More and more museums are beginning the respectable yet arduous task of studying their visitors. While people have been visiting museums for years, it is only recently that museum practitioners have become interested in understanding their visitors' museum experiences.

Visitor evaluations can take many forms—there really is not a single perspective or approach that is considered the norm. There also are many circumstances under which visitors are studied: in exhibit settings, during school visits, or interactions between individual visitors and objects. Often the jargon, coupled with the variety of methodological options are enough to turn people away. However, as visitor studies become more accepted and practiced, everyone working in museums and historical organizations will benefit from sharing a common understanding of the terminology and procedures used in these studies.

The purpose of this article is two-fold. First, it clarifies and defines evaluation terminology. As with any young field, new names and definitions often emerge, sometimes replacing ones that were once well understood. An up-to-date review of the current terminology is presented here. Second, this article also provides beginners with some general information about conducting very simple visitor evaluations. At the least, this will give practitioners a feel for the range of visitors' experiences and an idea about how to begin thinking about evaluation.

Visitor Studies Terminology

Thirty years ago when "evaluation" was the "E" word, there was only summative evaluation. Evaluation and summative evaluation were synonymous. If a museum evaluated a program, it conducted a summative evaluation. Evaluation, if done properly, can serve as a decision-making tool. It provides information about a program—from the user's perspective—that determines the program's successes and shortcomings and helps make decisions about the program's future. Evaluation data are always collected systematically and deliberately.

Summative evaluation is when evaluative information is collected at the end of a program or after the installation of an exhibit. When museums began evaluations, summative evaluation was the norm and exhibits were the only type of program that was studied. Evaluation findings that suggested changes be made to the exhibit were often ignored because of budgetary and logistical constraints. Thus, the idea of formative evaluation was adopted.

Formative evaluation tests program components during the design stages to isolate problems such as the placement of exhibit components or the content of a label. It is most often used during exhibit development. Formative evaluation is an iterative process. That is, once problems...
are realized, corrections are made and retested until the component achieves the desired results based upon stated goals and objectives. Interactive audio visual components, directions to interactives, labels, graphics, and headings can all be tested using inexpensive mock-ups. The practice of formative evaluation in museums became so instructive that exhibit developers soon realized that they might benefit from conducting evaluations earlier in the exhibit development process-during the exhibit's concept development stage.

Front-end evaluation tests concept ideas during the initial planning stages of an exhibit. Visitors' familiarity with and preconceptions of the subject matter are often examined as are their general understanding of exhibit themes.

As museum practitioners become more familiar with evaluation as a process, they are also becoming more comfortable with the idea of change. The words "process" and "change" are important. Since the visitor experience and the relationship between visitors and exhibits, for example, are not yet fully understood, museum practitioners should accept that they are engaged in a learning process when they develop and create an exhibit or program. The idea of changing an exhibit component that is not quite right, for example, is far more acceptable now than it was when exhibit evaluations were first conducted.

Evaluation procedures can be applied to all types of museum programs. However, exhibits are the program type used throughout this article to help explain and describe evaluation. Readers should acknowledge that the information contained here can be applied to all types of programs at museums and historical organizations.

**Getting Started: Front-end Evaluation**

Front-end evaluation helps planners understand how visitors comprehend and think about the ideas that will be displayed in the exhibit. It is conducted in search of the "hook" that will draw visitors into the subject matter. Front-end evaluators hope to find the common ground between visitors and the exhibit.

There are no hard-and-fast rules about what one should explore during a front-end evaluation. It depends on the goals and objectives of the exhibit—that is, what the team hopes visitors will experience, do, and/or understand. Front-end evaluation, however, only works if the planning team has a vested interest in developing an exhibit that is both audience-driven and institutionally-driven.

The museum experience is the product of interactions between visitors and the exhibit and the conceptual framework in which the objects are presented. Visitors are complicated. They have life experiences and knowledge that affect how they interact with and experience an exhibit. Mixing these two forces—visitors and the exhibit—creates the visitor experience. Front-end evaluation gives museum practitioners a chance to learn about museum visitors and the potential of the visitor experience in the context of their exhibit idea. The museum, however, must relinquish some of its power and share it with visitors if visitors are to have significant and memorable experiences. (A good example of front-end formative evaluation may be found in the 1993 article "Evaluation Methods and Findings Shape Ideas for a Junior Gallery" by Randi Korn)
Since it is usually conducted before an exhibit is built, a context must be created for the front-end evaluation. Relevant objects in another exhibit hall of the museum, photographs of objects, or even books usually suffice for these preliminary procedures. Front-end evaluators usually ask the following questions:

- What do visitors think about when confronted with specific objects and/or ideas?
- What meaning emerges from their encounter?
- Which objects catch visitors' attention? Why?
- Are memories awakened as visitors look at objects? If so, what are they?
- How much do visitors know about this subject matter or topic?
- What do visitors imagine they will learn in the exhibit?
- What do visitors imagine they will see in the exhibit?
- What do visitors imagine they will experience in the exhibit?

Asking visitors knowledge-based questions is perhaps the most difficult aspect of a front-end evaluation. Sometimes visitors feel awkward and uncomfortable, especially if they are not knowledgeable about the subject matter. Knowledge-based questions, therefore, must be carefully designed. Some evaluators have successfully designed game-like activities for visitors that provide useful information while easing visitors' stress levels.

Typically, front-end evaluators conduct face-to-face interviews asking open-ended questions. Open-ended questions allow visitors to describe their experiences in their own words as opposed to having them fit their experiences into the pre-determined, museum-generated responses that usually appear on standardized questionnaires. Standardized questionnaires are very useful for some kinds of visitor studies, but at these early stages of exhibit development, it is useful to ask open-ended questions to encourage visitors to think and speak freely about a topic. A good resource for this is Raphling and Serrell's "Capturing Affective Learning" found in Volume 7 of Current Trends in Audience Research and Evaluation published in 1993 by the AAM Committee on Audience Research and Evaluation.

Before talking with visitors, choose a target sample. The target sample may be determined by the goals and objectives of the exhibit. For example, if the exhibit is designed with the adult visitor in mind, your sampling and recruitment strategy should target adults. Sample sizes for front-end interviews can range from 35 to several hundred depending on the methodology. Open-ended interviews usually require a smaller sample than standardized questionnaires.

Front-end evaluation results can gently remind exhibit developers of how non experts approach, think about, and understand an idea. In their article "Psychology and the Museum Visitor" (Manual of Curatorship: A Guide to Museum Practice, ed. John Thompson, London), Michael Alt and Stephen Griggs articulated this point very well when they said, "The answer lies not in the exhibit, but in the way the visitors perceive the exhibit. An understanding of how people respond to exhibits requires and understanding of people, not exhibits."
Moving Forward: Formative Evaluation

Formative evaluation is conducted during the design stages of an exhibit or program using inexpensive prototypes. Labels, interactives, gallery guides, and other exhibit components would benefit from formative evaluation. Formative evaluation detects and isolates problems early on in the design process-before building the final product. The goals and objectives of the exhibit, individual components, and labels, however, must be clarified before beginning the evaluative process. They are necessary for determining the success of the components being tested.

Formative evaluation is less formal than some of the other evaluation types in that often it is not necessary to generate written reports since changes to the exhibit could happen very frequently. This does not mean, however, that formative evaluation is not thoughtful or systematic. Data collection for formative evaluation, like all evaluation types, must be systematic and unbiased. Formative evaluation can uncover quickly what is not working quite right in terms of accessibility, visitor comfort, and visitor comprehension. Formative evaluators ask relatively simple, uncomplicated questions such as:

- Are the instructions clear?
- Are visitors using the interactives as intended by designers?
- Are visitors understanding the message as intended by exhibit developers?
- Are the section headings strategically placed? Can visitors see the cased objects?
- Is the interactive too long?
- Are the labels legible?
- Is the content of the labels or gallery guides clear?
- What general meaning are visitors creating from their experiences?

Formative evaluation data can be collected by observing and/or interviewing visitors. Observations provide an objective account of visitors' experiences while interviews provide constructive feedback from the users of the exhibit. In interactive galleries, observations can suggest which components attract visitors and which do not by simply recording how many visitors approach the displays and how many bypass them. Informal visitor interviews can then inform planners as to the reasons behind visitors' behaviors. If visitors' remarks suggest that there is a design or installation problem (as opposed to visitors' personal preferences), changes can be made to the prototype to alleviate the problem. Changing a prototype does not automatically mean success will be met. The process of retesting and changing prototypes should be repeated until desired results have been achieved-again, using the goals and objectives as the measure of success.

Sometimes visitor interviews are conducted with cued visitors. This means that a visitor is recruited to view the exhibit knowing that he or she will be asked a few questions afterwards. The thinking behind this strategy is that visitors pay more attention to an exhibit if they know they will have to answer questions. If cued visitors do not understand the content of an exhibit, uncued visitors will definitely not understand it.

Label testing is usually done in the formative stages of an exhibit's development. Label writing continues to be one of the greatest challenges for museum practitioners. Label testing generally
focuses on three issues: legibility, readability, and comprehension. Several researchers have tested different type sizes and styles to determine which are most legible. In addition, the American with Disabilities Act (ADA) provides useful recommendations. It is worthwhile to review the existing literature before making typographical decisions. Museum practitioners may want to reference either Elizabeth Ziebarth and Zahava Doering's "Accessible Exhibitions: Testing the Reality." (Smithsonian Institution, 1993) or Lisa F. Wolf and Jeffrey K. Smith's "What Makes Museum Label Legible?" (Curator, 36(2), 1993). Important considerations are that the type size be large enough for visitors to read, the type style be legible, and that there is sufficient contrast between the color of the letters and the background.

Visitors' comprehension of a label can be assessed by asking two questions. First, are there words and/or phrases that visitors do not understand? Second, are visitors able to paraphrase the label according to the stated communication objective of the label? As stated above, each component in the exhibit (including labels) should have a communication objective by which to measure visitors' remarks.

Since problems tend to rise to the surface quickly during formative evaluation, large sample sizes are not necessary. Sometimes planners are too close to the project to see the most obvious obstacles. Solutions, however, are often relatively easy to generate because the problems are usually isolated and very specific.

Final Product: Summative Evaluation

Front-end and formative procedures examine visitors' experiences with exhibit parts out of context. Summative evaluation examines visitors' experiences with individual components in a completed exhibit hall. It also examines visitors' experiences in the exhibit as a whole unit. Summative evaluation is also important because it invariably considers design factors (such as traffic flow and the placement of exhibit components) that appear only after the installation, but likely affect visitors' experiences.

Summative evaluation is the most formal of the three main types of evaluation. Larger sample sizes are sought and a variety of instruments are used to collect the range of visitors' experiences. Outside consultants are often contracted to conduct summative evaluations because objectivity is considered paramount. The objective of a summative evaluation is to determine the overall effectiveness of the exhibit as well as the effectiveness of individual components. Visitors' behaviors and experiences in the exhibit are typically compared to the exhibit's goals and objectives stated at the onset of the project. The following are examples of questions a summative evaluator might ask:

- What meaning (in the broadest sense) has the visitor created from his/her experience?
- Which parts of the exhibit were confusing/understandable?
- Which parts of the exhibit were most compelling?
- Are visitors operating the interactives properly?
- Do visitors see the brochure displayed in the gallery?
- Which components attract the most/least attention?
- Which components hold visitors' attention?
· Did visitors read the labels? Which ones? For how long?
· What did visitors do when they stop at a component or exhibit case?
· How much time do visitors spend in the exhibit hall?
· What did the visitor learn?

Questions like these usually determine the evaluation instruments. For example, tracking visitors through an exhibit will determine which components attracted the most/least attention and how much time visitors spent at each component and in the hall. Tracking visitors means that visitors' behaviors are observed and recorded, usually onto a map representing the gallery space. A stop watch is often used to time how long visitors stay at individual components, labels, and in the whole exhibit area. Tracking is a very labor-intensive procedure but is worthwhile as it provides an objective account of visitors' behaviors.

Visitor interviews determine the meaning visitors created from the exhibit and which parts were understandable and/or confusing. Visitors’ descriptions of their experience are compared to the exhibit's goals and objectives to determine the effectiveness of the visitor experience from the museum's perspective and quality of the visitor experience from the visitor's perspective. Visitors' experiences often include unexpected outcomes-ones for which the museum did not necessarily plan. These experiences are not less important, however. They suggest the complexity and diversity of the visitor experience and demonstrate how difficult it is to anticipate what happens when visitors interact with an exhibit. Front-end and formative evaluation minimizes, to a certain extent, some of the surprise results found in a summative evaluation.

Evaluation of Public Programs

The successes and shortcomings of public programs such as adult classes, docent tours, or special events programs are usually assessed by summative evaluation. Typically, museums distribute short forms that ask visitors a series of questions about the quality of the program. These types of forms are widely used because they are easy to produce and administer. They usually focus on visitors' general satisfaction but tend not to provide constructive criticism for program developers who wish to understand the details of the visitor experience. This is mostly due to the nature of the methodology (often respondents are self-selected, not randomly selected) and the inexperience of staff members who prepare the forms.

Other methodologies are available, but they are more time consuming and difficult to conduct in the context of a public program. Interviewing program attendees just after they have finished a tour, for example, would produce very useful information but is logistically difficult (especially if there is only one interviewer). Some attendees, however, may be willing to be interviewed by phone at a later date and would, if asked, provide the museum with their phone number and name before leaving the museum. Collecting in-depth information from a sample of visitors who have attended a program can be quite useful to program planners.

Another useful strategy is observation. Observing and recording visitors' behaviors and comments/questions on a tour can indicate weak parts of the tour (when visitors' attention appears to be waning), the level and quality of interaction between tour guides and visitors, the
content and quality of the questions being posed by guides and by visitors (especially in tours for school children), and the visitors visible level of comfort and interest. Conducting such observations are labor intensive but worthwhile in that they document the interactive process. While it is advantageous to have a relatively objective and skilled observer conduct the observations, they can also be conducted by a trained educator as he or she likely has a strong sense of what comprises quality educational interactions and has conducted observations as part of a training process.

Conclusion

Evaluation studies can be very instructive planning tools. The goals and objectives of the evaluation, however, must be articulated as they typically guide the evaluation process from the first staff meeting through data analysis. Staff members must also be sure that they are asking the right questions in the right way. Questions should be asked only if they will provide useful information, and they should not lead the visitor to respond in a particular manner. Pre-testing all evaluation instruments will help detect design flaws. For example, if all visitors are answering one of the questions in the same exact way, the question may be biasing visitors to respond in that way.

Evaluation, if it is slowly integrated into the operations of a department, or even the museum, will serve staff members well. Understanding programs and exhibits from the visitors' perspective will help museum practitioners improve the quality of their work. Evaluation results, if acknowledged and used, can support change and move the museum forward.

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