

Family learning in art museum interactive spaces A Literature Review

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Picture a mother and two children, a girl, age 8, and a boy, age 10, walking through the art museum on their way to a family interactive gallery. The mother momentarily stops to talk to a museum staff member and the children quietly wander over to look at a large contemporary sculpture nearby. Their behavior is proper and they appear to enjoy themselves, laughing, pointing, and mimicking the gestures in the sculpture with their bodies. The mother notices the children have moved away from her and, a bit startled, she calls to them, saying, 'Oh no, this isn't your area of the museum, come, we are going there now' and the family moves quickly, passing, but not looking, at the art objects on their way to the family gallery.

Many American art museums ¹ have dedicated spaces that invite family visitors to touch and manipulate the environment and to engage in exploratory and creative play, where the use of computer or digital technology may or may not be a part of the experience. Although the exact number of such galleries is not clear, a 2008 web survey ² of U.S. art museum educators found that of seventy-seven art museums, forty-six (60%) reported having an interactive family gallery. Of those spaces, thirty-seven (80%) were created since 1999, suggesting a growing trend.

Despite the prevalence of interactive family galleries in art museums, little is known about who uses them, why and in what ways, and how experiences in these spaces connect to families' larger art museum experience and to their everyday lives. A handful of unpublished evaluation studies in this area hint at the rich potential of how family galleries in art museums contribute to family learning; however, they are not generalizable given their situational focus on one particular museum. In fact, there is little research focused on families in art museums, despite the fact that more than 90% of art museums nationwide offer specialized programming for families.

In order to address these issues and more fully understand how family galleries facilitate intergenerational learning and what forms that learning takes, educators from three art museums, the Frist Center for the Visual Arts, the High Museum of Art, and the Speed Art Museum, and researchers from Audience Focus and the Institute for Learning Innovation received funding from the Institute for Museum and Library Services (IMLS), an agency of the U.S. federal government, to conduct a comprehensive, systematic research project of family learning in interactive galleries across multiple art museums. This research (currently in its third and final year) seeks to explore the following questions:

- Who are the families who use interactive galleries in art museums, and why do these use these spaces?
- How do families situate their use of interactive galleries within the larger art museum experience?
- What is the value of interactive galleries in art museums for families?
- How does the value of interactive galleries in art museums intersect with and support a family's core values?

At the heart of our investigation is the notion of *connection*. When asked about the purpose of dedicated interactive galleries for families, art museum educators typically offer two intentions: 1) to bring more families into the art museum; and 2) to help families feel comfortable in the art museum, and to thus 'launch' them into the permanent collections and exhibitions, both physically and cognitively. The degree to which these interactive galleries accomplish such aims is unclear.

At the outset we conducted a web survey of art museum educators and a comprehensive literature review on family learning in art museums, selecting published articles and books, as well as unpublished evaluation studies. The primary purpose of the literature review was to provide grounding for our assumptions about family learning in interactive art galleries as we created and tested frameworks. It also allowed us to see the gaps in the research. This article provides an overview of that literature search as it relates to what we do and do not know about our core research questions.

Who uses the galleries and why?

This research question yielded the most information from the literature review and several sub-categories of information emerged including: how a family is defined; what separates families from other types of museum visitors; and what motivates families to visit the museum and/or interactive gallery.

Defining Family: What constitutes a family in contemporary society is increasingly complex, with definitions of 'family' varying from study to study. Within the last decade or two, many researchers and museum practitioners have expanded upon the older notion of the traditional nuclear family consisting of a mother, father, and two or three children, to include other forms such as single-parent families, step-families, binuclear families, extended families, cohabitating couples, and same sex couples. If family groups are no longer easily defined by blood-relation or living situation, what can researchers say about families that will distinguish them from non-family social groups or visitors who come to the museum alone? One key element is that families closely resemble and are sometimes described as communities of learning or communities of practice. By conceiving of families in this way, researchers emphasize the importance of social interaction through which families learn, as well as a family's tendency to work towards the same goals. For the purposes of our study, we define families as multigenerational groups of two or more people with a child under the age of 12 years.

Motivations for Family Visitors: When families seek leisure-time pursuits, a negotiation between group and individual needs drives the decision-making process about where to go and what to see and do. Researchers examining family behavior in museums find that adults and children can equally influence the decision to visit a museum.

Although family visits to museums seem to fluctuate between planned and spontaneous visits, each family arrives at the museum with a unique set of goals, motivations, and expectations for their visit on

any given day. These desires, needs, and expectations are known as the family agenda. These agendas directly influence what families do and how they act during their visit, as well as what benefits they take away.

In most studies, families say that they come to the museum to learn something new, to enjoy themselves, and to spend quality time together. Much of the research suggests that family visitors go to museums for social interaction and learning, or to learn together. Some researchers claim that for families, the motivations to learn, interact socially, and enjoy themselves are so intricately intertwined, that they essentially make up one agenda and it is not a question of either-or.

While social interaction, learning, and enjoyment are the most commonly cited motivations for visiting a museum, there are other motivations. For example, parents who visited museums when they were children now see museum-going as a rite of passage that their own children need to experience. Other families come with the expectation of being surprised and to do and see things that they cannot see or do any place else. Other family visitors come to museums because of practical issues, such as the admission is free or reasonable, the museum is located close to home or easily accessed, or the current weather makes an outside family activity impossible. Finally, some family visitors come to museums because of their perceived importance to the local community and culture.

How are the galleries used?

Most of the research related to this question was conducted in non-art museums and focused on the whole museum rather than dedicated interactive spaces within the museum. Since most of these museums were science centres or children's museums, the whole museum tended to be interactive. The data from these studies does provide strong evidence related to the pattern of family visits, time spent in the museum, structure of the visit, negotiated decisions, social interaction, the role of different members in family learning, parent behavior, and interaction with museum staff and other visitors. The occasional study in an art museum usually supports many of the findings on families' use of interactive experiences in other types of museums.

Time Spent: Although the length of time that families spend in the museum depends on a number of factors, a few studies in art museums found that families spend between one and two hours in the museum.

Components of the Visit: Very few evaluation studies in art museums tried to discover if the interactive gallery experience launched families into the permanent collections or exhibitions. The findings were inconclusive and hinted that the connection to the rest of the museum was not necessarily direct. In contrast to science centres and children's museums where the majority of the main exhibition spaces are interactive, art museum studies suggest that families spend the majority of time on family-based events or programmes, with less time spent exploring the galleries. In particular, parents of younger children tended to confine their museum visit to the interactive space or family programme because they felt their children would either be uninterested in the permanent galleries or not behave well.

Family use of written labels and instructions appears relatively limited. When label reading does occur, it is usually the adult reading the label aloud or silently and then interpreting that information for the child. In a study of first-time family visitors to the Cincinnati Art Museum, parents often requested additional interpretive information, feeling ill qualified to help their children make sense of what they

are looking at, yet, a study at the Los Angeles County Museum of Art revealed that families rarely read labels in the art museum.

Social Interaction: Families operate as a social unit and so, not surprisingly, they spend a large portion of their time at the art museum engaged in social interaction and conversation, sharing what they know and trying to learn more about each other and the world around them. Many studies show that each family member benefits from interacting socially with the larger family group. While some researchers posit that this interaction results directly in learning, others maintain that social interactions are part of a larger, more indirect mechanism through which learning happens.

Research on family learning in all types of museums finds that certain types of verbal and non-verbal social interactions are commonly associated with learning. The most commonly cited learning behaviors include: asking and answering questions, providing descriptions, offering explanations, reading labels aloud, directing and orienting, pointing, observing and modelling, pretending or role-playing, providing clues or making suggestions, creating and presenting work, and offering reinforcement.

Behavior of Family Members: Many studies looked at the different roles and responsibilities family members assume while engaged in learning conversations and behaviors during a museum visit. Kropf found that teaching was a reciprocal activity that all family members engaged in, even though each family member might engage in such behaviors for different reasons and in different contexts.

However, not all studies agree that parents and children engage in teaching or learning behaviors equally. Some studies found that parents are more actively involved in supporting or teaching roles; other studies found that children will take on more active teaching roles than parents if the child is considered an expert on a subject. Palmquist and Crowley argue that the person who ends up providing the most information during a museum visit cannot be predetermined by the person's status in the family (parent or child, mother or father), but rather, the family group 'actively negotiates who will provide information depending on who is the most knowledgeable about a presented topic'.³

Kelly et al found that parents differ in the level of guidance they extend to their children, noting that some parents have clear strategies for helping their children solve problems and understand exhibitions, while other parents tend to let their children explore on their own and provide assistance only when the child asks questions. In a study of family visitors in a hands-on science centre, Brown went further to identify eight different types of parental behavior: 1) Caretaker – parents who kept surveillance, but allowed children to explore freely; 2) Supporter – parents who provide support without interference; 3) Helper – parents who help out only as much as required so that children can take over as much as possible; 4) Initiator – parents who initiate the activity and then pass it over to the children; 5) Assistant – parents who act as an extra pair of hands for children who take the lead; 6) Partner – parents who act as equal partners with children throughout an activity; 7) Leader – parents who lead activities throughout, only allowing minor contributions from the children; and 8) Demonstrator – parents who carry out the entire activity by themselves while children watch. This framework has not been tested in art museums.

Interaction with Museum Staff & Other Visitors: Little research focuses on how families in museums interact with others outside of their group, such as museum staff and other visitors. However, studies

that mention family interactions with museum staff, such as guides, docents, and educators, hint at the potentially powerful role such interactions can have in the family learning experience.

What is the value the galleries for families?

Over the last fifteen years researchers have increasingly supported the idea that learning in museums goes far beyond the acquisition of facts and skills, to include a range of affective, perceptual, and social learning outcomes. Some of this research is focused specifically on families but much of it includes families as part of the larger museum population. There are some studies related to art museums, but very few focus specifically on the outcomes for interactive family galleries within the art museum.

The United Kingdom's work on outcomes in museums and libraries has significantly guided our work in this research project. However, there is little solid research focusing on the outcomes or benefits of an interactive gallery in the art museum. When asked to articulate outcomes for their interactive spaces, most educators did not phrase responses as outcomes – how visitors might benefit from the interactive experiences. Rather, they were typically stated as goals or objectives – what the museum hoped to accomplish or what the museum intended to do for families. It seemed difficult for museum practitioners to think about the experience from the visitor's point of view.

As we synthesized the various outcomes found in the literature, we noticed that while there was a good deal of shared ground, the frameworks used were all slightly different. In order to create a more inclusive and holistic framework we chose to synthesize outcomes under three main headings: a) relationship-building; b) knowledge and skills; and c) attitudes and perceptions. Our rationale for this choice was two-fold. Firstly, our preliminary interviews with families suggested that these outcome categories were most salient for parents visiting interactive galleries in art museums. Secondly, recent studies have documented the correlation between visitors' entry motivations and what they take away from their experience. Therefore, it made sense to sort outcomes from the literature according to the three primary motivations for families visiting art museums. More importantly, data from our research study could be directly aligned with and analysed through the three primary motivations.

Relationship-building - learning from and about each other. Many families state that their motivation for visiting the museum is to do something together as a family. Consequently, it is not surprising that families frequently describe the value of the experience in social terms. In general, families value museum experiences that allow them to interact with each other in meaningful ways. A study of families at a children's museum found that all family members benefit by learning more about the personal interests and learning styles of individual members. Similarly, in an art museum, a mother observing her pre-school child painting in the style of Monet commented that she did not realize that his small motor skills were so developed and that he could draw recognizable forms.

Since these spaces are mainly targeted towards intergenerational groups, it was not surprising that art museum educators raised the importance of social experiences in the 2008 web survey. Several of these educators emphasized the importance of dialogue, collaboration, and learning together. One educator said that a goal of these spaces is to 'provide opportunities for visitors to share their experience with others and to learn from and be inspired by others'.

Gaining Knowledge & Skills. Parents want to take children to places where everyone can do something worthwhile and educators see the interactive gallery as a place for learning. Most often, experiences that offer learning opportunities are likely to be valued by parents whose goals is to provide their children with a range of positive cultural experiences. Evaluations conducted in interactive family galleries in art museums found that adults and children do believe that they increase their knowledge, skills, understanding, and awareness of art as a result of their experience in the space – although families are no more specific about what they learn than museum practitioners are.

Some research suggests that there is a relationship between interactive museum experiences and critical thinking and communication skills. The exact nature of this relationship is not particularly clear. For example, Ash reported that families visiting a life science museum used inquiry skills, such as observing, questioning, interpreting, and comparing and contrasting. Does the interactive experience actually teach critical thinking and communication skills, or does it provide a suitable environment where people can use and strengthen the skills they already have?

There is some indication that visitors value the opportunity to make links between their prior knowledge and experience and the art museum experience, but this has not been a strong focus of research. In addition, interactive galleries in art museums often have as their goal helping families learn how to make connections with the rest of the museum. However, very few research or evaluation studies address the issue of this connection, even indirectly.

Shift in Attitudes & Perception. This category of outcomes is perhaps the greatest dilemma for researchers and practitioners. It attempts to address what is often referred to as the ‘affective’ side of learning and the lack of depth or breadth in the literature and in the practitioner survey may reflect the fact that the expansion of the definition of learning beyond the cognitive domain is still relatively new.

One perception shift that does emerge in some research is that the museum can be a place where self-image and self-esteem are enhanced. A study in UK art museums found that visiting the art museum with grandchildren strengthens the grandparent’s positive self image. A study of families at a children’s museum found that programmes helped boost the self-confidence of all family members, and helped children become more independent and autonomous. A few studies found that families associate time spent with their children in an art museum with good parenting.

Another facet of self-image is creativity. We tend to assume that people are inherently capable and creative, only needing the proper environment in which to blossom. Although several museum educators discuss the importance of building imagination skills, encouraging imaginative play, and stimulating creativity and flexible thinking, the research data in this area was surprisingly scant. While no studies looked specifically at the relationship between the interactive spaces and the effect on visitors’ perceptions of themselves as creative beings, some studies and our preliminary interviews suggested that families like interactive galleries because they believe these spaces stimulate their child’s creative nature.

Other types of attitudes and perceptions are less evident in the literature. Stimulating visitors’ curiosity and interest shows up as an important outcome for visitors in a study of the Museum of Fine Art, Houston’s, education programmes. Yet museum educators perceived curiosity, as well as gaining a sense of awe and wonder, as less important outcomes for visitors.

Not surprisingly, when families describe what they find valuable about a museum experience, they often say they can enjoy themselves and have a good time. Parents often assessed the value of their experience in interactive galleries according to how well their children enjoyed it. Families in one interactive art space commented that their experience led them to believe that museums can be fun. Practitioners in the 2008 web survey support these findings when they describe their intentions to provide an engaging and entertaining learning environment. Some educators go so far as to say that a goal is for visitors to have fun in the interactive galleries and explore art through creative play.

Stating fun or enjoyment as an outcome of a museum visit causes some art museum practitioners to balk, particularly directors and curators, and sometimes researchers. They counter that having fun is not an outcome, certainly not a learning outcome. Rather, it is just a way that people might feel about the experience. Also, many people equate having fun with noise, running, and/or touching everything in sight. It is enough to make art curators feel quite faint.

But this resistance to fun as a valid outcome deserves attention. It is fair to ask if having fun is a benefit for visitors in an interactive family gallery. Certainly, whether or not something is considered fun depends on the individual. However, if someone values the art museum experience because it was fun, for whatever reason, then their attitude towards the museum and perhaps towards art is more positive. They ‘learn’ that the art museum can be an enjoyable experience. Search Google for ‘fun in art museums’ and notice the 25 million-plus hits, most of them referencing family programmes. Perhaps labelling fun a learning outcome is a stretch, but it is certainly something families value.

How do the galleries intersect with a family’s core values?

A visit to a museum is not a solitary event that begins when the family enters through the revolving doors and ends when they return to their cars. Studies suggest that parents often have post-visit discussions with their children in the car, back at home, or during other family events. For example, Ellenbogen found that families who frequently visit museums (including art museums) often discussed their visit over dinner or referred to it when engaged in a related activity later on. However, we know very little about how families integrate their art museum experiences into their daily lives or how those experiences support their learning agendas, values and relationships.

Implications for Practice and Research

Implications for Practice. How can this review of literature inform the practice of museum educators responsible for family experiences in the art museum? Art museum practitioners have made encouraging progress in their understanding of how to create environments that foster high quality social interaction. However, they could explore this area more thoroughly and consciously. It is clear that families come to the museum for a social experience; they will engage with each other anyway. Yet, family programmes and interactive spaces could be more proactively designed not just to allow families to explore and learn together, but to actively facilitate that experience. This will require experimentation and careful observation of the ways families naturally interact and how specific interventions enhance the family’s agenda. Practitioners might begin by articulating what relationship-building might look like in their interactive space. Then each experience within that space can be mapped onto this vision. How do the various components in the space contribute not just to social interaction but to relationship-building?

Where practitioners can make the most impact, and perhaps have the most fun, is by exploring ways to make the connections between interactive spaces and the collections more explicit. Consider again the opening scenario of this article, where the mother hurries her children away from the museum collections down to the interactive family gallery. In this same museum, many families told us that they do not visit the permanent exhibitions much at all, preferring to visit the interactive gallery only. Some families mentioned that they occasionally looked at work that was on their path to the interactive space. When we took a good hard look at the art in that pathway, we found very little of interest there. What if museum educators and curators thought differently about those exhibition areas that are, essentially, a curatorial afterthought? What if those areas were designed to delight, to intrigue, to foster curiosity in families headed for the interactive gallery? Might that help them to make connections between the interactive space and the rest of the museum?

Perhaps the family galleries are asked to shoulder too much responsibility for the larger museum's learning agenda. Is it fair to expect these spaces to make up for permanent collection galleries or exhibitions that are not family-friendly? Are interactive spaces the optimum learning environment for acquiring art-based knowledge? In many ways, family interactive galleries play the role for art museums that children's symphonies do for the larger symphony orchestra. Few parents take their little ones to a Wagner symphony, fearing that the experience would be so baffling and boring as to turn the child off of classical music altogether. In the same way, interactive galleries serve to introduce the art museum to young children, and to families unfamiliar with art and museums. It is hoped that, as families become more comfortable, as children develop, and as museums create collection and exhibitions that better serve the needs of family learners, they will venture out more often into the rest of the museum.

Implications for Research. Clearly, there are sizeable holes in the research literature. Many studies enhance knowledge about our first and second research questions – who are the families and how do they use interactive spaces. But when we return to the heart of our own research investigation – the notion of *connection* between the interactive spaces and the rest of the museum – there are still many unanswered questions. Although families are using interactive galleries in art museums, we know little about them beyond the basic demographic data. Are they relatively art-savvy families who are already comfortable with the museum or are they 'newer' families, less familiar and less comfortable with art and museums? What motivates a family to become a frequent visitor to the interactive space and/or art museum?

Within the larger museum-based literature, we are able to understand something about our third research question. In particular, the value of knowledge and skills and the social value of interactive galleries are widely documented. However, there is very little data specific to these galleries within art museums and some important questions remain unanswered. What is the nature of knowledge gained in these spaces and which types of knowledge tend to predominate? Is it knowledge about art or artists, art-making, culture and context, critical thinking, visual literacy, or something else? While parents clearly make family outings to the art museum because they feel it is a worthwhile educational experience, is it really knowledge acquisition that they find most valuable? What little research there is in this area and our preliminary findings hint strongly that is not the case. Instead, parents often see these galleries as rich and unique play spaces where children can connect to their creative selves. Parents tend not to have a school-like learning agenda. Their job is to raise children to become competent adults who can function in and contribute to civil society. Perhaps they see interactive experiences as one of the many ways they can work toward that broader goal.

Even less is known about how interactive galleries in art museums might influence families' attitudes towards art, art museums, and themselves and others. Research suggests that families value interactive experiences in general because they perceive them to foster a child's sense of self. This includes perception of self as confident, capable, and creative. However, we do not know much beyond the fact that parents think this happens. Our understanding of the role of interactive galleries in the stimulation of visitors' creativity and curiosity is superficial at best. The most troublesome value in this category is that of 'fun'. Families definitely value the fun-factor in these spaces, perceiving that learning is enhanced when everyone enjoys themselves, and museum practitioners understand that the spaces need to be engaging and enjoyable, but there is still an uneasy relationship with the idea of fun in the art museum. If families value interactive spaces because everyone has a good time, what other attitudes and perceptions does that influence? How does fun in the art museum differ from fun in the McDonald's play-space or making mud-pies in the backyard? Similarly, if families value these spaces because they are psychologically and physically safe, is that a real outcome? Perhaps the outcome is not that families feel the gallery is comfortable and safe, but that this experience creates a sense of ownership which will encourage them to use the rest of the museum more fully.

The most glaring gap in the literature is in the overarching area of connections. We understand next to nothing about if and how interactive galleries foster connections across individuals, family groups, the rest of the art museum, and the larger family learning agenda. A few studies found that families do continue the experience after the museum visit through discussion and activities, but we know little beyond that. Since art museum educators stress the importance of the interactive galleries as bridges between families and the rest of the art museum, this is clearly a critical research need for the field. What are the ways in which these spaces most successfully foster the different types of connections? What affect on connection-making do interactive spaces have over time? What types of families and ages of children make what types of connections most often? How does the value of interactive spaces in art museums intersect with and support a family's core values?

Our collaborative research study will explore the nuances of how families connect with and value the interactive gallery experience in the context of the whole museum and their own values that bind them together as a family unit. And it is our hope that this article will spur continued discussion and further research in these areas.

This is an abridged version of a longer article which is available to members to download from the engage website. The complete version discusses the studies cited in more detail and includes an extensive bibliography.

NOTES

1 In the U.S. the term 'art museum' is standard usage; galleries denote spaces within an art museum.

2 The 2008 web survey and literature review are part of a U.S. collaborative research study on intergenerational learning in art museum interactive spaces. As of April 2010, www.familiesinartmuseums.org will describe this project and, by Fall 2010 will post research findings and video tours of the three interactive spaces. NOTE: The URL has changed to www.artmuseumfamilyspaces.org as of September 2021.

3 Palmquist and Crowley, 2007. p.786.

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