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SCIENCE CENTRE ENGAGEMENT ON VISITOR PERSONAL CONNECTION

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Abstract: Museum exhibition environment provides experiential learning through its messages to influence knowledge, attitudes and learning behaviours of visitors. Connections in visitors’ cognitive, affective, emotional and physiological responses play a beneficial role in museum visits. The research focuses on how science centre as part of a museum discusses various methodological approaches to encourage visitor into having a response. The review highlights multiple learning theories underpinning how visitors learn and how these theories impact a museum’s exhibition design efforts. Using the experience of selected Science Centres as primary case-studies, this paper examines different perspectives and methodological approaches. Nurturing visitor interest through visitor personal connection represents an essential recurring concept which strikes at the core of the exhibition design process. Visitors act as celebrants of science information in an edutainment context, motivated by a quest for social and enlightening experiences.

Keywords: Exhibition design; Informal learning; Science Centre; Visitor experience.

INTRODUCTION

The biggest challenge for science centre institutions is to strategically provide opportunities for cognitive and affective learning while simultaneously facilitating enjoyment and fun. Studies conducted found that many families choose to visit museums because they anticipate that there will be fun and entertaining things for everyone in their group to see and do there (Moussouri, 2003). In most instances, families say that they come to the centre to learn something new, to enjoy themselves and to spend quality time together (Borun, 2008). Recent studies in museum have examined various factors that can influence learning such as engaging visitors' emotions or connecting with visitors' prior knowledge and interests. The style of the exhibit presentation profoundly affects the kinds of thinking engaged in by visitors (McManus, 1989). In science centre, the varieties of exhibits spanning various disciplines are incubators of scientific knowledge and emphasise hands-on exploratory learning. Using the recent experience of selected renowned Science Centres as case-studies, this paper examines the responses of the centre management in order to explore the extent to which the process occurs.
OBJECTIVE

The objective is understanding science centre engagement in visitor personal connection through comparison of approaches across science centre institutions which differ in size, type and location. The support on quality visitor experience and informal learning intentions are the essence of this paper.

LITERATURE REVIEW

Exhibition design as a way of intentionally organizing and orchestrating the museum visitor experience began to receive greater prominence in the 1980s (Miles, Alt, Gosling, Lewis, & Tout, 1988). In the museum context, exhibitions have been likened to a play: an exhibition has an overarching theme or storyline (plot) that can be divided into acts (galleries or subdivided spaces) and scenes (display clusters). Individual elements such as text panels, images and objects can, in turn, be related to dialogues, soliloquies, and props (Crawley, 2012; Rabinowitz, 2013). Similarly, Yellis (2010) draws parallels between the museum and the theatre in the sense that both can transform visitors on an emotional level. He argues that both a strong narrative as well as attention to the exhibition staging, or atmospherics, are essential for enacting this transformation. While there has been much interest in experiences in the museum, tourism, and broader consumption literature, the term itself has been used interchangeably to describe some different concepts (Packer et al., 2013). In a museum, an experience can be seen as a process of mutual interaction or “dialogue” between a visitor and their setting (McCarthy & Ciolfi, 2008). The conception of visitor experience used in this study aligns with the definition as “an individual’s immediate subjective and personal response to an activity, setting or event outside their usual environment” (Packer et al., 2013).

The museum field is rich with literature that addresses the concept of informal learning or “free-choice” learning in museums (Falk & Dierking, 1992, 2000). Hein (1998) suggested that museums typically do not have set formal curriculum, rather they provide visitors with informal education opportunities. Visitors largely come by their own choice and are thus intrinsically motivated. They engage in activities in a self-directed manner, and therefore, their methods of learning are varied (Greenhill, 1999a). In describing the integration of intrinsic motivation into a theory of learning, Rice (2001) highlighted the task of museum educators is to move people into becoming learners. “…In the mission of moving people from a recreational agenda to a learning-centered agenda, there is no better motivator than a powerful aesthetic experience” Rice (2001, pp. 49). A theory of learning that integrates into it the function of motivation is ultimately one that can reconcile affective experiences with the construction of meaning. According to Perry (1992), requirements for an intrinsically motivating museum experience include the ability to instill curiosity, challenge, control, confidence, play and communication in the visitor’s experience. To achieve intrinsic motivation, the learning theories underpinning how visitors learn and how these theories impact a museum’s exhibition design efforts are further discussed.
METHODOLOGY

The research question that guided the investigation:

i. What are the methods used to encourage visitor into having a response?
ii. How do this effect visitor participation and immersion?

The method of inquiry used was educational connoisseurship and criticism (hereafter referred to as educational criticism), an arts-based qualitative method of inquiry initiated by Elliot Eisner (1998; 2002) and used now by researchers worldwide (see for example Flinders, 1996; Barone, 2000; Uhrmacher & Mathews, 2005). Educational criticism requires that the researchers describe, interpret, evaluate, and discern themes, although the distinctions are “sharper on paper than in fact,” Eisner points out (2002, pp. 225). The descriptive aspect of educational criticism is intended to allow the reader to “participate vicariously” in the educational situation, which points to the use of literary vignettes that are presented here. The author observed and recorded in photographs the scenography, exhibitions, and activities in the galleries. The data collection process come to a concluding interview during which time the author asked the respective Directors and Curator to reflect upon how creating interest and curiosity themes emerged at the core of the exhibition design process. Next, following Eisner’s ideas about "selecting a focus" and "building a plot" (see Eisner, 1998, pp.189-192), the researcher analyzed the data with pragmatic intent. That is, examined the data with an eye towards building a story. The researcher provides several vignettes that illustrate portions of design ideas from the case studies; these vignettes in part serve as the response to the first research question inquiring on the methods used to encourage visitor into having a response. This will lead the researcher to interpret how this effect visitor participation and immersion in an understanding level of engagement of the experiential settings. The researcher then draws out the dominant themes from the vignettes and discusses each in detail and relation to other relevant literature.

FINDINGS

i. Taking Science Home - Science centre hopes to address interest in science. The planning and design of exhibitions are aimed toward this goal.

ii. Making Science Accessible - A crucial requirement for helping visitors discover connections with science is to ensure the science centre and its contents are accessible to people.

iii. Providing Relevance by Drawing on Social Environment - Everyone has a preference - grounded in one's cultural value and own personal experiences. Incorporating exhibits, information, and issues within the science centre exhibitions that reflect on visitor's lives or social environment can help cultivate connections.

iv. Creating Interest by Engaging with the Exhibits - Sometimes unearthing discovery can pave the way to engaging with science, creating new interest, and introducing new ideas and connections.
CONCLUSION

Designing and developing exhibitions is a complex and organic process with many factors to consider - content, message, exhibits, layout, flow, media, lighting, timeline, and many other issues. The theme, engagement on visitor personal connection, explores the pertinence of the interrelationships formed while creating exhibitions. A science centre exhibition can be a difficult format through which to connect with visitors unless the content is presented in an accessible manner which draws on previous visitor experiences or offers new engaging opportunities. The exhibition design must support the message and aid visitors in cultivating connections by taking science home, making science accessible, providing relevance by drawing on personal and the social environment and creating new interest by engaging with an aesthetic theme.

The various design techniques discussed correspond quite closely with findings in Hood's (1983) study on museum visitor expectations. Hood identified social interaction, active participation and feeling comfortable in one's surroundings as the most valued attributes for occasional museum participants and non-participants. There is a definite overlap between the attributes Hood reported and the techniques identified in this study. In both cases, opportunities for visitors to interact, or connect, with the exhibitions and other people prove to be important. The exhibitions are a vital component in helping visitors make connections with science.

SELECTIVE REFERENCES


