APPENDIX
Cluster Analysis of Visitor Characteristics and Expectations

Ross Loomis, Marc Fusco, Ruth Edwards, and Melora McDermott-Lewis

Abstract

Characteristics and expectations of various segments of the visitor population of the Denver Art Museum were derived from their responses to a visitor survey. The survey was completed by 1,012 visitors and was designed to assess reactions to a wide variety of aspects of the museum experience, such as orientation information, exhibit labels, and other interpretive aids. Subjects were also asked for self-ratings on questions designed to measure their level of interest in art as well as behavior, such as art collecting, which might reflect this interest.

A cluster analysis identified those variables which might help define key segments of the visitor population. One cluster which emerged measured visitors' overall level of "art interest/involvement." Scores on this cluster were used to divide the population into three segments: low, moderate, and high art interest/involvement. Other clusters with high reliability included: information on how to look at art, physical orientation aids, collection information aids, interpretive aids, context for viewing art, visit experience value, individual approaches to experiencing art, and visit planning. These nine clusters are discussed in terms of: 1) the importance of recognizing different levels of visitor interest and involvement with art, 2) the value to visitors of different visit experiences, 3) visitor orientation, and 4) interpretation and visitor experiences. The first topic explains how the three audience segments (low, moderate, high interest/involvement) were identified in the study; these audience segments are also emphasized in the discussion of the other topics.

Introduction

Visitor information gathered through surveys can be approached in a number of ways. Most front-door or within-the-museum surveys are intended to simply describe the kinds of people who are visiting. As in marketing studies, there is increasing interest in developing surveys that are more sophisticated at revealing things, such as preferences and expectations, about the visitor. Visitor motivation is being studied, as reflected in surveys designed to assess reasons for visiting a museum versus other leisure settings, and the importance visitors place on different kinds of experiences gained from their visits. Motivational surveys can lead to a conceptual typology about visitors, a useful tool for planning new exhibits and programs or making long-range changes in existing galleries. It's not realistic to try to plan for every visitor, or even every conceivable kind of visitor, but a limited typology can be useful.

One typology suggested by marketing and leisure science research is the level of interest or *commitment* visitors have to the museum and/or the focus of the museum, such as art, history, or natural science. 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 makes for a highly useful indicator in developing a typology of expectations for different kinds of art museum visitors. In particular, she found that less frequent visitors were more concerned than frequent ones with

having a social and recreational experience and feeling comfortable in the physical setting. Frequent visitors valued having the opportunity to learn, the challenge of new experiences, and coming away with a sense of having done 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 basics 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 felt that it was hard to understand the exhibits they were visiting. A similar conclusion about infrequent visitors was made in West Germany by Klein (1978), who found that people who seldom or never visited museums perceived several barriers to making a museum part of their leisure-time experience. They saw the museum as a place they wouldn't understand or feel comfortable in. Marketing researchers have also found visitor interest (defined as frequency of visits) a useful concept in planning for audience development. For instance, Robbins and Robbins (1981) determined that visitors who attended 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.

This report will summarize an analysis of a survey administered to just over 1,000 visitors to the Denver Art Museum in 1986. 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
--how they value different kinds of orientation information
--how they value different ways of presenting orientation information
--how they value different kinds of exhibit interpretation
--how they value alternate ways of presenting interpretation
--their interest in art

While each of these items is interesting in its own right, a better sense of visitor motivation can be derived by looking at *patterns* of answers the visitor gives across survey questions. These patterns of visitor responses to groups of questions (clusters) can then be used to suggest some different subgroups of visitors. Contrasts can be made among the groups in terms of their expectations, values, and reactions to art and art museums. In addition, interpreting the reasons various clusters formed can suggest general topics to emphasize in planning for the visitor, as well as in developing future surveys.

Why a Cluster Analysis?
A basic assumption undergirds the analysis: how visitors answer one question in a survey is often related to how they answer other questions. The visitor may not be consciously aware of these patterns of related answers, and the relationships may not be that apparent across a long, multipurpose questionnaire. Statistical analyses can be performed to test for such relationships among the survey questions, then we can interpret why the relationships exist. It must be emphasized that the process is an interpretive one, and there are no absolutes in the outcomes. Objective decision rules, however, spell out criteria to be met by the responses in order for them to be included in

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a cluster and thereby provide a tool distinct from a completely subjective reading of the results. Making interpretations based on groups of individual survey questions is also a more powerful approach than interpreting each question by itself. We're less apt to find a purely random outcome in groups of questions than in individual questions.

A cluster analysis computer program looks at the responses to the survey of all visitors in the sample on all questions on the survey. It then tries to define groups of items that are answered in similar patterns by most of the respondents. For example, in a three-item cluster, one question might have a range of responses from low to high, but those people who gave low responses as a group would reply to the other two questions in the same way--perhaps all giving high responses to the second question and low responses to the third. Similarly, those people who had high scores would also be consistent in their answers to the other two questions. That is, the clustering of items is one way of arriving at some underlying relationships among different pieces of information in the survey.

In our case, the cluster analysis combined survey questions into groups that we could logically interpret as measuring some common characteristic. It's important to realize that the analysis not only creates the clusters in a systematic manner so that there is a consistency in the way the questions are answered, but also groups the questions to avoid overlap among the clusters. That is, a question can only be a member of one cluster. For this survey, *nine* clusters were identified and will be described. For convenience, we've organized the presentation of the clusters into four topics:

1. visitor interest and involvement with art
2. the value of different visit experiences
3. visitor orientation
4. interpretation and visitor experiences

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

A more technical summary for each of the nine clusters is attached to the end of this report. The first page of this summary gives the reader a guide for interpreting the information and includes definitions of technical terms. Two references on cluster analysis are provided at the end of the summary.

Results

The Importance of Visitor Interest and Involvement with Art

We were not surprised to discover that visitors' ratings of their level of interest, knowledge, and enjoyment of art formed a cluster. The fact that they came out as the first grouping in the analysis and with high cluster reliability (see technical summary) confirmed other research findings like those cited at the beginning of this report. We used this cluster to divide the sample into low, moderate, and high art interest/involvement segments:

--A low-interest/involvement segment--rating their interest, knowledge, and enjoyment of art as low to moderate--made up 9% (N=93) of the sample.

--A moderate-interest/involvement segment-- rating their interest, knowledge, and enjoyment of art as moderate to high--made up 85% (N=857) of the sample.

--A high-interest/involvement segment--

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rating their interest, knowledge, and enjoyment of art as very high--made up 6% (N=62) of the sample.
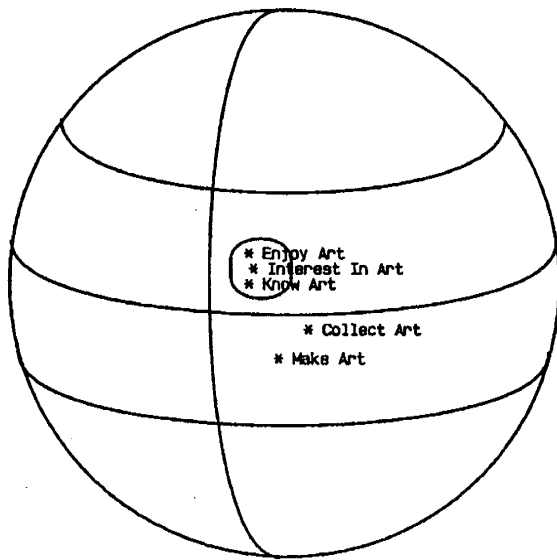

Fig. 1. General art interest cluster (Cronbach's Alpha = .84)

Figure 1 shows a diagram of three items in this first cluster, bounded by a circle. Note that the computer program identified two other items as near the cluster. These were self-reported levels of collecting and making art. While these two were not included in the cluster, they are intuitively close to a concept of interest or involvement with art.

It's worth noting the high percentage (94%) of visitors who rate their own interest, knowledge, and enjoyment of art as moderate to high. Since the sample was collected during the spring, we cannot say for sure how typical these percentages are of all Denver Art Museum visitors in 1986, though there is no reason to assume they are atypical, especially in light of other survey outcomes.

Robbins and Robbins (1981) found the same

trend in their study of high, moderate, and low museum attendees: about 65% of the sample was classified as moderate, 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 nonexperts in art (Yenawine and Richner, 1986).

Our results for the interest/involvement cluster analysis are consistent with the outcomes of these other survey studies, in spite of some method and sample-selection differences. Most visitors have moderate to high interest in art, expect to enjoy the art they will see, and rate their knowledge about art as moderate to high. A small percentage of visitors fall on each side of this group. While it makes up only 6% of the sample, the importance of the high-interest/involvement group is suggested by the following:

--Visitors showing high interest/involvement were much more likely than the low-interest/ involvement ones to have visited an art museum during the previous year. In fact, 69% of the high segment reported seven or more visits, compared to 2% of the low segment. All of the high-segment visitors reported visiting an art museum during the previous year, versus 54% of the low segment.

--High-interest/involvement visitors were twice as likely as low to have visited the Denver Art Museum during the previous year.

--18% of the high interest/involvement visitors were museum members, compared to only 1% of the low segment. 11% of the moderate segment held memberships.

The Value of Different Visit Experiences
One cluster (Cluster 7 in the Technical Summary) dealt directly with the motivations behind visits. Five of the six items that formed this cluster were taken from the work of Hood (1983). The fact that we found this cluster helps establish the validity of her work. All of these items deal with visit expectations:

--the importance of having opportunities to learn
--the worth-while use of leisure time
--the value of a new experience
--the importance of a contemplative experience (not on Hood's list)
--the value of being comfortable in a setting
--the value of participating actively

This cluster underscores that visitors come to the museum for a variety of reasons. They also vary in what they expect to experience in a museum visit. Hood discovered that how respondents in her sample answered these questions depended to a great extent on their level of involvement with an art museum. Our findings parallel some of her outcomes:

--High-interest/involvement visitors placed much more importance than low on doing things that provided opportunities to learn. The moderate segment of the sample considered learning opportunities important too, and was more similar to the high than low

segment in this regard.

--High-interest/involvement visitors were more apt than low to place greater importance on doing leisure activities that appear worth-while, with the moderate segment again being closer to the high.

--The high segment considered the challenges of new experiences to be of great value. Low-interest/commitment visitors gave this aspect lower ratings, with the moderate segment falling between the two.

--The high segment valued both being comfortable in a leisure setting and having the opportunity to participate actively. What was different from Hood's results was that our low and moderate segments did not put a higher value on these two experiences than did the high. Perhaps this difference was due to the fact that all of our sample was taken at the museum while Hood sampled people in the community.

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

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For the question we added, asking visitors to indicate the importance of *contemplative* experience, we found that high- and moderate-interest/involvement visitors considered this experience much more important than did the low segment.

Visitor Orientation

Visitors were asked a number of questions about orientation--that is, about information that would help them understand the museum's environment and collections. This kind of information helps the visitor complete a successful visit and makes the museum more accessible to those who use it. Three clusters formed around orientation questions: visit planning (Cluster 9), physical orientation aids (Cluster 3), and collection information aids (Cluster 4). This last cluster could be considered part of exhibit interpretation. In fact, visitor orientation involves not only information about the environment, but the conceptual basis of collections and exhibits as well.

1. Visit Planning. Visit planning includes previews of what can be seen, suggestions for getting the most out of a visit, a list of objects on display, and specific information on objects that are popular with families. One of the questions in this cluster asked visitors to rate the importance of an orientation area for each exhibit. This cluster confirms that it is important to anticipate 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 sample segments (low, moderate, high interest/involvement) considered orientation areas important in a museum. There were no discernable differences among the three segments for this question. Two of the

other questions in this cluster did discriminate among the audience segments. Low-interest/involvement visitors valued previews of what could be seen and information for families more than the other two segments. Once again, moderate-level visitors answered more like the high-interest visitors than the low.

2. Physical Orientation Aids. Physical or building orientation aids in this cluster include floor-plan maps that can be carried, wall maps of galleries, information on the physical layout of galleries, a place to sit down and make decisions, and a phone line for questions visitors might have. All of these features emphasize that a museum is a series of physical spaces that requires exploration.

Of the questions in this cluster, only one--the value of explanations of gallery spaces-- revealed differences among the three audience segments. Both low and moderate segments attached slightly more importance than the high to this kind of information.

3. Collection Information Aids. A rather broad range of questions, all centered around background information, made up this cluster. Included were lists of books and articles related to exhibits, information on collection highlights, information about objects recently added to the collection, background on countries of origin, and information that conveyed key ideas and themes of exhibits. In addition, listings of exhibit-related community and museum events were a part of this cluster. All of the items in this cluster came from a basic question that asked visitors to assess how valuable these different aids would be to an exhibit orientation area. The fact that these six items clustered emphasizes the significance of background informa-

tion in orienting the visitor to the museum. Four items discriminated among the three audience interest/involvement segments. These were bibliographical sources, listings of related community and museum events, information on new objects, and information on key exhibit themes. For these four items of the cluster, the high-interest visitors follow a fairly predictable pattern of simply being more interested than others in information about collections and exhibits. Moderate-interest/involvement visitors tended to answer in the direction of the high group but always fell between the two other segments.

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 interpretation. Four clusters developed around these topics: information on how to look at art (Cluster 2), interpretive aids (Cluster 5), context for viewing art (Cluster 6), and individual approaches to experiencing art (Cluster 8).

1. Information on How to Look at Art. Six items described different kinds of information visitors could get that would help them look at art: suggestions for looking at a work of art, how experts judge quality in art, possible meanings of a work, and more technical discussions of elements like color and shape. As demonstrated in this cluster, visitors value information designed to help them look at and explore art in a more informed manner.

There were no significant differences among the three segments' answers to five of these six items. Only in the case of information about formal elements, such as color and line, did the familiar pattern of greater interest by high-involvement visitors reveal

itself. The moderate-level visitors also valued this kind of information more than visitors in the low segment.

2. Interpretive Aids. Visitors were aware that some kinds of interpretive aids can go beyond traditional exhibit labels. Four items of interest clustered: a seating area in the gallery with films or videotapes, a similar introductory area to the gallery, carry-along tape-recorded tours, and seating areas with books and exhibition catalogs. This cluster emphasized alternative interpretation aids, including audio-visuals.

In general, moderate- and high-interest/ involvement visitors valued these kinds of aids more than visitors in the low group, with this trend best shown in the ratings assigned to the seating-area options. Such a finding suggests that as commitment to art and the museum grows, visitors may be more willing to commit the time and effort it takes to use supplementary aids.

3. Context for Viewing Art. This next cluster is similar in some ways to the collection information cluster discussed earlier (Cluster 4). Visitors seem to be seeking background information that will aid them in developing a context the for the art they're viewing. Included in this background is information about the historical period and the artist, the place of the objects in art history, how the objects were made and used, geographic background, and information on how the collection was formed.

Three out of the seven items that made up this cluster differentiated among the three audience segments. High-interest visitors placed more value than the other groups on information about the period of the work, background on the artist, and the work's

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place in art history. The moderate-interest segment was again in the middle in rating the value of these three items.

4. Individual Approaches to Experiencing Art. Cluster 8 consisted of four items asking visitors to describe their individual approaches to experiencing art. Included in these self-ratings were items asking visitors if they liked to focus on details of an art work, to know what the artist meant by the art, to know expert judgments, and to have information about the background of the artist and work. These items were based on the writings of Williams (1984) and suggest that visitors' perceptions about the ways they interact with objects form a vital part of their experience.

Two of these items separated high-interest/involvement visitors from the others. Those highly involved with art were much more apt to rate themselves as desiring to know the artist or work's background and want to focus more on the details of the art work, such as color or texture. While it's tempting to think that additional information helps a more general audience, such information may be more appreciated by the more 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 interest/involvement cluster confirms that comparing different audience segments is a significant way to study the visitor. Museum audience segmentation and target-ing is a very popular research topic at the present time, and for good reason. This study supports the value of the more extensive work the Denver Art Museum staff has done on the distinctions between novices and lay experts (see "Through Their Eyes," p. 7).

2. Hood's work on defining visitor expectations is an important adjunct to audience segmentation research and our results support her work for the most part, especially in light of different survey sample bases (i.e., museum versus community). Higher-commitment visitors are more likely to see a number of benefits from visiting, such as opportunities to learn and experience new challenges. Lower art-commitment visitors are more inclined to see the visit as a recreational experience and to 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-interest visitors are more apt than low to value a wide array of orientation and interpretation aids, as well as information (e.g., background on the art they're experiencing). Moderate-interest visitors were more like high-interest than low in most of the comparisons in this study. Again, it must be kept in mind that the visitors sampled were all at the art museum, a fact that shows some initial commitment for everyone in the sample.

4. As a minimum, visitor orientation should provide visit planning information, help with mastering the physical environment of the museum, and include background information about exhibits and collections.

5. Interpretation should include information on the context of a work of art and how to

look at art works. The visitors in this study saw interpretive aids like audio-visuals as a distinct entity; these aids need to be studied further to determine just how they influence visitors. We also need to better understand the way in which individual approaches to art influence visitors and their involvement with museums.

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TECHNICAL SUMMARY

The following pages contain technical summaries for the nine clusters discussed in this report. Each cluster is described with the following information:

1. A cluster number and descriptive name.

2. A list of the survey questions and/or sub-questions that make up the cluster, an acronym label for the questions, and the question number from the survey list.

3. Individual questions (or sub-questions) appear as *variables* in the cluster program and are identified by the question acronym and listed with the following information: *Oblique Factor Coefficient* refers to the relationship (correlation) between the variable (question) and the cluster as a whole. The higher the coefficient, the greater the relationship between the individual variable and the cluster as a whole. *Communality* is the proportion of the variation (range of responses made to the item) that is shared by the other variables in the cluster. It is an estimate of overlap in visitor responses. The cluster analysis only tells us that visitors responded to these questions in a similar manner (i.e., all high, all low, all moderate). *Average r with Definers* is the average correlation with other variables in the cluster.

4. A very important coefficient is an estimate of a cluster's reliability (also called Cronbach's Alpha). This value estimates how likely it would be that you'd find the same cluster if you repeated the survey. In general, for this survey the Alpha estimates for clusters obtained suggest fairly good reliability and the strong likelihood that similar clusters would be found in a second survey. As a general rule, clusters with a coefficient of .65 or less would not be considered reliable enough for interpretation.

5. Each cluster description concludes with a summary interpretive statement of the cluster.

CLUSTER 1: GENERAL ART INTEREST/INVOLVEMENT

Label	Question	Question No.
INTART	In general, how would you rate your interest in art?	(E1.1)
KNOWART	In general, how would you rate your knowledge of art?	(E1.2)
ENJOYART	In general, how would you rate your enjoyment of art?	(E1.3)

Variable	Oblique Factor Coeff.	Communality	Ave. r with Definers
INTART	.8438	.7270	.5992
KNOWART	.7925	.6425	.5627
ENJOYART	.7245	.5538	.5144

Cluster Reliability (Cronbach's Alpha) = .84

This cluster was used as an identification of general interest in art. Clusters 2-8 were analyzed as to how they varied with different levels of this "General Interest" cluster. The variables COLLART (level of art collecting activity) and MAKEART (level of art making activity) are highly related to this cluster, but are less useful as defining characteristics of the general art interest and are more informative as descriptors.

CLUSTER 2: INFORMATION ON HOW TO LOOK AT ART

Label	Question	Question No.
HOWLK	General suggestions on how to look at a work of art	(D1.5)
WHATLK	Things to look for in specific works of art.	(D1.6)
EXJUD	How experts judge quality in works of art.	(D1.4)
WHTLOK	Suggestions on what to look for in specific works of art.	(D1.12)
MEANIN	Possible meanings of an art work.	(D1.2)
FRMELM	A discussion of a work's formal elements such as color, line, shape, and composition.	(D1.11)

Variable	Oblique Factor Coeff.	Communality	Ave. r with Definers
HOWLK	.7971	.6938	.5378
WHATLK	.7577	.5864	.5112
EXJUD	.6392	.4250	.4312
WHTLOK	.6387	.5417	.4309
MEANIN	.6319	.4143	.4263
FRMELM	.5831	.4109	.3934

Cluster Reliability = .84

This cluster seems to bring together questions relating to a desire for education about how to look at art.

CLUSTER 3: PHYSICAL ORIENTATION AIDS

Label	Question	Question No.
FRLPLN	A floor plan to carry with you.	(C2.3)
WALMAP	A wall map of the galleries.	(C2.7)
LAYOUT	An explanation of the physical layout of the galleries.	(C1.6)
SEATS	A place to sit down and rest or decide what to do.	(C2.6)
PHONE	A phone line for questions you might have.	(C2.4)

Variable	Oblique Factor Coeff.	Communality	Ave. r with Definers
FLRPLN	.7445	.5823	.4432
WALMAP	.6759	.4703	.4023
LAYOUT	.5449	.4197	.3243
SEATS	.5403	.3135	.3216
PHONE	.4705	.3387	.2800

Cluster Reliability = .75

This cluster is made up of questions that dealt with orientation aids related to the building. People want to know where they are in the building, how to get around, etc.

CLUSTER 4: COLLECTION INFORMATION AIDS

Label	Question	Question No.
BIBLIO	List of books & magazine articles relating to exhibit.	(C1.9)
EVENTS	Listing of related community & museum events.	(C1.7)
HILITE	Information on the collection highlights.	(C1.10)
NEWOBJ	Information on objects recently added to the collection.	(C1.8)
CNTRY	Background on the countries where the art was created.	(C1.11)
KEYID	Information on the key ideas & themes of the exhibition.	(C1.4)

Variable	Oblique Factor Coeff.	Communality	Ave. r with Definers
BIBLIO	.7065	.5525	.4369
EVENTS	.6181	.4100	.3823
HILITE	.6164	.4184	.3812
NEWOBJ	.6040	.3806	.3735
CNTRY	.6023	.4229	.3725
KEYID	.5632	.3821	.3483

Cluster Reliability = .80

The questions in this cluster dealt with a fairly broad scale of collection orientation. People want to know what the collection is about, including links to ideas and events outside the museum.

CLUSTER 5: INTERPRETIVE AIDS

Label	Question	Question No.
VIDEOT	Seating area with films or videotapes.	(D2.6)
VIDEO	A videotape or film (in entrance to galleries).	
(C2.5)		
AUDIO	Tape-recorded tours to carry with you.	(D2.3)
BOOKS	A seating area with books and exhibition catalogs.	(D2.7)

Variable	Oblique Factor Coeff.	Communality	Ave. r with Definers
VIDEOT	.8537	.7557	.5511
VIDEO	.7036	.5123	.4542
AUDIO	.5168	.3049	.3337
BOOKS	.5084	.3413	.3282

Cluster Reliability = .76

The questions in this cluster reflect a desire for active instructional materials that an individual can use.

CLUSTER 6: CONTEXT FOR VIEWING ART

Label	Question	Question No.
PERIOD	Information about the period in which an art work was created.	(D1.9)
ARTHIS	The place of an art work in art history.	(D1.10)
USE	How the objects were used.	(D1.8)
HOWMAD	How the objects were made.	(D1.3)
ARTIST	Information about the artists.	(D1.1)
COLFRM	How the collections were formed.	(D1.7)
GEOMAP	A map of the geographic areas represented in the collection.	(C2.12)

Variable	Oblique Factor Coeff.	Communality	Ave. r with Definers
PERIOD	.7601	.6132	.4394
ARTHIS	.6332	.4097	.3660
USE	.6294	.4325	.3638
HOWMAD	.5914	.3766	.3419
ARTIST	.5035	.3435	.2911
COLFRM	.4979	.2931	.2878
GEOMAP	.4315	.2422	.2494

Cluster Reliability = .79

This cluster brings together questions reflecting desire for information, so the art can be viewed in the context in which it was created.

CLUSTER 7: VISIT EXPERIENCE VALUE

Label	Question	Question No.
LEARN	To have the opportunity to learn something.	(A3.4)
WWHILE	To feel that I am doing something worth-while with my leisure time.	(A3.5)
CHLNGE	To have the challenge of new experiences.	(A3.2)
REFLCT	To have a contemplative or reflective experience.	(A3.7)
COMFOR	To feel comfortable and at ease in my surroundings.	(A3.6)
ACTIVE	To participate actively.	(A3.3)

Variable	Oblique Factor Coeff.	Communality	Ave. r with Definers
LEARN	.6180	.4051	.3510
WWHILE	.5997	.3781	.3406
CHLNGE	.5714	.3419	.3246
REFLCT	.5623	.3524	.3194
COMFOR	.5594	.3260	.3177
ACTIVE	.4971	.2631	.2824

Cluster Reliability = .75

This cluster includes questions that deal with people's reasons for going to the museum and the value they place on the different experiences provided by a visit.

CLUSTER 8: INDIVIDUAL APPROACHES TO EXPERIENCING ART

Label	Question	Question No.
CONTEX	I like to know about such things as the artist, techniques, and historical setting when I look at an art work.	(A4.5)
EXPERT	I like to know what experts think about a work of art.	(A4.1)
MEANT	I like to know what an artist meant when he or she created an art work.	(A4.8)
FOCUS	I like to focus on details such as color, texture, materials used, or objects depicted.	(A4.3)

Variable	Oblique Factor Coeff.	Communality	Ave. r with Definers
CONTEX	.7091	.5791	.3970
EXPERT	.5438	.3527	.3045
MEANT	.5292	.3151	.2963
FOCUS	.4577	.2445	.2563

Cluster Reliability = .67

This cluster combines questions relating to how the person looks at an art object.

CLUSTER 9: VISIT PLANNING ORIENTATION

Label	Question	Question No.
PREVW	A preview of what you will see.	(C1.1)
MOSVIS	Suggestions on how to get the most out of your visit.	(C1.2)
FAMOBJ	Information on objects most popular with families.	(C1.5)
LISOBJ	A listing of objects on display.	(C1.3)
IMPOR	How important do you think it is to provide an orientation area for each collection?	(C3)

Variable	Oblique Factor Coeff.	Communality	Ave. r with Definers
PREVW	.6959	.5319	.3908
MOSVIS	.6913	.5033	.3882
FAMOBJ	.4974	.2652	.2793
LISOBJ	.4712	.2840	.2646
IMPOR	.4521	.2919	.2539

Cluster Reliability = .72

This cluster related questions dealing with a desire for a general orientation on what to do at the museum.

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2. Dillon, W. R., and M. Goldstein. *Multivariate Analysis*. New York: John Wiley and Sons, 1984.

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