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# THE STUDY OF DOMESTIC AND FOREIGN VISITORS' INFORMATION NEEDS IN THE NATIONAL PALACE MUSEUM IN TAIWAN

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## **ABSTRACT:**

The National Palace Museum with wide collections of cultural and historic relics and artworks is generally acknowledged as one of the four greatest museums in the world. The museum is also a great place for storage, preservation and research of Chinese arts and culture; and with its spacious grounds and extensive collections, the complexity of the various information it offers is above the level of other museums. The principle objectives of a museum are providing improved service, better collections access and the development of outreach facilities. Therefore, how to deliver useful information and knowledge to unguided audiences in the most effective and efficient form becomes very important. "In-depth interview" and "questionnaire" methods were applied to this pilot study to identify visitors' information needs in terms of what was required of an information system in the National Palace Museum. The results were as follows:

- Signage or improved signage for way finding, floor plans and guide books were required by the visitor during their visit.
- Information desk, toilet, checkroom, lounge hall, cafe and food court were the most important and necessary facilities for the visitor.
- The most important information needs for domestic visitors: including neighbouring scenic spots near the museum, parking and information about leisure activities and facilities.
- 4. The most important information needs for foreign visitors: including public transportation information, multilingual signage system, audio guidance, interactive multimedia, and introduction of overall eras for historical exhibitions.

Key words: domestic and foreign visitor, information needs, guided tour system

# I. Introduction

The International Council of Museum gave the following definition: "A museum is a permanent establishment administered in the public interest, with a view to conserve, study, exploit by various means and, basically, to exhibit, for the pleasure and education of the public, objects of cultural value." For these purposes, a museum is not only a place where objects are preserved but also provides inspiration and information, entertainment and education. Cabral (2001) pointed out that there are three basic functions of a museum, which are preservation, investigation and communication. Museums nowadays are meeting competition with alternative providers of leisure and educational activities such as the entertainment and cultural districts in central cities, cyberspace, restaurants, sports arenas and shopping malls which also present collections and exhibitions. More and more museum leaders are concerned about this competition which has become a challenge for museums to seek ways to reach a broader public and forge community relationships (Kotler, N. Kotler, P., 2000).

The new strategy of a museum function has shifted from a traditional view of the museum as partner in curating public education, to a more synoptic consideration of the museum's interaction with the public and advances the view that this broad public context facilitates the experiences of leisure. Museum curators have increasingly been concerned with putting the needs of visitor first, ensuring that museum information resources are available to all users as needed. Nowadays, every industry in the society is trying to investigate and research into the information requested by the public to understand what people actually need. As for the museum, it is necessary to actively provide for and satisfy visitors' needs for information and services.

Located in Waishuangsi at the suburb of Taipei City, the National Palace Museum with wide collections of cultural and historic relics and artworks is generally acknowledged as one of the four greatest museums in the world. The museum is also a great place for storage, preservation and research of Chinese arts and culture; and with its spacious grounds and extensive collections, the complexity of the various information it offers is above the level of the other museums. Visitors depend on the guided tour system to familiarize themselves with the facility so that they can obtain all necessary information immediately. The guided tour system provides the basic information which helps the visitors to learn and proceed with the museum visit. In addition, visitors also can learn recreational and educational information from the guided tour system; this is exactly the fashion the museum actively provides information service and the visitors thus have access to the complete and thorough information. As to the nature of the guided tour in this study, the information in the guided tour can be divided into visit information and service information. Visit information concerns the functions of an exhibition such as exhibit theme, exhibit content, exhibit time and display location; also visit information provides all relevant details for the main exhibition function, service information including the services provided in the museum for the convenience of the museum visitors during their visit such as checkroom, dressing rooms and gift shops. Because of the large-scale scope in the

museum premises and its numerous display halls, it is important to systematically arrange various complicated and diverse information such as interior space design, visit routes, facility, exhibition, instruction so that the visitors can quickly and effectively gain access and comprehend useful information; hence, it helps the museum improve its service quality and, for the visitors, it satisfies the intellectual curiosity and provides a wonderful visiting experience.

This pilot study investigated the information needs in the National Palace Museum for domestic and foreign visitors; furthermore, it tried to understand the effectiveness of current guided tour system and if it met the needs of visitors. The purposes of this study are as follows:

- 1. to understand the visitor information requirements..
- to understand the information sources and needs, and the differences between the domestic and foreign visitors.
- to conclude the results in the study of information needs of the museum visitors and the guided tour system, and offer the museum suggestions for future references.

# 2. LITERATURE REVIEW

A museum is a public open space; every type of audiences is expected to visit the premises. In order to meet the inquiries; museums of various natures can focus on visitors' characteristics and design the required facilities and equipments for the exhibition or services. Graburn suggested in *Museum Education*Anthology that museums can satisfy human's three inquires (Yan, 2000):

- I. Social-recreational reasons
- 2. Educational reasons
- 3. Reverential reasons

Chen and Lin (2003) suggested there are five factors in maintaining and promoting the service quality in a

museum as follows: Substantiality — e.g. friendly services and a clean environment; Reasonability — e.g. reasonable prices of tickets, food and drinks; Certification — qualified and professional personnel in guided tour service; Consideration — comfortable and convenient experiences for the visitors; Facility applicability — e.g. entertaining and interesting exhibit display, providing maintenance for museum facilities such as parking, water-drinking, toilet and rest rooms. The above-mentioned five factors are based on visitors' inquiry; besides, the information offer in the museum emphasizes the whole visiting experience including the environment and personal factors, not only focusing on the exhibition. The information enquiries from general visitors were mainly concerned about what the museum has to offer on the day of their visit, the items on display and navigation around the museum; while educational visitors require detailed information about the Museum's collections and access to a wide range of information resources both in the museum and elsewhere (Booth, 1998).

According to a study about an efficient object-based information systems for use in the Museum's galleries which was carried out by the Science Museum Public Understanding of Science Research Unit, the research results indicated that the visitors felt that a gallery information system could help them to navigate around the museum and provide the relevant information from other museum; the visitors were also interested in the possibility accessing from their home on-line information to help them plan their visit (Gammon,1994, cited Booth, 1998, p. 141). One of the findings from another survey was that visitors felt difficulty in finding their way round the building and in discovering the full range of exhibits and programmes on offer (Booth, 1998, p. 142, cited Booth, 1996). The major findings from the Science Information Service experiment and the enquiries survey were concerned with the Museum's facilities, ticketing, navigation around the Museum, and with basic questions about what is on display (Wald, 1991, cited Booth1998, p. 144).

## 3. Research method

This pilot study adopted "expert interview" and "questionnaire survey", and the purpose was to understand the nature of their visit and their basic needs. "Expert interview" is a semi-constructive interview with experts to understand the management concept in the museum, the display of information, the planning of guided tour system and visitors' service; furthermore, the discussion of information needs of the museum visitors is explored in depth. We interviewed with three of the museum direction planning staffs and three experienced information desk personnel; and the time of the interview was October 22 and November 24 in 2004. "Questionnaire survey" was to understand the nature of their visits and the basic needs when they visit, including Chinese and English versions. The time of the survey was during February-March in 2005; the location of the survey, except online questionnaires, was on-site in or out of the National Palace Museum; and the subjects of the survey were domestic visitors from Taiwan and foreign visitors who can communicate fluently in Chinese or English. A total of 175 copies questionnaires were sent out and retrieved; excluding those invalid ones with incomplete information, there were 155 copies of valid questionnaires among which 117 copies from visitors in Taiwan and 38 copies from foreign visitors.

## 4. RESULTS AND DISCUSSIONS

## 4.1 ANALYSIS AND DISCUSSION OF EXPERT INTERVIEW

From the expert interviews, we concluded visitors' behaviours and needs, basic facilities and services, in-house planning of visit routes and direction signs, as follows:

- 1. Visiting behaviours and inquires of the audience
  - (I) Most common questions and inquiries from the visitors who come to the information desk are questions regarding the assistance services during museum visit and current exhibit theme and

content.

- (2) The guided tour services have been gradually emphasized, especially for the foreign visitors who would mostly ask for the audio guided tour services.
- (3) Visitors from Taiwan are usually family groups and students; as to foreign visitors, those from Western countries are mostly scattered and those from Asian region, with the majority of Japanese visitors, are in groups of organization, company or school.
- (4) For visitors from Taiwan, they prefer to ask the museum staffs for resolving their information inquiries; foreign visitors prefer to search for information by themselves. The signage system is used by foreign visitors in higher percentage than by domestic visitors.

#### 2. Basic facilities and services in the museum

- (I) Improve customer services and provide essential, professional information and assistance for the visitors in a friendly and actively manner.
- (2) Put emphasis on recreational information and gift services in the museum.
- (3) Improve and offer opportunities for tourism, services, publicity announcement, and visitors' arrangement in the future.
- (4) Clarify description and illustration on the signs and notice for avoiding unpleasant visiting experiences for the audiences.
- (5) Improve the instructions for transportation information such as parking space, public transportation and traffic routes.
- (6) The signage system is the first-line facilities for serving visitors; the museum needs to provide better communication channels.
- (7) The museum should improve and enhance the facilities for complete and diverse services such as lighted direction signs, rest areas, computer multimedia, and children playground.

- 3. Planning the visit routes and signage system
  - (I) Avoid the situations that the visitors can hardly notice the signage.
  - (2) Use the signs and space wisely, differentiate them with colors for more effective and visible direction and guidance.
  - (3) Establish a complete visual identification system to improve visitors' identifying and visiting efficiency.
  - (4) Use mainly illustrations and supplement with writings for the design of signage.
  - (5) Take into consideration about the importance and capacity of the information displayed on the signage.
  - (6) Evaluate and improve before and after the installation; update periodically the information content and the position of display.

# 4-2 ANALYSIS OF INFORMATION NEEDS FROM VISITORS IN THE NATIONAL PALACE MUSEUM

# I. Background of the participants

The participants during the survey were mostly visitors on their own; compared with visitors from Taiwan, foreign visitors were much less in proportion; however both exceeding 30 valid samples as a statistical standard. The results are as shown in Table 1: visitors from Taiwan (117) accounted for 75.5% of the total participants; foreign visitors (38) 24.5%. Among the foreign visitors, visitors from the U.S.A. accounted for 44.7% (total: 17) which has the most visitors, followed by Canada (4), German (4), Australia (3), Hong Kong (3), Great Britain (2), South Africa (2), Malaysia (1), Mexico (1) and New Zealand (1).

Table I Background of the respondents

	Taiwanese audience		Foreign	audience	to	total		
participants' background	N	%	N	%	N	%		
	117	75.5	38	24.5	155	100.0		
Sex	N	%	Ν	%	N	%		
male	51	43.6	23	60.5	74	47.7		
female	66	56.4	15	39.5	81	52.3		
age	N	%	N	%	N	%		
11-20	18	15.4	0	0.0	18	11.6		
21-30	75	64.1	14	36.8	89	57.4		
31-40	8	6.8	11	28.9	19	12.3		
41-50	9	7.7	8	21.1	17	11.0		
51-60	4	3.4	4	10.5	8	5.2		
Over 61	3	2.6	I	2.6	4	2.6		
nationality	N	%	Ν	%	N	%		
( Australia )	-	-	3	7.9	-	-		
( England )	-	-	2	5.3	-	-		
( Canada )	-	=	4	10.5	-	-		
( Germany )	-	-	4	10.5	-	-		
( Hong Kong )	-	=	3	7.9	-	-		
( Malaysia )	-	=	l	2.6	-	-		
( Mexico )	-	-	l	2.6	-	-		
( New Zealand )	-	=	I	2.6	-	-		
( S.Africa )	-	-	2	5.3	-	-		
( USA )	-	=	17	44.7	=	-		

# Analysis and discussion of the information sources before their visits to the National Palace Museum

According to the research results as shown in Table 2, 57.4% (89 participants) of the participant visitors indicated that "internet" was the primary information source before their visit and followed by "friends and relatives' recommendation", "TV", and "magazines". Visitors from Taiwan had various information channels before they came to the museum including "internet" primarily, and followed by newspaper, friends and relatives' recommendation, TV, teachers' introduction in class, advertisement banners, magazines, passing by the place, leaflet or poster, museum publication, broadcasting. For foreign visitors, the primary information

source was "friends and relatives' recommendation" and followed by "magazines", "internet", "leaflet or poster". Hence, we discovered that for foreign visitors they concentrated mainly on "friends and relatives' recommendations", "magazines", "internet" as their information sources before their visit.

Table 2 The information source before visit to the National Palace Museum

	Taiwanese audience		Foreign audience		total		-	
the information source before visiting	N	%	N	%	N	%	t	Р
magazine	32	27.6	18	47.4	50	32.3	-2.149	0.036*
newspaper	52	44.8	1	2.6	53	21.3	7.914	0.000**
broadcast	16	13.8	- 1	2.6	17	11	2.686	0.008**
Internet	76	65.5	13	34.2	89	57.4	3.503	0.001**
TV	50	43.1	2	5.3	52	33.5	6.414	0.000**
from friends and relatives	51	44.0	22	57.9	73	47.I	-1.494	0.137
from teacher	37	31.9	- 1	2.6	38	24.5	5.760	0.000**
Museum publication	17	14.7	ı	2.6	18	11.6	2.850	0.005**
Voucher and poster	20	17.2	4	10.5	24	15.5	1.091	0.279
banner	35	30.2	ı	2.6	36	23.2	5.481	0.000**
Pass by to know	23	19.8	3	7.9	26	16.8	2.062	0.042*

<sup>\*</sup>P < 0.05 \*\*P < 0.01

Foreign visitors considered friends and relatives as an importance information source, compared with visitors from Taiwan. Many foreign visitors visit particular scenic spots and museums because of their Taiwanese friends' recommendations. They often refer to "travel magazines and brochures" and other visitors' guides that are conveniently available in airports, stations and hotels when they travel around the world; therefore, magazines become their favorable information sources. In addition, some foreign visitors expressed their information source to visit the museum was from the previous group travel, meaning the "visiting experience" from their last trip to the museum. Some visitors would request travel guide or brief brochure from the Bureau of Tourism so that they can obtain detailed information from tourism consultation.

# 3. Analysis and discussion of the "required information before the visit"

According to the results (Table 3), 84% of the participant visitors expressed "business hours" was the required information; in addition, all participants agreed that "exhibition theme", "ticket prices", "public transportation", and "telephone number, address and Website address" were highly required information; thus, it shows that basic information of the museum is generally considered essential by the visitors. The museum should provide this information in a fashion for the visitors to access and search easily; thus, the information anxiety before their visit can be reduced and their satisfaction of the following visit can be improved.

Table 3 Information needs before the visit

	Taiwanese audience		Foreign audience		total			
information needs before the visit	N	%	Ν	%	N	%	t	Р
Address, phone Number,, Website address	88	75.9	15	39.5	103	66.5	4.056	0.000**
Opening hours	101	87. I	29	76.3	130	83.9	1.404	0.166
Ticket price	88	75.9	18	47.4	106	68.4	3.122	0.003**
Public Transportation	78	67.2	26	68.4	104	67.1	-0.134	0.894
Parking information	27	23.3	2	5.3	29	18.7	3.345	0.001**
Service for disable	4	3.4	2	5.3	6	4.9	-0.499	0.619
Facilities inside the building	40	34.5	- 11	28.9	51	32.9	0.626	0.532
Nearby attraction spot	28	2 <del>4</del> . I	3	7.9	31	20	2.723	0.008**
Exhibition topic	96	82.8	21	55.3	117	75.5	3.089	0.003**
Tour guide service	35	30.2	15	39.5	50	32.3	-1.060	0.291
announcement	25	21.6	0	0.0	25	16.1	5.621	0.000**
The dining serves	17	14.7	8	21.1	25	16.1	-0.925	0.357
shopping	5	4.3	6	15.8	11	71	-1.826	0.075
Educational activities	28	2 <del>4</del> . I	8	21.1	36	23.2	0.388	0.699
Local weather condition	28	2 <del>4</del> . I	5	13.2	33	21.3	1.605	0.113
Special activities	25	21.7	5	13.2	30	19.4	1.268	0.209

<sup>\*</sup>P < 0.05 \*\*P < 0.0

It concluded 30% of the visitors indicated that the information of "guided tour services" was necessary.

Guided tour services are for visitors to understand, in depth, the content of the museum exhibition, including personnel narrative guided tour, audio guided tour and explanatory labels and booklets; visitors can learn the variety of the guided tours provided by the museum so that they would have an idea before their visit. Visitors also indicated that they need the information of "introduction of neighboring scenic spots", "learning and educational activities" and "current weather conditions". Besides, they also hoped to learn the facilities and exhibition rooms in advance before their visit; for foreign visitors, they expressed their desire to have adequate English information sources so that they can obtain complete information. The information inquiry for domestic and foreign visitors prior their visits, after t test analysis, were analyzed and the results were as shown in Table 3. The museum location and contact information "Address, telephone number, web address" (t=4.056, P=0.000), "notice for visitors' attention" (t=5.621, P=0.000), "parking information" (t=3.345, P=0.001), "ticket prices" (t=3.122, P=0.003), "exhibition theme" (t=3.089, P=0.003) and "neighboring recreational and scenic spots near the museum" (t=2.723, P=0.008) all reached highly significant difference.

# 4. The extent of needs for the information provided by the museum

Understand the extent of the need for every kind of information provided by the museum for domestic and foreign visitors; and realize how the visitors consider the importance of every kind of information. The survey results of the extent of needs for every kind of information by visitors are as shown in Table 4. Generally, visitors consider the most important information content is "exhibition content, time, location" (M=6.25, SD=0.99) and in the order of significance followed by "explanatory labels of exhibit content" (M=5.89, SD=1.10), "visit routes and direction signs" (M=5.88, SD=1.08), "exhibition floor plan and brief introduction of every floor" (M=5.66, SD=1.08), "written guided tour brochures" (M=5.58, SD=1.20), "multimedia guided tour" (M=5.08, SD=1.22), "audio guided tour services" (M=5.08, SD=1.35), and "relevant literatures and facilities in the museum" (M=5.06, SD=1.23). Others which are considered less

important are "learning activity information" (M=4.87, SD=1.25), "exhibition information of other museums" (M=4.69, SD=1.21) and "opinion and feedback after visit" (M=4.42, SD=1.32).

Table 4 Mean score of the information needs

	Taiwanese audience		Foreign audience		total		•	
questions	М	SD	М	SD	М	SD	t	Р
exhibition content, time, location	6.22	0.97	6.37	1.05	6.25	0.99	-0.814	0.417
exhibition floor plan and brief introduction of every floor	5.82	0.99	5.21	1.21	5.66	1.08	3.077	0.002**
the instruction of exhibition guide line	5.90	1.10	5.81	1.02	5.88	1.08	0.416	0.678
written guided tour brochures	5.77	1.15	5.00	1.18	5.58	1.20	3.514	0.001**
multimedia guided tour	5.19	1.21	4.73	1.19	5.08	1.22	2.029	0.044*
visit routes and direction signs	5.32	1.29	4.62	1.62	5.15	1.41	2.661	0.009**
audio guided tour services	5.18	1.28	4.77	1.55	5.08	1.35	1.399	0.168
explanatory labels of exhibit content	5.85	1.07	6.00	1.18	5.89	1.10	-0.716	0.475
learning activity information	5.01	1.16	4.46	1.41	4.87	1.25	2.367	0.019*
relevant literatures and facilities in the museum	5.14	1.12	4.82	1.49	5.06	1.23	1.237	0.221
exhibition information of other museums	4.73	1.20	4.58	1.24	4.69	1.21	0.658	0.512
opinion and feedback after visit	4.43	1.37	4.37	1.20	4.42	1.32	0.262	0.794

<sup>\*</sup>P < 0.05 \*\*P < 0.01

"Visit information such as exhibition content, time, location" is the most frequent selection in the information need of domestic and foreign visitors. In addition, the information that are important to the domestic visitors are "visit routes and direction signage", "explanatory labels of exhibit content", "exhibition floor plan and brief introduction of every floor", "written guided tour brochure", "guided tour personnel narration", "multimedia guided tour", "audio guided tour services", "relevant literatures and facilities in the museum", and "learning activity information". For foreign visitors, they are "explanatory labels of exhibit content", "visit routes and direction signs", "exhibition floor plan and brief introduction of

every floor" and "written guided tour brochure".

Both domestic and foreign visitors consider "visit information of exhibition content, time, location", "visit routes and direction signs", "illustration of exhibit content", "exhibition floor plan and brief introduction of every floor" and "written guided tour brochure" the five most important information. These five items belong to visit information, exhibition content narration, and visit routes. Hence, the visitors' main focuses are on the basic information of the museum, content of visit information, visit routes and direction signs in the museum, which are essential for visitors on their own. Domestic visitors consider the second most important items are group guided tour, audio guided tour, multimedia guided tour, literature and activity in the museum, which are consistent to the above-mentioned information demands.

2. Variance differences analysis of the information needs for domestic and foreign visitors

In the variance differences analysis, "written guided tour brochure" (t=3.514, P=0.001), "exhibition floor plan and brief introduction of every floor" (t=3.077, P=0.002) and "guided tour personnel narration" (t=2.661, P=0.009) have reached highly significant difference. "Learning activity" (t=2.367, P=0.019) and "multimedia guided tour" (t=2.029, P=0.044) have significant differences.

For the inquiry of "written guided tour brochure", the demand from domestic visitors (M=5.77) is higher than foreign visitors' (M=5). For "exhibition floor plan and brief introduction of every floor", domestic visitors' (M=5.82) is higher than foreign visitors' (M=5.21). For "guided tour personnel narration", domestic visitors' (M=5.32) is higher than foreign visitors' (M=4.62). For "leaning activity", domestic visitors' (M=5.01) is higher than foreign visitors' (M=4.46). For "multimedia guided tour", domestic visitors' (M=5.19) is higher than foreign visitors' (M=4.73).

# 5. CONCLUSIONS

The questionnaire focused on general public for their inquiries when they visited the museum. It also

emphasized items such as attributes of the audience, the extent of the need for the visit information, service facility, guided tour facility and the entire information in the analysis. It concluded as follows:

#### I. Attributes of the audience

Every year, 74% of both the domestic and foreign visitors make visits to the museum; their times of visits are I~3, in average, annually. For both domestic and foreign visitors, their partners with whom they visit the museum together are mainly friends; in addition, for foreign visitors, family members are also the primary companion of their visits. Visitors' main sources of obtaining information are internet and friends and relatives' recommendation; the domestic visitors more depend on TV and newspapers while foreign visitors depend on magazines.

## 2. The extent of inquiry for visit information

Essential information before the visit is the basic visit information of the museum for both domestic and foreign visitors such as business hours, ticket prices, address, telephone number, Website address and the information for public transportation. Thus, it shows that the visitors focus on the basic information of the museum and how to get to the museum. In terms of the exhibition, they pay more attention on the theme of the exhibition. Their primary concern is for understanding the basics of the museum; and then, for visit and learn; finally, for service information.

#### 3. The extent of inquiry for service facility

All visitors agree that rest rooms and information desk are the most common and important facilities.

Domestic visitors also stress on books and literatures; while foreign visitors have constant inquires for dining and souvenir purchase. The facilities in less inquiry are mostly for temporary need.

# 4. The extent of inquiry for guided tour facility

Both domestic and foreign visitors view illustration display in their visits to the museum. Domestic visitors pay more attention on brief written introduction and direction signs system; foreign visitors view the exhibition as they walk or they would look for the exhibition on the floor plan. In the significance difference analysis of the guided tour facility, visitors both look at the illustration display; domestic visitors also prefer written introduction and group guided tour narration, foreign visitors prefer electronic audio guided tour and floor plan.

## 5. The extent of inquiry for entire information

Both domestic and foreign visitors consider, in terms of exhibition, the exhibit content, time, location and illustration of exhibit content are important information; as to the guided tour services during the visit, they also indicated that route and direction signs, floor plan and brief introduction of every floor, written guided tour brochure are essential facilities. Thus, it shows that visitors regard the exhibition narration and assistance during the visit as important information. As to the significance of the entire information, domestic visitors need visit information, direction and route guidance, exhibition narration, education and learning, opinion and feedback, in the order of significance. Foreign visitors need visit information, exhibition narration, direction and route guidance, education and learning, opinion and feedback, in the order of significance.

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