For the vast majority of people, a museum visit is a social experience. We know considerably less about how informal learning within a social context differs from learning by oneself. Only recently have researchers begun to systematically study the influence of group variables on informal learning (e.g., Bitgood, 1993). Most of this attention has been paid to family learning (Borun, Chambers, & Cleghorn, 1996). Understanding the social nature of a museum visit has important implications on label development. The following review is provided in hopes that these findings will be incorporated into label development.

Group variables that play a role in museum learning include:

- **Gender of the individual** (both child and adult): Male and female children often show preferences for gender-typical behavior (e.g., Kremer & Mullins, 1992). Adult females are more likely to take a caretaking parental role (e.g., Diamond, 1986).
- **Group composition**: The combination of age and gender of group members may determine what is learned. An adult accompanied by a young child is less likely to experience an exhibit in an adult way since he/she will tend to focus on the young child’s experience (reading and interpreting to the child, asking questions, etc.). Bitgood, et al. (1993) found that the viewing time of adults was correlated with who they were with. A child's presence increases the total time at child-preferred exhibits and decreases the time at adult-preferred exhibits.
- **Size of group**: Larger groups seem to have a negative influence on the total time individuals spend in an exhibit (Bitgood, et al., 1993).
- **Individual and group agendas**: If there is a conflict in agendas (e.g., the child wants to play, the adult wants to teach the child science), conflict occurs and less learning is the outcome.
- **Parenting style**: Group members will learn less if considerable time and effort by adults is placed on discipline of children rather than on positive learning activities.
- **Type of relationship between and among group members**: Older married couples are likely to focus more on the learning environment, while young couples who are passionately in love are more likely to focus on each other. Other types of relationships are likely to influence learning as well.
- **Strategies for acquiring knowledge**: Families with young children often cooperate in their learning strategies (Bitgood, et al, 1993; Hilke, 1988). Children frequently go off and return with information to share with other family members while adult groups are much less likely to share information with each other.

Exhibit variables that influence group learning are:

- **Content/subject matter**: The content of some exhibits encourages more group interaction than the content of others. Subjects that have the widest general appeal are likely to stimulate more group interaction than those with appeal to only one person in the group.
- **Amount of text and objects**: Text-heavy exhibits seem to encourage more of an individual learning experience.
- **Configuration of exhibit elements**: The physical layout of the exhibit elements can play an important role in group learning. If labels are placed in a position such that only one person at a time can read them, less group interaction is likely to occur.
- **Hands-on opportunities**: Children are more likely to touch and manipulate hands-on exhibits. Adult groups may fail to learn from a hands-on exhibit because they don’t try.

References


This study attempted to identify and measure family learning in science museums (Franklin Institute, New Jersey State Aquarium, Philadelphia Zoo, and Academy of Natural Sciences). Three levels of learning were identified and related to behaviors at specific exhibits. The project will next attempt to design exhibits to facilitate greater learning.