Exhibit Evaluation from Start to Finish: An Example from the Children's Museum in Boston

Jeff Hayward
People, Places & Design Research
Northampton, MA

It used to be that "evaluation" was something that people did "after-the-fact" – when the exhibit was built, installed and in use. However, people are realizing the value of an evaluation process which begins while the exhibit is being planned, and continues after it is in use. This summary describes an example of that process: an evaluation of "The Estimating Game," a traveling exhibit developed by the Children's Museum in Boston (exhibit developer: John Spalvins).

Three goals guided this evaluation process: assess the effectiveness of the exhibit as installed at the Children's Museum; assess the effectiveness of "mock-ups" or "try-outs" of parts of the exhibit as they are developed; and provide information about children's understanding (or lack thereof) of the concept of estimating, to help with decisions about content and design. These goals suggested that a majority of the evaluator's work should be done during the planning process, reserving some time for follow-up analysis of the final exhibit. A key factor in the success of this evaluation was that the evaluation strategy was a collaborative effort of the exhibit developer and the evaluator.

Evaluation began in the first week of the project, with questions raised by the developer: What do kids know about estimating? What will be the advantages and disadvantages of computers in the exhibit? and Will "Headline questions" be effective? (e.g., How many jellybeans in this jar?). Evaluation strategies included:

case studies (identification of other math-oriented exhibits and interviews with several other exhibit developers); concept planning interviews with children and adult visitors to the Museum (investigation of their awareness, knowledge and use of estimating concepts; and exploration of visitors' interests in a wide range of estimating examples); evaluation of a mock-up of several preliminary exhibit elements; evaluator participation in team meetings during final exhibit development; and analysis of visitor use of the final exhibit. This variety of activities created a sense of continuity and ongoing ability to raise questions about many aspects of exhibit design and development.

Results of the evaluation can be described on two levels: during the planning process and evaluation of the final exhibit. During exhibit development, for example, evaluation activities were used to inform decisions about the concepts and content (e.g., that children were more interested in personally-relevant content such as your own height, or how many times your heart beats in a minute), as well as decisions about the age appeal of the exhibit (research showed that initial plans for estimating activities were not likely to be understood by children under age 9, even with parental involvement, and this conclusion inspired a period of intensive planning to develop activities for younger children).

Evaluation of visitor experiences in the final exhibit (based on two methods of observation and two types of interviews), produced the following conclusions:

- The Estimating Game is a popular exhibit among children and adults;
- the initial problem with age appeal was resolved;
- the exhibit is considered to be very effective because (a) it is well used, (b) people stay at it for a long time, (c) children do understand what the exhibit stations are about, and (d) the mix of different types of exhibit stations is