the design of products always comply with the philosophy that form follows function. These types of products often show the nature texture of the materials. It is also a good way to be used by children themselves to cultivate their good habits of independence. A good example is the home products with Scandinavian style, which is functional and also popular in the market. Therefore, we will not discuss this educational value in this paper.

The traditional educational value of “rectitude” emphasizes that we should comply with the moral principle when we obtain something and cannot be greedy. For children, they should establish the awareness of environmentally friendly. To help children form the virtue of “rectitude”, the design of kids’ home products should reflect the sustainability. There are several examples of green design in the market. Therefore, we will not discuss this value as well.

This paper makes a comparison between the traditional Chinese cultural and educational views and the kids’ home products in the market, and finds that the products are lack of reflection with the views of “benevolence” and “propriety”. In consequence, this study will focus on these two aspects.

The rthesis in <Shangshu> said that “to show integrity to the people by the virtue of forgiveness and kindness”. It is the source of “benevolence”. It’s the root of “benevolence” to honor parents and respect brothers for Confucius. As for kids’ family education, there are two meanings of “benevolence”, one is the filial duty for the elder, the other is the love to all things on earth, which can be interpreted as the harmony among the heaven, the earth and human. This cultural value can be expressed by meet the needs of kids, which include “comply with parents”, “express emotion”, and “imitate parents”.

“Propriety” shows as rigid social hierarchy and ethical rules in ancient China. Confucius said: “To subdue one’s self and return to propriety, is perfect virtue.” (<The Analects of Confucius and Yan Yuan>) Family is the first step for kids from individual to group and society. They understand the structure and hierarchy of the group by experiencing the order of family, and learn about the relationship with others by experiencing the internal modest and external respect with parents’ words and deeds. The corresponding needs of parents include “family show” and “family external contact”, while that of kids include “contact”, “privacy”, and both needs of parents and kids include “respect”.

### 3.1 Space Design and Atmosphere Creation

Traditional Chinese atmosphere of the indoor environment often reflects ethical and moral concepts. These values were integrated into a unique aesthetic form, and reflected in a variety of design for layouts and spaces [10]. The overall sequence of propriety space separates from interior to exterior, which will show the level of progressive spatial relations. Quadrangle is a typical example of spatial consequence. In current kids’ room design, the game, study and rest area often mixed together. However, the kids’ life should be distinguished inside from outside, and dynamic from static states. For instance, children need to be acquainted with the rule that the living room



**Fig. 4.** Space and layout design of baby room for Princess Cisy [11]

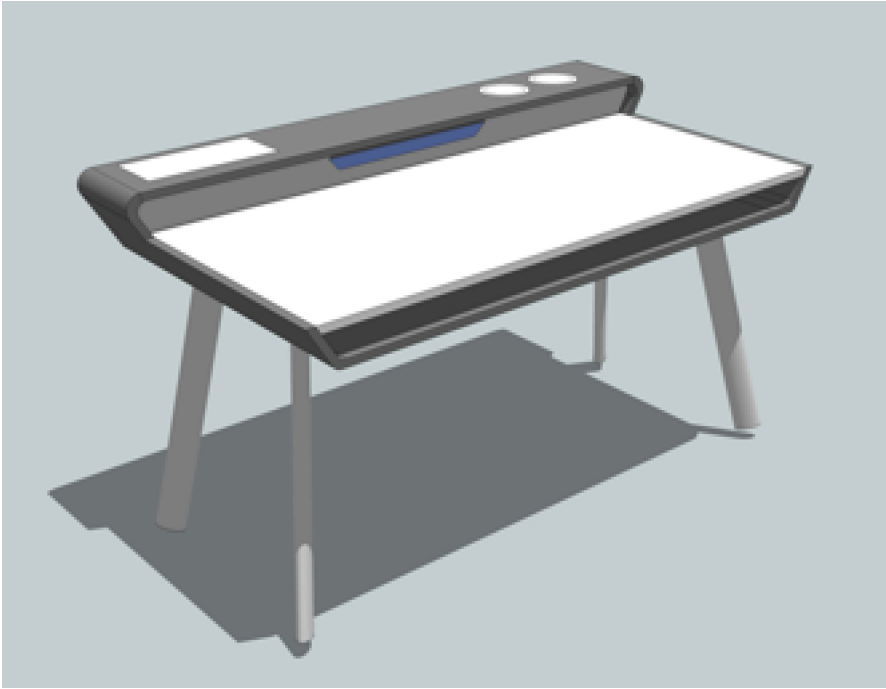
and dining room are relative public spaces where the family members gather and interact, while the bedroom is a private space with dignity where other people cannot enter rashly, especially for parents' room. The authors apply this concept to the design for kids' room in two situations. When the space is limited, it will be better to perform the kids' social, play and other dynamic activities in the living room. Kids' rooms are functional areas mainly for static activities such as resting and learning. If the kids' rooms have larger space, then it can be divided into two main functional areas for actively playing and resting or studying alone, which will train the kids to establish good habits in their lives.

Although the style of Princess Cisy Series [11] is western and classical, it reflects the traditional Chinese family culture with connotation (Fig. 4). The baby room is divided into private and public spaces. The private space is a static and private area where the baby rest and diapered, while the public spaces is a dynamic and relative group gathering area where the baby play games and have social activities. The disposition of the furniture is centered and symmetrical, which will highlight its classic and grandeur. Growing in environment with layout and style like this, kids will make sense of the difference of interior and exterior, the propriety of dynamic and static movement, and the order of behavior.

### 3.2 Product Design and Behavior Cultivation

Repetitive behavior will form a habit, and the consistent habit will shape people's perceptions and attitudes. The function and the way to use a good product can bring positive influences on kids' behaviors. It can be a way to help kids form a traditional cultural concept of healthy personalities.

To balance the needs of kids as well as their parents in the kids' home products design can achieve a harmonious parent-child interaction, which will cultivate kids' love to their parents. It will avoid kids to be self-centered and stimulate the behavior of caring for parents. In the example of "Star Rescue - Luke" [11] (Fig. 5), which is a table



**Fig. 5.** “Star Rescue - Luke” parent-child table design [11]

especially designed for pupil and their parents to co-read. Kids will use the long side of the table to do homework or read, while parents can use the short side, where provide enough space for the tablet or reading books. There is a bunch of electric plugs on the table with many USB ports, and parents can easily recharge their phone or tablet. There are two cup trays with the sweet function of heating and cooling. In conclusion, adding features for adults in kids’ furniture can cultivate kids’ respect for parents, which is also a good expression of traditional philosophy of “benevolence”.

### 3.3 Visual Design and Aesthetic Edification

Visual elements may convey rich cultural symbols. However, the kids’ products design in the current market is lacking of Chinese elements. Chinese culture has its own unique aesthetic of imitating nature, which reflects the world view of “*Man and Nature Harmonization*”. We will take the “blue-and-white porcelain” baby furniture collection (Fig. 6) for example. Blue-and-white is also called china flower, whose patterns are from the shapes of all things on earth. It is also the understanding of the world of Chinese. “Blue” symbolizes “Lucky” in traditional culture, and it is the love to all things on earth for ancient Chinese, which is also an expression of “benevolence”. Using traditional patterns of blue and white on kids’ furniture design provides them with a dignified and orderly environment, which will unconsciously influence kids to grow up as genteel, generous people with good propriety in the future.



Fig. 6. “Blue-and-white porcelain” baby furniture collection [11]

## 4 Conclusion

This study started from the lives of real users and found the relevance between their needs and family educational values, and then we emphasized the influence of lack of “benevolence” and “propriety” in kids’ home products design. After that, we give advice about products design especially for these two educational values. The development of this study will help Chinese designers create more products fitting the Chinese cultural values, in consequence provide carrier for the healthy personalities of kids. However, the study had its limits in data support because of few research samples and the foundation of qualitative research. In addition, this study focuses on the influence of parents in kids’ home products design, and does not discuss the problem which will caused by the difference of kids’ personalities. So it is more suitable to the parent-led families.

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