Studying visitors to museums and other learning spaces

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What do we know about visitors to museums? While people have been studying visitors to museums for well over 100 years, the field of visitor studies and the more critical study of learning and engaging in informal and nonformal education really have emerged over the last 40 years.

As a young academic in the 1980s, I stumbled into working in environmental settings and studying visitors to those places. Over the years, I have studied visitors across all types of museums and non-school learning spaces, and yet when asked, "What do we know about visitors to museums?" I struggle to get a simple reply.

As a learning scientist, I always begin by reflecting that learning is a constant and natural human process. We are always taking in sensory data, making meaning of what we hear, see, feel, do, taste, touch, etc., and confirming or denying the information our brains tell us. This is the basis of all learning. While we are not aware of most of what we learn (lack of metacognition), there are three broad areas of study we can categorize research and evaluation into: what do people know, what do people think or feel, and what do people do which parallels the old construct of outcomes of learning being knowledge, affect, or behavior. Using that taxonomy as a frame, the Center for Research and Evaluation at COSI (a large science museum in Columbus, Ohio) studies learning in informal and nonformal learning settings (see Heimlich, 2024 or Ardoin & Heimlich, 2021 for definitions).

Knowledge

What do people learn from a visit to a park, a zoo, or an art museum? There is a solid base of literature around what people believe they know about a topic of focus when they enter a museum or other institution, what they know about the type of institution, and about the content being delivered through a program or an exhibit. While visitors often know more than we think they do about the general content of an institution (e.g., Heimlich et al., 2005), we continue to find tremendous variability in what people know within and across visitor groups.

Educators in all these settings all have stories of a visitor group in which a child knows as much (or more) than the educator or expert, even while most of the visitors experiencing the same program have a rudimentary knowledge of the content at best. What is perhaps more important than what they learn is their disposition toward learning and their expectations of learning in the space, both how and what, if anything (e.g., Heimlich et al., 2024). While beneficial to know, often of more value is understanding the meaning people make from an experience or a visit, such as how people make meaning (or not) from data visualizations (Wojton et al., 2018) or sometimes we need to know how people are likely to respond to an exhibit or an experience to better design and manage the experience (e.g., Heimlich & Yocco, 2006).

Affect

An important outcome in informal and nonformal learning settings such as museums is what people feel or reflect on from a visit. The affect domain questions what people feel, think, believe, value, and desire. While we often ask about an individual's impressions or feelings through using simple response structures, affect can be studied theoretically using rigorous measurement structures. Some of our work in this area includes studies exploring motivations and/or the social roles people enact to obtain that goal (e.g., Falk, et al., 2008; looking at individuals' sense of belonging or being welcomed or not (e.g., Heimlich, & Koke 2008), and examining the perceptions and expectations of different types of informal learning contexts (Heimlich, et al., in review).

What is perhaps more important than what they learn during the visit or experience are visitors' dispositions toward and their expectations of learning in the space (e.g., Heimlich et al., 2024). As affect and knowledge are closely related, important work includes studies looking at learning outcomes and affect states, including biophysical measures of response (e.g., Heimlich et al., 2019).

Behavior

In visitor studies, we examine behavior in two very different ways. The first is how visitors engage, act in, or move through our spaces. The second is if our programming or experiences are leading to changes in the individual's life in any way (see Heimlich & Ardoin, 2008). For the first, the concept of tracking and timing of visitors in and through spaces has been around for well over a century. While this is often literally following individuals and documenting where they go, what they do, and the time they spend, some approaches are more reflective across a whole visit (e.g., Falk et al.,2005), use technology to track individuals, and providing prompts to visitors to engage in specific ways or to look for specific things at the entrance to the experience, and then interviewing the participants at the end of the visit (Heimlich, et al., 2021).

Many informal and nonformal learning institutions have a long-term goal of engaging visitors in the institution's goals, such as conservation, environmental action, supporting the arts, and sharing insights and learnings. For these reasons, many studies attempt to measure the potential of supporting, modifying, or changing visitors' behaviors. While

most of these studies focus on the intention to act, we can sometimes do multiple points of measurement (such as pre, post, and delayed post) that allow us to get some sense of message stability. In these types of studies, we begin to move findings toward impact (e.g., Smith, et al., 2019; Kocanjer, et al., 2009).

Studying the studies

Through this work, we can sometimes study how we study visitors. Some examples include studying visitor willingness to share sensitive, personal information in different contexts (Meyer et al., 2023), looking at how different platforms contribute to visitor data quality (Horr & Heimlich, 2018), listening to how people talk about music to better ask questions in more authentic ways (Heimlich, et al., 2015), and embedding a knowledge measure as an audience activity in a science theatre production (Heimlich et al, 2024). We also often approach our work as evaluative research where we embed measures testing theories within our evaluation work so the work supports both the formative, developmental, process, or outcome evaluation of the project and also contributes to the field through the study of the theory.

The importance of museums is not only the role they play in capturing moments and history but also in informing our societies about and being a crucial component of what both represents and captures our past and our present for future generations. As most of our learning occurs outside of formal education systems, museums and other cultural institutions have an important role in the learningscapes of individuals (e.g. Heimlich, 2018; Hayde et al., 2023), and informal and nonformal learning spaces are vital contributors to understanding both the visitor and the roles of these institutions in society. But of course, as with any subject involving the breadth and depth of diversity among people, the more we learn, the more we realize there is yet to be learned. When studying visitors, we know a lot, and there will always be much more we want and need to learn.

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