The Impact of an Actual Visit and Photograph Watching of an Exhibition on Visitor Viewing Experience

Jun-Liang Chen¹, Si-Jing Chen¹, and Chih-Long Lin²

Graduate School of Creative Industry Design, National Taiwan University of Arts,
Ban Ciao City, Taipei County 22058, Taiwan

{freeimage5361, Jing0503}@gmail.com

Crafts and Design Department, National Taiwan University of Arts,
Ban Ciao City, Taipei County 22058, Taiwan

Abstract. This research regarded the exhibition "Unfold a New Vision: To experience the surprises and awe in indigenous living aesthetics" as the subject to examine the impact of the format of the exhibition on the visitors' satisfaction. The independent variable included the manner of visiting (visiting the exhibition or watching photographs in the exhibition hall) and theme display zone (the entrance, living room, dining room, bedroom, children's room, and the creel (Sanku) lamp). This research asked three major questions regarding each display zone (the feeling and process of visiting, evaluation of the displayed items, and the overall feeling of the display zones). 156 questionnaires were collected for analysis. The result indicated that the scores of four questions regarding the visiting of the display were higher than that of watching the photographs. The questions of "works and fashion" and "intentions of decorating the living place with the displayed items" scored significantly higher in the group of photograph watching. Regarding the feeling of the display zone's theme, there was only one question - "feel like sleeping" showed to have significant difference. In the section of the evaluation of the displayed items, there were five questions; overall feeling of the exhibition zones, three questions. Among them, the question concerning the interaction of the manner of visiting and the theme zone's theme showed to have significant impact on the question of "exciting". Finally, this research suggests that it is better to include the close-up photographs in the pamphlet of the displayed items in an exhibition. Concerning the materials and styles of the displayed items in the display zones should be consistent to offer visitors marvelous and consistent experiences. In addition, when providing the photographs to people that are unable to visit the exhibition in person, it is better to accompany those photos with music or samples of the displayed items to give them audio and tactile experiences to promote their satisfaction.

Keywords: Visitor's Experience, Exhibition Visit, Photograph Watch.

1 Introduction

No matter whether it is the marketing of merchandizes by enterprises, promotion of collections in museums, or publicizing of art works by artists, the most frequently

used method is the sponsoring of exhibitions. In 2010, there were about 1,600 exhibitions of various kinds in the UK, with 1,300 of visitors, with the transaction of 1.4 billion pounds (about 63 billion NT dollars) [4]. From a global perspective, there were 30,700 trade fairs in the same year, with 2800 thousand companies and 260 million of visitors [11]. According to related reports, the total transaction value was not mentioned. However, it could be deduced that it could be a very high amount. Furthermore, regarding art exhibition, according to related survey, it indicated that there were 929 exhibitions held by museums worldwide in 2011, with 120 million visitors. For example, the art exhibition "Landscape Reunited - Huang Gongwang in the Fuchun Mountains New Media Arts" sponsored by the National Palace Museum in Taiwan made the record of 8,828 visitors per day on average, next to The Magical World of Escher held by Centro Cultural Banco do Brasil (at the average of 9,677 visitors per day), and Kukai's World: the Arts of Esoteric Buddhism held by Tokyo National Museum (at the average of 9,677 per day), ranking the third [10]. With a huge market and considerable business opportunities, there is a growing demand of the exhibitions both at home and abroad.

The major function of exhibitions is to serve as platforms for communication. In exhibitions, the curators can create special venues or experiences to communicate certain messages to visitors, who give feedbacks to the curators in return as indicators for the market's demand. There are four principles that are essential to the building of effective communication channels between curators and visitors: let the visitors participate in the exhibition, the messages intended to be communicated by the curator to visitors must be comprehensible, the messages should be interesting to visitors, and curators should converse with visitors in the "same language"[1]. Therefore, this platform must contain three elements – locutor (curator), message (features of displayed items), and interlocutor (visitors). In an exhibition, the curator's messages are content dependent; however, they tend to sell, persuade, expose, parade, inform, delight, and enlighten [12]. However, for visitors, in addition to knowing new things and obtaining new knowledge on the day of visiting, they may also expect to obtain spiritual and sensual satisfaction. Therefore, modern exhibitions appeal to visitors' realistic feelings, not the communication of knowledge guided by the curators. Loomis [7] departs from the messages required by the visitors. He points out that an ideal exhibition should include: the life-like themes of the exhibition, visitors can grasp the main points and messages promptly, and the contents can satisfy the demand of different age groups and attract visitors' attention. Falk [5] suggests that whether an exhibition satisfies the visitors' demand or not depending on the expectation before the visit (personal requirement or attractive theme), the experience during the visit (the facilities of the exhibition or interactive process), and the memory after the visit (the acquisition of knowledge or the memory that can be shared with other people). In addition, Pekarik et al. [9] proposes that the process of experience includes the following four perspectives: objective experiences, cognitive experiences, introspective experiences, and social experiences. Regarding the important affecting factors before the visit, expectation is the most because during the visit if the actual experiences comply with the expectations, there will be more delight and higher satisfaction [3]. In addition to

the four perspectives proposed by Pekarik, Packer[8] suggests the domain and the restoration attributes (including the charm of the exhibition site, the degree of detaching from the reality, and the appropriateness) of exhibitions can also affect the satisfaction of visits. Chen and Ho [2] conducted a survey on 25 items regarding exhibitions, such as contents, wording, panel board design, exhibition items, exhibition space, and so forth. It is discovered the three of the first five items that are considered as important by visitors were related to comfort. The other two were the issues of the education values of the interactive exhibition items and the attractiveness of the illustrations. In sum, in addition to the appropriateness and the attractiveness of the exhibition items in exhibitions, the audience also emphasizes much on the feelings during the visit.

With the growing demand for exhibitions, it derives other issues. First, visitors must go to particular locations at particular time to the exhibition site. It lowers visitors' intentions of visit caused by transportation inconveniency and insufficient time. As a result, it weakens the exhibitions' impacts and the terrain of communication. Then, the exhibition items will be removed at the end of exhibitions. The results of the exhibition can hardly sustain. Therefore, how to break through the problem of spatial and temporal limitations to allow the exhibitions sustain so that more people can visit them. In addition, the problem of preserving the elements and atmosphere of the exhibition sites is also important to spread and sustain the sensations after the exhibition. Thanks to the advancement in science and technology, now we can transform actual exhibitions into virtual ones so that exhibitions can get out of the architectural space and time, and the limitation of place by weaving webpages on the exhibitions, augmented reality, and virtual reality. The drawback of these methods is that it requires professional production prior to the exhibitions. Visitors need to browse through those webpages with certain hardware, such as the computers, internet, and so forth. Nevertheless, virtual exhibitions cost less than actual ones. But the effects of exhibition require further evaluations. Horn et al.[6] examined the interactive impacts of actual exhibition items and images of exhibition items on screens. It was discovered that both forms of exhibitions allow visitors understand the themes. However, the interviewees commonly agreed that actual display items were more attractive. They preferred actual exhibitions and were willing to pay more time and money to interact with them.

In addition to transforming exhibitions into virtual ones, taking photos of the exhibition sites is a convenience means because it is has the merits of low-cost, minimum hardware requirements, prompt in communication, and long-term preservation. However, the difference regarding the impacts of photographs of the exhibited items and the actual exhibitions are rarely studied. Therefore, this research intends to examine the differences of visitors' experiences regarding watching the photos of the exhibition and going to the actual exhibition themselves, and analyze the consistency of feelings of the same person in different theme zones in the same exhibition.

2 Research Method

This study regarded the visitors of "The Aesthetics of Organic Lifestyle of Taiwan's Indigenous Peoples" in its Taipei exhibition as the subjects. This exhibition was sponsored from October 5 to October 25 in 2012 at Warehouse 1, Song Shan Cultural Park. The theme was the modern products designed with the aesthetics of the traditional lifestyle of the indigenous peoples. Those items were displayed in the manner of spaces in everyday life, giving more rooms for daily life imagination. During the exhibition, this research invited the visitors to filled in the questionnaires, with which the impacts on the experiences of attending actual exhibitions and watching the photographs of the exhibitions. The research method is discussed in details as follow.

2.1 Participants

In this project, there were 46 male and 110 female interviewees, a total of 156. Among the male interviewees, the people at the age of 21-30 had the highest number (18 people, 39%) and the rest were 31-40, 10 people (22%); 41-50, 9 people (20%); below 20, 5 (11%); and above 51, 4 people (9%) Regarding the female respondents, the people at the age of 21-30 had the high number of participants (98 people, 35%), and the rest were below 20, 32 people (29%); 31-40, 21 people (19%); 41-50, 10 people (9%); and above 51, 9 people (8%). Regarding the qualifications of the interviewees, 90% or more of the participants were university graduate or above.

2.2 Independent Variables

This research used the two factors experiment as the method, with the independent variables of "the form of visiting" and "themes of the exhibition zones." The previous variable was subdivided into two groups: the visitors that attended the exhibitions and the people that watch the photographs of the exhibition. The latter variable was subdivided into six levels: entrance zone, living room zone, dining room zone, bedroom zone, children's room zone, and creel (Sanku) lamp zone. In the entrance zone, Awe and Respect for the Divinity Area and Lamps Area were installed. In the living room zone, the decorations were user friendly, encouraging visitors to interact with each other. In this area, there were the decorations of pottery plates, pottery pots, leather paintings, wooden chairs, and water lamps. Decorated with wooden tables, wooden plates, bamboo baskets, and black pottery, the dining room zone communicated the atmosphere of family gather and having a nice meal together. In the bedroom zone, objects made with natural materials, such as the shell flower mat, hand woven cloth, floating chairs, glass bead cushions, shale slate side table, and so forth were displayed to communicate the message of relaxing from a day's toil and surrendering into the embrace of nature. Decorated with boar chairs, lazy bones couch, bows, goats, and shell flower mats, the children's room zone, the message of allowing the children to play with innocence and happiness was communicated. The creel (Sanku) lamp zone was the last area in the exhibition. In this area, a creel lamp (Sanku) made with a single bamboo was installed to create a relaxing mood. In addition, the souvenir section was also setup in the zone. Professional photographers were hired to take pictures of each zone. The curator was asked to choose 10 photos from each zone, of which the pictures of the entire zone and close ups were chosen. Then the photos were printed in the size of 4×6 inches for the interviewees' watching. The photos of each zone are illustrated in Fig. 1.

2.3 Measuring Variables

This research mainly used a measuring variable questionnaire, except for questions regarding personal information (such as gender, age, occupation, and highest education). In each zone, there were 24 questions covering three major categories. Category 1 was the feelings during the visit (10 questions), including happy, peaceful, depressed, nervous, hopeful, lazy, sleepy, exciting, warm, and browsing. Category 2 was the evaluations of the exhibition items (9 questions), including fashion, attractive, creative, valuable, finely designed, with indigenous implications, easy to use, practical, and intended to use those items for decorative purpose. The last category referred to the overall feeling of the exhibition zone (5 questions), including the feeling of indigenous peoples' aesthetics of everyday life, interesting, homey feeling, comfortable and relaxed, and the satisfaction of the decoration and design of the zone. For each question there were five score levels: 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).

2.4 Study Process

This research was conducted at the exhibition site, where the researchers invited visitors to participate in the survey. First, they explained the purpose of the research and asked for the participants' permission. Then the researcher requested the participant to visit various zone at random and fill in the feeling questionnaire at site. Or they were requested to fill in the questionnaire after watching the photographs at the information desk. Each participant spent about 40 minutes finishing the questionnaires of the six exhibition zones or the photographs of these zones.

3 Results and Discussions

3.1 ANOVA

The Cronbach α coefficient of the analysis of reliability in this questionnaire was 0.87, indicating high reliability. Then, two-factor analysis of variances was conducted. The results indicated that the form factor showed to have significant impacts on 6 of the questions: "happy" (p< .05), "sleepy" (p< .05), exciting (p< .05), "watch the exhibition at will" (p< .001), "fashionable items" (p< .01), and "intended to decorate the living space with the exhibition items" (p< .05). The exhibition theme factor showed to have significant impact on 9 of the questions: "sleepy" (p< .001), "fashionable items" (p< .001), intended to decorate the living space with the exhibition items"

(p< .001), "feel the indigenous peoples' aesthetics of everyday life" (p< .05), "homey feeling" (p< .001), and "comfortable and relaxing" (p< .05). Regarding the interaction between the manner of visiting and exhibition theme, it showed to be significant only on the question of "exciting". The ANOVA results are indicated in Table 1. From the examination results, it was discovered that different manners of visiting had an impact on the process of the visiting experience, i.e., the degree of interaction between the visitors and the exhibition, without much concern of the exhibition items and exhibition zone. In addition, although this exhibition had a core theme, the visitors had different feelings in different exhibition zones. Specifically, the impact on the evaluation of the exhibition items was the most significant. The feeling of the overall exhibition zones came next. Regarding the feeling of the visiting process showed to be the least significant.

Table 1. ANOVA of the visiting manner and the exhibition themes (items with p value less than 0.05 and F value are listed)

	Manner of visiting	Theme of exhibition zone	Interaction
Feelings of the visiting process			
Нарру	4.23*		
Sleepy	6.18*	12.80***	
Exciting	6.29*		2.25*
Visiting at will	55.04***		
Evaluation of the exhibited items			
Fashionable	8.39**	5.78***	
Neat design		2.84*	
Easy to use		2.51*	
Practical		4.89***	
Intended to decorate the living	5.75*	4.45***	
space with exhibited items			
Overall feelings of the exhibition site			
Feel the indigenous peoples'		2.71*	
aesthetics of everyday life			
Homey feeling		5.22***	
Comfortable and relaxed		2.32*	

^{*}p<0.05, **p<0.01, ***p<0.001

3.2 Impacts of Visiting Manner Factor

In Table 2, the average of the significant items and Duncan grouping regarding the manner of visiting and the exhibition theme zones are listed. From the results of the visiting manner factor, the scores of the feelings of visiting the exhibition site are higher than watching the photographs. It made the visitors happier and they felt like watching the items of their own choices. However, the exhibition site was dimly lit, and visitors might feel sleepy when visiting the exhibition site. Compared with watching photographs of the exhibition, visitors felt more exciting to visit the exhibition site

in person. However, when watching the photos, the participants tended to evaluate the exhibition items higher. They tended to think the items were more fashionable and wanted to decorate their living spaces with these items. Perhaps it might be the reason that visitors browsed through a huge area when visiting the exhibition site. They tended to ignore the details of the exhibition items. However, the items' photos taken by professional photographers were better presented in the realms of angle and lighting. It highlighted the features and details of the exhibition items. Therefore, the participants preferred to watch the photographs of the exhibitions items rather than the actual objects. Hence, when visiting the exhibition site in person, the visitors had more freedom in the viewing process. The participants could choose to watch the items of their preferences and interest. In addition, they could choose the items they wanted to interact with and the duration of watching. As a result, it offered visitors a better visiting experience. On the contrary, watching the photographs of the exhibition limited visitors' perspectives. The participants could not know things happening beyond those pictures, which were two-dimensional and static. The participants could only watch them, without any contact. They could not even fetch and operate the objects, showing to have low interactive value. However, the limited perspective in the photos was also its merit. It allowed the participants to focus on the themes in the photos, which highlighted the items' values. It helped promote the values of the exhibition items.

3.3 Impact of Exhibition Zone Theme

Analyzing the factor of the exhibition zone, there was only one question—feeling "sleepy" during the visit showed to be significant. There were six zones categorized into three groups with Duncan grouping. Among them, the bedroom zone scored the highest. Then it was the children's room zone. The other four zones scored the lowest. In the sleeping room zone, it was decorated with the shell flower mat, bedside stool, glass beads cushions, and more, creating a "relax the fatigue of the day" atmosphere. In the children's room zone, there were three lazy bone couches, giving visitors a relaxed feeling. In other zones, they mainly communicated the images of food and utilities, which did not give people any relaxing or sleepy feelings. It also recalled the scores of the overall exhibition zone. In the bedroom zone, the two questions "homey feeling" and "comfortable and relaxing" were shown to have significant differences when compared to other zones. It is obvious that it is possible to communicate certain emotions with particular images with particular objects. Regarding evaluations, there were 2-3 groupings in five questions of the six exhibition zones. The items displayed in the entrance zone scored the lowest. Meanwhile, the scores of the other three zones showed to be moderate. In the entrance, only "Awe and Respect for the Divinity" and "Tree Lamps" were displayed. Both were huge, with the attributes of sculptures rather than handicrafts. Therefore, participants tended to think that these items were low in practicality. Meanwhile, the creel (Sanku) lamps were huge floor lamps, being functional and beautiful. Therefore, participants thought they were fashionable and practical. Moreover, they were willing to decorate their living spaces with this item.



Fig. 1. Photos of each exhibition zone

Regarding the feeling of the exhibition theme of "indigenous peoples' aesthetics of everyday life", the average scores of the four zones were similar, except for the children's room zone and entrance zone that scored lower than average. It was discovered that the living room zone, dining room zone, bedroom zone, and creel (Sanku) lamp zone used a huge quantity of natural materials, such as the floating wood, pottery, glass beads, plant fibers, and hand-woven textiles, in simple and rich forms, natural and simple texture. Comparatively speaking, the children's room zone mainly used synthetic materials in rather modern forms (such as the huge lazy bones couches and

printouts of people). As to the entrance zone, it used the items as metaphor to communicate the indigenous peoples' ideals of everyday life and natural environment. The presentation means were rather abstract, with insufficient links to the concept of "daily life"; therefore, visitors could barely figure out the image of indigenous' peoples' everyday life.

Table 2. Average of the levels of the visiting manner and themes of exhibition zones (only significant items are listed)

-	Manner of visit			Themes of exhibition zones				
	Actual	Photo	Entrance	Living	Dining	Bedroom	Children's	Creel
	visit	watching		room	room		room	lamp
Feelings of the visiting process								
Нарру	4.20	4.14	4.16	4.16	4.18	4.19	4.20	4.16
Sleepy	2.37	2.25	2.18 ^a	2.22 ^a	2.16 ^a	2.68°	2.44 ^b	2.17 ^a
Exciting	3.01	2.88	3.03	2.89	2.98	2.90	2.95	2.92
Visiting at will	4.27	4.03	4.12	4.14	4.20	4.16	4.11	4.16
Evaluation of the exhibited								
items								
Fashionable	3.95	4.06	3.89 ^a	4.04bc	3.91ab	4.10^{c}	3.91ab	4.15°
Neat design	4.15	4.16	4.09^{a}	4.15 ^a	4.14 ^a	4.20ab	4.10 ^a	4.28 ^b
Easy to use	4.06	4.06	3.93 ^a	4.08^{b}	4.13 ^b	4.10^{b}	4.05 ^b	4.07^{b}
Practical	4.03	4.05	3.86 ^a	4.07^{b}	4.14 ^b	4.10^{b}	4.02^{b}	4.06 ^b
Intended to decorate the living space with exhibited items	3.93	4.03	3.83 ^a	4.00 ^b	3.95 ^a	4.09 ^{bc}	3.91 ^a	4.11 ^c
Overall feelings of the								
exhibition site								
Feel the indigenous peoples' aesthetics of everyday life	4.25	4.29	4.17 ^a	4.32 ^b	4.32 ^b	4.31 ^b	4.19 ^a	4.31 ^b
Homey feeling	4.03	4.08	3.88 ^a	4.10^{b}	4.14 ^c	4.18°	4.06 ^b	3.97 ^a
Comfortable and relaxed	4.21	4.24	4.14 ^a	4.24ab	4.26ab	4.31 ^b	4.25 ^{ab}	4.17 ^a

Bold items indicate significant different between the levels of these factors. a, b, and c indicate the results after Duncan grouping

4 Conclusion

This research examined the impact of visiting an exhibition and watching photos of the exhibition on the process of visitation, evaluation of exhibited items, and feelings of the exhibition site. The experiment results indicated that different manners of visiting showed to have significant impacts on the process and feeling of visiting the exhibition, with no significant impacts on the feelings of the exhibited items and exhibitions site. Meanwhile, the exhibition process and feeling of each exhibition zone were similar, but it was significant regarding the evaluation of the exhibited items. As actual visit had higher levels of independence, freedom, and interaction, it offered better visiting experience. Regarding the photos of the exhibition, they helped visitors focus on the themes of the photos, which could highlight the items' values and

promote their evaluation. This research also discovered that it was possible to communicate certain messages with the exhibited items to provoke certain feelings of the visitors. It was better use natural materials, simple and concise form, simple texture, and natural items to allow people feel the implications of indigenous peoples' lifestyles. Abstract and decorative items lowered the works' practicality and evaluation. Finally, this research suggests that it is better to provide a visiting guide with the photographs of the exhibited items in actual exhibition. Moreover, the materials and style of the works should comply with the theme of the exhibition in order to provide visitors with pleasant and consistent visiting experiences. On the other hand, when providing photographs to people that were not able to visit the exhibition in person, it was better to accompany the photos with music and samples of the materials to offer tactile and visual feelings, deepening the visiting experience.

References

- 1. Blythe, J.: Visitor and exhibitor expectations and outcomes at trade exhibitions. Marketing Intelligence and Planning 17, 100–110 (1999)
- 2. Chen, H.-C., Ho, M.-C.: Design Thinking on the Exhibition Model of Science Museum. Technology Museum Review 16, 109–138 (2012)
- 3. De Rojas, C., Camarero, C.: Visitors' experience, mood and satisfaction in a heritage context: Evidence from an interpretation center. Tourism Management 29, 525–537 (2008)
- Facetime: The Economic Impact of the UK Exhibitions Industry February 2012. In: Oxford Economics, UK (2012)
- Falk, J.H.: Identity and the Museum Visitor Experience. Left Coast Press, Walnut Creek (2009)
- Horn, M.S., Solovey, E.T., Crouser, R.J., Jacob, R.J.K.: Comparing the use of tangible and graphical programming languages for informal science education. In: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Boston, MA, USA (2009)
- Loomis, R.: Museum Visitor Evaluation: New Tool for Management. Altamira Press, Lanham (1987)
- Packer, J.: Beyond Learning: Exploring Visitors' Perceptions of the Value and Benefits of Museum Experiences. Curator: The Museum Journal 51, 33–54 (2008)
- 9. Pekarik, A.J., Doering, Z.D., Karns, D.A.: Exploring Satisfying Experiences in Museums. Curator: The Museum Journal 42, 152–173 (1999)
- Pes, J., Sharpe, E.: Exhibition and Museum Attendance Figures 2011. In: The Art Newspaper, pp. 35–43 (2012)
- 11. Union des Foires Internationales: Global exhibition industry statistics. In: Global Association of the Exhibition Industry (2012)
- 12. Velarde, G.: Designing Exhibitions: Museum, Heritage, Trade and World Fairs. Ashgate Publishing Limited, Hants (2001)