

Research on the Schematic Product Integration Scientific Research on College Culture Creative Products based on Sensor Engineering

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Abstract: With the development of the era of economy, people from the demand for material turn on the demand for emotional. Sensual work as a sense of efforts to human and secondary albums, in the practice of application, the main analysts of the sense of the design to produce products, which reflect personalized, differentiated design goals. Articles from the sense of engineering theory, collection and screening can describe the sensory meaning of the dissolution, product sample selection, the use of SD method of sensory test survey analysis, with SPSS statistics software for multiple regression analysis, draw a method of scale graph, which predicts the correlation between design elements and sensitive image words. Use of intelligence scale can effectively provide design objectives and evaluation to provide objective decision-making basis, hope to provide a new idea for college cultural and design products.

1 INTRODUCTION

With the reform of education, the competition between colleges and universities are increasingly fierce, and the civilians of the college are not only as a school's cultural spirit vector, spread university culture, but also to bring the economic value for colleges and universities. Therefore, the user's demand for the design of college cultural and cultural products (Geng 2022) put forward higher requirements, sense of work to the energy sensitive needs to mining, and on this basis of cultural and design products, enhance the value of product value, so as to bring higher value for the college.

2 SENSITIVITY ENGINEERING

Sensitivity Engineering is a custom-oriented product development technology, a translation technology that transforms the feelings and intention of the customer as a design element. The sense of indulgence of the engineering is earlier than Japan and the study of early, Nagamachi (Yang 2009) "sense of indirect engineering and new product development" "sense of engineering and its methods" and other papers for the sense of induction engineering laid the academic basis. Sensual

engineering will be the emotions of the product, the demand to the design of the reference and program, the basis of the basis of the quality of the measurement, the data is analyzed, the explore the demand for the need, in the design of the reflection of the sense of the study in the mainland research starts late, has not yet formed a sound system, and in the practice of relatively weak, failed to effectively optimize the textual product design process, to be further expanded and research.

3 DESIGN OF CULTURAL CREATIVE DESIGN

College cultural and creative products are the reality of cultural and creative products in college cultural products, college cultural and creative products into the college culture environment, is under the basis of the quality of the material and the spiritual cultural elements of the creation of creative processing with the symbolic and use of the value of cultural products, and other cultural creative products, the main purpose of cultural creative products is to spread the cultural value of college, it is possible to spread the cultural value of college, and the cultural and creative products of the college cultural and

creative products have the characteristics of commemorative, cultural and value (Li 2018).

College cultural and creative products to core, college culture of the cultural culture, the consumer can understand the culture of college products through the college cultural creative products. (Li 2018) The nature of the cultural and creative products in college universities is different from other products, which has the localization, leading innovation, breakthrough and perfectness, both culturally and inclusive economies Attribute, the creative content of the material, the material entity as the spirit of the vector, emotional consumption products.

4 INTENSE SCALE

Image scale by American psychologist Osgood made in 1957, is a psychological concept. It is mainly compared with the experimental and statistical and other scientific methods, by measuring the measurement of the level of metastasis of people to calculate, the analysis, analysis, reducing people's understanding of a certainty of the awareness dimension, thereby obtaining the image size of the scale, and then comparative analysis of the law of a method (Wang 2022).At present, the image size method in Japan and Taiwan applications, such as in the color image study with the adjectives to analyze the relationship between the product; or in order to scale method to the product image expansion system to investigate and statistical analysis to explore the product's cognitive space and so on.

In this paper, from the sense of engineering to study, the design characteristics of the cultural and cultural and university creatures, put forward the intentional scale research process based on the sense of inductive engineering design, and combined with the relevant instance research.

5 RESEARCH FRAMEWORK OF CULTURAL CREATIVE PRODUCTS BASED ON SENSOR ENGINEERING

As the college cultural creative design in the elements involved, the created program will be more, how to quickly from the large number of options to choose the best program to become a new problem. The design of the cultural and creative

product design based on the inductive engineering is established by establishing the design method of matching this design thinking paradigm, and optimize the combination of optimization and ensuring the feasibility and advancedness of the design program, and the research is made as a figure1:

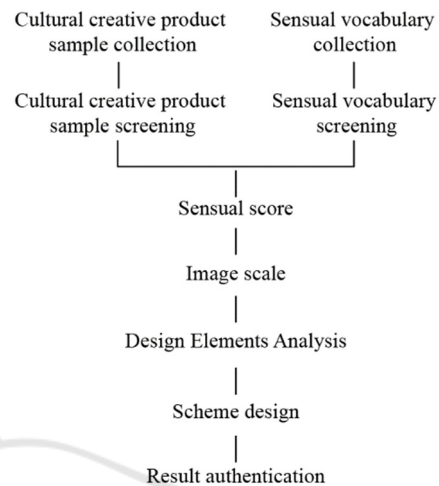


Figure 1: Research Framework of Cultural Creative Products Based on Sensor Engineering

6 AN ANALYSIS OF THE CULTURAL AND CREATIVE PRODUCTS OF COLLEGE BASED ON SENSOR ENGINEERING DESIGN METHOD

In order to reflect the practicality of design methods, this study studies the bookmark as a research in cultural and creative products in college cultural and creatives.

6.1 Collect and Screening Sensitive Vocabulary

Considering that the consumer is the fuzzy and subtle of the speaker's opinion, the collection and screening of the consumer spent vocabulary is critical to the book of the consumer speaker, and the scientific acquisition of the measured quantitative evaluation. First, the bookmark is the keyword, the selection time stage in recent years in the cultural creative bookmark (September 20, 2012 September),

through the network, magazine and related literature information, extracted the appearance, material, color, decoration of the adjective (each of the adjectives averaged 25) nearly 100 and finishing; Secondly, to ensure the accuracy of the bookmark sensitive vocabulary, the focus group is invited to be a professional assessment, and the information summarizes and classification between the sensitive vocabulary and the classification of the sensitive vocabulary, and the higher the similarity of the vocabulary summarized, unrelated and unintentional vocabulary to remove the deletion, preliminary gaining 25 sensitive vocabulary. Excluding the adjectives similar in the meaning of the two, representing a representative vocabulary; finally, through the 4 professional designers, 6 teachers and students of the two southworthy potential consumers interview, to further filter out 8-tonic vocabulary as follows: Appearance (small-colored, rounded, sharp), material (soft-- made, smooth - rough), color (monochrome-colorful, bright and dark), decorated (traditional, hollow - flat), as shown in Figure 2:

Category	Sensual vocabulary	
Exterior	Round	Sharp
Material	Soft Smooth	Human Rough
Color	Monochrome Bright	Multicolor Break
Decorative elements	Campus element Hollow	No campus element Flat

Figure 2: Sensual vocabulary

6.2 Product Sample Selection

The selection of product samples has a key impact on the experiment and the future design, so you should choose a typical sample to make the tests as possible. According to the typical sample collection of bookmarks, the KN method is used to determine the case of the case. The specific steps are as follows: ① Establish the subject. The samples are analyzed for each sample of the bookmarks.

② Sample collection. Through the network, magazine, field shooting and other methods to collect the bookmarks samples and scored by the design professionals to obtain the bookmarks 60, to ensure that the research and objectives of the sample and objective, to establish the sample library.

③ Card production. Select the picture library in the sample to make specifications 10cm * 10cm test card, by the focus group (5 designers, 5 art design graduate, 3 art professor).

④ Hierarchical classification information. Focus Group allows the sample to be integrated as "basic card" and check the order after the screening. Then, according to the design, standard, color material, the material production process and other design standards to re-classify the group, so that the disorder samples to establish a relevantsness, so as to summarize the production of "group card", repeatedly described above until all cards can not be used in any group; and finally the sample is divided into a suitable cluster group, and then remove the sample in the clustering analysis, 10 acquisitions of two samples.

⑤ Finishing the card. Forming the case of tea form Pupal table, each typical sample number samples, the sample two, sample three, sample nine, sample ten.

6.3 Investigation and Analysis of Sensitivity Test Based on SD Method

SD method is a simple name of Semantic Differential, using the bipolar evaluation of the adjectives to see the response of the subject to the sample, the product spreadshell differential is mainly through the visual of the object of the group, the soak of the Japanese population of the product and the use of a large number of adjectives, and the expression of the use of a pair of meaningful symptoms as two poles, and the degree of sensory word is divided into 5 or 7 grades (Cai 2015).

Will be the above 8-sensitive vocabulary and 10 sets of samples to establish a five-level spectral table, with small and rough as an example, -2 representatives are very small, -1 representatives are relatively small, 0 represents the middle, 1 represents more rough, 2 representatives of extremely rough, to create a sensory table as shown in Figure 3:

Small	-2	-1	0	1	2	Roughly
Round	-2	-1	0	1	2	Human
Soft	-2	-1	0	1	2	Sharp
Smooth	-2	-1	0	1	2	Rough
Monochrome	-2	-1	0	1	2	Multicolor
Bright	-2	-1	0	1	2	Break
Campus element	-2	-1	0	1	2	No campus element
Hollow	-2	-1	0	1	2	Flat

Figure 3: Sensitivity table

In order to make the test more comprehensive objective, we selected 80 subjects, from the design experts, students in school students, school teachers

and other social staff, each group of 20 people, in order to reduce the impact of sexual testing data, we in the person to take men and women half-way test. According to Figure 4:

	Sample one	Sample one	Sample one	Sample one	Sample one	Sample one	Sample one	Sample one	Sample one	Sample one
Small — Roughly	1.6	-0.3	0.5	1.4	1.5	-0.7	0.7	-1.3	-1.1	0.4
Round — Sharp	0.9	0.7	-0.3	0.6	0.3	0.3	1.5	-0.5	-1.2	-0.1
Soft — Human	-1.4	1.5	-0.8	1.3	0.6	-0.7	-0.6	0.3	0.4	1.2
Smooth — Rough	-1.3	-0.5	1.6	-0.4	0.8	0.3	-1.2	0.3	-0.4	1.0
Monochrome — Multicolor	0.7	-0.4	-1.2	0.4	-0.3	-1.6	1.2	-0.3	-0.8	0.9
Bright — Break	-0.5	-0.8	-0.2	0.3	-0.5	0.1	0.8	0.6	0.4	-0.3
Campus element — No campus element	0.3	-0.5	0.6	1.8	1.6	1.3	-0.3	0.2	0.7	1.9
Hollow — Flat	-1.2	-0.3	-0.5	-0.6	-0.3	0.2	0.4	-0.1	-1.3	-1.5

Figure 4: Evaluation of data sensing vocabulary ordnance

we show these four aspects of the data into a scale graph, as shown in Figure 5 to Figure 8:

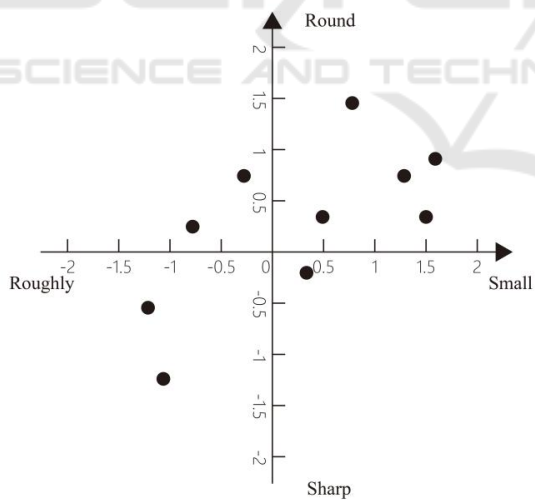


Figure 5: Image scale

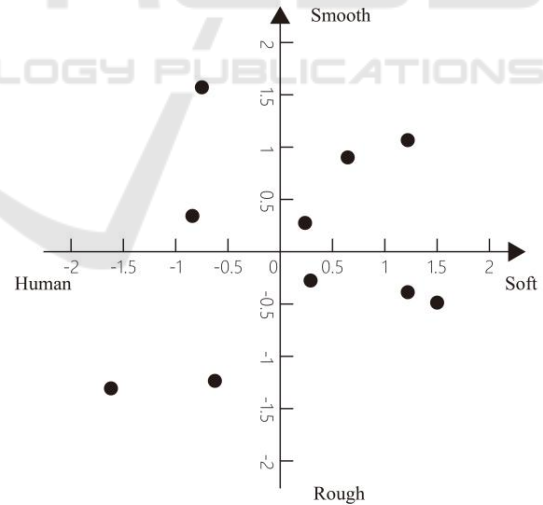


Figure 6: Image scale

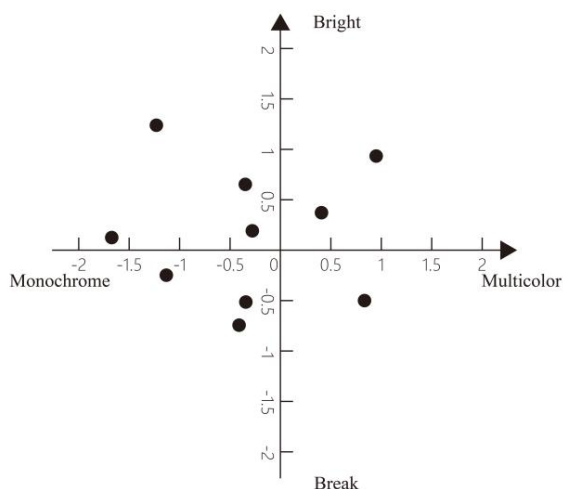


Figure 7: Image scale

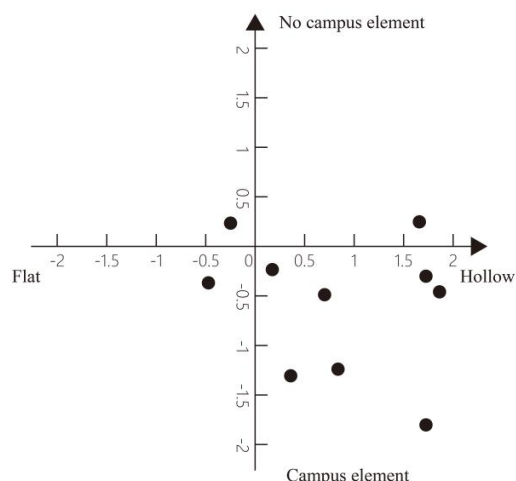


Figure 8: Image scale

By Figure 4, it can be seen in all samples in all samples in addition to the high-fractional vocabulary in the bright-dimensional sensitive vocabulary, the other sensory vocabulary is right or left the male. A sample of the five in the vocabulary to obtain the scale of the right-vivo-changing value of the virtual value, where the sample is four in the cocster of the campus element is very high score, and the sample is in the vocabulary to obtain the bioremissive vocabulary value of the score of the score of the vibration of the left-sighting vocabulary value. The analysis results are used for the data of the data, to meet the premise of most of the sensitive vocabulary, we can put other times to meet the samples to be used for assistance.

From the appearance, material, color, decorative four-dimensional image scale map we can probably know the consumer's demand: in the appearance, the six coordinates are distributed in the X-axis positive direction, the seven coordinates are distributed in the Y-axis positive direction, which reflects the consumption group for the cultural creativity of the collection of compliance for the cultural creativity of the consumption group to be small and easy to carry, the design of the eyes of the people who feel that they are just more than the edge of the book, and the design is to be the attention of the size of the book and the yuan shaft is more uniform, which reflects the consumption group for the cultural and creative material of the bookmark does not have a specific sense of sensory intention, in the design of the need to take into account the material can be considered. In the color, the seven coordinates are distributed in the negative direction of the X-axis, the coordinate distribution of the y-axis direction is substantially

alarm -0.5--0.5 in the interval, which reflects the cultural creativity of the bookmark more inclined to monochrome, in the color brightness of the home, and in the color of the design, as much as the color of the color, the color of the color is low in the campus element and hollow quotation, which reflects the consumption group for the cultural creativity of the bookmark more inclusive more preference, there are cubic elements in the design of the campus can be taken into account the design of the campus can be considered.

7 CONCLUSION

This paper analyzes the specific design process in combination with the characteristics of the sense of engineering, and the specific design process is analyzed through the bookmark spectrum and the image scale in the design of the cultural and creative products, and the sensory factor in the design requirements are designed, and the rear of the creation of the creation of the design provides a reference, and only the part of the design of the cultural creative product design of the college is studied in the study, the subsequent design scheme and the design program verification did not do further research. Although China's sense of indifference engineering has some development in other areas, but in the design of college cultural and creative products is still in the start-up stage, it is hoped that this study can make the sense of the sense of the emergence of the emergence of the cultural creative design in the college design.

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