〈Research Article〉

Measuring Participants' Satisfaction of a Workshop:
A preliminary case study of fossil workshop at Mizuta Memorial Museum

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Abstract

In order to measure the degree of participants' satisfaction in a fossil workshop and to examine what key factors may affect potential repeating visitors, a questionnaire survey was conducted at the university's museum as a case study. The fossil workshop targeted elementary school children, but the respondents of the questionnaire were their parents or grandparents. In five domains (information service, staff service, program, facility, and museum value), the total mean score of the program was the highest value. In addition, what makes the respondents repeating visitors to the museum was discussed.

Keywords: museum, participants' satisfaction, repeating visitor

1. Introduction

A museum is a place where historical, cultural, scientific, and artistic objects are exhibited. The visitors are made familiar to them. It has a wide variety of functions: (1) it is utilized as a public educational place for local people – many educational programs and events such as study group, seminars, and workshops are conducted at the museum; (2) a museum is regarded as an important tourism resource of a destination area, and is sometimes considered as one of the main attractions drawing tourists into the city; (3) a museum plays a significant role in explaining a destination's heritage for both local people and tourists (McManus, 1993; Gil & Ritchie, 2009). As Tufts and Milne (1999) pointed out, many studies about museum and urban development, which focus on the attraction of tourists, and the characteristics and behavior of visitors, have been conducted in the past.

However there is little research that focuses on visitors' satisfaction and the contents of the program held in the museum even though many studies related to activation of the museum or regional development are conducted. Goulding (2000) also pointed out that it is necessary to take account of the voices of the visitors to museums themselves. A fossil workshop in Mizuta Memorial Museum

introduces active learning, which is a process whereby students engage in an experience-based program aimed at 'listening, watching, touching, and thinking.'

This paper measures the degree of participants' satisfaction in a fossil workshop at Mizuta Memorial Museum as a case study and examines what key factors may affect potential repeating visitors. The fossil gallery, Mizuta Memorial Museum, has been open in Kioicho Campus of Josai University Educational Corporation since April 2013. The results help to understand not only what makes participants satisfied with visiting the museum, but also the analysis of the museum's activities and operations. Moreover, studying participants' satisfaction relates not only to increasing the number of visitors to the museum and to understanding visitor motivations, but also leads to promoting local economic revitalization in the area surrounding the museum.

In addition, the results of this paper will assist museum managers who must consider the experiences of visitors, and anticipate the customers' needs and wants, because failure to deliver appropriate experiences to visitors can lead to visitors' dissatisfaction and the commercial flop of a museum. Therefore, it is important to understand visitors' satisfaction and potential visitors' demands. Satisfied visitors are returning visitors (Rowley, 1999), understanding the actual motivation helps to know a realistic evaluation of the attractiveness of museums (Jansen-Verbeke & Van Rekom, 1996).

This paper consists of 7 sections; introduction, literature review, methodology, results, discussion, limitation and future research, and reference.

2. Literature review

As stated in the introduction, museums are a popular component of the attraction base and tourism resource of a destination area (Harrison, 1997). There are some research papers which focus on the museums as tourism attractions. Those research papers were written from the perspective of social, cultural, educational, economic, and visitor's aspects.

Kotler (2001) emphasizes the possibility of the museum in the tourism sector, describing the characteristics of the museums. Museums give visitors not only sociable, recreational, and participatory experiences, but also offer them cultural tourism. In order to clarify the characteristics of museums, Prentice (1994) conducted interviews, using three samples of British residents. The results of the study showed that museums are regarded primarily as educational attractions, but also as sources of viewing pleasure offering information.

Some of the research papers related to the museums show that the museums bring about positive economic impact as in other forms of tourism.

Kawashima (1998) describes that publicly-financed museums have been less exposed to market principles, but museums play an important role in the local economy because they can attract tourists.

She emphasizes that a lot of museums have invested in improving the visitors' experience, enhancing the quality of museum visits, due to the heavy competition in tourism market. Plaza's study (2000) proved that museums bring about economic effects. He researched the economic impact of the Guggenheim Museum Bilbao (GMB), Spain through the number of visitors and overnight stays. The research showed that the museums played a significant role in attracting tourists and providing economic impacts in the local area.

In addition, some of the research papers focus on the visitors' motivation and satisfaction at the museums. Del Chiappa, Ladu, Meleddu, and Pulina (2013) investigated the factors that affect participants' satisfaction. The results revealed that demographic profiles such as nationality, gender, and education play an important role in visitors' satisfaction. Chiappa et al. researched visitors' satisfaction from the perspective of socio-demographic characteristics, motivations, and visit experience, and did not focus on the contents of the program. Little is known about how the contents of programs are related to visitors' satisfaction and about what makes visitors revisit the museum. Tobelem (1998) pointed out the importance for the investigation of consumers' motivation, satisfaction, and loyalty from an economic, management, and marketing perspective. Also, the role of the museum interpreters is also important because they stimulate interest and help visitors understand the resources of the museum (Beeho and Prentice, 1995). However, those research papers focus on the visitors' motivation and satisfaction, and not on the activities such as workshop or seminar held at museum. As stated in previous studies, participatory experience the museums can offer is unique and is what visitors are looking forward to.

Therefore, this paper focuses on the degree of participants' satisfaction in a fossil workshop and on what key factors may affect potential repeating visitors.

3. Methodology

3. 1 Overview

The Fossil Gallery at Josai University Educational Corporation opened in April 2013. The gallery has over 300 specimens, all of which are from the Mid-Cretaceous period, approximately a hundred million years ago. The inaugural exhibition features Earth's life and atmosphere from one hundred million years ago, and provides lectures and workshops for students and residents of the surrounding communities in the center of metropolitan Tokyo.

In the past, the gallery has held many fossil workshops, and about 400 children attended those workshops. From July 31st to August 5th and August 21st to 26th in 2015, the gallery held a workshop mainly for elementary school children, with support from the Chiyoda Board of Education.

The workshop adopted active learning, which mainly focuses on the children's experience during

the program – at "listening, watching, touching, and thinking" in order to discover, make an impression, and enlighten education.

The three hour long workshop consisted of four activities: “The Fossil Gallery Quiz Tour,” “Adding Up to 100 Million Years,” “Let's Dig Up Fossils,” and “Let's Learn About the Names of Fossils.” In “ The Fossil Gallery Quiz Tour,” elementary school children observed the fossils on display in the gallery to determine things such as what sort of foods the animal ate, how they obtained their food, and the animal’s level of intelligence. “Adding Up to 100 Million Years,” demonstrates that the vast majority of fossils on display in the gallery are approximately 100 million years old. “Let's Dig Up Fossils” explained how fossils are often contained in rocks called "nodules." Most of the fossils exhibited in the gallery were discovered in nodules. In “Let's Learn About the Names of Fossils,” elementary school children sketch 95 million year old fossils and use the gallery's mineral encyclopedia to attempt to identify the fossilized animals.

The target population in this paper consists of elementary school children, but the decision to visit the museum was made by their parents or grandparents.

3. 2 Data collection

The questionnaire is divided into two parts. The first part includes demographic information regarding respondents' background such as gender, age, residence area, occupation, educational background, transportation, frequency of visits, and information gathering. The second part is to examine their satisfaction of the fossil workshop. This part asks about information service, staff service, program, facility, and museum value, and is measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (highly agree). These items are based on a literature review dealing with visitors' satisfaction (Del Chiappa, G., Ladu, M. G., Meleddu, M., & Pulina, M., 2013).

The fossil workshop was held in two different sessions. One was held for 6 days from July 31st to August 5th, and the other was held for 6 days from August 21st to 26th in 2015. Researchers distributed questionnaires directly to the respondents during the fossil workshop. During the workshop, researchers collected 215 completed questionnaires, of which 188 questionnaires were usable for our analysis. Reasons for the elimination of these questionnaires from the analysis included partially incomplete answers.

3. 3 Data analysis

Data analysis was conducted in three steps. First, descriptive statistics of demographic factors were analyzed. Second, descriptive statistics of participants' satisfaction of the fossil workshop was analyzed. Finally, stepwise regression was conducted using thirteen factors to see which factors of participants' satisfaction relate to the increased chance of producing repeating visitors to the museum. The question,

"I would like to have my child attend fossil workshop next year" was treated as an independent variable, while the other twelve factors were treated as dependent variables.

4. Results

4. 1 Characteristics of respondents

The demographic profiles of the respondents are shown in Table 1. The gender composition of the respondents was 78% female and 22% male. More than half of the respondents (65%) were in the 40-49 age range. Also, 29% of the residents were in the 30-39 age range. Concerning the resident area, 45% of the respondents were 'within Chiyoda ward' and 42% of them were 'in Tokyo', while 13% of them were 'outside Tokyo'. Therefore, almost 90% of the residents live in Tokyo.

Concerning the occupation of respondents, 43% of the respondents classified themselves as 'full-time homemaker'. The second highest was 'company employee' (28%) and the third ones were 'family-oriented business' (10%) and 'part-time job' (10%). Other items, 'government employee', 'primary school teacher', 'junior high school teacher' and 'other' were 5%, 1%, 1%, and 4% respectively. Many of the respondents' occupations were 'full-time homemaker' and 'family-oriented business' which entail flexibility.

Regarding educational background, the majority of the respondents (55%) graduated from university. The second highest was 'junior college' (17%) and the third one was 'graduate school' (15%). Other items, 'high school' and 'vocational school' were 5% and 8% respectively. Those who have more than a bachelor's degree account for 70% of the respondents.

Multiple answers were allowed in the transportation section in the questionnaire. 72% of the respondents used 'walking' and 18% of the respondents used 'train'. In the frequency of visits to the fossil gallery section, 79% of the respondents were first time visitors, while the percentage of the second time visit went down to 16%. Even though respondents used a train, route bus, or other, there is no way to get to the museum except by walking, so many of the respondents chose 'walking' as transportation. 10% of respondents answered 'other' and might have used their own car, bike, bicycle, or taxi to get to the museum.

Concerning information gathering, 60% of the respondents had obtained the information regarding the fossil workshop from the 'leaflet/poster'. The 'leaflet/poster' was distributed to Chiyoda Public Library, Chiyoda ward office, elementary school at Chiyoda ward and so on. The second one was 'official site' (18%) and the third one was 'word-of-mouth from family, a friend, an acquaintance' (15%). 13% of the respondents answered 'other' so they received the information from sources besides those listed. Other items, 'official twitter,' 'newspaper/advertisement,' 'Chiyoda Public Library Information Magazine,' 'Chiyoda City Tourism Association Official site' were 1%, 1%, 2%, and 2% respectively.

Table 1: Demographic Information of Respondents (n=188)

Variables	Frequency (n)	Percent (%)
Gender		
Female	147	78
Male	41	22
Age		
20-29	1	1
30-39	55	29
40-49	122	65
50-59	7	4
60 and over	3	2
Resident area		
Within Chiyoda ward	85	45
In Tokyo	79	42
Outside Tokyo	24	13
Occupation		
Company employee	52	28
Government employee	10	5
Primary school teacher	1	1
Junior high school teacher	1	1
High school teacher	0	0
Family-oriented business	18	10
Agriculture, fishing industry, or forest industry	0	0
Part-time job	18	10
Full-time homemaker	80	43
Other	8	4
Educational Background		
High school	9	5
Vocational school	15	8
Junior college	32	17
University	103	55
Graduate school	29	15
Transportation (Multiple answers allowed)		
Walking	136	72
Train	34	18
Route bus	15	8
Other	18	10
Frequency of visit		
First time	148	79
Second times	30	16

Variables	Frequency (n)	Percent (%)
Third times	8	4
More than Fourth times	2	1
Information gathering (Multiple answers allowed)		
Official site	34	18
Official twitter	2	1
Leaflet/poster	112	60
Newspaper/advertisement	1	1
Chiyoda Public Library Information Magazine	3	2
Chiyoda City Tourism Association Official site	4	2
Other SNS (facebook, twitter)	0	0
Word-of-mouth from family, a friend, an acquaintance	29	15
Other	24	13

4. 2 Measurement of participants' satisfaction

Table 2 presents the descriptive analysis of the 13 items used to measure participants' satisfaction for five domains: "information service," "staff service," "program," “facility," and "museum value." Each item was measured on a five-point Likert scale with 1 representing 'strong disagreement' and 5 representing 'strong agreement’; 3 represented the midpoint value.

In terms of "information service," 'Q1 Through the website or leaflet/poster, I had good knowledge about this fossil workshop before today (M = 3.69). Another item, 'Q2 I prefer a phone call over an email when I make an application', received lowest mean score of 1.80 in the questionnaire. Moreover, this item showed large standard deviation value (SD = 1.025). The mean score showed that many respondents tended to use an email instead of a phone.

Regarding "staff service," the higher mean score was 'Q4 I'm satisfied with the staff service at application or inquiry' (M = 4.22). While the lower one was 'Q3 I prefer a lottery to a first-come-first-served basis in case of being fully booked up' (M = 2.25). This item is highest standard deviation value (SD = 1.126) in all items. This time, the staff adopted a first-come-first-served basis in fossil workshop. The mean score showed that most of the respondents are willing to continue an existing channel.

Concerning "program," total mean score was the highest value in 5 domains. 'Q7 I think that the program was meaningful for my child' (M = 4.81) was the highest value in all items. Most of the children's parents and grandparents think that the program conducted in the fossil workshop produced significant educational benefits. Other items, 'Q5 Instructors' explanation was easily comprehensible,' 'Q6 The experience program aimed at 'listening, watching, touching, and thinking' was effective' received high mean scores of 4.67 and 4.75 respectively. Instructors are well trained and have

experienced many fossil workshops for elementary school children. This program is divided into 4 categories: history such as geological age, hands-on learning in collecting and sampling of fossil, and observation method. The participants of the fossil workshop were challenged to break a rock with a hammer to find a fossil. The fossils are 450 million years old. The participants can bring the fossils back home.

For "facility," the three items, 'Q8 Fossils exhibited in museum was attractive', 'Q9 Description of each fossils was easily comprehensible', and 'Q10 The participation fee was reasonable' received mean satisfaction scores (M) of 4.61, 4.31, and 4.52 respectively. The exhibition consists of over 80 fossils with the exhibition panels and the video. The description is written in Japanese and English and is also readable even for children. To cover the cost of educational materials such as the fossils, the participants pay 1,000 yen for the fossil workshop.

Concerning the factor of "museum value," the highest evaluated item was 'Q13 I would like to have my child attend a fossil workshop next year' (M = 4.60). Other highly evaluated items, 'Q11 I will recommend the museum to my family, friends, and acquaintances' and 'Q12 I gained an understanding about Josai University Educational Corporation through the fossil workshop held in the museum', produced mean scores of 4.5 and 4.36 respectively. These two items, Q11 and 'Q13 are directly connected to the possibility of producing repeating visitors.

Table 2: Measurement of respondents' satisfaction to the fossil workshop held in the museum

	Question items	Mean	SD
Domain 1: Information service			
Q1	Through the website or leaflet/poster, I had good knowledge about this fossil workshop before today.	3.69	0.847
Q2	I prefer a phone call over an email when I make an application.	1.80	1.025
Domain 2: Staff service			
Q3	I prefer a lottery to a first-come-first-served basis in case of being fully booked up.	2.25	1.126
Q4	I'm satisfied with the staff service at application or inquiry.	4.22	0.719
Domain 3: Program			
Q5	Instructors' explanation was easily comprehensible.	4.67	0.504
Q6	The experience-based program aimed at 'listening, watching, touching, and thinking' was effective.	4.75	0.434
Q7	I think that the program was meaningful for my child.	4.81	0.395
Domain 4: Facility			
Q8	Fossils exhibited in museum were attractive.	4.61	0.550
Q9	Descriptions of each fossil were easily comprehensible.	4.31	0.709
Q10	The participation fee was reasonable.	4.52	0.682

	Question items	Mean	SD
Domain 5: Museum value			
Q11	I will recommend the fossil workshop to my family, friends, and acquaintances.	4.50	0.542
Q12	I gained an understanding about Josai University Educational Corporation through the fossil workshop held in the museum.	4.36	0.617
Q13	I would like to have my child attend a fossil workshop again next year.	4.60	0.562

4. 3 Multivariate Regression

A stepwise regression was conducted by treating, 'Q13 I would like to have my child attend fossil workshop again next year' as a dependent variable among 13 items regarding the participants' satisfaction. Other 12 items are regarded as independent variables.

The T-value of 'Q11 I will recommend the fossil workshop to my family, friends, and acquaintances' is 10.86, showing that the respondents are, in more than 95% probability, positively inclined to recommend the fossil workshop in their family, friends, and acquaintances because the T-value is more than 2.

The T-value of 'Q6 The experience-based program aimed at "listening, watching, touching, and thinking" was effective' is 5.59, showing that the respondents are, in more than 95% probability, positively inclined to think the experience program was effective because T-value is more than 2.

T-value of 'Q12 I gained an understanding about Josai University Educational Corporation through the fossil workshop held in the museum' is 3.22, showing that the respondents are, in more than 95% probability, positively inclined to understand about Josai because T-value is more than 2.

T-value of 'Q7 I think the program was meaningful for my child' is 2.07, showing that the respondents are, in more than 95% probability, positively inclined to think that the program was meaningful because T-value is more than 2.

R-squared adjusted showed the possibility of the advocate. For Q11, the results showed 38.46% in total number of samples even in simple regression. Moreover, adding one more independent variable such as Q6, the results showed 47.07% in the total number of samples. In addition, adding two more independent variables such as Q12 and Q7, the results showed 50.52% in the total number of samples and finally obtain a majority in respondents. The results revealed that there are positive correlations between the dependent and independent variables.

Table 3: Stepwise Regression: Q13 versus Q1 to Q12

Step		1	2	3	4
Constant		1.6965	0.3590	0.2374	-0.1027
Q11	I will recommend the fossil workshop to my family, friends, and acquaintances.	0.645	0.483	0.403	0.389
T-Value		10.86	7.76	6.14	5.94
P-Value		0.000	0.000	0.000	0.000
Q6	The experience-based program aimed at 'listening, watching, touching, and thinking' was effective.		0.435	0.369	0.239
T-Value			5.59	4.69	2.38
P-Value			0.000	0.000	0.000
Q12	I gained an understanding about Josai University Educational Corporation through the fossil workshop held in the museum.			0.183	0.174
T-Value				3.22	3.08
P-Value				0.002	0.002
Q7	I think the program was meaningful for my child.				0.22
T-Value					2.07
P-Value					0.039
S		0.441	0.409	0.399	0.395
R-Sq		38.78	47.64	50.44	51.57
R-Sq (adj)		38.46	47.07	49.63	50.52
Mallows Cp		43.6	12.7	4.3	2.1

5. Discussion

The researchers discuss three topics in order: demographic profiles, visitors' satisfaction, and repeating visitors. Concerning demographic profiles, female respondents as parents and grandparents account for about 80% of the respondents in ratio of male to female. The results show that full-time homemakers account for about 40% of the respondents, so the respondent rate of female is high.

Regarding the age, 30's and 40's account for about 70% of the respondents, while only 2% of the

respondents were in their 60's. There is a possibility that children's grandparents participated in the fossil workshop. About 90% of the respondents live in Tokyo, so the results showed that most of the participants were from Tokyo. In order to increase the number of the participants, a bulletin should be put out to surrounding prefectures such as Chiba, Kanagawa, or Saitama. These capital cities are within 45km from the museum. The museum is conveniently located in terms of public transportation because there are three subway stations, Nagatacho, Kojimachi and Hanzomon Station, near the museum. Even those who live in the capital city of Chiba, Kanagawa, or Saitama prefecture can easily come to the museum because the museum is conveniently located and the public transportation fare to the museum is comparably low.

Concerning transportation, there is no way to get to the museum without walking even if the respondents used other means of transportation. About 70% of the respondents answered 'walking' in addition to other means of transportation. 45% of the respondents live within Chiyoda ward, so it is possible for their neighbors to take part in the fossil workshop.

About 80% of the respondents first visited the museum to attend the fossil workshop. The percentage of the respondents who have visited the museum twice or more than three times goes down as low as 20%. The results show that the likelihood of revisiting the museum is very low.

Regarding the respondents' educational background, 70% of the respondents graduated from undergraduate or graduate school. According to the International Association for the Evaluation of Educational Achievement (IEA), elementary school children tend to be disinterested in science in Japan, but it seems that the respondents value education for their children, or that respondents might be interested in such a fossil workshop. The respondents might have known that their children were disinterested in science, so they might have taken their children to the fossil workshop to get them to become interested in science.

Regarding information gathering, the leaflet/poster was the most effective tool in distributing information, 60% of the respondents received the information from the leaflet/poster. 18% of the respondents received the information from the official site of the museum, and also 15% of the respondents received the information by word of mouth. The effect of the word of mouth was as effective as the official site, so the results showed that the effect of the word of mouth was highly evaluated. In this research, the leaflet/poster was the most effective tool, but it is fairly costly, compared to other tools.

In terms of respondents' satisfaction to the fossil workshop, we conducted a questionnaire survey in 5 domains (information service, staff service, program, facility, and museum value). The results showed the 'program' was evaluated the highest domain out of the five domains. The most evaluated item was 'Q7 I think that the program was meaningful for my child' (M = 4.81), so the results tell that the respondents were satisfied with the program. Since not only the children, but also their parents or

grandparents took part in the program, it is also necessary to have adults satisfied with the program.

The experience based program can include not only children, but also their parents or grandparents. The second highest item was 'Q6 The experience program aimed at "listening, watching, touching, and thinking" was effective' (M = 4.75), so the experience based program shows a high degree of satisfaction. Moreover, instructors make the respondents' degree of satisfaction higher because they specialize in fossils and are well trained in instructing people of all generations. The item, 'Q5 Instructor's explanation was easily comprehensible' was the third highest one in all of the items.

For 'facility', three items, 'Q8 fossils exhibited in museum was attractive', 'Q9 description of each fossil was easily comprehensible', and 'Q10 a participation fee was reasonable' were highly evaluated. The participants can bring back the fossils in the fossil workshop. The participation fee is mainly the cost of fossil. That the participation fee was reasonable was highly evaluated, too.

Regarding the 'museum value, 'Q11 I will recommend the fossil workshop to my family, friends, and acquaintances' and 'Q13 I would like to make my child attend fossil workshop next year' recorded more than 4.5. Even though a mean of 'Q 12 I gained an understanding about Josai University Educational Corporation though the fossil workshop held in the museum' (M = 4.36) was slightly lower than other two items, the domain, 'museum value' was also highly evaluated as a whole.

On the other hand, 'information service' and 'staff service' have a low rating, compared to other domains. Regarding 'information service,' a mean score was 3.69, so the leaflet/poster or official site was not enough to receive the information for respondents. Moreover, respondents prefer an email over a phone call when they put in an application because email applications can be submitted 24 hours a day and are very convenient. Concerning 'staff service,' 'Q4 I'm satisfied with the staff service at an application and inquiry' was highly evaluated, but the respondents obviously prefer a first-come-first-served basis to a lottery at an application.

In addition, the results indicate low probability of repeating visitors to fossil gallery in the questionnaire survey. Therefore, the researchers used a stepwise regression to clarify which items should be satisfied and are positively correlated with Q 13. The results revealed that Q11, Q6, Q12, and Q7 were positively correlated with Q13, that is, it is effective to make respondents at least satisfied with these 4 items, in order to make the respondents attend the fossil workshop.

In conclusion, the experience-based program aimed at “listening, watching, touching, and thinking” was evaluated the most in the fossil workshop. In addition, what makes the respondents repeating visitors is making them feel familiar with the university, to maximize educational effects through the fossil workshop, and to make them spread the word about the fossil workshop's reputation.

6. Limitations and next research

This paper examined the degree of participants' satisfaction at a fossil workshop at a university museum and the key factors that may affect potential repeat visitors. However, this paper has some limitations. Since elementary school children cannot go to the museum alone and are too young to answer the questionnaire, the respondents of the questionnaire were elementary school children's parents or grandparents. Therefore, there is no certainty that the children were satisfied with the fossil workshop as much as their parents or grandparents. If we directly ask the children about the fossil workshop, we might be able to research their satisfaction in more detail. There might be programs that children were disinterested in during the fossil workshop even though their parents or grandparents were fully satisfied with the programs.

In the results of the questionnaire, the program of the fossil workshop was the highest, so it is required to assess the program by itself in future research and figure out which programs were considered most interesting. It is hoped that this paper will introduce researchers to the means of measuring participants' satisfaction and understanding the factors behind producing repeat visitors.

7. Reference

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ワークショップにおける参加者の満足度調査：
水田記念博物館の化石ワークショップを事例に

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【要旨】

本研究では、ワークショップにおける参加者の満足度を図ること、そして訪問者がリピーターとなるにはどの要素が影響を及ぼしているのかを検証するために、大学内の博物館を事例にアンケート調査を実施した。ワークショップ参加者は小学生が対象であったが、アンケート調査の回答者は小学生の付き添いとして来た成人家族（父母・祖父母）を対象とした。情報サービス、スタッフ・サービス、プログラム、施設、博物館の価値の 5 領域で行った調査では、プログラムへの満足度が最も高かった。また、本研究では、博物館への再訪問における要素についても議論している。