

Common Misconceptions About Evaluation

Stephen Bitgood
Jacksonville State University

1. The scientific approach cannot be used to understand visitors in museums/zoos.

This misconception has taken several forms. One form assumes that visitor behavior in museums lacks the uniformities or orderliness necessary for scientific study. The argument asserts that visitor behavior and reactions in the museum setting is so complex that it does not follow the rules of science which require lawfulness. There is too much complexity, uncertainty, instability, and uniqueness to visitors' thoughts, feelings, and behavior. This belief is expressed below:

"... most of us... experience a profound mismatch between the tidiness of theory-based knowledge and the changing characteristics of the situations in which we practice." [Munley, 1990]

Visitor research suggests quite the opposite. Numerous studies have shown uniformity to visitor behavior. Such studies can be found in *Curator*, *ILVS Review*, *Annual Proceedings of the Visitor Studies Conference*, and many other publications. For example, Bitgood, Benefield, and Patterson (1988) found remarkable uniformity in viewing time to similar exhibits across zoos.

2. Traditional learning theories are limited to the cognitive domain.

There have been several authors who have made the argument that traditional learning theory approaches restrict their attention to the cognitive domain (academic, intellectual knowledge). If this premise is correct, and if learning includes more than cognitive knowledge, then it follows that traditional learning theory must be rejected and replaced with approaches that include other learning domains. In fact, traditional learning theory has, for many years, considered three domains of learning: cognitive, affective, and psychomotor (Bloom, Englehart, Furst, Hill and Krathwohl, 1956; Krathwohl, Bloom, & Masia, 1964; Simpson, 1966). In addition, I do not recall seeing a visitor evaluation report that does not include affective measures (e.g., satisfaction).

3. The experimental method is inadequate and/or inappropriate for studying the visitor experience.

This misconception argues that the experimental method cannot assess the complexities of interacting factors because only one variable can be manipulated at a time.

"Exhibits are sometimes seen as the 'treatment' and gains in conceptual knowledge as the 'effect.' The metaphor here is the exhibit as a teaching machine. Pre- and post-tests allow us to determine the effects of interacting with the

exhibit without ever knowing the qualities of the interaction that took place. Such experiments by necessity are limited to testing along one or two dimensions... This approach is highly limited at best and wrong-minded at worst." [St. John (1990) p. 4]

There is no argument that the experimental approach has its limitations in applied research in museums. However, I know of no one who uses this approach who does not also use other research methodologies. Experimental manipulations are difficult to make in museums and may limit the experiential realism of the study. However, when appropriate and when used skillfully, experimentation is still the best method of establishing cause and effect relationships.

4. Traditional learning theories assume that visitors receive information passively.

There are several references in the visitor studies literature that imply or state that "traditional learning theory" does not recognize the fact that visitors are active learners, that their experience involves cognitively processing new information within the context of previous knowledge and experience. I know of no prominent professional in the visitor studies field who does not recognize the importance of prior knowledge, misconceptions, and attitudes.

5. The scientific approach to visitors is not appropriate because exhibit design is all art.

This misconception is common among some exhibit designers who emphasize the creative and aesthetic processes of exhibit design. The argument is that because exhibit design is a creative, artistic process, scientific approaches do not apply. The proponents of this argument are not totally wrong. Exhibit design is a creative process that cannot be completely replaced by science. However, architecture is also a creative process that requires the application of scientific engineering principles to make the structure safe. While recognizing that exhibit design is an artistic process, it can also be shown that exhibits designed according to some general guidelines are more likely to be given attention by visitors. For example, the placement, size, and complexity of exhibit objects has predictable effects on visitors.

6. Traditional approaches cannot measure what is really important about the visitor experience.

There is a feeling among many museum professionals that we are not measuring what is really important about the visitor experience. At the 1990 AAM Conference, Mary Ellen Munley (1990) told the story of the drunk who lost his keys at night and was searching for them under a street light

although he lost them in an alley. When asked why he was searching under the light instead of in the alley, he responded, "Because this is where the light is." The implication here is that, like the drunk, we are looking in the wrong place for the visitor experience. But, is this really a fair criticism of visitor studies? What we do is measure what the designers and educators tell us are their exhibit objectives. The current methodology may be adequate, but the experience we wish to study needs further specification.

7. There is one theory or approach called "traditional learning theory."

There is frequent reference to "traditional learning theory" as if it applies to one theory or approach. Unfortunately, there are many theories from behavioristic learning theory to Piaget's developmental theory to Gagne's cognitive instructional theory, etc. When "traditional learning theory" is criticized without identifying which theory is being attacked, it impossible to assess the validity of the arguments.

8. Since traditional approaches do not explain everything, they need to be replaced with new approaches.

"Recent visitor studies suggest the inadequacy of traditional learning theories to explain the visitor experience." This quote is contained in the abstract of one of the sessions from the 1991 AAM Conference program. Alternative approaches are then offered. The implication seems to be that traditional approaches are inadequate and must be replaced by newer, more adequate theories. We should keep in mind that science involves a gradual process of one study building on previous studies.

9. "My approach to visitor studies/visitor learning is better than traditional approaches."

There have been several examples of young, eager professionals trying to make their mark by proposing a new approach to visitor studies. In attempting to make a name for themselves, these individuals often criticize previous writings. However, the criticisms of previous writings are often inaccurate, unfair, and/or show naive understanding of the issues. Some of Alt's (1979) criticisms of Shettel's work fits into this misconception. [Note Shettel's (1978) response.] Advice to would-be critics: study the literature carefully before rejecting traditional approaches. You cannot understand, and consequently criticize, others' work without thorough knowledge of the literature.

References

- Alt, M. (1979). Evaluating didactic exhibits: A critical look at Shettel's work. *Curator*, 20(3), 241-258.
- Bitgood, S., Benefield, A., & Patterson, D. (1988). Exhibit design and visitor behavior: Empirical relationships. *Environment and Behavior*, 20(4), 474-491.
- Bloom, B., Engelhart, M., Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives, handbook I: Cognitive domain*. New York: David McKay Publishers.

Krathwohl, D., Bloom, B., & Masia, B. (1964). *Taxonomy of educational objectives. Handbook II: Affective domain*. New York: David McKay Publishers.

Munley, M. E. (1990). "Educators and evaluators." Paper presented at the 1990 Annual Conference of the Association of Museums, Chicago, IL.

Shettel, H. (1978). A critical look at a critical look: A response to Alt's critique of Shettel's work. *Curator*, 21(4), 329-345.

Simpson, E. (1966). *The classification of educational objectives: Psychomotor domain*. Urbana: University of Illinois Press.

St. John, M. (1990). New metaphors for carrying out evaluations in the science museum setting. *Visitor Behavior*, 5(3), 4-8. □

The Misconceptions of Do-Not-Feed Signs

Stephen Bitgood
Jacksonville State University

There are two misconceptions associated with signs that attempt to control visitor misbehavior. First, that any sign will work; and second, that no sign will work. A study of three types of Do-Not-Feed signs were studied at the Birmingham Zoo to determine if the type of Do-Not-Feed message plays a role in controlling visitor behavior. The first message was simple: "Please do not feed the animals!" The second sign gave a reason: "Please do not feed. These animals are on special diets!" Finally, the last sign attempted to compare the diets of animals and children: "Please do not feed. Would you want someone feeding your child peanuts and popcorn all day? Help us keep these animals healthy by not feeding them."

During baseline before any signs were installed, it was found that about 60 percent of items thrown included peanuts or popcorn. Males were more likely than females to throw items and unauthorized feeding tended to occur in chains in which one person initiated the activity and others soon followed.

A comparison of the three Do-Not-Feed signs and baseline can be summarized as follows:

- The first sign ("Please do not feed the animals!") produced the same rate of unauthorized feeding as baseline.
- The other two signs (that added an explanation) reduced unauthorized feeding by 50%.

The results of this study suggest that unauthorized visitor behavior (such as feeding of animals) can be reduced if people are given a reason for following rules rather than simply prohibiting the behavior.