Immersive Exhibitions: What’s the Big Deal?

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Introduction

As you journey through the rain forest, lavish tropical plants and vibrant colors transport you to a fantastical new world. Toucans and macaws perch in the canopy above, while monkeys, parrots and other wildlife chatter in the trees. Colorful butterflies fill the air, and beetles and tree frogs line the branches. Up ahead a jaguar lurks, reminding you of the new and exciting encounters that await at every turn. Walking into a clearing you encounter a waterfall, a lure to explore further into this adventure that is the rain forest.

Where is this rain forest? One might expect to travel to far-off lands for such an encounter. But Milwaukee? Visitors to the Milwaukee Public Museum can visit the rain forest anytime they like in a two-story replica of a Costa Rican forest.

In this era of high-tech, high-glitz entertainment, one of the great challenges that museum exhibition developers face is inspiring visitors. As museums become increasingly visitor-centered, they must not only attract the broadest spectrum of individuals, but also find ways to excite and engage this diverse public. To cater to diverse learning styles, exhibit teams are continually looking for new techniques and methods of display. In recent years, many museums have begun to incorporate immersive exhibitions, like the Costa Rican rain forest at the Milwaukee Public Museum, into their galleries.

My Master’s Project

For my master’s project in museum studies at John F. Kennedy University (Gilbert, 2000), I investigated the phenomenon of the immersive exhibition, looking specifically at why and how these exhibitions are being developed in increasing numbers in American natural history and science museums. This article summarizes my study of why museum professionals are developing immersive exhibitions, what summative evaluations have revealed about this exhibition technique and where we might go from here.

Museums ranging from small science centers to large natural history museums are developing a variety of immersive exhibitions, from small rooms to 3,000+ square foot exhibitions. Since the sizes of these exhibitions and the nature of the museums in which they appear are so diverse, one might ask, “What is an immersive exhibition?” As the definition differs greatly among museum professionals, the term immersive exhibition in my thesis and this article refers to “a multi-sensory experience which allows visitors to walk into the ‘scene’ (like a glass-fronted diorama). Such exhibits pull visitors out of the passive, one-dimensional museum viewing ritual and transport them to a different time, place or situation where they become active participants in what they encounter” (Gilbert, 2000).

For my study, I used four research methods: a literature review, interviews with museum professionals, a survey of exhibit directors and case studies of evaluated immersive exhibitions. For the survey, I compiled the names of 144 natural history and science museums from the 1999 and 2000 membership lists of Association of Science-Technology Centers (ASTC) and mailed a two-page survey to exhibit directors. Forty-seven surveys were returned; the 33% response rate is average for this type of survey with no follow-up.

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Museums’ Responses

In interviews and surveys, museum professionals reported that the main reasons for using the immersive exhibition technique are: 1) these exhibitions are successful as competitive leisure-time attractions, 2) they have greater holding power and memorability and 3) they are effective in conveying content, thereby increasing visitors’ learning.

According to responses to the written survey, “most visitors come to museums for leisure entertainment,” which is one reason that immersive exhibitions have become popular. Immersive exhibitions are often employed because they hold a
“broader appeal,” attracting a wide range of visitors and “because this is a competitive business, museums have been forced to move towards edutainment-type programming.” Exhibitors feel that immersive exhibitions are a good solution because they “are fun and involve the visitor directly” and they enable the museum to “capture the audience’s attention and provide a highly memorable experience” once visitors are in the museum. Museum professionals also believe that visitors remember these immersive experiences, which aids in the long-term retention of content (Gilbert, 2000).

Finally, professionals believe that immersive exhibitions convey content effectively, thus increasing visitor learning. Exhibitors think these exhibitions are superior in helping “visitors suspend their belief in the present in order to transition to another context,” and that they “engage visitors more easily in the content.” Immersion is one way to “allow visitors to learn in a variety of ways and be exposed to various exhibit styles depending on the subject matter and goals.” According to one respondent, Aaron Goldblatt of the Please Touch Museum in Philadelphia, the exhibits speak to many different audiences and provide the best environment for the widest array of learning to take place (Gilbert, 2000).

What Have Evaluations Revealed?

To further assess immersive environments, I looked closely at the methods and findings of evaluations to determine what evaluators have assessed about these exhibitions. I found two completed summative evaluations: one on Underground Adventure at The Field Museum, Chicago, IL; the other on the Cleanroom in the Innovation Gallery at The Tech Museum of Innovation, San Jose, CA. The primary goals of both evaluations were to look at whether visitors understood that they were in a different or an “immersive” environment, and to determine if the exhibition was successful.

Underground Adventure

When The Field Museum began planning its newest permanent exhibition, Underground Adventure, one of the original ideas was to include an immersive environment. According to Francie Muraski-Stotz, manager of exhibit development, the museum wanted the new permanent exhibition to be an attraction that people had to come see (personal communication, 2000).

Underground Adventure explores life in the soil and the critical role soil plays in life. In 1996, exhibit developers at the museum began planning the five major sections of the exhibition, including an immersion environment “of life in tall grass prairie soil in the Chicago area, with enlarged models and audio-animatronics of soil animals, plants, and fungi” (Perry & Garibay, 1998). In the 3,800-square-foot immersion space called the Micro-Soil Laboratory, visitors would be shrunk down and walk through the soil. The animatronics were to be realistic gigantic mechanical animals ranging from ants to a wolf spider, each performing a simulation of a movement that would occur in the wild. Staff believed the Micro-Soil Laboratory was the “needed hook” and the centerpiece for the rest of the exhibition (Gilbert, 2000).

The summative evaluation showed that the greatest number of visitors stopped at the animatronics in the immersive section, the Micro-Soil Laboratory. In addition, those were the labels most often read. Visitors also spent the most time in the Micro-Soil Laboratory, on average over 30 minutes (Schafer et al., 2002).

The Cleanroom

In October of 1998, The Tech Museum of Innovation opened its new 130,000-square-foot facility in San Jose, CA, including immersion environments in each of the four permanent galleries. The museum wanted the 250 interactive exhibits to go beyond “hands-on” to something described as “minds-on” (McNichol, 1998).

Rachel Hellenga, the Director of Exhibits at The Tech Museum, cited the Cleanroom as the most effective of the immersion environments at the Museum (personal communication, 2000). The Cleanroom is a re-created microchip-manufacturing facility, modeled after an...
actual Silicon Valley chip-manufacturing cleanroom. The impetus behind designing the Cleanroom came about because the content is inextricably linked with the location. However, opinion as to the

effectiveness of this immersive environment varied.

Tom McNichol of The Washington Post commented in an article that The Tech’s Cleanroom was “slightly less interesting than watching the proceedings at a Twinkies factory” (McNichol, 1998).

In 1999, Randi Korn & Associates conducted a summative evaluation of the entire museum. They used visitor tracking and timing to evaluate how visitors interacted with exhibition components, and open-ended exit interviews to examine visitors’ responses to the immersion environments. In an article based on the evaluation findings, the evaluators asserted that the immersion environments were crucial in moving The Tech Museum’s exhibitions from hands-on to minds-on (Jones & Wageman, 2000).

The summative evaluation concluded that the immersion environments are among the most effective exhibits in The Tech Museum, and that the Cleanroom not only effectively communicated information, but was a convincing environment. When asked about what learning experiences they had in the museum, visitors could talk about specific information they had learned in the Cleanroom. Based on the rate of travel through the space as a measure of an exhibit’s holding power, the immersion environments held visitors’ attention longer than the other exhibits (Jones & Wageman, 2000).

**Study Results**

Several visitor studies into immersive exhibit components and their effects on visitors have been conducted, but no exhibition evaluation that I examined had assessed if the learning that occurs in immersive exhibitions is different or greater than in non-immersion environments, or if the visitor experience is superior. Although studies have helped exhibitors measure the success of an immersive exhibition, they have not reveal whether the success is based on the exhibition technique.

The summative evaluation at The Field Museum on the Micro-Soil Laboratory investigated what was and was not working in the exhibition, but did not specifically investigate if the immersion environment increased visitors’ learning or the visitor experience. However, the study of where people were stopping, where they read labels and if they understood main messages provided Francie Muraski-Stotz with enough information to conclude that the exhibition “did not do a good enough job of connecting interpretation with immersion (personal communication, 2000).

Although the evaluation revealed that visitors stopped more frequently and for longer periods of time in the immersion environment, that was not the main focus of the evaluation and did not reveal the reasons visitors were stopping for longer here as opposed to in the non-immersion areas.

Evaluations like that conducted at The Tech Museum have revealed that visitors recognize a given immersion environ-

**Where Do We Go From Here?**

Although museum professionals believe that immersive exhibitions are effective, they are just beginning to gather evidence to substantiate their opinions. Many professionals still worry that immersive exhibitions are too “Hollywood,” or that they are merely marketing tools and have little educational value.

In an environment where museum professionals increasingly are being held accountable for creating educational experiences, highly experiential immersive exhibitions are harder to quantify in terms of learning than other exhibition techniques. But, maybe proving that visitors are learning content is not the most important goal when evaluating immersive exhibitions. If immersive exhibitions provide a rich visitor experience, is it necessary to quantify or qualify that experience in terms of the type of learning that has occurred?

Maybe we should be asking what immersive exhibitions provide that is different from other exhibit styles.
• Do immersive exhibitions engender more sociability?
• Are immersive exhibitions more memorable?
• Do they draw visitors? Do they attract different audiences?
• Do visitors return for immersive experiences?

This set of questions could investigate if and how these exhibitions affect visitors’ sociability and overall experience.

Someone recently said to me that learning comes out of having an experience and reflecting on that experience. Our jobs as exhibit professionals is to present our messages via media that give visitors experiences they cannot get in school or elsewhere. Do immersive exhibitions provide visitors with an experience on which they can look back and reflect for years to come?

References


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