CULTURAL CREATIVE EXPERIENCE AND THE FACTORS OF AN INTERPRETATION PROGRAM

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ABSTRACT
Facing the growth and development of cultural creative industries in developing industries, what is the role of a modern museum. How to create a memorable experience with a designed interpretation program when visitor groups have a chance to come into a museum? What are the key essences of cultural creative interpretation? This paper proposes a performance evaluation method of the interpretation program managing the Analytical Hierarchy Process (AHP). By using this evaluation method, the curator of the Kaohsiung Museum of Fine Arts (KMFA) may identify the key factors of an interpretation program in two groups: Individual Factors and Environmental Factors.

keywords: *cultural creative experience, interpretation, museum.*

1. INTRODUCTION
How to make a museum tour further interesting? Interpretation might be one of the solutions that it is a communication process to tell meanings of the cultural artworks in a museum. Although more and more museums were built, and much more visitors pay their visit to museum, the visitors are not always well educated about them [1]. Researchers argue that museum-goers have poor recall of what they have seen during their visits [2] [3]. Modern museum is no longer just a display building with tangible art works, but, as a contemporary curator's idea, a communication field that inspiring tourist with co-designed experience of museum tour. An "experience" occurs when an organization intentionally uses services as the stage, and goods as props, to engage individual customers in a way that creates a memorable event [4]. With the increasing competition and globalization in today's marketplace, in order to be successful, it is inevitable for cultural creative parks and museums to know how to differentiate their cultural creative experiences offerings from competitors so as to sustain their inexpensive advantages.

However, these cultural creative activities are expert-based, and may not applicable for daily visitor groups, especially as these studies often examine artistic creative dimensions that are unreachable by different type of tour groups who just want to enjoy something that is original or authentic in common life settings and related interactions. How to create a memorable experience with a designed interpretation program when visitor groups have a chance to come into a museum? What are the key essences of cultural creative interpretation?

2. LITERATURE REVIEW
2.1. Cultural Creative Experience
Experience, according to Oxford Dictionaries, is defined as 'practical contact with and observation of facts or events' [5]. The related creative activities of experience economy have already been researched in the context of tourism, leisure, hospitality, culture, IT service, education, entertainment [6]. The UK Government Department for Culture, Media and Sport (DCMS) definition which describes the creative industries as:
"those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" [7].

The DCMS definition recognizes nine creative sectors, including:
1. Advertising and marketing
2. Architecture
3. Crafts
4. Design: product, graphic and fashion design
5. Film, TV, video, radio and photography
6. IT, software and computer services
7. Publishing
8. Museums, galleries and libraries
9. Music, performing and visual arts [8]

As Pine & Gilmore mentioned the progression of economic value was shifted from commodities, goods, services, to experience[4]. Visitors' experiences have been treated as 'core' products by museums [9]. Different style museums can offer distinctive experiences, such as resonance, inspiration, wonder, liberation, hope, and reflection, to attract their visitors [10] [11]. In order to develop interests of visitors, interactive techniques are used in modern museum [12] [9].

2.2 Cultural Creative Tourism
Most of the current definitions of the cultural creative tourism are determined by museum curators, cultural creative workers, and service providers. Cultural creative tourism is an excellent opportunity of blending into the local features, discovering one's hidden talents and winning home memories of authentic experiences. For example, instead of bringing back a duplicated of an ancient wood work as a souvenir, tourists may participate in a workshop of wood material.
Creative industries, such as entertainment businesses and esthetic organizations, are especially popular in an 'experience economy' [4], and it is essential in 'educational tourism' as well [13]. Cultural tourism has been extended to creative tourism that an adjunct to mass forms of cultural tourism and the serial reproduction of culture [14]. Maisel notices that many tourists wish experiences that are "small, intimate and on a human-scale" [15]. Therefore, there is a need for more sophisticated analysis of cultural creative tourism that draws on the tourist's perspective, especially with regard to what exactly makes cultural creative tourism creative.

2.3 Cultural Creative Interpretation
In the research fields of design, cultural creative interpretation is developed from the artist's perspective. Introduction is on how artists develop their artworks [16], or the creative practice of designing new products or new activities. Because interpretive communication is not just displaying artworks, presenting information, activities or programs should be used to translate the information for different visitor groups with different point of view.

Although tourist groups are seen as playing active roles in co-creating their experiences while on vacation, such as a museum trip, tour guide practitioners still take the lead when it comes to designing and providing such activities [17], with few studies considering what tourists actually want in this context.

In the beginning, the communication process used to "interpret" information is based on Tilden's Interpretive Principles [18]. Tilden's basic communication principles are also the researchers will find in every first year marketing or advertising text book on successful communication with your audience.

First, the communication must provoke curiosity, attention and interest in the audience. If an interpreter can't get their attention, the visitors won't even stop at an exhibit, want to attend a program, or pay attention during programs. Visitors using interactive exhibits learn more about exhibit content than visitors to traditional static exhibits [19]. In modern museum, the curators present the exhibits with the graphic, photo, or statement that gets the audience's attention.

The interpretation communication must also find a way to relate the message to the everyday life of the visitors. In advertising, it's the answer to the questions "why do you need this product or service? Why would a visitor want to know this?". This part of the communication gives people reasons to continue with the exhibits, programs, or media. The use of guides can provide helpful orientation; make the material presented personally relevant for visitors [20].

The final part of the process is Revelation. Tilden says that we should reveal the ending or answer of the communication through a unique or unusual perspective of viewpoint. Save the answer to last. The reveal tells the visitor why the message was important for them, or how they can benefit from the information that was interpreted to them. Strive for message unity is another principle for interpretation. It means that when we plan or design our program, service, or media, that we use the right colors, costumes, music, designs, etc. to support the presentation of the message. Think of message unity as the stage setting and props for a theatrical presentation[18].

Address the whole is also an important standard. This principles means that all interpretation should address some main point or theme - "the big picture" of what is important about the exhibition, the park, historic site, tourism site, etc. that the visitor is at. Naturalistic exhibits provide more memorable experiences [21].

2.4 Research Site

The Kaohsiung Museum of Fine Arts (KMFA) opened in 1994. The construction of the museum's main building was completed with four floors above ground and a basement with two-story high ceiling, covering a total floor area of 26,000 square meters. With its surrounding 41-hectare art park, KMFA became the largest museum in Taiwan [22]. KMFA was founded as a museum of the history of fine arts. Priority has been given to acquiring important works in the history of Taiwanese art development. There are currently more than 2,700 works in the museum's permanent collection. The museum presents three permanent exhibitions on the themes of sculpture, Chinese calligraphy, and the art development in Kaohsiung respectively, in which most works on view are from the museum's collection. Over the past several years the museum has also established its position as a comprehensive fine arts museum, and continues to introduce a diversity of art exhibitions, meeting the needs of the people of Southern Taiwan to appreciate all forms of art, both ancient and modern, Chinese and foreign. Special exhibits are held in cooperation with museums and cultural organizations abroad, as well as those in Taiwan and mainland China.

The museum's main education policies are made to guide the public to appreciate the beauty of art and understand the content of its exhibitions. To this end, all manners of inspirational, creative and interactive educational activities and learning materials have been designed, encouraging the participation of the public in appreciation, study and practice of art. In addition to various scheduled services such as guided tours, special topic lectures and video viewings, the museum also organizes weekend concerts, teacher training programs, international academic symposia, weekend film showings, "Art at Your Doorstep" activity, art forums, etc. The museum also has an art resource center, providing an ideal context and resource for the study of art. A huge group of volunteers (around 800 at present) assists the Kaohsiung Museum of Fine Arts with guided tours and other services. The museum provides its volunteers with training such that the volunteers disseminate the seeds of art in the family and community [23].

3. METHODOLOGY

This study's purposes are to identify which are the visitors' environmental factors and individual factors that lead to a successful interpretation, to evaluate the importance of each factor that contributes to KMFA. To satisfy the purposes of this research, this study first reviews prior studies to identify the features of cultural creative industry and then employs the analytic hierarchy process (AHP) to identify the key essences of cultural creative interpretation. The research procedure is as the figure 1.
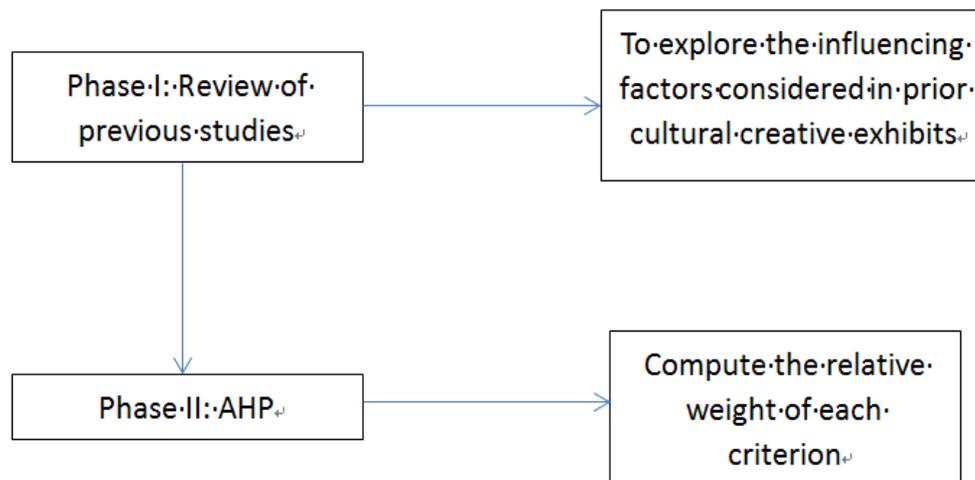

Figure 1. Research Procedure

As a decision-making method that decomposes a complex multicriteria decision problem into a hierarchy [24], AHP is a measurement theory that prioritizes the hierarchy and consistency of judgmental data provided by a group of decision makers. Using pairwise comparisons of alternatives, AHP incorporates the evaluations of all decision makers into a final decision without having to elicit their utility functions on subjective and objective criteria [25]. The steps of AHP are set forth below.

Step 1. Establish a hierarchical structure.

Given the human inability to compare more than seven categories at a time, complex issues can be addressed effectively by using a hierarchical structure. A hierarchy should not contain more than seven elements. Under this limited condition, a rational comparison can be made and consistency can be ensured [24]. The first hierarchy of a structure is the goal. The final hierarchy involves selecting projects or identifying alternatives, and the middle hierarchy levels appraise certain factors or conditions. In this study, there are no selecting projects and identifying alternatives.

The hierarchy structure of this study is shown in Figure 2. The structure shows the visitors are influenced by environmental factors and individual factors during an interpretation program.
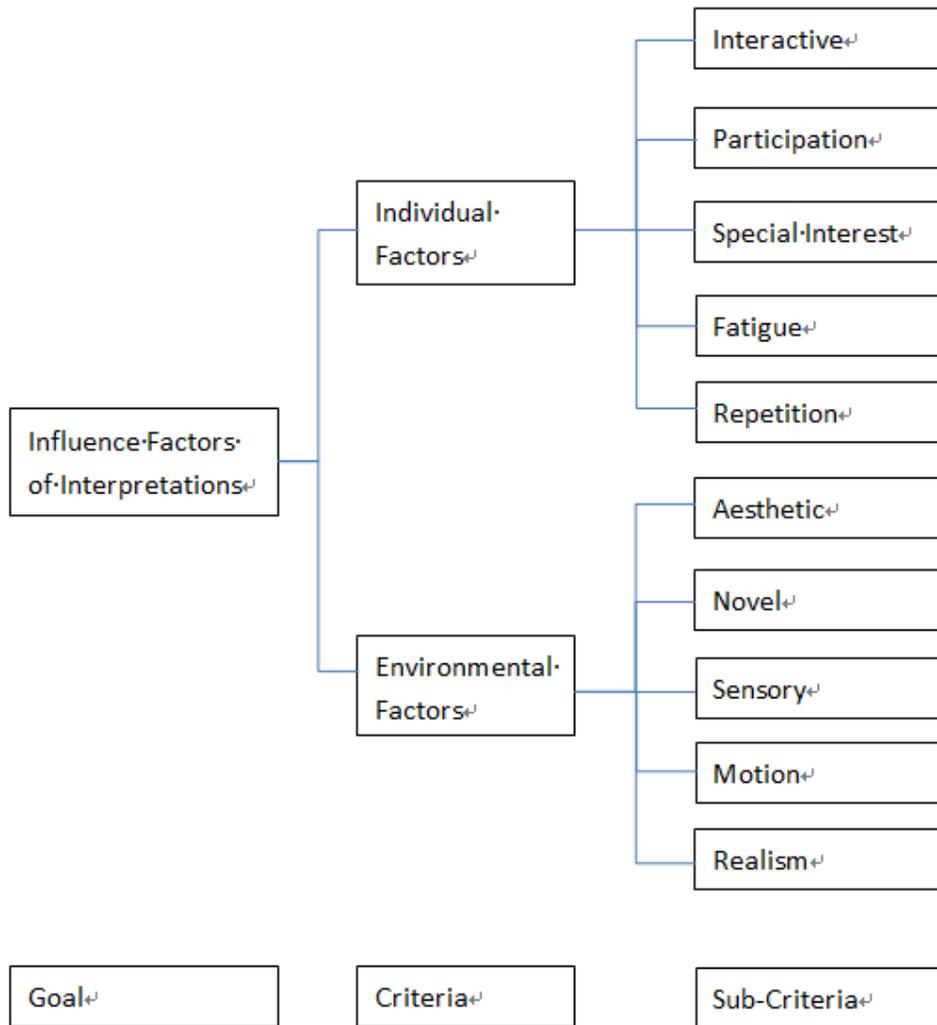

Figure 2. The Hierarchy Structure

Step 2. Establish a pairwise comparison matrix.

Based on an element of the upper hierarchy, the evaluation standard, a pairwise comparison is conducted for each element. Although n elements are assumed, n(n-1)/2 elements of the pairwise comparison must be derived. Let C1, C2, …, Cn denote the set of elements, where aij represents a quantified judgment of a pair of elements Ci, Cj. The relative importance of two elements is rated using a scale with the values 1, 3, 5, 7, and 9, where 1 denotes "equally important", 3 denotes "slightly more important", 5 denotes "strongly more important", 7 represents "demonstrably more important", and 9 denotes "absolutely more important". This yields an n-by-n matrix A as follows:

$$A = \left[a_{ij} \right] = \begin{array}{c} \\ C_1 \\ C_2 \\ \vdots \\ \end{array} \begin{array}{c} C_1 \quad\; C_2 \qquad\quad C_n \\ \left[\begin{array}{cccc} 1 & a_{12} & \cdots & a_{1n} \\ 1/a_{12} & 1 & \cdots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ \end{array} \right] \end{array}$$

(1)

The results of the comparison of the n elements are inserted into the upper triangle of the pairwise comparison matrix A. The lower triangle values are relative positions for the reciprocal values of the upper triangle. Where a_{ij} = 1 and $a_{ij}= 1/a_{ij}, i, j = 1, 2, …, n$, two elements ($C_i, C_j$) become one quantization value for an important relative judgment. In matrix A, a_{ij} can be expressed as a set of numerical weights, W1, W2, …,Wn, in which the recorded judgments must be assigned to the n elements C1, C2, …, Cn. If A is a consistency matrix, relations between weights Wi and judgments a_{ij} are simply given by Wi, and judgments a_{ij} are simply given by Wi/Wj= a_{ij} (for i, j= 1, 2, …, n) and matrix A as follows:

$$A = \begin{matrix} & C_1 & C_2 & & C_n \\ C_1 \\ C_2 \\ \vdots \\ C_n \end{matrix} \begin{bmatrix} w_1/w_1 & w_1/w_2 & \cdots & w_1/w_n \\ w_2/w_1 & 1 & \cdots & w_2/w_n \\ \vdots & \vdots & \ddots & \vdots \\ w_n/w_1 & w_n/w_2 & \cdots & 1 \end{bmatrix}$$

(2)

Step 3. Compute the eigenvalue and eigenvector.
Matrix A multiplies the elements' weight vector (x) equal to nx, i.e., (A- nI)x = 0, where x is the eigenvalue (n) of the eigenvector. Given that a_{ij} denotes the subjective judgment of decision makers, the actual value (Wi/Wj) has a certain degree of difference. Therefore, Ax = n.x cannot be established. Saaty (1990) suggests that the largest eigenvalue λmax would be

.

If A is a consistency matrix, eigen $\lambda_{max} = \sum_{j=1}^{n} a_{ij} \frac{W_j}{Wi}$ ated by

$$(A - \lambda_{max} I)X = 0$$
.

Step 4. Perform the consistency te
Saaty (1990) proposes utilizing a consistency index (CI) and consistency ratio (CR) to verify the consistency of the comparison matrix. CI and RI are defined as follows:

$$CI = (\lambda_{max} - n)/(n-1) = 0$$

, $$CR = CI / RI$$

where RI represents the average CI o   om entries of same-order reciprocal matrices. If CR≦ 0.1, the estimate is accepted; otherwise, a comparison matrix is solicited until CR≦ 0.1.
Step 5. Compute the entire hierarchical weight
After various hierarchies and element weights are estimated, the entire hierarchy weight is computed, ultimately enabling decision makers to select the most appropriate strategy.

4. ESTIMATION MODEL AND RESULTS
The research procedures in this study consist of two phases. In the first phase, the influencing factors considered in prior cultural creative exhibits are identified through a literature review. The second phase, in which both the weights of the influencing factors of the environment and the influencing factors of individual are evaluated by employing the AHP theory. The second phase is described in detail as follows.

Step 1: Designate the AHP Participants.

The experts who satisfy characteristics were selected and define the evaluation criteria and sub-criteria. Then six experts from the KMFA Museum Friends Association were chosen to comprise the group of experts under the condition that each expert: (a) has at least 10 years of professional experience in the interpretation sector, and (b) has participated in decision-making process of designing interpretation programs in museum exhibitions.

Step 2: Establish a Hierarchy Structure.
According to the literature review of the cultural creative interpretation, the group of experts reviews the key factors in the first phase, which is composed of several levels including the goal hierarchy, criteria hierarchy, and sub-criteria hierarchy (see Figure 2).

Step 3: Establish a Pairwise Comparison Matrix.
To provide an example of this step, the primary criteria for consumers' level of willingness to provide each type of driving data are shown in Table 3. Formulas (1) and (2) are used to calculate the aggregate pairwise comparison matrix.

Table 3. Aggregation of the Pairwise Comparison Matrix for Criteria of Main Criteria

Criteria	Driving Behaviors	Contextual Data
Driving Behaviors	1	1.3
Contextual Data	1/1.3	1

CI = 0.00; CR = 0.00 < 0.1

Step 4: Compute the Eigenvalue and Eigenvector
The pairwise comparison matrix of the criteria and sub-criteria is used to obtain each hierarchy factor weight, in which the eigenvector is calculated by Formulas (3) and (4). Tables 4, Figures 3 and 4 summarize the results.

Table 4. Weights of the Criteria and Sub-Criteria

Criteria	Criteria weight	Sub-Criteria	Sub-Criteria weight	Weights of overall levels
Individual Factors	.565	Interactive	.079	.045
		Participation	.132	.074
		Special interest	.206	.116
		Fatigue	.412	.233
		Repetition	.171	.097
Environmental Factors	.435	Aesthetics	.271	.118
		Novelty	.319	.139
		Sensory	.175	.076
		Motion	.141	.061
		Realism	.093	.041

Overall Inconsistency = .01

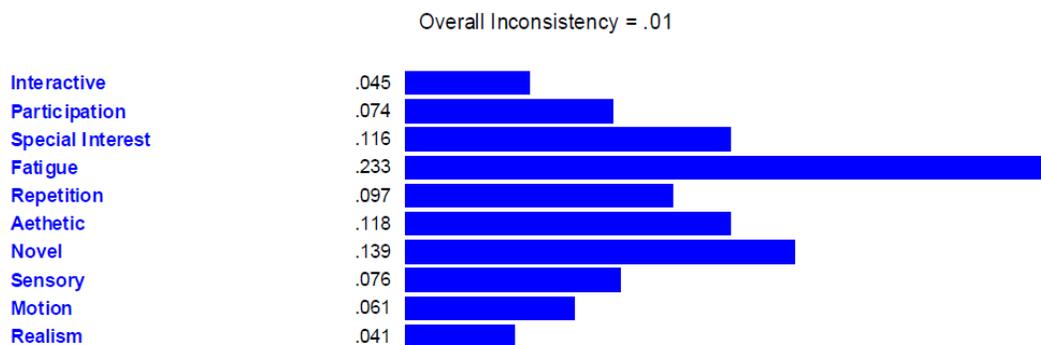|	
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Figure 3. The Overall Influencing Factors of a Interpretation Program

Step 5: Perform the consistency Test
Based on Formulas (5) and (6), the pairwise comparison matrix of consistency is determined for each hierarchy, as shown in Table 3. If the results of the respondents in terms of the consistency ratio and consensus of CR are smaller than 0.1, they conform to principles of consistency.

5. CONCLUSIONS
Based on the results of the AHP process, the ten key factors of an interpretation program is divided in to two groups: Individual Factors and Environmental Factors. In criteria level, Individual Factors (0.565) weight higher than Environmental Factors (0.435) which means personal attitude and situation have stronger related influence during a museum interpretation in the cultural creative industry.

Among the Individual Factors, the sequence order by the Sub-Criteria weight is Fatigue(0.412), Special interest(0.206), Repetition(0.171), Participation(0.132), and Interactive(0.079). Fatigue is a subjective feeling of tiredness, maybe cause by the exhausting trip or a long walk, and fatigue can have mental or physical causes that it may lower the cognitive performance in the museum. A short rest or refreshment may be arranged during the interpretation program that fatigue may be decreased. Special interest ranked on the second among the Individual Factors that if a visitor and the exhibit has the interconnected subject, the awareness of the interpretation program will be increased. Repetition is another negative fact that will decrease the awareness of the interpretation program. One of the purposes for the museum visitors to trip a exhibit is broaden horizons of their own aesthetic or intellectual contains. Therefore, an already known repeated interpretation program is hard to raise visitors' interests.

In the other division, Environmental Factors, the sequence order by the Sub-Criteria weight is Novelty(0.319), Aesthetics(0.271), Sensory(0.175), Motion(0.141), and Realism(0.093). It is critical to present the quality of being novel, new, or unique for the cultural creative industry that the novelty of an interpretation program will polish the exhibit presentation. The second, Aesthetics of the interpretation program also play an important role that even a well narrated interpretation may increase the satisfaction of visitors' aesthetic experiences. Sensory stimulation including visual, audio, and tactile stimulations should be considered in the interpretation program design that the visitors' attentions will be enhanced.

According to the Criteria weight, the Individual Factors(0.565) is higher than the Environmental Factors(0.435). While planning the interpretation program, the curator has to imagine the individual needs of a visitor group. Perhaps the designer may develop some different styles of customized interpretation programs modules, and manage the interpretation according to the features of the visitor group.

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