

The Effectiveness of Artifact Study in Art Museums of Hong Kong: An Evaluation Exercise on Art Museum Experience by Secondary School Students in Local Context

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In this evaluation exercise, I would like to investigate how public art museums in Hong Kong use their collections to stimulate and motivate students to learn through artifact study. Five galleries with permanent display of artifacts in the Hong Kong Museum of Art and the Hong Kong Heritage Museum were selected as testing places in this research. Pre-and post-visit questionnaires were designed for individual gallery to assess to what extent the students in this study could be stimulated and motivated to learn through visiting the five galleries. In-depth interviews in the form of focus group discussion were followed up in order to find out how these students learnt from studying of artifact inside museums. From the opinions expressed in the questionnaires and during the focus group discussion session, it was found that these students had definitely learnt something new from their museum visit. However, by comparing the results of the pre- and post-visit questionnaires, evidence of improved learning

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experience was not obvious, especially for the three galleries inside the Hong Kong Museum of Art.

Key words: artifact study; museum education; evaluation

During the last decade of the twentieth century, there has been a significant growth of museums world wide both in numbers and in types. According to Greenhill (1996), the number of museums in the world is now very large: embracing some 13,500 in Europe, of which 2,300 are in the UK; some 8,300 in the US; 2,000 in Australia and Asia; and perhaps 2,000 in the rest of the world (p. 93). The range of museum orientation is correspondingly varied and covers all aspects of the natural and human heritage. In fact, museums in the 21st century play an increasingly significant role in the cultural life of a place or a country as millions and millions of people visit museums every year throughout the world.

Enormous changes have also been taken place in museums across the world in the past decade accordingly. Museums have been changed from being static storehouses for artifacts into active learning centers for the general public. In addition to looking inward to their collections, museums are now looking outward towards their audiences. Where in the past, collections were researched, now audiences are also being researched. Indeed, museums have defended the values of scholarship, research and collection at the expense of the needs of visitors for too long. The challenge today is to preserve these traditional museum concerns and at the same time to combine them with the educational values that focus on how the objects cared for in museums can add to the quality of life for the general public, especially for the younger generation.

Education in museums can be achieved in a number of ways, but the most familiar method is through artifact study. Artifact study is also known as “object learning” which has long been regarded as one of the outstanding function of museums. Objects or artifacts in museums can act as catalysts in the learning process itself and can form part of a less focused learning

process. According to Greenhill (1994), museum and gallery visits open up new learning possibilities through the study of evidence and real things, which can stimulate the ability to concentrate, explore and observe. This skill development is made possible through seeing and handling real objects which encourage original thought. Close attention to and understanding of beautiful things will also help to develop a critical appreciation of things (pp. 121–123). Indeed, there are many tried and tested ways of successfully using museum objects in learning (Harrison, 1970; Marcourse, 1961; Morris, 1989).

Object learning was a major feature of nineteenth century schooling in the West (Lawson & Silver, 1973). The purpose of object learning is to develop all the students' faculties in the acquisition of knowledge, rather than to merely impart facts or information (Calkins, 1880). Learning from objects also enables the development of the ability of perception, which combines with reflection and judgment, could lead on to appropriate activities based on the existing knowledge and competencies of the students (Greenhill, 1994). Therefore, the use of objects as part of the learning process can be placed within a long history and tradition of teaching and learning.

Moreover, object learning was common in schools in the second half of the nineteenth century in the West and many of the methods of teaching from objects that were recommended at that time are still recognizable as similar to those methods in use today. According to Greenhill (1990), the recommendations concerning the presentation of objects to be apprehended at that time first through the senses, secondly in relation to things already known, thirdly to be grasped and understood, and lastly to be critically considered (p. 64). With these recommendations in mind, I would like to investigate how public art museums in Hong Kong use their collections to stimulate and motivate students to learn through artifact study in local context.

The evaluation framework employed in this investigation is what may be referred to as summative evaluation, which is concerned with completed exhibitions. It is used to determine whether the objectives of the exhibitions have been met, as well as to determine the effectiveness of artifact

study inside various galleries. This study was conducted through questionnaires, interviews, and observation.

Organization of Study

In order to investigate how local art museums use their collections to stimulate and motivate students to learn through artifact study, five art-related galleries with permanent display of artifacts have been selected as testing places: (1) Chinese Fine Arts Gallery, (2) Chinese Antiquities Gallery, (3) Xubaizhai Gallery of Chinese Painting and Calligraphy in the Hong Kong Museum of Art, (4) Chao Shao-an Gallery, and (5) T. T. Tsui Gallery of Chinese Art in the Hong Kong Heritage Museum. Pre- and post-visit questionnaires with some open-ended questions were designed for individual gallery to assess to what extent the students could be stimulated and motivated to learn through visiting the above five galleries.

Objectives

This evaluation exercise is designed to find out:

1. Students' prior knowledge on the subject;
2. Students' understanding of the exhibits and concepts through the information provided to them in the gallery;
3. Any knowledge students may have gained through the information provided to them in the gallery, thus making it a learning experience; and
4. The type of information students find helpful and concepts that students have little understanding of.

Subjects

The evaluation exercise was conducted from October 2000 to January 2001. The total sample size for this study was 104, which included students from 4 schools of different districts in Hong Kong: (1) 23 students from the True Light College, (2) 15 students from the Wesley College, (3) 25 students from the Shatin Ti-I College, and (4) 41 students from the Shatin Govern-

ment Secondary School. These students were invited to visit two different galleries in one particular museum and joined the focus group discussion after their respective visits.

All students chosen in this study should be at least 12 years of age, for students who are too young may not be able to grasp the abstract concepts related to the artifacts displayed in the galleries. Of the 104 students, 68 were female and 36 were male; 90 of them were from senior forms (F. 4 to F. 7) and 14 from lower forms (F. 1 to F. 3); 86% of them visited different local museums at least once in the past year. Besides visiting museums, their hobbies also include exercise, reading, playing computer, singing, shopping, etc. (see Table 1)

Table 1 Other Hobbies of the Students

Types of hobbies	No. of responses	% of total responses
Exercise	42	17.6
Reading	37	15.5
Computer	34	14.2
Music/singing	32	13.4
Shopping	24	10.0
TV/movie	21	8.8
Drawing	19	7.9
Dance/drama	8	3.3
Sleeping	3	1.3
Church	3	1.3
Others	16	6.7

N = 104

Instruments

To determine how the students were affected by the artifacts displayed in the galleries, five sets of questionnaires had been designed and the students were asked to choose the correct answer from the choices presented to them in the questionnaires. Answers to the questions in the questionnaires could be found in the pamphlets and text panels provided inside various galleries of the two museums.

The questionnaires (see Appendix A for sample) are designed with reference to the above four objectives: question 1 to 4 for objective 1, question 5 to 10 for objective 2, question 11 to 13 for objective 3, and question 14 to

16 for objective 4. As the questionnaires are mainly used to test the visual skills in art appreciation and general knowledge in visual arts, other less tangible elements such as the exhibition's attractive power and visitor interests are not emphasized.

Pre-visit and post-visit questions are kept identical so that an analysis of the exhibition effect can be determined. If the students were positively affected by the exhibits, scores should be higher for the post-visit questionnaire when compared to the pre-visit questionnaire. Some open-ended questions were included in the post-visit questionnaire in order to extract more information for the understanding of the students' learning process during their museum visit.

On the other hand, to compare the effect of pre-visit questionnaire on students in a museum visit, each group of students were required to visit two galleries in one particular day: one gallery with pre-visit questionnaire filled before the visit and the other gallery visited without the questionnaire.

Focus Group Discussion

In order to get more information from the students after their museum visit, qualitative measures in the form of focus group discussion were arranged with the four selected schools within two weeks of the students' respective visit to one particular gallery. The duration of each discussion was around half to one hour. The number of students selected for each group was about 5 to 11.

The objectives of this part of research are: (1) to obtain first-hand information and opinions from students regarding the effectiveness of learning in the museums from artifact study inside galleries, (2) to identify any artifacts and related concepts that students have little understanding of, and (3) to confirm the findings disclosed by the pre- and pro-visit questionnaires. Here are some questions being asked during the focus group discussion:

1. When you think of museum, what is the first thing that comes to mind?

2. What do you expect most to get from visiting a museum?
3. Do you remember the artifacts in the photographs? What are their characteristics?
4. Do you think viewing artifacts in a gallery setting can help you to learn more?
5. Does the pre-visit questionnaire help you in a gallery visit?
6. Any artifacts or concepts you find you have little understanding of after visiting the gallery?
7. Do you find the (i) gallery handout and (ii) text panels useful in enhancing your interest and understanding of the gallery?
8. Which part of the gallery you like most?
9. Which part of the gallery you dislike most?
10. Can you give some recommendations to the museum for improvement?
11. Was there anything you can learn from this museum visit?
12. What is your overall impression of the Hong Kong Museum of Art/Hong Kong Heritage Museum?

Findings

Paired and independent *t* tests were used to test the significance of data collected from individual gallery. For the difference between pre- and pro-visit questionnaires, paired *t* test was conducted and only the results reflected from the data of the Chao Shao-on Gallery and the T. T. Tsui Gallery of Chinese Art inside the Hong Kong Heritage Museum are statistically significant, i.e., $p < .001$ (Table 2). For the influence of the pre-visit questionnaire on the students, independent *t* test was applied and only the data from the Chao Shao-on Gallery inside the Heritage Museum are statistically significant (Table 3). The reasons behind these findings would be discussed in the following paragraphs. Other opinions expressed in the open-ended questions of the questionnaires are summarized in Table 4.

Table 2 Summary of Paired *t* test for Five Galleries

Gallery	Student no.	<i>M</i>	<i>SD</i>	<i>t</i> value	<i>df</i>	Significance
Chao Gallery	Pre-visit	19	6.26	1.79	18	.000
	Post-visit	19	8.68	1.16		
Tsui Gallery	Pre-visit	22	5.59	1.17	21	.000
	Post-visit	22	7.8	1.22		
CA Gallery	Pre-visit	25	5.24	1.05	24	.557
	Post-visit	25	5.4	1.41		
XBZ Gallery	Pre-visit	23	5.65	1.27	22	.247
	Post-visit	23	6.07	1.59		
FA Gallery	Pre-visit	15	4.67	1.5	14	.033
	Post-visit	15	5.7	1.75		

N = 104

Table 3 Summary of Independent *t* test for Five Galleries

Gallery	Student no.	<i>M</i>	<i>SD</i>	<i>t</i> value	<i>df</i>	Significance
Chao Gallery	control group	19	6.26	1.79	37	.000
	comparison group	20	6.15	1.84		
Tsui Gallery	control group	22	5.59	1.17	35	.028
	comparison group	15	6.93	1.03		
CA Gallery	control group	25	5.24	1.05	46	2.61
	comparison group	23	5.91	1.7		
XBZ Gallery	control group	23	5.65	1.27	36	.011
	comparison group	15	4.8	1.2		
FA Gallery	control group	15	4.67	1.5	35	.074
	comparison group	22	5.9	1.48		

N = 104

Discussion

In this evaluation exercise, I would like to investigate how public art museums in Hong Kong use their collections to stimulate and motivate students to learn through artifact study. From the opinions reflected in the questionnaires and during the focus group discussion session, it was found that students had definitely learnt something new from their museum visit. However, by comparing the scores of the pre- and post-visit questionnaires, evidence of improved learning experience is not obvious, especially for the three galleries inside the Hong Kong Museum of Art. As indicated in the paired *t* test of Table 2, higher scores after museum visit are statistically significant for students assigned to the galleries inside the Hong Kong Heritage Museum only.

Table 4 Other Opinions of the Students

Galleries	Something learned/ Aspects to be improved	Frequency
CA & Tsui Galleries: (Chinese antiquities)	Characteristics of Chinese antiquities	16
	Meanings of decorative motifs	9
	Characteristics of different periods	8
	Daily life of older generation	7
	Usage of Chinese antiquities	5
	Techniques of Chinese antiquities	4
	Cultural exchange between East and West	3
XBZ, FA & Chao Galleries: (Chinese painting & calligraphy)	Techniques of Chinese painting & calligraphy	12
	Characteristics of Chinese painting & calligraphy)	11
	Characteristics of different schools	9
	Characteristics of different artists	7
	Characteristics of different periods	4
	Differences between East and West	3
	Not enough exhibits	2
All Galleries: (text panels & labels)	Not enough details (history, usage, process of creation, etc.)	27
	Not enough explanation	19
	Difficult/ abstract language	14
	No animation/ sound	13
	Size too small	9
	Position too high	8

$N = 104$

Key: CA – Chinese Antiquities Gallery; FA – Chinese Fine Arts Gallery;
 XBZ – Xubaizhai Gallery of Chinese Painting & Calligraphy;
 Tsui – T. T. Tsui Gallery of Chinese Art; Chao – Chao Shao-an Art Gallery

For the pre-and post-visit questionnaire test, obvious improvements are found in student's ability in art appreciation and general knowledge in Chinese art after visiting the Chao Shao-an Art Gallery (pre-visit score: $M = 6.26$, $SD = 1.79$; post-visit score: $M = 8.68$, $SD = 1.16$) and the T. T. Tsui Gallery of Chinese Art (pre-visit score: $M = 5.59$, $SD = 1.17$; post-visit score: $M = 7.8$, $SD = 1.22$) inside the Hong Kong Heritage Museum. Based on the students' comments on these two galleries and observation by researcher as a whole, it was found that students could be motivated and stimulated to learn more about artifact which was displayed within its own context. In other words, students showed less interest in mere presentation of facts without context. The re-construction of the artist's studio inside the Chao Shao-on Art Gallery and the provision of an education corner inside the T. T. Tsui Gallery of Chinese Art therefore were successful to certain extent in

arousing students' interest in discovering more about the topics being presented.

This finding is in line with the current trend in art education theories which stresses on contextual relevance of the art curriculum. In fact, disagreements arisen over the compatibility of Discipline Based Art Education (DBAE) with the trend of post-modernism are partly due to the omission of such contextual factors in Eisner's original proposal on DBAE (Eisner, 1988). According to Boughton (2000), the methodology of art education now should include experience for people that engage them in "meaningful cognitive interaction with objects" and the content should also be inclusive of "cultural difference" (p. 13). Indeed, this trend in art education also provides challenges to traditional art museums such as the Hong Kong Museum of Art which relies on mere presentation of facts without considering relevant context for their permanent exhibitions.

Besides, though some students found the museum visit could inspire them to see the relationship between the artifacts and their own concerns such as the characteristics of different dynasties in Chinese history, and perhaps be stimulated to learn more about the subject matter after such visit, more than half of them (Chao: 52.6%; XBZ: 56.5%; FA: 63.5%; CA:64%) expressed their reluctance for repeated visit and they refused to know more about the subject matter. Based on these students' comments on the galleries and the Hong Kong Museum of Art in particular, it was found that the overall presentation of these galleries was static, related to topics that students had little background knowledge of and were irrelevant to their school curriculum too.

This finding further reveals the drawbacks of local art museums in motivating and stimulating students to engage in meaningful interaction with objects inside galleries. Indeed, the overall design and presentation of these galleries have not taken the background of Hong Kong students into consideration seriously, especially for those galleries inside the Hong Kong Museum of Art. Taking the Chinese Antiquities Gallery inside the Hong Kong Museum of Art as an example, students found the way of displaying

some exhibits very static (as most of the exhibits were placed inside glass-covered showcases) and seemed unchanged for a long time. Lighting was dim and thus made the overall atmosphere “gloomy and scary”. Moreover, terms in the captions and text panels placed next to the artifacts were too professional and technical for them.

According to the learning theory of constructivism (Hein, 1992), it is not possible to learn new knowledge without having some structures developed from previous knowledge to build on. It is obvious that most students lack such prior knowledge in Chinese art for them to relate what they saw in museums to their personal experience. The museums also failed to provide a path into the subject area for the students to associate the new knowledge with their previous knowledge or personal experience. Although some students can relate some artifacts to what they learned in their Chinese history classes, most of them had difficulties in identifying the basic media and functions of the common antique objects in the Chinese Antiquities Gallery.

Moreover, object learning often stimulates one to ask questions and learners have to be carefully guided in order that correct conclusions are arrived at. Failure to do so may result in confusion of even those ideas one is already familiar with. The researcher observed that the orientation of some texts in some galleries such as the Chinese Antiquities Gallery in the Hong Kong Museum of Art was sometimes misleading and thus led to confusion in conveying even the familiar concepts to the students. As a result, the students might sometimes choose the wrong answers in the post-visit questionnaire though they got the right answers in the pre-visit questionnaire, as they might place implicit faith in the museums and dared not to challenge authority.

Last but not least, according to Csikszentmihalyi and Robinson (1990), three conditions are essential for aesthetic experience to occur in museums: (1) the tasks must be equal to the present ability of the individual to perform; (2) attention must be focused on a field of limited stimulus; and (3) the experience must contain coherent, non-contradictory demands for action and provide clear and unambiguous feedback (p. 133). It was found that

although the pre-visit questionnaires were provided to help students to focus on some aspects of the galleries, their effectiveness in terms of motivating and stimulating students to learn more on some particular artifacts was not obvious. As indicated in the independent *t* test of Table 3, only the results from the Chao Shao-on Gallery are statistically significant. Such findings might indicate that the tasks assigned to the students might not equal to their abilities or the galleries contained contradictory and ambiguous messages thus led to confusion to the students.

To conclude, as the students in the sample of this research are mainly adolescents, they are aware that the knowledge they acquired in museums will be useful in their latter learning in school education. However, the means of learning provided in the local public art museums, like the Hong Kong Museum of Art, relies too much on the symbolic mode (i.e., text is often used too much in exhibitions) and the potentials for other means of learning such as discovery learning and cooperative learning have not been fully explored. According to Gardner (1999), effective art education requires a supportive environment and a mind or brain that is capable of mastering the knowledge. In this study, it seems that public art museums in Hong Kong have failed to take these two important elements into consideration seriously. Not surprisingly, the museum is unable to implant knowledge and experience into the minds and hearts of most of the students in this study.

Remarks

Part of this study was conducted from October 2000 to January 2001 in the Chinese Antiquities Gallery of the Hong Kong Museum of Art before its renovation. Tremendous improvements in this gallery have been found during a recent visit by the writer, such as better lighting, more seating areas and the provision of an education corner.

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Appendix A

Pre- and Post-Visit Questionnaires for the School Students

(Chao Shao-an Art Gallery, HK Heritage Museum)

Pre-Visit Questionnaire

Questions: (Please circle the correct answer.)

1. Traditional Chinese painting and calligraphy emphasizes:
 - (a) the use of brushworks and ink tonalities
 - (b) the visual effect of texture, colour and form
 - (c) the spirit of the society at that time

2. Which one of the following is not the “Four Treasures” of Chinese painting and calligraphy:
 - (a) brush
 - (b) inkstone
 - (c) colour minerals

3. Which one of the following is not the material for painting of traditional Chinese painting and calligraphy:
 - (a) paper
 - (b) silk
 - (c) canvas

4. The Lingnan School tried to reform the traditional Chinese painting by:
 - (a) learning from different schools rather than learning from nature
 - (b) trying to supplement traditional Chinese art with anatomy, perspective, light and shade
 - (c) following the traditions and footsteps of the old masters

5. Paintings of the Lingnan School are characterized by:
 - (a) lively and vivid depiction of still life from nature

- (b) elegance and refinement
 - (c) traditional composition
6. Chao Shao-an was recognized as one of the second generation masters of the Lingnan School and his teacher was:
- (a) Gao Qifeng
 - (b) Yang Shensum
 - (c) Chen Shuyan
7. Chao Shao-an had studied in Japan and formed the following school after returning to China:
- (a) the Lingnan Art Studio
 - (b) the New Asia College
 - (c) the Society of Chinese Painting and Calligraphy
8. According to Chao Shao-an, sketching from life was an important step to the understanding of subject matter in nature, therefore his paintings are characterized by:
- (a) capturing both the forms and spirits of the subject matter in a vivid and lively manner
 - (b) exaggerated form with special emphasis on the forceful spirit of the subject matter
 - (c) abstract style with spontaneous application of colors
9. The main objective of writing related poems in the paintings of Chao Shao-an is:
- (a) to express the wishes and ideas of the artist
 - (b) to convey the spirit of the society at that time
 - (c) to improve the overall composition of the paintings
10. Large scale screen paintings by Chao Shao-an are rare and one of this kind such as “Banana Tree” is characterized by:
- (a) limited application of colors and ink
 - (b) spontaneous application of brushstrokes
 - (c) untraditional subject matters

Post-Visit Questionnaire

(Questions 1 to 10 are the same as those in the Pre-Visit Questionnaire.)

Other Questions:

11. Do you find the exhibits useful in helping you to learn the characteristics of Chinese painting of the Lingnan School? (Yes/No) If yes, can you state some characteristics of the Lingnan School?
12. Was there anything in this gallery that particularly interested you to learn more about the Lingnan School? (Yes/No) If yes, can you give some examples?
13. Was there something new that you learned here? (Yes/No) If yes, can you give some examples?
14. Do you feel this exhibition can help to enhance your ability in art appreciation? (Yes/No) If yes, can you give some examples?
15. Do you find the information given on the labels and the text panels useful in understanding the exhibits? (Yes/No) If no, can you suggest ways to improve them?
16. Do you find this museum visit can meet your expectation? (Yes/No) If no, can you suggest ways to improve them?
17. How many time(s) do you visit local museums in one year? What are the top three activities you do during your leisure time besides visiting museums?

Name of student: _____ Sex: ____ Age: ____ Total score: _____