Motivation and Information Needs of Art Museum Visitors: A Cluster Analytic Study

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Introduction

Information about visitors gathered through surveys can be developed in a number of different ways. Most front-door or within-the-museum surveys are intended to describe the kinds of people who are visiting the museum. Increasingly, there is interest in developing visitor surveys that are more sophisticated at revealing information about the visitor. These interests include measuring visitor preferences and expectations (such as those in marketing studies). Visitor motivation is also being studied to measure reasons for visiting the museum (as compared to other kinds of leisure time settings) and the importance visitors place on different kinds of experiences gained from their visits. Surveys designed to assess visitor motivation should lead to a conceptual typology about visitors that can be useful in planning for the development of new exhibits and programs or for changing existing galleries.

One typology that is suggested by marketing and leisure science research is the level of interest or commitment visitors have to the museum. This typology can be objectively defined by the rate of use or frequency of visits: more highly committed visitors visit more frequently; lower commitment is associated with fewer visits. Hood (1983) found that frequency of visits was a useful indicator in developing a typology of expectations for different kinds

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1 Research summarized in this paper was supported in part by grants from the J. Paul Getty Trust and the National Endowment for the Arts awarded to the Denver Art Museum, Patterson Williams, Project Director.
of art museum visitors. In particular, she found that less frequent visitors were more concerned than frequent ones in having a social and recreational experience and feeling comfortable in the physical setting. Frequent visitors valued experiences such as having the opportunity to learn, the challenge of a new experience, and coming away with a sense of doing something worthwhile. Dixon, et al. (1974), in an extensive survey of the Canadian museum visitor, discovered that level of visitor commitment could be associated with such things as how visitors felt about the interpretation they found in a museum. Infrequent visitors tended to be more critical than frequent ones about how useful exhibit labeling and orientation was to them and they felt that it was hard to understand the exhibits they were visiting. A similar conclusion about infrequent visitors was made by Klein (1978) in West Germany who found that people who seldom visited museums perceived barriers to making a museum part of their leisure time experience. In particular, they saw the museum as a place they would not understand or feel comfortable in. Marketing researchers have also found visitor interest (as defined by amount of visiting) a useful concept in planning for audience development. For instance, Robbins and Robbins (1981) determined that visitors who attend a museum only from time to time were excellent targets for marketing efforts, since they already had some knowledge of and commitment to the museum and could be motivated to increase their commitment.

In their study of high, moderate, and low museum attendees, Robbins and Robbins (1981) found that about 65% of the sample was classified as having moderate interest, while the other two categories split the remaining percentage evenly. When Hood (1983) did a community-based survey in the Toledo metropolitan area, she found the high involvement rate was 14% of the community. Remember, this rate was for the community, not a sample of visitors coming through the door. Hood found 46% of the community sample to be nonvisitors to the art museum. This finding left 40% of her telephone respondents indicating some level of interest/involvement with the art museum. A recent report on the audience to the Museum of Modern Art concluded that 90% of those who visit should be considered non-experts in art (Yenawine & Richner, 1986).

This paper will describe results of a visitor survey conducted at the Denver Art Museum. It will emphasize how survey data can be analyzed to provide insights about visitors that go beyond the usual descriptive summaries of individual survey questions.

However, in order to gain those insights, analytic techniques must be used that combine results from individual survey questions that permit generalizations to be made across questions and subgroups of the survey sample. Cluster analysis is the technique utilized in this effort. There were two overall purposes for this survey. First, it was believed that some insights about visitor motivation (i.e., commitment and interest in art) would emerge
that could help guide a visitor research program that members of the Denver Art Museum staff were undertaking. Second, it was expected that some practical insights about visitor information needs would surface that could aid in planning more effective visitor orientation and interpretation in the re-installation of a number of galleries.

**Method**

**Subjects**

A survey of 1,012 visitors to the Denver Art Museum was completed during the spring and early summer of 1986. Visitor demographics in the sample reflect a typical art audience profile.

Visitors have above average levels of formal education, are concentrated in the 30 to 50 years of age group, include slightly more women than men, and come most often from the Denver metropolitan area, including suburbs and neighboring cities like Boulder. Spring and summer visitors to the Denver Art Museum may, however, include more out-of-state tourists as well as other Rocky Mountain region visitors than does the visitor population at other times of the year.

The demographics of the survey participants are generally consistent with the results of a national survey of audiences to cultural programs, including art museums, compiled by the *Statistical Abstracts of the United States* and reported in the *Rocky Mountain News*, November 12, 1989.

**Instrument**

The survey instrument was composed of Likert scales. The survey was designed to yield a basic description of visitors, including:

- who they were
- why they came to the museum
- what kinds of museum experiences they valued
- how they looked at art objects
- value of different kinds of orientation information
- value of different ways of presenting orientation information
- value of different kinds of exhibit interpretation and information
- value of alternate ways of presenting interpretation
- visitor interest, knowledge and involvement in art.

Tables 1 through 5 provide sample items for these categories. The complete survey is available from the authors.
### Table 1. Cluster 1: Art Involvement (N = 1,012)

<table>
<thead>
<tr>
<th>Name and Description</th>
<th># of Items</th>
<th>Sample Item</th>
<th>Cluster Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Art Involvement</td>
<td>3</td>
<td>In general, how would you rate your interest in art?</td>
<td>0.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low Moderate High Very High</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2. Cluster 2: Value Placed by Visitors on Art Experiences (N = 1,012)

<table>
<thead>
<tr>
<th>Visitor Experience Value</th>
<th>6</th>
<th>How important is it to you when in an art museum to have the opportunity to learn something?</th>
<th>0.75</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Not Somewhat Important Important Important Important</td>
<td></td>
</tr>
</tbody>
</table>

### Table 3. Clusters 3, 4, and 5: Value Placed by Visitors on Information for Planning, Physical Orientation, and Collection Information (N = 1,012)

<table>
<thead>
<tr>
<th>Visit Planning Orientation</th>
<th>5</th>
<th>How valuable would it be to have a preview of what you want to see?</th>
<th>0.72</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Not Somewhat Valuable Valuable Valuable</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Way-finding</th>
<th>5</th>
<th>How valuable would it be to have a floor plan to carry with you?</th>
<th>0.75</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Not Somewhat Valuable Valuable Valuable</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collection Information Aids</th>
<th>6</th>
<th>How valuable would it be to have a list of books and magazine articles relating to the exhibit?</th>
<th>0.80</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Not Somewhat Valuable Valuable Valuable</td>
<td></td>
</tr>
</tbody>
</table>

### Procedure

Initial versions of the survey instrument were pretested and modified as needed. The instrument was designed to be administered either as visitors exited or while a visit was in progress. Two sampling sites were selected, a primary site at the front entrance lobby and a secondary site on one of the upper floor gallery lobbies. This secondary site was selected, in part, to allow for some data to be collected during the course of a visit. Volunteers were trained to collect the surveys and were supervised by a museum staff...
Table 4. Clusters 6 and 7: How To Look at and Interpret Art (N = 1012)

<table>
<thead>
<tr>
<th>Name and Description</th>
<th># of Items</th>
<th>Sample Item</th>
<th>Cluster Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. How to Look at Art</td>
<td>6</td>
<td>How valuable would it be to you to have information about possible meanings of an art work?</td>
<td>0.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Interpretive Aids</td>
<td>4</td>
<td>How valuable would it be to you to have a seating area with films and videotapes?</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Table 5. Clusters 8 and 9: The Context of Art Objects (N = 1012)

<table>
<thead>
<tr>
<th>Name and Description</th>
<th># of Items</th>
<th>Sample Item</th>
<th>Cluster Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Historical Background</td>
<td>6</td>
<td>How valuable would it be for you to have information about the period in which an art work was created?</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Characteristics Visitors Want</td>
<td>4</td>
<td>How well does each statement describe you?</td>
<td>0.67</td>
</tr>
<tr>
<td>To Know About Art Objects.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>I like to know what experts think of art.</td>
<td></td>
</tr>
</tbody>
</table>

member. A sampling schedule of time blocks was drawn up to distribute data collection across the open hours of the museum and the days of the week. Late spring and early summer are periods of high visitation at the museum, with both local and out-of-town visitors available for sampling. Visitors were selected randomly within the sampling time blocks resulting in a "time-stratified," random selection sample.

The survey required 20-25 minutes to complete. There was 22% turnover rate with time constraints being the most common reason given for refusing to participate.

Analyses

While each of the questions included in the survey is interesting in its own right, a better sense of visitor motivation can be derived by looking at patterns of answers the visitor gave across the questions used in the total survey. In order to identify these patterns, responses to questions were analyzed using
a cluster analytic approach (TRYSYS, 1987). These patterns of visitor responses on groups of questions (clusters) can then be used to suggest different types or subgroups of visitors. Contrasts were then made among these subgroups in terms of visitor expectations, values, and reactions to art and to art museums. In addition, interpreting the underlying reasons for the various clusters can suggest more general topics and concepts that can be used in planning for the visitor and in future surveys.

Nine clusters were identified and will be described here. The clusters vary in internal consistency from .67 to .84. In future work it will be possible to add items that tap the same dimensions as those identified in these clusters. This will enhance reliability and strengthen the interpretations that can be made.

For convenience, we have organized the presentation of the clusters into four topics:

- Visitor involvement with art, which includes visitor interest, enjoyment and knowledge of art
- The value placed on different visit experiences
- Visitor orientation
- Interpretation and visitor experiences

Of these four topics, the first was used as a major organizer of the survey results because the level of visitor interest and involvement has emerged as a very important concept in other studies.

Results and Discussion

Visitor Interest and Involvement With Art

We are not surprised to discover that visitors' responses on their level of interest, knowledge, and enjoyment of art formed a cluster. The fact that these items came out as the first grouping in the analysis and with high cluster reliability (see Table 1) is confirmation of other research findings such as those of studies cited earlier. This cluster will henceforth be referred to as art

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2 A complete summary of the cluster data can be obtained by writing Ross J. Loomis, Ph. D., Dept. of Psychology, Colorado State University, Ft. Collins, CO 80523 and requesting the 1986 Denver Art Museum Survey Instrument and Cluster Analysis Summary. This summary also includes a copy of the survey instrument.

3 The cluster reliability number is called a Cronbach alpha reliability coefficient. This refers to the degree to which a person's response to one item in a cluster is consistent with responses to all other items that make up the cluster. Reliabilities range from 0 to 0.99. The coefficient of .84 obtained here reflects good consistency among our items; i.e., those who responded that they had high interest in art were also likely to respond that they enjoyed art very much and that they had moderate knowledge of it. Consistency also means that visitors with moderate interest and enjoyment of art tended to report a lower level of knowledge.
involvement. It includes the survey items on interest, enjoyment and knowledge of art. Visitors were divided into low, moderate, and high involvement by combining their scores on the three questions and applying logical cutoffs for each segment. For the total sample (N=1,012), the following breakout for low, moderate, and high groups was found⁴ (see Table 1):

- Low involvement: 9% (N=93) of the sample rated their interest, knowledge, and enjoyment as low to moderate.
- Moderate involvement: 85% (N=857) of the sample that their interest, knowledge, and enjoyment as moderate to high.
- High involvement: 6% (N=62) of the sample that their interest, knowledge, and enjoyment as very high.

An obvious comment about this breakout is the high percentage (85%) of visitors who rated their interest, knowledge, and enjoyment of art as moderate to high. Unfortunately, since the sample was collected during a limited time period of the year, it cannot be said how typical these percentages are for all visitors to the Denver Art Museum in 1986.

Our results for the involvement cluster are consistent with the outcome of other survey studies (e.g., Hood, 1983), in spite of some method and sample selection differences. Most visitors have moderate to high involvement in art, expect to enjoy the art they will see, and rate their knowledge about art as moderate to high. A small percentage falls on each side of this group. While only 6% of this sample, the importance of the high involvement group is suggested by the following:

- High involvement visitors are much more likely than low involvement visitors to have visited an art museum during the previous year. In fact, 69% of the high involvement segment reported seven or more visits, compared to 2% of the low segment. None of the high involvement visitors reported not visiting an art museum during the previous year, while almost half (46%) of the low involvement visitors reported that they had not visited an art museum during the previous year.
- High involvement visitors are twice as likely as low to have visited the Denver Art Museum during the previous year.
- Eighteen percent of the high involvement visitors are members of the Denver Art Museum, compared to only 1% of the low segment. Eleven percent of the moderate segment hold memberships.

⁴The relative sizes of these three visitor groups can vary somewhat, depending upon which survey questions are used in defining the groups.
In summary, the cluster analysis of these survey responses suggests that involvement level can be an important way to look at different groups of visitors. Figure 1 shows an example of a computer-generated diagram that represents clusters in a three-dimensional space. The three items of this cluster are shown close together and bounded by a circle. Note, however, that the computer program identified two other questions near the cluster which involved self-reported levels of collecting and making art. These two items were not included in the involvement cluster because they would have lowered its reliability. However, they are intuitively close to a concept of involvement with art. Eight other clusters were identified and will be discussed. While these other clusters are not directly indicative of visitor involvement, note will be made of visitor involvement levels as they relate to them.

The Importance Placed on Art Experiences
Cluster 2 (Table 2) deals directly with the motivational value of a visit experience and five of the six questions that made up this cluster were based on the work of Hood (1983). The fact that we also identified this dimension helps establish the validity of her work. All of these items deal with expectations about the value of different visit-related experiences:

- The importance of having opportunities to learn
- The worthwhile use of leisure time
- The value of new experience
- The importance of a contemplative experience (we added this to Hood’s list)
- The value of being comfortable in a setting
- The value of participating actively
This cluster underscores that visitors can have a variety of reasons for coming to the museum. They also vary in what they expect to experience in a visit. Hood discovered that how respondents in her sample answered these experience questions depended to a great extent on their level of involvement with an art museum. Our findings parallel some of her outcomes:

- High involvement visitors place much more value than low involvement visitors on opportunities to learn. Moderate involvement visitors also considered learning opportunities important and were more similar to the high than low segment for this experience.

- High involvement visitors were more apt than low involvement ones to place greater value on leisure activities that appear worthwhile, with the moderate involvement visitors being similar to visitors in the high segment.

- The high segment considered the challenge of new experiences to be of great value. Low involvement visitors give this low ratings, and the moderate segment falls in between the two other groups.

- Also consistent with Hood's study, the high segment valued both being comfortable in a leisure setting and the opportunity for active participation. What is unexpected from Hood's results, is that our low and moderate segments did not put a higher value on these two experiences than they do. Perhaps this difference is due to the fact that all of our sample was taken at the museum, while Hood sampled people in the community.

Another of Hood's leisure time experience questions should be mentioned even though it did not show up in our experience cluster: she found that shared social experiences with family and/or friends was frequently mentioned as a major motive for going to a museum. Furthermore, this attribute was apt to be valued more highly by those persons less interested in art or committed to attending art museums. While not a strong trend in our sample, low and moderate segments valued the social aspects of museum visitation more than visitors in the high segment. In addition, visitors in our survey were asked to indicate their reasons for coming to the museum. Low involvement visitors most often mentioned doing something with family and friends as a primary reason, while both moderate and high segments indicated exploring collections as the primary reason for coming to the museum.

For the question that we added (asking visitors to indicate the importance of contemplative experience), we found high involvement visitors consid-
ered this experience much more important than the low sample segment, with the moderate group again being more similar to the high segment.

Visitor Orientation

Visitors were asked a number of questions about orientation aids—i.e., information that would help them understand the museum’s environment and collections. Such information helps the visitor complete a successful visit, and makes the museum more accessible to those who use it.

Three clusters form around orientation questions (Table 3):

1. Visit planning (Cluster 3),
2. Way-finding aids (Cluster 4), and
3. Collection information aids (Cluster 5).

The last cluster could be considered part of exhibit interpretation. In fact, visitor orientation involves not only information about the environment, but also the conceptual basis of collections and exhibits.

Visit Planning. Visit planning orientation brings together topics like previewing things to be seen, suggestions for getting the most out of a visit, lists of objects on display, and specific information on objects popular with families. Note that one of the questions asked visitors to rate the importance of having an orientation area for each exhibit. Cluster 3 confirms the importance of anticipating the kinds of information visitors need to make decisions about their visit. Orientation information should be included at the entry area of the museum and/or entrances to individual exhibits.

All three involvement levels (low, moderate, high) considered exhibit orientation areas important. There were no discernible differences among the three levels. Two other questions in cluster 3 did discriminate among involvement levels. Low involvement visitors valued previews of what could be seen and information for families more than the other two levels. Once again, moderate level visitors answered more like the high interest visitors than low.

Way-finding Aids. Physical or building orientation aids for finding your way around include floor plan maps that can be carried, wall maps of galleries, information about the gallery layout, places to sit down and make decisions,
and a phone line for questions that visitors might have. All of these features emphasize that a museum is a series of physical spaces that require exploration in order to find your way about.

Of the five questions in cluster 4, only one (the value of explanations of physical gallery spaces), revealed differences among the three involvement levels. Both low and moderate levels attached slightly more importance than high involvement visitors to way-finding aids.

Collection Information Aids. A broad range of questions centering around background information made up cluster 5. Included were lists of books and articles related to exhibits, information on collection highlights, information related to objects recently added to the collection, background on countries of origin for the art, information that conveyed key ideas and themes, and a general item about the value of listings of community and museum events related to exhibits. Visitors were asked to rate how valuable it would be to have these different aids in an exhibit orientation area. The fact that these six items did cluster together emphasizes the significance of exhibit and/or collection background information for museum visitors. Four items discriminated among the audience involvement levels. These were rated more valuable by the high segment than the low. Responses of moderate involvement visitors were closer to the high group, but always fell between the high and low segments.

The four discriminating items were bibliographical sources such as books listing community and museum events, information on new objects, and information on key exhibit themes. For these four items, high involvement visitors followed a fairly predictable pattern of simply being more interested than others in information about collections and exhibits.

Interpretation and Visitor Experiences

The survey included a number of questions about visitor experiences with objects and exhibits as well as estimates of the value of different kinds of interpretive information and aids. Four clusters were identified around these topics (Table 4): information on how to look at art (Cluster 6), interpretive aids
(Cluster 7), historical background for viewing art (Cluster 8), and characteristics visitors want to know about art objects (Cluster 9).

**Information on How to Look at Art.** Six items described different kinds of information that would help visitors look at art. These included: general and specific suggestions for looking at a work of art, how experts judge quality in art, possible meanings of art work, and technical discussions of elements like color and shape. Visitors sampled did value information that helped them look and explore art in a more informed manner. There were no significant differences in how the three involvement levels answered five of these six items. Only the question about formal elements (color and line) discriminated between involvement levels, *viz.*, high and moderate involvement visitors showed greater interest in this kind of information.

**Interpretive Aids.** Visitors were aware that some kinds of interpretive aids could expand the available information beyond traditional exhibit labels. This cluster emphasized alternative interpretation aids, such as audiovisuals. The four items in cluster 7 included the value of seating areas with films or videotapes, introductory videotapes or films, carry-along tape-recorded tours, and seating areas with books and exhibit catalogues. In general, moderate and high involvement visitors valued these aids more than low involvement visitors. This was best shown in the ratings of seating areas with books or audiovisual presentations. Perhaps as involvement with art and the museum grows, visitors will be more likely to commit the time and effort it takes to use supplementary interpretive aids.

**Historical Background for Viewing Art.** Cluster 8 (Table 5) is similar to collection information (Cluster 5). Visitors prefer background information that provides a historical context for viewing art. Such information includes the historical period of the artist, the place of the objects in art history, information about how the objects were made and used, and geographic information on where the collection was formed.
Only three of the items in cluster 8 differentiated among the three levels of involvement. High involvement visitors placed more value than the others on information about the period of the work, background on the artist, and the place of the art work in art history. Moderate involvement visitors were again in the middle in their ratings of the value of this information.

**Characteristics Visitors Want to Know about Works of Art.**

Cluster 9 (Table 5) consisted of four items that asked visitors to rate their individual approaches to experiencing art. In these self-ratings, visitors rated how much they liked to focus on details of an art work, to know what the artist meant by the art, to know what experts thought about the work, and to have information about the background of the artist and work. These items were based on the writings of Williams (1984) and reflect visitor self-perceptions about the way they interact with art objects.

Two of the four items separated high involvement visitors from others. The high segment were much more apt to rate background knowledge of the artist and work as more important to them when interacting with art works; also their need to focus on the detail of the art work, such as color or texture. While it is tempting to think that such information helps the more general audience, these findings suggest that such information is appreciated more by the committed visitor.

**Summary**

Performing a cluster analysis on an extensive visitor survey permits us to highlight some important points that might not be obvious if we analyzed each question by itself. Some of the points that can be made from this study include:

1. The level of visitor involvement with art and visiting an art museum is important. The involvement cluster confirms that looking at differences and similarities between involvement levels of different audience segments is a significant way to study the visitor. Museum audience segmentation and targeting is a very popular research topic at the present time. This study
supports the value of the extensive work the Denver Art Museum staff has been doing on probing in-depth distinctions between the art novice and lay expert visitors (see, for example, McDermott, 1988).

(2) The work of Hood (1983) on defining visitor expectations about visiting a museum is an important adjunct of audience segmentation research. Our results support her work for the most part, especially in light of different survey sample bases (i.e., museum versus in the community). Higher involvement visitors are more likely to see a number of benefits from visiting, such as opportunities to learn and to experience new challenges. Lower involvement visitors are more likely to perceive the visit as a recreational experience and place a higher value on social factors such as a chance for the family to be together. More research needs to be done on visitor expectations and motivation.

(3) High involvement visitors are more apt than low to value a wider array of orientation and interpretation aids as well as other kinds of information, e.g., background information about the specific art they are experiencing. Moderate involvement visitors are more like high involvement visitors than low in most of the comparisons made in this study. However, the visitors sampled in the present study were all at the art museum, and would therefore be expected to have higher involvement with art than populations of non-art museum goers.

(4) There is a need for visit planning information, wayfinding information, and for at least some background information about exhibits and collections.

(5) As a minimum, interpretation aids should include information on the context that surrounds a work of art and on how to look at art works. Related to interpretation is the fact that the sample in this study identified interpretive aids like audiovisuals as a distinct entity. These need to be studied further to understand just how they influence visitors. Also in need of further
study is the way in which individual approaches to experiencing art influence visitors and their involvement with museums.

As a benefit to the staff of the Denver Art Museum, this analysis of survey results accomplished two purposes:

First, the strong showing of visitor involvement (cluster 1) supports current staff efforts at the Denver Art Museum to better understand their novice visitors who like and enjoy art but who have lower levels of knowledge about art. Our analysis provides (a) quantitative evidence about novices that can accompany the more qualitative research that has been done with interviews (McDermott, 1988), (b) additional background for current staff experimentation with prototype gallery interpretive aids useful to novices, (c) direct evidence that high involvement visitors also value interpretive aids, and (d) that more information about art within galleries probably would be appreciated by both novices and non-novice groups.

Second, our results reinforce current museum efforts to improve visitor orientation; e.g., the installation of easy to see and understand signs to direct visitors around the building and help locate restrooms, the information desk, and other areas. Orientation aids for visit planning already have been improved and include not only picture-based signboards, but a lobby touchscreen computer for planning the museum visit.

Because this study included over 1,000 visitors, there was a sufficient number to utilize cluster analytic techniques appropriate for the large number of questions that were included. By using cluster analysis to analyze the results, information about visitors was uncovered that would not have been apparent in a purely descriptive study. Findings can now be used to refine future museum visitor surveys—for example, improving the reliability and usefulness of cluster 9 as a measure of the "individual approaches to art" dimension by adding and testing items about approaches to art.

References


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