

Exploring Characteristics of Family Engagement Strategies Implemented Within Art Museum

Exhibitions

Claire M. Bennett

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Jessica Luke

Michelle Hagedorn

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University of Washington
Abstract

Engaging Families in Art Museum Exhibitions: Exploring Characteristics of Family Engagement
Strategies Implemented Within Art Museum Exhibitions

Claire Meredith Bennett

Chair of the Supervisory Committee:
Jessica Luke, PhD
Museology

The purpose of this study was to characterize interpretive strategies used by art museums to engage families within exhibitions. The study focused characterizing the various ways in which staff tried to engage families with art in exhibitions as well as the perceived affordances and constraints associated with those strategies. Using a case study design, data were collected from three art museums through semi-structured focus groups and document analysis of exhibition photographs or related documents. Findings suggest that these institutions used a number of design, spatial, and text-based strategies to engage families with art, even though these museums did not plan exclusively for families within exhibitions. Staff felt these strategies gave families context, encouraged collaboration, encouraged different levels of engagement, and gave visitors a place to relax. However, staff at these museums felt that successful inclusion of these family engagement strategies required early buy-in from a range of staff outside education departments; needed adequate facilitation or scaffolding for visitors; included activities with potential maintenance issues; and that inclusion of these strategies depended on content of exhibitions. These results offer the field an understanding of the strategies these institutions encouraged families to engage with art within exhibition.

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Chapter 1: Introduction

Families are a key audience for art museums, but at the same time, they don't tend to develop exhibitions for family audiences. Instead, they tend to target families through programming and activities. Art museums have increasingly utilized varied strategies to attract family visitors into their spaces and meet families' needs. While the exact combination of these strategies differs by institution, there are a number of field-wide trends. More than 90% of art museums nationwide offer programming specifically for families, with the most popular program being the family day, characterized by Wetterland and Sayre (2009) as "events programmed throughout the museum specifically for families" (p. 38). Often, these specialized programs include activities for families, like art making or games like scavenger hunts (Davis, 2016). These family days differ in frequency by institution, from weekly to annually.

More and more art museums have tried to target family audiences through family-dedicated interactive galleries. These spaces offer families ways to engage with art through play, art making, and touchable objects, and various other engagement strategies (Adams & Luke, 2005). These spaces are often separated from exhibitions within these institutions. Adams and Ancelet (2011) found that families spent approximately 40% of their time within family-dedicated spaces. Furthermore, families typically explored two or three galleries, but "used very few programs and/ or materials during their visit" (Luke, Figueiredo, & Ong, 2011, p. 5).

Within gallery spaces, art museums like Denver Art Museum have introduced activity bags/backpacks or family-specific guides that families can take into exhibitions (Denver Art Museum, 2015). Families can borrow these bags for the duration of their visit. Activity bags and family guides function in similar ways, in that they both provide by including questions to pose,

books to read, and games to play, in order to scaffold family experiences. (Berman, 2009; Davis, 2016).

While research shows why families visit art museums (National Endowment for the Arts, 2015), and what they do during their visit (Luke, Figueiredo, & Ong, 2011), very little is known about the strategies that art museum professionals are currently using to engage families with art in exhibitions. The literature that does exist tends to describe these strategies, rather than empirically studying them. For example, The Crocker Art Museum (2014) developed a series of best practices to cultivate family audiences within art museums, in collaboration with Denver Art Museum, Dallas Museum of Art, and Columbus Museum of Art. While these strategies are helpful for art museums to begin thinking about how to engage families throughout the entire organization, it does not focus in-depth on the strategies that can be utilized within exhibitions exclusively achieved.

Study Purpose

The purpose of this study is to characterize strategies used by art museums to engage families within exhibitions. Three research questions guided this study:

1. How do art museum staff characterize family audiences and family learning within their exhibitions?
2. How do art museum staff characterize the various ways in which they try to engage families with art in their exhibitions?
3. What do art museum staff perceive as the affordances and constraints associated with these strategies?

Study Significance

The results from this study shed light on the strategies three art museums utilized within exhibitions to encourage families to engage with art. It also provides an overview of benefits and drawbacks staff associated with these strategies. Thus, art museum education and exhibition design departments that deal with exhibition interpretation may be interested in these findings as a way to encourage family engagement. However, since these strategies have been utilized within exhibition spaces, curatorial and exhibition development staff might benefit from these findings as well to ensure that strategies that engage families with art have been included within exhibition planning.

Chapter 2: Literature Review

The purpose of this study was to characterize interpretive strategies used by art museums to engage families within exhibitions. This study drew on three main bodies of literature: a) family learning; b) family engagement in museums, including family engagement in art museums; and c) exhibition design best practices, including best practices for exhibition label text. This chapter attempts to place this study within the existing literature.

Family Learning

Due to the great number of family engagement resources that relied heavily on family learning to understand how families engage within museums, it became necessary to explore various family learning frameworks that have been utilized by museums. While none of the family learning frameworks discussed below served as frameworks for this study, it was important to understand how these frameworks functioned, in order to understand how these frameworks could be applied to practical exhibition design.

Multiple educational theories inform the ways in which people learn in social groups. Bandura (1971) proposed a major shift in how learning occurred with his social learning theory. Prior to Bandura, learning was based largely on ideas of behaviorism (Watson, 1930), where humans were seen as empty vessels through which knowledge could be received by classical conditioning of stimulus-response of positive or negative reinforcement. For behaviorists, the learning did not depend on the learner, but instead of the role of the teacher to provide appropriate positive or negative stimuli. Bandura argued that learning took place in a social setting through observation or direct instruction:

“Traditional theories of learning generally depict behavior as the product of directly experienced response consequences. In actuality, virtually all learning phenomena resulting from direct experiences can occur on a vicarious basis

through observation of other people's behavior and its consequences for them" (p. 2).

Unlike behaviorism, where the individual learned strictly through positive or negative reinforcement on themselves, Bandura argued that a person could learn without direct reinforcement. He believed that individuals learned primarily through observation, by viewing modeled actions as social prompts for the observer. Observers then determine the appropriateness of the model's initial behavior based on the observed encouraging or preventative. Models could be live (in-person demonstration of behavior), verbal (explanation of behavior without performing the action), or symbolic (through culture, like books or movies.) Bandura argued that four subprocesses were needed for observational learning to take place: attention, retention, production, and motivation. The observer paid attention to relevant information, then rehearsed the information observed, performed the action, and received appropriate reward or punishment for the behavior.

Other social learning theories moved beyond Bandura's idea of modeling and observational learning. Lave and Wenger (1991) argued that learning is a social practice. Lave and Wenger argued that learning, even when not directly interacting with other people, was social because "activities, tasks, functions, and understandings do not exist in isolation; they are part of broader systems of relations in which they have meaning (p. 53)." No learning occurs in a vacuum, so that all knowledge learned occurred only within and from the context of other prior social knowledge. They felt that, "learning is an integral and inseparable aspect of social practice (p. 31)."

Lave and Wenger's (1991) theory "[emphasized] the significance of shifting the analytic focus from the individual as learner to learning as participation in the social world, and from the concept of cognitive process to the more-encompassing view of social practice" (p. 43). Lave

and Wenger argued that “learning is not merely situated in practice – as if it were some independently reifiable process that just happened to be located somewhere; learning is an integral part of generative social practice in the lived-in world” (p. 35). Individuals exist within communities of practice, which are made up of groups of people who share a common interest or concern about an activity and learn to improve by interacting with other from this group on a regular basis. For Lave and Wenger, knowledge does not exist in an individual’s mind, but within the framework of this community. These relationships become an apprenticeship-like relationship with others from within the community of practice. In the beginning, an individual starts at the periphery of the community of practice with a limited understanding of the community. As time and knowledge of the community increase, these newcomers move towards full participation within the community as an “old-timer” (p. 57). However, even if an individual is at the periphery of a community of practice, they can take part in the process of “legitimate peripheral participation” (p. 29), which means that they can still engage with the community of practice in a meaningful way. Unlike an apprenticeship, where the expert imparted their knowledge to the novice, knowledge within a community of practice did not move in a single direction from old-timer to newcomer, but instead can occur at any level of participation. This theory frames learning as a social practice, which has implications for thinking about how families learn in a museum.

When viewed in light of Lave and Wenger’s communities of practice, museums become a collaborative learning experience with visitors, especially families or intergenerational groups, having meaningful and potentially important contributions to both their primary community of practice that is their family, but also to the museum experience in general. Museums no longer function as the sole information authority for visitors. Museums become more of a social

learning tool than a teaching authority and this visitor-centered view of learning has wide-ranging impacts on exhibition and program planning.

One of the most important learning theory for museums, or at least one the most frequently cited for family learning in museums, is the work of Vygotsky (1978). Vygotsky believed, through his Sociocultural Theory, that learning was the integration of both personal and social factors, making it a reciprocal experience between an individual's personal experience and their social environment. There is an enormous emphasis placed on dialogue to help understand the world. Conversation is both process and artifact of learning for Sociocultural theorists. It is an important tool for both learning and teaching.

Vygotsky suggested teaching is most productive when it occurs within the zone of proximal development: “It is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (1978, p. 86). Collaboration among peers becomes paramount for learning, which is navigated through conversation. Museums serve as ideal locations for the implementation Vygotsky’s Sociocultural Learning frameworks. As Ash (2003) noted:

“Parents and children have unequal practice using thematic content and inquiry skills, so that each brings diverse interests to museum dialogue. Coupled with this, the museum provides selected artifacts and signage that interact with parents’ and children’s distributed expertise. Difference demands talk, explanation, questions, and negotiation. These conditions are ideal instructional opportunities in the sense that Vygotsky suggested” (p. 156).

Family engagement in museums

The second body of literature for this study focused on family learning in museums. This section has been split into two parts: a) family learning in museums, and b) family learning in art museums.

a. Family learning in museums

To effectively engage families within art museums exhibition spaces, one must first understand the potential needs of these visitors. Understanding “family” visitors became more complicated as the definition of family expanded beyond the idea of a traditional nuclear family with mother, father, and two or three children into include single parents, extended families, same sex couples, step-families, and beyond (Borun et al., 1998; Dierking, 1989; Hood, 1989; Kelly, Savage, Griffin, Tonkin, 2004; Sterry & Beaumont, 2006.) While the direct relationship of individuals within a family may change, these groups have special relationships with each other, feel a sense of comfort with each other, and share personal history, which means that they often discuss objects within exhibitions in terms of prior knowledge and experience with one another (Falk & Dierking, 2000). To adjust to this expanding definition of what constitutes a family, museums have started to refer to these visitor groups by different terminology, like multigenerational, intergenerational, or cross-generational, or else they assume a broad, definition to the word “family” (Kelly et al., 2004; McManus, 1994).

Many museum professionals use Vygotsky’s social learning framework as a way to help explore and understand family learning within museums. “Museums are places where families play, talk, and learn from each other” (Ash, 2003, p. 138). When families visit museums, they come with their own agendas and needs, but work collaboratively to learn and make sense of the exhibition (Ash, 2003; Ash, Rahm, & Melber, 2012).

Frequently, families work collaboratively to make meaning of information during museum visits, which often happens through open-ended questions and dialogue (Legare, Sobel, & Callanan, 2017; McClain, & Zimmerman, 2014). Families tend to spend a great deal of time working to 'figure out' the exhibits (Ash et al., 2012). They do so by talking to each other about

the exhibit, asking each other questions, and playing to test out different aspects of the exhibition. Most frequently, parents help to make meaning by relating what they see to something in their child's lives or past experiences (Ash, 2004; Callanan, Castaneda, Luce, & Martin, 2017).

Parents often, but not always, act as facilitator for the experience and will often relate the exhibition in front of them to past experiences with the children; these references to past experience are often used to remind, orient, prompt, or explain (McClain et al., 2014). The purpose of Crowley, Callanan, Jipson, Galco, Topping, and Shrager (2001) observed ninety-one families to examine parent and child interactions with an exhibition about the zoetrope, an early exploration into motion pictures, at the Children's Discovery Museum in San Jose, California. They found that parents shaped and supported scientific thinking in their children through common activities of choice, noting that that when a child explored an exhibition together with their parents, their engagement was typically longer, broader, and more focused on relevant aspects of the exhibition than those children who explored these exhibitions without adults. "When children engaged an exhibit with parents, their exploration of evidence was observed to be longer, broader, and more focused on relevant comparisons than children who engaged the exhibit without their parents" (Crowley, Callanan, Jipson, Galco, Topping, & Shrager, 2001, p. 712).

The role of facilitator shifts between adult and child within the group as family members leave the group temporarily to explore, learn something to share with the group, returns to the group, and shares (Palmquist, & Crowley, 2007). A 1989 (Hilke) study discovered that adults in the museum preferred to share information with children and children to share information with adults, after observing families interact with exhibitions in both a participatory hall with a

number of hands-on activities as well as in a more traditional exhibition hall with all objects behind glass or railings. The Hilke study found that families shared information persistently in both types of museum environments, exchanging and acquiring information.

Crowley, et al. (2001) found nine different kinds of scaffolded conversations parents have with children in informal learning environments to help improve the child's scientific reasoning. These categories included directing children's attention, helping to read text, asking the child's opinion, modeling appropriate behavior, asking open-ended questions, prompting discussion about a specific aspect of the exhibition, asking the child to cite evidence for their opinions, connecting content to past experiences, and modeling enthusiasm for the child. Since family units have a common history with shared experiences, families can learn by relating the exhibitry in front of them to a previous shared experience to give context.

b) Family learning in art museums

The very nature of family learning is social because it is displayed through the interactions of the members within the group. Adams, Luke, and Ancelet (2010) noted the following:

“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 behaviours 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” (p. 4).

A pivotal study on family learning in art museums was conducted through a 2014 Institute for Museums and Library Services (IMLS) capacity-building grant awarded to the Crocker Art Museum in Sacramento, California, to examine in-gallery family learning strategies of Denver Art Museum, Dallas Museum of Art, and Columbus Museum of Art to learn how these institutions engaged families with young children. Based on in-person meetings with staff

from the four institutions as well as conversations from staff within The Crocker Art Museum (2014), an influential paper was produced, titled “Best Practices in Cultivating Family Audiences.” This paper articulates eight trends used to encourage family learning within art museum exhibition spaces:

- “Expand the definition of family
- Provide engaging experiences for all ages
- Inspire multigenerational collaborations
- Serve parent needs and desires
- Provide value through family betterment and transformation
- Make connections between art and daily life
- Create a culture of intentional experimentation
- Incorporate audience evaluation in our decision-making process” (p. 4).

Each trend included a list of smaller goals to help accomplish that particular trend. For example, in order to provide all-ages engaging experiences, there was a list of nine different ways that trend could be achieved. These ideas focus on how the museum can encourage family engagement throughout its entire organization, but these strategies do not focus in-depth on the exhibition interpretation strategies that would be useful to engage families.

As art museums have tried to become more accessible and equitable, they have increasingly utilized interactive elements like family-dedicated interactive gallery spaces. Two studies have examined interactive gallery spaces in The Frist Center for the Visual Arts, The High Museum of Art, and the Speed Art Museum (Adams et al., 2011; Luke et al., 2011). These two studies examined the characteristics of family audiences using these dedicated interactive gallery spaces, how they interacted with the spaces, as well as the perceived value of the space from parents. Results suggest that families tended to spend approximately 40% of their museum visit in the interactive gallery space, and tended to use the space at the end of their visit, rather than at the beginning as these museums had

hoped (Adams, et al., 2011). Importantly for this study, families saw seven different values in these interactive galleries: they served as a place to relax, they were a safe space, they provided a “rich, sensory experience” (p. 6), there were a space for creativity, they could be enjoyed by the entire family, they created great family conversations, and they were places to appreciate art.

While these studies are an important step in the integration of family learning within art museums, there is little information about the specific strategies that could be implemented within art museum exhibition spaces to encourage family engagement with art. How does one go develop an exhibition space that encourages experimentation? Are there general types of strategies that work more effectively than others or does it depend solely on the art museum?

Best Practices for Exhibition Design

The third body of literature that is relevant to this study focused on exhibition design best practices. These best practices have been split into two sections: a) best practices for exhibition design, and b) best practices in exhibition text. Since this study focuses on the strategies utilized by art museums within exhibition interpretation to encourage family engagement with art, it is helpful to understand best practices for both exhibition design and text.

a. Exhibit Design

Professionals like Borun (2008) urged exhibition designers to avoid classroom-based models, which tended to focus more heavily on didactic lecture or reading to acquire information about a topic within an exhibition. Although the study is twenty years old, Philadelphia/Camden Informal Science Education Collaborative (PISEC), a group that included the Franklin Institute Science Museum, University of Pennsylvania, and New Jersey Academy for Aquatic Science,

conducted a pivotal study about encouraging family learning and engagement within exhibition design. These strategies were the result of a three-phase evaluation to study family learning within science museums in 1998. From this large evaluative study, the group created a list of seven characteristics that they associated with encouraging effective family learning environments within exhibitions. Effective “family-friendly exhibits” were:

- “Multi-sided – the family can cluster around the exhibit
- Multi-user – interaction allows for several sets of hands and bodies
- Accessible – the exhibit can be comfortably used by children and adults
- Multi-outcome – observation and interaction are sufficiently complex to foster group discussion
- Multi-modal – the activity appeals to different learning styles and levels of knowledge
- Readable – text is arranged in easily-understood segments
- Relevant – the exhibit provides cognitive links to visitors’ existing knowledge and experience” (p. 23).

While PISEC argued for family-friendly exhibition spaces within children’s museums and science centers to avoid an over emphasis on the child and completely ignore the role of the adult within the group, art museums would also benefit from using these guidelines when planning exhibitions. Some of these characteristics of effective family learning exhibition strategies might have seemed antithetical to art museums because much of what exists in these art galleries are two-dimensional, meaning that their very nature excludes the possibility of being multi-modal or multi-user since surviving artists may dictate much about interpretation of the work. However, art museums have increasingly included interactive elements within their exhibition spaces in an effort to be accessible to a wide range of audiences.

Perry (2012) is another influential work about the family learning within exhibition design. Perry developed sixty-five design elements that she felt encouraged general learning and engagement within exhibitions, after evaluating and analyzing visitor interactions with an exhibit at the Indianapolis Children’s Museum that asked individuals to play with colored lights and

shadows. Based on the exhibition, Perry developed seven large-scale design principles that ensured family learners' needs were met:

- Communication: Visitors to museums want to make sense of objects, phenomena, and experiences.
- Curiosity: Visitors to museums want to be surprised and intrigued.
- Confidence: Visitors to museums want to feel safe and smart.
- Challenge: visitors to museums want to be challenged.
- Control: Visitors to museums want to feel in charge of their experiences.
- Play: Visitors to museums want to be playful.

Perry proposed distinct design principles to address each of the principles. For example, within the principle of collaboration, Perry proposes the following strategies to effectively encourage family learning:

“Strategy 1.1: Design spaces that encourage members of visiting social groups to stay together and in close proximity.

Strategy 1.2: Ensure there is something for everyone.

Strategy 1.3: Pose a problem that encourages input from a number of visitors working together” (p. 203).

Perry's work has been utilized to explore effective exhibition design elements by researchers in the Exhibit Designs for Girls Engagement (EDGE) Project, a multi-site study of over one hundred different attributes in exhibitions to determine which ones would best encourage girls to feel comfortable in science museums, which could ultimately lead to girls feeling comfortable in science and topics of STEM (Dancstep, & Sindorf, 2016). The EDGE project found nine of Perry's design characteristics that encouraged young girls to interact with exhibitions. These characteristics included exhibition labels that used drawings; exhibition text that included an image of a person; familiar objects on display; exhibition space that felt homey, personal, or delicate; exhibitions that felt playful; multiple stations for interactives; space to accommodate more than three people; opportunities for visitors to watch others doing the

interactives for cues; and exhibition space that was open-ended in its nature and did not force a single path for visitors.

b) Best practices for exhibition text

Another aspect of successful exhibition interpretation involves the text included within exhibition spaces, be they labels, informational panels, or interactive instructions: “Museum objects do not communicate by themselves. They need the interpretive support that curators, educators, and designers bring to the table” (Deepthi, 2015, para. 3). Many of the early studies on exhibit design focused on what made effective didactic text labels for objects, but these ideas have proven useful to engage visitors of all levels, including intergenerational or family groups. Early studies found that including sections with headings with similar information chunked together helped visitors scan for relevant information (Bitgood & Gregg, 1986; Bitgood & Patterson, 1993; Serrell, 1996). Older studies also found that visitors were more likely to read shorter labels, and that shorter labels could encourage visitors to read more words than what was found on longer labels, reading shorter labels more thoroughly than longer ones (Bitgood et al., 1986; Bitgood & Thompson, 1988).

A number of museums now utilize the principles of exhibition text best practice as written by Serrell (2015). Serrell pointed to a number of best practices that could be followed by museum staff, including the creation and implementation of a “big picture” concept that all aspects of the exhibition, including text, can tie back to; writing to the appropriate reading level, which tends to utilize reading accessibility scores like the Flesch-Kincaid Formula or the Flesch Ease of Readability Formula; utilizing an easy-to-read-narrative voice, instead of the typical didactic, academic curatorial voice.

Gap in the Literature

While it is clear that museums have made significant strides forward in the past decade to understand their visitors, including how best to encourage family learning, there is still much more to learn, especially for art museums. As art museums have worked to make themselves more accessible to families, more and more of them have taken the approach of adding family activities to existing galleries, since most galleries/exhibitions aren't designed for families. Yet, we know very little about those activities.

Chapter 3: Methods

The purpose of this study was to characterize strategies used by art museums to engage families within exhibitions. The following research questions guided this study:

1. How do art museum staff characterize family audiences and family learning within their exhibitions?
2. How do art museum staff characterize the various ways in which they try to engage families with art in their exhibitions?
3. What are the affordances and constraints associated with these engagement strategies?

A case study design (Yin, 2009) was employed in this study, comparing family engagement strategies used in three art museums. Data were collected primarily through semi-structured focus groups of education and exhibition museum professionals, as well as through document analysis of photographs and various other documents of art exhibitions discussed by participants during each focus group session. Focus group participants compiled and submitted images and/or documents that they thought were relevant to the study. The following chapter describes the research sites, sampling procedures, data collection procedures, data analysis procedures as well as methodological limitations of this study.

Sampling

Participating art museums were selected through a combination of purposeful sampling as well as snowball sampling. Two of the three participating case study institutions were selected because they participated in a large 2014 Institute of Museum and Library Services (IMLS) grant, the goal of which was to understand best practices in family engagement within art exhibitions. These two institutions were selected because of the importance they placed on multigenerational learning within exhibitions. The third case study museum was selected through

snowball sampling, using recommendations of art museum education staff who had already agreed to participate in the study. Due to the scope of the study, only art museums were approached, but from different localities around the country. Neither art museums with separate, specialized family areas located away from exhibitions, nor art institutions that primarily interacted with families in exhibitions through family guides or family-activity backpacks, were considered for this study. All participating museums had to utilize multigenerational learning strategies for multiple exhibitions, with at least one of these exhibitions from the past twelve-month time period.

The researcher sent an email with a one-page study summary to a selected education professional at each art museum. Appendix A includes the call for participants and Appendix B includes the one-page summary of the project. The only criteria for potential focus group participants were that individuals dealt with exhibition interpretation, either as education or exhibition design staff within the selected art museums. No other criteria were used to decide participation. Participants were a self-selected sample of convenience based on responses to the researcher's call to participate.

The researcher tried to obtain multiple participants from each site, but one site could only provide one participant. A total of nine individuals agreed to participate in the study across all three art museums; the size of each individual focus group ranged in size from one-to-five participants. A total of five art museum education professionals and four art museum exhibition design professionals participated in three focus groups. Due to departmental differences between institutions, some of the exhibition interpretation professionals were counted as exhibition design participants, even though they were considered part of the larger education department to maintain consistency in analysis. Seven of the nine participants considered themselves as part of

the educational departments of their respective institutions. A table shows the group composition of each focus group. More information has not been provided about the participants to allow the needed anonymity granted case study participants, especially with regards to Museum 2 that had a single individual focus group participant.

Focus Group Participants			
Art Museum	Number of Educators	Number of Exhibition Designers	Total in the Focus Group
Museum 1	3	2	5
Museum 2	1	0	1
Museum 3	2	1	3

Table 1: Focus Group Participant Description

Data Collection

Data were collected through semi-structured focus groups (see Appendix C for focus group prompts) and document analysis. Two focus groups were conducted by the researcher through online video conferencing and one focus group was conducted by the researcher via telephone due to technical issues with the video conference website. One focus group was conducted per case study site. The researcher also asked focus group participants to share photographs and other helpful documentation of the exhibitions that demonstrated the family engagement strategies discussed during the focus groups. Some photographs and documents were submitted by participants before the focus group and other case study participants sent this information following the focus group. Fifty-one photographs and seven other documents and photographs provided by the institutions were included in analysis.

The focus group guide was based on Kreuger's (2015) *Focus Group Interviewing Research Methods*. The instrument itself was structured in four sections: 1) description of

successful family engagement; 2) discussion of all family engagement strategies used within the three most recent art exhibitions that utilized such engagement strategies; 3) exploration of the most and least successful family engagement strategies; and 4) exploration of how each institution evaluates the success of these strategies. Exhibitions discussed by focus group participants were self-selected, but were limited to those exhibitions that encouraged family engagement. While focus group participants primarily discussed the family engagement strategies within three exhibitions, sometimes participants included singular elements from other exhibitions, in order to more broadly explore various family engagement strategies utilized by the museum. Strategies utilized by these case study museums, including those singular elements from other exhibitions, have been included within data analysis. Singular elements are noted within the analysis. The family engagement strategies of nine exhibitions were discussed in detail, three per site, with elements from an additional six exhibitions discussed during the three focus groups.

Focus groups took place between February 26 and March 16, 2018. Before the start of each focus group, the researcher explained consent talking points to participants and asked them to verbally confirm their willingness to participate. Focus groups were then recorded, via video recording for those online conference website focus groups or via audio recording for the over-the-phone focus group. Each focus group ranged from fifty-eight to eighty-one minutes in length.

Data Analysis

The video or audio recordings of the focus group sessions were transcribed, and those transcriptions were analyzed through emergent, content-analyzed procedures (Patton, 2014). Specifically, responses to open-ended questions posed during the focus groups were analyzed through an emergent, inductive coding rubric that identified and characterized the various family

engagement strategies employed by the case study art museums. All focus group transcriptions and photographs were coded and analyzed through Excel using this rubric (see Appendix D for coding matrix) to highlight themes and sub-themes.

Limitations

The largest limitation of this study is that it required detailed reflection from participants about family engagement strategies utilized in recent art exhibitions. While more recent exhibitions might have been easier for participants to recall and reflect upon, successful strategies might not be as easily recalled from earlier exhibitions. Two of the case study museums did not include family engagement strategies within each exhibition, so staff at those institutions might have had even more difficulty recalling older exhibitions. This study required participants to be deeply reflective about their own practice, and about their institution's practices.

Similarly, a second limitation of the study is that the majority of exhibitions discussed during these focus groups were no longer on view. Experiencing an exhibition first-hand might give the researcher a better understanding of the family engagement strategies that might not be apparent in photographs. Additionally, those exhibition photographs and documents that already exist for these exhibitions might not clearly demonstrate all the family engagement strategies utilized.

These institutions represent possible best-case-scenario situations for family art engagement strategies within exhibitions. This means that the sample leaned heavily on larger institutions with a great number of resources available to create engaging exhibitions for families. There might be other smaller art museums engaging families in different ways.

A single hour-long focus group might not be enough time for all of the participants to build a strong rapport with the researcher. So, they might not have been as willing to reflect upon less successful family engagement strategies as they would with a colleague. These individuals represented their institutions within the focus groups.

A final limitation of the study is that focus groups were conducted online or over the phone. In-person, onsite focus groups could have allowed for a much more in-depth understanding of the discussed exhibitions as well as the strategies utilized to encourage family engagement. Focus group participants tend to have a better understanding of visual discussion cues, allowing for a more natural flow of conversation that can be lost slightly in the video or audio conference format.

Chapter 4: Results and Discussion

The following chapter summarizes the study results and findings of this research to address the key research questions: 1) How do art museum staff characterize family audiences and family learning within their exhibitions?; 2) How do art museum staff characterize the various ways in which they try to engage families with art in their exhibitions?; and 3) What do art museum staff perceive as the affordances and constraints associated with these strategies? First, each case study museum is briefly described to provide context for the findings. Second, the results and findings of this study are organized by research question, following by themes, and sub-themes that arose from analysis.

Case Study Museum Descriptions

Museum 1

Museum 1 is one of the ten largest art museums in the country, with an encyclopedic collection of art created by a range of cultures and times from around the world, with a large budget of over \$18.5 million, according to 2017 tax documents. It is located in the Southwest and describes itself as striving to engage people of all ages and backgrounds through exhibitions and programming. The exhibitions discussed by focus group participants covered a broad range of places and times. The three primary exhibitions analyzed for this study were anthropological or focused on historically well-known artists, but the cultures and time periods varied greatly. Case study exhibition topics for this museum covered the various cultures conquered by the Inca empire, images of flora and fauna within medieval art, as well as a study musical instruments within paintings of a Dutch painter. In addition to these three exhibitions, staff discussed singular family engagement strategy elements for exhibitions that ranged in topics from the representation

of cats in ancient Egypt, French poster art from the late nineteenth century, and Mexican art of the early-to-mid nineteenth century.

Museum 2

Museum 2 is a large art museum in the Midwest, whose collections focus primarily on American and European art, with an emphasis on local artists of the regions in a variety of media, and encourages creativity. Like Museum 1, Museum 2 has a large budget: over \$16 million, according to 2017 tax documents. Family engagement strategies were included in historic exhibitions as well as contemporary exhibitions. Exhibitions discussed by Museum 2 staff primarily covered slightly more abstract topics with more contemporary art than the other two museums, and included works from local artists. Exhibition topics included questioning the definition and role of family, geographic collages, as well as an experimental gallery space that explored the role of fabrics and textiles.

Museum 3

Museum 3 is a large art museum in the Midwest with the largest budget of the three case study art museums: over \$30 million, according to 2017 tax documents. Museum 3 has collections from a range of both cultures and time periods, but with extensive Asian, American, and Native art collections. Like Museum 1, the three exhibitions discussed by Museum 3 staff focused primarily on anthropological or well-known historical artists: the wealthy Roman empire, the African influence of Picasso's art, as well as the works of Dutch masters. In addition to these three exhibitions, staff discussed family engagement strategy elements from exhibitions that explored cinematic themes of an American artist from the early-to-mid twentieth century as well as American folk art of the early nineteenth through mid-twentieth centuries.

1) How do art museum staff characterize family audiences and family learning within their exhibitions?

No questions were posed to these institutions about how they characterized the family learning during focus groups. However, participants discussed these characterizations without prompting from the researcher. Two main themes emerged relative to how case study museums conceptualized families and family learning in the museum, even before the study was conducted: a) families are characterized broadly, and often associated with first-time visitors who are not familiar with art; and b) the tension around the idea of the family as a strategic audience.

a) Characterizations of family audiences

All three case study museums defined family as more than the nuclear idea of mother, father, and 2.5 children. While exact semantics of each case study art museum's definition of family differed slightly, all had similar elements within their definitions; it almost always included a multigenerational social group that knew each other, but whose relationship did not solely depend on formalized familial bonds. For example, the Museum 2 participant defined family as the following:

“We define family in a very broad way, so families are essentially a social group, so you don't have to be related. It could be your friends, your neighbors, your parents, your children, etc. It is usually intergenerational. We design for collaboration. Families can learn with each other, as well as create experiences and memories through the lens of art.”

Participants from all three case study institutions often made connections between families and other visitors, most often associating families with first-time visitors. For example, a staff member from Museum 3 said, “We hope our family activities attract all ages and are appealing to adults. We find that particularly with exhibition activity stations, novice visitors of any age are drawn to them.” A staff member from Museum 2 related family engagement to the

“butterfly visitor, who picks and chooses where they want to go through the exhibition.” An exhibition design staff member from Museum 1 related family visitors to first time visitors:

“If we are thinking about first-time visitors to a museum who could really use that scaffolding to help them look at and think about works of art. It is not even that we should tell them ‘This is what you should think about this,’ but to provide them with some steps to know how to feel comfortable looking at art, questioning art, developing their own opinions on art...”

With the three broad definitions of family, staff members at these institutions often discussed general participatory strategies, instead of those geared only towards families.

b) Tensions around the family as a strategic audience

It was interesting to note that the tension that seems to exist with these three case study art museums around families as strategic audiences. Even though the researcher did not directly ask these institutions to reflect on the idea of the family audience, participants from all three case study museums discussed family learning in terms of other groups, as noted above. The family was not the sole target audience for the exhibitions discussed during focus groups. While each institution used different terminology to describe the type of learning going on within their exhibitions, they all agreed on the importance of multigenerational social groups to feel comfortable within their exhibitions. It is unclear from this study if families were included as a type of multigenerational social group to encourage the broadest audience possible or if this idea around these multigenerational social groups as an audience were the result of a movement by these museums towards more inclusivity of different audiences. If the latter is true, then families have become one of a number of audience types that these museums try to engage within exhibitions.

2) How do art museum staff characterize the various ways in which they try to engage families with art in their exhibitions?

Case study participants were asked to describe the strategies used in their museum to engage families, in the context of the last three major exhibitions within their museum. Family engagement strategies across multiple exhibitions tended to cluster in three distinct categories: a) design; b) space; and c) text and labels. Each of these major categories contained a number of sub-themes, which will each be explored in greater detail below.

b) Design considerations for engaging families in exhibitions

The largest and most diverse category of family engagement strategies described by case study sites was related to exhibition design. Specifically, participants at case study sites described five design-related strategies for engaging families: i) sensory experiences; ii) art making activities; iii) play; iv) placement of objects; and v) maps or timelines.

i) Sensory experiences. All three case study sites emphasized the use of sensory experiences to engage families with art in exhibitions. Sensory experiences were defined as exhibition elements that encourage families to engage with one or more of the five senses: sight (close looking), touch, smell, sound, or taste. When asked to identify the three most successful family engagement strategies utilized within their most recent exhibitions, staff from two of the three museums in this study pointed to sensory experiences.

One case study participant from Museum 3 explained, “Anything that can engage other senses are really popular.” As another example, the following conversation occurred between three staff members from Museum 1 when discussing their most successful family engagement strategies:

Staff A: “We tried, where we can, to incorporate different sense activities for different learning styles...”

Staff B: “[This exhibition] engaged so many different senses and provided so many avenues into the exhibition’s content.”

Staff C: “...[sensory activities] engage learners, people who have all different learning styles, compared to coming in and just reading the panels.”

Similarly, Museum 3 staff stressed the importance of including sensory experiences for families:

“We really wanted to include sensory elements...to make it more engaging. It would allow for opportunities for families to feel like they could give their kids something to do, instead of look at stuff.”

All three case study museums reportedly included at least one sensory element within their three most recent exhibitions. Seven of the nine exhibitions discussed by these three art museums included two or more activities that targeted different senses. For example, Museum 3 included three sensory activities for its exhibition on ancient Roman wealth: visitors could touch raw ore, smell Roman perfumes, and look through magnifying glasses at details within works of art. Document analysis from the three art museums corroborated the importance of sensory experiences. Museums were asked to submit any document they thought demonstrated the engagement strategies discussed during focus groups. These documents included forty-nine photographs, two PowerPoint presentations for staff, and 7 other documents that ranged in topic from book lists to exhibition design forms and scavenger hunts. Almost one-quarter of all exhibition photographs and documents submitted by study participant sites (thirteen out of fifty-eight total documents or photographs) included at least one element of a sensory experience.

More specifically, when participants described sensory experience strategies for engaging families, they tended to most often refer to close looking, touch, and/or scent.

Close looking. The most frequently cited of the sensory experience strategies was the encouragement of close looking from the visitor, a strategy which asks visitors to examine works of art with an attention to detail. All three case study museums reportedly use close looking as a

form of family engagement, utilizing the strategy in all but two of their collective nine most recent exhibitions. In fact, two case study sites included more than one element that encouraged close looking within a single exhibition. For example, Museum 1 described a scavenger hunt, magnifying glasses, and digitized manuscripts to encourage families to look closely at representations of flora and fauna within medieval art. Museum 2 described signs prompting visitors to look closely at art and had a felt flag puzzle activity that included shapes from surrounding artwork that required visitors to carefully examine these artworks.

Staff at each museum in this study relayed the importance of close looking for family engagement. An education staff member from Museum 1 noted that a particular activity, “encouraged close looking, which as we have said frequently during this focus group, is something we think about a lot. How do you get people to spend time to look at the artwork?” An exhibition design staff member from the same institution reiterated the point on a different interactive element:

“I think that type of activity has been very successful in a lot of ways by encouraging people to look closer, take time to think about the subject matter in a different way, and give creative opportunities. Depending on the exhibition and its learning goals, often we will try to make a space for an activity, or a space to look closer at objects, or a place to sit and read something more in-depth about the objects.”

Museum 2 staff reinforced the importance of looking closely within exhibition activities: “We know [this puzzle works] really well to promote looking and collaboration.” Staff from Museum 3 included magnifying glasses for an exhibition because, “we wanted people to be able to look closely at [artwork with intricate detail].”

Document analysis of both exhibition photographs and related documents reinforced how important these three museums find the strategy of close looking for family engagement. Almost

20% of exhibition photographs and related documents (eighteen out of the total fifty-eight photographs and documents) included elements that encouraged close looking.

There were three common methods used to encourage close looking: scavenger hunts, puzzles, and magnifying glasses. All three case study sites included some type of close looking game within at least one exhibition; four of the nine total exhibitions discussed during the three focus groups included this type of game. These games encouraged close looking by either taking a detail of an artwork and asking families to find it within the exhibition or encouraging visitors to search a work of art to find the corresponding puzzle piece depicting a work of art within the exhibition. The most frequent type of looking games for families was scavenger hunts with Museums 1 and 3 reported they used this strategy, while the Museum 2 used puzzles of artwork within the exhibition. A staff member from Museum 1 explained why scavenger hunts were seen as a successful family engagement strategy:

“The point of the scavenger hunts is to focus on the social things that happen with scavenger hunts. Especially with families, it really encourages that engagement between young people and their caregivers, that cross-generational socialization, or between friends. The scavenger hunt creates dialogue, interpersonal engagement, which I really like to see in exhibitions. It is kind of boring when people are just walking around on their own. It really encourages dialogue between family members, but also between strangers. I think that social component is key to engaging audiences.”

Museum 2 frequently used puzzles to encourage families to look closely; the strategy was utilized in two of the three exhibitions discussed for this study and staff noted it as a frequent tool within exhibitions, stating:

“Puzzles are another strategy we use a lot and are foundational factors. We know they work really well promoting looking and collaboration... We treat it like a family-style activity, so it is a big table with ample seating for multiple people to try to put these puzzles together that depict a work of art right in front of them. They can't put it together without seeing the work of art, right? Unless, you are a puzzle expert. The point is that they are looking at the art.”

Museum 3 staff noted the inclusion of magnifying glasses within its exhibition on the Roman empire, which featured jewelry, worked metal, and stone sculptures: “Oh yes, we had a lot of magnifying glasses because a lot of these pieces had a lot of intricate detail and we wanted people to be able to look closely at them.” One of the eleven associated exhibition photographs shows a large magnifying glass on a table alongside five containers of touchable mineral ore.

Close looking was one of the more important family engagement strategies. Unless special circumstances, visitors are not encouraged to touch works of art within an exhibition, since the oils from hands can damage art. By encouraging families to engage with close looking in a fun or interesting way, the institution would encourage audiences to think about art without needing to touch it. These case study museums reinforce good museum etiquette through positive reinforcement, instead of negatively reacting to a child touching art. A staff member from Museum 3 shared:

“I think the officers here do a great job of being more welcoming to families. They get training on how to talk to visitors with families. Touching an artwork for example, how do they gently redirect instead of being scary and running over?”

By encouraging close looking through games or magnifying glasses these institutions tried to encourage appropriate art museums etiquette and encourage art appreciation.

Touch. Another design-based strategy used by case study museums to engage families with art in exhibitions was opportunities for families to touch objects. Two case study museums included opportunities for families to touch objects in three recent exhibitions. Museum 1 included two touch activities in a single exhibition, and Museum 3 included one touch element for two separate exhibitions. While the third case study did not note a specific touch element within their three most recent exhibitions, one of the main visitor goals of one of its experimental exhibitions was to show diverse works from its permanent collection in unexpected ways,

including touch: “You know everyone loves to touch things, which can then provoke wonder. [Family] learning or multigenerational learning was a huge factor for this [exhibition] and it was designed to promote that kind of learning.”

Analysis of exhibition photographs and related documents showed only five of the fifty-one photographs provided by the three case study sites included touchable objects. All but one of those photographs showed a single exhibition about conquered Inca cultures. So, there was limited documentation outside of the information provided by focus groups about these touchable activities.

Even though touch elements were not as frequently utilized as other sensory experiences as a design-based family engagement strategy, staff from all three case study museums felt that including touch objects was important. Both Museums 1 and 3 felt that including touchable objects within art exhibitions was one of the three most successful strategies that encouraged families to engage with art. A focus group participant from Museum 1 explained the benefits of including a large-scale reproduction of Inca weaving techniques that families and other multigenerational groups could touch:

“I think having all kinds of materials for you to touch is important. You are able to touch the different weaving and see different patterning, which is really helpful. It engages learners, people who have different learning styles, versus having visitors come in and read text panels.”

A staff member from Museum 3 explained why they thought touchable objects might not be more commonly utilized family engagement strategy in art museums, despite their popularity with the public:

“I think a lot of museums can be a little nervous if we have materials in the galleries that people can touch. Will they go and take it off, throw it, and ruin a priceless work of art? There can be concerns about that, but we have seen that most of our visitors, honestly, are really respectful and they are just really happy

to have the opportunity. They do not throw stuff across the room or anything like that. We have not had any art damage.”

Objects available for families to touch from these two participating study sites that included this engagement strategy were not works of art. Instead, these objects were “recreated weaving samples on a very large scale,” “little tactile example of kente cloth,” or “samples of different raw materials.” This allowed the public to safely touch items within an exhibition space, but kept priceless artworks safe from damage caused by oils on people’s hands. As one of the case study site participants noted: “Including raw materials as touchable activities can really help illustrate something that a diagram is just too much to wrap your head around. That becomes a better way to get some of those messages [about materials and process] across.”

Scent. The final design-based strategy used by case study museums to encourage family engagement with art in exhibitions was scent. The theme of scent as a sensory experience within exhibition design was less common, but seemed popular with both families and staff alike. Staff from one of the museums discussed a scent activity from one of its three most recent exhibitions, while participants from the second case study museum described a singular element from an exhibition outside of their three most recent. These two case study sites each included a scent activity within an anthropological exhibition. A staff member from Museum 3 explained that scent activities were memorable because they were different from the typical art museum experience:

“We had a station where you could smell different scents used in the ancient Roman perfume. One of the things that you hear when you work in an art museum is people say, ‘Oh, it is just so hard. Kids can’t touch anything. They have to be still.’ We really wanted to create some other sensory elements, something someone could pick up and smell, to make it more engaging and would allow for opportunities for families to feel like they could give their kids something to do, instead of look at art. That was fun.”

ii) Art making activities. The second most frequent design-based strategy utilized by these case study museums to engage families with art in exhibitions was the inclusion of art making activities within exhibition spaces. All three case study sites included at least one art making activity within a recent exhibition, with a total of 4 of the 9 collective exhibitions having at least one art making element. Several of these exhibitions included multiple art making activities within a single exhibition; there were ten different instances of art making activities. A single exhibition about textiles from Museum 2 offered families four different art making activities. Almost one-quarter (thirteen out of fifty-eight total exhibition photographs and documents given by the three case study museums) of all documents analyzed for this study showed art making activity. Of the fifty-one exhibition photographs provided by the three case study sites, nearly 20% (ten photographs) showed art making activities.

Case study participants were asked to rank which strategies they thought were most successful. Staff from both Museum 2 and 3 ranked art making activities as one of the most successful family engagement strategies for art exhibitions. While discussing the three most successful art engagement strategies for families, two staff members from one case study site had a conversation about why art making is important for families:

Staff A: “We really strive for artmaking that is not just the parent on a cell phone hanging back with the children doing the activity. As [my colleague] has been mentioning, we want it to be open to everyone, really.”

Staff B: “It can really facilitate a lot of conversation and being able to have those elements next to the art and make that connection is so meaningful and so powerful...A lot of kids are so into finger painting and drawing and it is an elemental thing that really connects to families and family learning. I think more art museums need to embrace that element of art and include more art making in their galleries.”

However, staff from both Museum 2 and 3 warned that these types of art making activities were only successful when properly scaffolded for the families. The subject of properly scaffolded activities will be discussed in more detail later in this chapter with research question two.

All three case study sites restricted the materials for art making activities within their exhibition areas to materials that would not cause permanent damage to surrounding artworks: pencils, magnets, fabrics, or even laminated tissue sheets to help families create their own works of art. A staff member from Museum 2 saw this material restriction as an asset to multigenerational engagement because it helped to spark creativity:

“I think the [art making activity] stations work really well because we limit the materials so much that we are forcing [families] to work together in a way. One way that I think about how we use design and material selection to promote multigenerational and intergenerational learning is that we really limit the types of supplies. It might be weird recyclable things, scissors, and then something else. An adult might say ‘How can my 5-year-old or 4-year-old use something like this? This is a difficult material for them to make something.’ That is when we would encourage them to work with their child to make something together, to work together and to collaborate. The point is that they are learning together rather than the children get dropped off and the parents check out. We want that learning to happen with each other.”

Staff often noted the need for conservation when discussing choice of art making medium. When talking about the reason behind the use of laminated tissue paper with which families could create “dry collages:”

“This activity is using a dry collage technique and asking visitors to think about the mindset that the artist might have been in while collaging. We call it a dry collage because mess can be a factor in these spaces. From my standpoint, I’m okay with a little mess. Other people aren’t comfortable with that. So, we have these tissue sheets that are laminated so that they can be overlapped and a frame with black [Plexiglas] to give it some type of parameters.”

In a different exhibition within the same institution, families could build an outfit with scraps of fabric, create bugs out of “weird materials” to hang from a fabric spider web, draw, and weave material, all to help families explore the role of fabric and textiles.

Analysis of exhibition photographs that showed art making activities reinforced what staff noted during focus groups. Materials for two-dimensional art projects were often pre-cut colors and shapes, but that would still allow families choice and creativity within their art project. Materials were easy to clean, with few images showing typical drawing mediums, like pencils or pens. Two of the case study art museums framed work areas on which the art project would occur with a black frame for two-dimensional art. The frames used for these art projects resembled the frames used for the works of art within the exhibition.

The only slight exception to this rule of restricted art activity materials within this case study was an art making space located in the lobby of Museum 3, removed from the gallery spaces. This lobby area allowed families to use more traditional coloring materials like markers or crayons. Staff from this art museum noted that this type of additional family non-studio art activity space was atypical and might not work for every museum, saying:

“Our museum is very large and can be intimidating. Maybe in another museum, it would be appropriate just to have in-gallery activities. But in our case, it is a good fit to have [this space available] briefly on Saturday and Sunday, a popular time for families to visit. That gets people to go into the gallery and also helps with wayfinding.”

However, staff within this art museum noted similar parameters of objects’ various conservation needs to help determine the appropriate medium selection for both in-gallery and lobby art making activities:

“I also think a lot of other considerations that we have to keep in mind is conservation. We can’t have markers or anything with ink in the galleries, so that is why [this space] is great because that is in the lobby and don’t have those same issues.”

Potentially damaging art making activity projects for this site were kept away from the works of art. Instead, safer non-damaging medium were preferred for in-gallery activities. For example, while the lobby art space encouraged families to coloring their own Kente cloth-pattern inspired

Picasso figure, the in-gallery art activities utilized either pencil or magnets as medium; neither medium would do permanent damage to the art on display.

iii) Play activities. Another design-based strategy utilized by these case study museums that reportedly engaged families with art in exhibitions was play. All three case study museums utilized some element of play within their exhibitions. Each participating museum discussed three exhibitions as part of this study, making a total of nine exhibitions; five of these exhibitions discussed by the three sites included elements of play. Sometimes, staff from these institutions would also discuss singular elements from other exhibitions that were not the focus of this study. Staff brought up singular elements of play from two other exhibitions during the three focus groups.

Study participants were asked to rank which strategies they thought were most successful for encouraging family engagement. While play was not the most commonly utilized design strategy across the case study museums, it was ranked as one of the most successful engagement strategies by all three museums, either as a general concept or as a specific play activity. When play was discussed in terms of a specific game, it encouraged families to look closely at art. Staff from Museum 2 stated, “Most of our participatory interpretive strategies feed heavily off of learning through play, so if people are playing, imagining, and thinking critically, then that is a sign of success.”

Analysis of an exhibition planning form from Museum 2 listed play as a learning outcome for the exhibition: “[This exhibition] will foster family (multigenerational) learning through design that supports collaborative play, conversation, and sharing.”

While the main goal for most play activities was to encourage close looking, this was not always the sole focus of the activity. Take for example, an interactive at Museum 3 where

families could virtually “try-on” ancient Roman hairstyles. Individuals took their picture with one of three touchscreens and were then able to overlay elaborate Roman hairstyles on top of their image. Busts from which the hairstyles were taken were placed on either side of the interactive to encourage close looking: “We really like to make that connection immediate.” Families found the activity entertaining; according to document analysis of a PowerPoint presentation about the exhibition, approximately ten thousand individuals virtually tried on the different hairstyles. Staff noted about the interactive, “I would have some of our [volunteers] here tell me they heard children laughing all the time because some of the hairstyles are so silly. It was really fun...That one we felt pretty successful with.”

In Museum 2, play was an overarching goal for one of their recent exhibitions. While this gallery space was not devoted exclusively to families, “a lot of family learning research went into the initial development of that experimental gallery space.” A staff member further explained,

“Play is a big element for the [exhibition] as a whole: the primary way that people, both young and old, move and explore the world. We think of it as critical to cognitive development, whether it is emotional or social. So, we wanted the [exhibition] to be a space where families, again the broad term of using it interchangeably with social groups, feel comfortable working together.”

According to analysis of an exhibition planning form for the exhibition, two of the three main engagement outcomes for the exhibition dealt with play. These goals were 1) “Visitors will look closely at works of art in the gallery to inspire their questioning, thinking, and play,” and 2) “Visitors will experiment with/mess around with different textiles.” While the idea of play looked very different between the case study art museums, the idea of play was incredibly important for each institution.

iv) Physical placement of objects. Another design-based strategy that case study museums reported to engage families with art was to physically place certain objects or images

closer to the floor, where children would be more likely to see them. Two case study sites noted this strategy, which was used for two separate exhibitions. Museum 3 placed one of the three tablets used to help families virtually try on ancient Roman hairstyles lower than the other two screens, to help accommodate both children and individuals in wheelchairs. This same institution also included two stations that asked visitors to respond to prompts for the same exhibition, each at different heights, to accommodate the same audience needs.

Museum 1 also noted that several playful illustrations pulled from illuminated medieval manuscripts were located lower on panels: “They were more eye-level for little kids, so that they could see crazy characters. That is something where they can have fun. There were lots of cute animals, like bunnies and unicorns and weird hybrid animals.” Document analysis of associated exhibition photographs showed gold outlined images of beasts on the walls that look like they were standing on the floor. These animal hybrids stood approximately two or three feet tall, which would be ideal height for young children.

One case study participant from Museum 1 noted frustration if “small works of art or objects that are hung high, even high at eye level for adults. If they are small, it is hard for children to even see the art, let alone engage with it.” As a parent, this individual acknowledged the frustration of “having to pick their children up to try to get them high enough to see [small objects in cases]. Yeah, I think that those types of objects can also be detrimental sometimes.”

v) *Map or timeline*. Education staff at two participating case study museums discussed the inclusion of maps and timelines as part of their design-based art family engagement strategies. However, these institutions disagreed on the efficacy of this tool as a strategy to engage families with works of art. On the one hand, staff at Museum 3 saw the inclusion of maps

and timelines in one of its exhibitions in a positive light because these elements gave context to both the place and time of a famous artist:

“It is also a great tool and strategy for families and intergenerational groups to use when they are talking with their kids about the content. They can talk about, ‘Oh, do you remember in school, when you learned about when Neil Armstrong traveled to the moon? Well, that was the same year Picasso did x, y, and z.’”

On the other hand, staff at Museum 1 felt that the inclusion of maps and timelines were not effective engagement strategies: “In my experience, especially with something like a timeline or a map, where there is so much content and it is all over the place, the visitor might not even look at it for that long.”

b) Space considerations for engaging families in exhibitions

The second major category of family art engagement strategies described by case study sites dealt with the use of space within an exhibition. Two themes emerged here, including i) space to sit and possibly read; and ii) space to move around.

i) Space for families to sit and possibly read. Staff from each of the three case study museums discussed the importance of including a space for families to sit, and sometimes to read. All three museums included a space to sit or read in at least one of their three most recent exhibitions. When all exhibitions discussed by the three art museums are examined together, six of the nine included places to sit or read. Sometimes these seating and tables were used for an art making activity or other activity, but not always. Document analysis of exhibition photographs of these spaces showed that activity area tables tended to be circular or small and square; these shapes and sizes were chosen because they better encouraged group discussion and collaboration than long rectangular tables. These tables and chairs were chosen deliberately. A staff member from Museum 3 elaborated on the reasoning behind these decisions:

“One thing that we do at [this exhibition], is have small circular tables rather than long tables because a long table invites the kids to do the activity and the parent to

hang back. With circle tables, you see family groups, one-or-two-family groups all working together on the activity.”

One interviewee from Museum 2 stated the need for comfortable seating quite eloquently:

“Is there comfortable seating? Is there a place where visitors can sit? That seems so basic, but it is there. If there is no seating, that is not encouraging visitors to spend a lot of time there. It is also not very inclusive for the different types of needs that our visitors have... That seems super basic, but we always have to think about these things... Visitors with different abilities, most modern stools are not great for visitors that have different body types and need to sit down or visitors who use wheelchairs.”

This individual then further elaborated about the importance of comfortable seating through a story about a conversation with a grandmother. The grandmother had a sleeping child in her lap while the rest of her family explored the museum. She then thanked the employee for the comfortable seating, especially one with a seat back. Staff from another case study museum echoed the importance of seating to serve as “both engagement place and rest zone.”

Some of these places to sit and relax included additional reading material resources for families to peruse. While not every seating area from the case study museums included reading material, every reading space included an area for families to sit comfortably. For the purposes of this study, a reading room has been defined as an area that includes books to read or look at, so an art making activity that included reference books would be considered a reading room. All three art museums included within this study included at least one reading room. For example, Museum 1 included a “small, intimate, social space where you could listen to [music and musical instruments]” as part of its exhibition on musical instruments in 17th century Dutch paintings. The space also included a flipbook with illustrations of the paintings included within the exhibition with extended text labels. Another participating museum included book resources on insects to serve as inspiration for an art making activity station within an exhibition where families created their own bugs and attached them to a web. While the staff from this institution

did not call this activity table a reading area, it was coded as one for the purposes of this study due to its inclusion of both a place for a family to sit and books to read.

Museum 1 utilized the reading room engagement strategy more frequently than the other two art museums. Staff from this museum noted, “It was a good spot for families to sit down and take a break,” for two of the exhibitions examined for this study. The reading material provided within these spaces aimed at a wide variety of families, from adult-to-child, and either covered the subject matter of the exhibition itself, like the exhibition catalog, or provided context for the time or place around which the exhibition was based.

While spaces to sit or read were included within all three of the case study museums, there was no clear consensus on the efficacy of these reading rooms as a family engagement strategy, based on the focus groups conducted. Only two of the three art museums discussed reading rooms as strategies to engage families within gallery exhibition spaces. On the one hand, staff at one of the museums said the following:

“We sometimes have reading spaces with a couple of chairs and some books. We try to have books that appeal to all ages. I feel like very few people, at least from my perspective, use that space. They are not as utilized as other spaces. The people who did use it, enjoyed having a space to sit, regroup, and look at these books they had not seen before. But, on the range of the spectrum of engagement, that was on the lower end.”

When asked to rank the least successful strategies used to engage families with art, staff from this institution listed reading rooms as one of the least successful strategies. So, for this institution, reading rooms were not necessarily seen as a successful engagement strategy.

On the other hand, a different case study museum felt that reading rooms served as effective engagement strategies. Staff at this institution found much more visitor interaction within the reading areas:

“The books are definitely being used. They are getting a little beat up now. We will replace them, if the time comes that they are falling apart. We have already

replaced the catalog because its pages were becoming quite worn. It is not unusual for us to do that.”

ii) Space for families to move around. The second theme within this category about the use of space within an exhibition dealt with the need for adequate space for families to move around the exhibition. Two museums within the case study discussed the importance of having enough space for family groups to move through exhibitions as a unit. Document analysis of exhibition photographs showed that there is a great deal of open space around activity stations and works of art.

One focus group participant from Museum 1 explained the potential downfall if interactive elements or works of art are placed too closely together:

“[It is difficult] when an exhibition has so many works of art that it is super crowded. It is really hard for families to navigate. For example, over the summer we had [an exhibition] that had amazing works of art, was super popular, and was super-packed. If you had a stroller with a child, there was no way to go through that exhibition. There was not much room when there was a lot of people there.”

An interpretive education staff member at Museum 2 noted when talking about puzzles within the gallery spaces, “[The puzzle is a reproduction of one of the works of art in the exhibition] and it is right in front of [the work of art within the gallery] with enough space for people to walk around and see the art if they want to.” These sites tried to provide space for families to walk around as a group.

Providing families with several feet of empty floor space surrounding an activity, these institutions also allow other families groups not yet participating in the activity to see how other groups interact with the space. Participating families scaffold the activity to observers. One exhibition photograph demonstrates this benefit of scaffolding perfectly. In the image, there are two different multigenerational groups playing with a video screen, virtually overlaying ancient

Roman hairstyles over their own face. While these two groups interact with the activity, an individual stands several feet behind, watching these groups

c) Text and labels

The third and final category of strategies used by case study museums to encourage families to engage with art dealt with exhibition text and other labels. This category was not as prevalent as the others during the discussions with focus group participants. As one participant from Museum 3 stated, “We use a variety of strategies in our labels and honestly, I could have a forty-five minute conversation about just what we do with the labels.” With the understanding that strategies used in text or labels to encourage family engagement are complicated, there were three themes that emerged as relevant for this study: i) asking questions or articulating prompts, ii) encouraging families to express their own opinions, and iii) writing for a basic reading level. Each of these themes will be explored in greater detail below.

i) Asking questions or articulating prompts. The most frequently utilized strategy to encourage family engagement through exhibition text was to ask questions or to give thought-provoking prompts to families. Each of the three case study institutions utilized this strategy for at least one of its most recent exhibitions, with two of the three museums noting that this strategy was used generally for exhibition text regardless of the target audience.

Museum 3 “[tries] to include questions in our labels for an appropriate audience.” This institution also tried to follow pre-established museum exhibition label text best practice guidelines, stating the following:

“Are you familiar with the Beverly Serrell? We try to follow that approach to exhibition text, in terms of keeping things shorter and chunking information out. We are not afraid to use bullet points or lists when appropriate, incorporate questions, make sentences shorter and easier to read. Those are some of the different strategies that we use.”

A study participant from Museum 2 explained that extended label text, or exhibition labels that included information beyond the artist name or artwork title, served the very specific purpose of encouraging critical thinking: “That is where we give a lot of context about the piece: telling them what to think about, not what to think specifically.” For this art museum, curators wrote initial drafts of exhibition text with education staff editing to ensure critical thinking prompts have been included:

“Some curators might feel comfortable stating that this work of art evokes these moods, when they could have worded it more like ‘What mood do you think this picture could be?’ ... The text goes to us [the education department] to ensure that our learning outcomes are happening through that element as well.”

A study participant from Museum 3 explained, “Families can take the prompts that we are prompting all of our visitors and talk with their kids, not just about the art, but also things that impact them and their lives today.” Adults can ask these questions or prompts directly to their group, which can then guide conversation and encourage dialogue within the group.

By including questions or prompts, these case study museums encourage families to think critically about the artwork in front of them. Participants from Museum 1 had an interesting conversation about the role of interpretation within contemporary art exhibitions:

Staff A: There is the idea in the contemporary art world that every interpretation is valid and that is great, but sometimes people who aren't accustomed that notion don't trust that idea. They don't trust that, ‘I think that this art is dumb,’ is a valid reaction. They don't know how to look at it.

Staff B: These people still need scaffolding. If we are thinking about first time visitors to a museum, who could really use that scaffolding to help them look at and think about works of art. It is not even that we should tell them ‘This is what you should think about this.’ But, we should provide them with some steps to know how to feel comfortable looking at art, questioning art, and developing their own opinions on art.

While these two individuals were discussing visitors in general, the same idea could be emphasized by families. In one of the focus groups, a staff member said that they included

questions and prompts to help, “families trust that their own interpretation of art is valid.” These museums include questions or prompts to families within exhibitions to feel more comfortable thinking about art.

(2) Encouraging families to express their own opinions. The second exhibition text-related strategy that the three case study museums thought engaged families with art was to encourage family members to share their opinions about the exhibition, both within their group and with the museum. To encourage opinions, study participants described the creation of areas that consisted of several objects: a question or prompt posed to visitors, paper, pencils, a small area for visitors to write their thoughts, and an area to display these responses. Families could respond to the prompt and read the previous responses of others.

Two museums utilized this strategy fairly regularly, according to the staff interviewed in the focus groups. Even though the name of these areas differed by institution, one called it “Join the Conversation Station” and the other called it “response stations,” they functioned in similar ways: to encourage groups to express their opinions about a question or prompt. Document analysis of exhibition response station photographs from the two sites showed that the set up was almost identical and included the same types of materials to encourage audience responses. One site utilized these opinion expression areas in two separate exhibitions and the second museum included this type of activity in at least one of its exhibitions. When asked to rank the most successful family engagement exhibition strategies, Museum 2 listed their “Join the Conversation Station” as one of top three most successful strategies.

These opinion activities worked to stimulate conversation within groups and to make larger connections to themes within exhibitions. One focus group participant from Museum 2 stated, “We capture those conversations in the written form that the families have with their

family group or social groups. We obviously can't catch those [verbal conversations]. We are not there to facilitate or hear those conversations." Staff at Museum 3 expressed similar opinions about how these response stations encourage family engagement:

"We got a lot of responses on that and we do get responses written in children's handwriting or adults will write out their kids' responses with their name and age. It is so cute. We definitely know that families engage with that area and we saw it was conversation-driven with families."

These opinion prompts and questions drew upon themes of exhibitions. For example, visitors at one case study site were asked to consider how they announced or displayed wealth today as a way to make connections between the displays of wealth in modern day and ancient Rome:

While these activities encouraged families to express their opinions on given prompts, focus group participants acknowledged that prompts not always followed. Not every visitor followed the given prompt, but staff acknowledged these other types of interactions were also valid:

"Sometimes, we get scribbles or people will just let their kids go wild. We are okay with that too. They are not really responding to the prompt, but if that is what their kid needs, to have a moment and go crazy on a piece of paper, then we are happy to provide it!"

iii) Writing for a basic reading level. The final text-based engagement strategy for families in art museums dealt with ensuring that writing levels of text did not become overly academic and complicated. Two of the three case study museums specifically mentioned writing in a style to engage the broadest audience with the art. Study participants from Museum 3 noted that staff aimed to write exhibition text to an 8th – 10th grade reading level. Avoiding overly academic or jargon-filled exhibition text was important because, "We are designing [exhibition text] to meet people from a variety of backgrounds, a variety of education, and a variety of ages."

While staff from Museum 2 did not note a specific grade level reading for whom exhibition text was aimed, they noted the following questions to be aware of:

“[We need to be] mindful of language our topic choices. That is something that we will always have to work on. Even if we check it after an exhibition, that is great. That will help us plan for future projects. Is this language offensive and require a certain education background? That is, we don’t want it to be like, ‘Oh, you don’t know this? You must be stupid. Why are you here?’”

This point speaks to the importance of writing for a general audience; if language is overly complicated and difficult to understand, then museums risk alienating families. If families can understand the text, then they might not feel comfortable in the exhibition spaces.

3) What do art museum staff perceive are the affordances and constraints associated with these engagement strategies?

a) Affordances

Four main categories of affordances were associated with the strategies implemented by the case study museums to encourage family engagement with art: i) giving context to visitors; ii) encouraging group collaboration; iii) encouraging different styles or layers of engagement; and iv) giving visitors a place to relax. Each category will be addressed in further detail below.

i) Giving context to the visitor. The most frequent explanation for the inclusion of the various family engagement strategies was that these elements often gave visitors context about a time, place, material, or art process to create works of art. For the purposes of this study, the idea of providing context has been defined as providing additional information beyond the work of art itself. Staff from all three of the museums within this case study emphasized the importance of context for family audiences.

Study participants noted nineteen different elements within exhibitions across all three participating case study sites that aimed to provide context to visitors. Of the nine exhibitions examined among all three case study sites, with three exhibitions examined per site, seven

exhibitions included elements that aimed to provide context. Museum 1 included elements that provided context for family audiences within all three of their exhibitions examined for this study. This same institution noted five different elements – raw dye materials; examples of weaving stitches; symbols to identify different weaving techniques within the exhibition; a video demonstrating weaving; and a backstrap loom used to weave– included within a single exhibition to help provide context for visitors.

Museum 2 included diagrammatic illustration panels in two different exhibitions: one on medieval art and another about 17th century Dutch paintings, to give visitors more of an understanding of the anthropologic and historic cultures that created the works of art. For the former exhibition, diagrammatic panels visually inserted a column fragment into its place within the larger cathedral, in order to, “...contextualize what those different fragments were, where they might be located within their original context, and helped explain the art of a cathedral or a church.” Diagrammatic panels for the second exhibition from this institution included music from the instruments included within the paintings on display:

“[The exhibition] let visitors experience what music would have sounded like then because a lot of the text [within the gallery] explained how music fit into society. It gave people an ear for the style period music that was being made during that time. But also, we have never heard a lot of these are instruments because they have become almost extinct... You might recognize it looks like something like an instrument that you might see today, but its sound was was very weird. It gave you a way to not only see it, but to hear what that strange looking instrument would have sounded like.”

Maps and books within exhibitions at Museum 3 were included to demonstrate the variety of African cultures that influenced Picasso, or to show, “how wide-ranging the face of these objects were.” Many of the books within the exhibition’s reading area focused on contemporary African art because, “We are trying to give people a broader context for the culture in which these objects were created and that it is a living culture with a living people

group.” Visitors were also encouraged to explore the African art gallery to provide even further context about the African cultures that influenced Picasso.

Museums in this case study also included elements that could provide context about a specific time period. A participant from Museum 3 explain how a timeline could help provide context to families about the world when Picasso was alive:

“[The timeline] is also a great tool and strategy for families and intergenerational groups to use when they are talking with their kids about the content. They can talk about, ‘Oh, do you remember in school, when you learned about when Neil Armstrong traveled to the moon? Well, that was the same year Picasso did x,y,z.’ People could scaffold the new content onto existing content.”

Families could use the timeline to discuss important events that happened during Picasso’s life and relate it back to information their lives. Staff hoped that the timeline would spark conversations within family groups.

Sometimes, family engagement strategies were included to help explain an artist’s process or materials used to create artwork. For two of these three case study museums, raw samples of materials were included within anthropological exhibitions. For example, Museum 3 included samples of raw mineral ore at museum guide stations to help explore the labor-and-time-intensive jobs of mining, manufacturing, and trade within the Roman Empire:

“Our goal was to impress upon people the vastness of the Roman empire, the sophistication of their trade routes, and the high-level of manual skills they had. We always have to remind people that they did not have access to power tools and that they did all of this work by hand.”

A case study participant noted that: “Materials and process: those two things, people can really get behind,” in order to explain why a scent activity had been included within an exhibition. A different staff member from the same institution agreed, stating the importance of providing context:

“When people understand process, they have a new appreciation for the art. They might see something that they are like, ‘Oh, what is so great about that?’ and walk

right by. But, when they understand the process it took and all the steps it took to make that thing, they have a new appreciation. Then, they can take that knowledge and look at other works of art or other objects, knowing what is behind it.”

To help visitors at Museum 1 understand the materials and process of dying and weaving fabric for Inca cultures, raw materials and weaving tools were included in the exhibition, including a color chart to demonstrate the tint each dye produced: “We would have these little boxes [with raw dye material] within the overall color chart to show you how those natural dyes were processed and applied.” To help explain the process of weaving, a backstrap weaving loom and video about weaving were displayed within or near the education space of the gallery.

It makes sense that many of the interactive design-based strategies were most frequently cited as ways to give visitors context. A case study participant noted, “A lot of times, those interactives are about providing deeper content and providing context.” However, interactive design elements are not the only way to give visitors context. Staff at one of the case study museums explained that exhibition text can also provide important context: “extended text labels elaborate more context on a work of art...That is where we do a lot of giving context about the piece and prompting critical thinking for the visitor.”

ii) Encouraging group collaboration. A second affordance for strategies that encouraged families to engage with art dealt with the fact that these strategies encouraged group collaboration.

All three museums utilized different engagement strategies within exhibition spaces as a way to encourage collaboration: games like puzzles encouraged individuals to work together, art making activities utilized strange materials so that family groups collaborated on a project, and families worked together to write responses to prompts at response stations. While the individual

museum strategy differed, the end-goal was to get people to talk with one another. A

participating staff member from Museum 3 explained the purpose of having exhibition activities:

“I think it is a shame that more are museums aren’t interested in doing these kinds of things [engage families]. Or that they only have family activities segregated to one specific area in the museum because art is so powerful. It speaks to so many different things, both in the past and in contemporary elements. It can really facilitate a lot of conversation and being able to have those elements next to the art and make connections is so meaningful and powerful. Art is idea of creative process.”

This spoke to the potential power of conversation and how families can benefit from art museum experiences. Staff at Museum 1 agreed:

“The point of scavenger hunts is to focus on social things that happen with scavenger hunts. It, especially with families, really encourages that engagement between young people and their caregivers, that cross-generational socialization even between friends. It creates dialogue, interpersonal engagement, which I really like to see in exhibitions.”

Museums for this case study often included several of the same activity, like tablets for a virtual try-on station, or magnetic boards to create a Picasso face. By including more than one of the same activity within an exhibition, multiple groups could interact with the activity at the same time and encouraged dialogue between groups, which staff at all three institutions saw as important. As one staff member from Museum 1 said:

“It is kind of boring when people are just walking around on their own. When they start to talk to each other, especially when strangers [talk to each other], it becomes more interesting. It really encourages dialogue, between family members but also between strangers. I think that social component is key to engaging audiences.”

Instructions, materials, or the seating arrangement of art making activity spaces had been selected strategically to encourage intergenerational discussions. Museum 2 chose supplies like recyclable material or scissors that a young child might find difficult to use on their own, in order to encourage both parent and child to work together on a project:

“An adult might ask, ‘How can my 5-year-old or 4-year-old use something like this? That is a difficult material for them to make something.’ The point is that they are learning together rather than the children dropped off and the parents checked out. We want that learning to happen with each other.”

Similarly, Museum 3 sometimes included activity instruction geared towards adults, instead of using language that young children could understand, in order to accommodate different levels of engagement that encourages collaboration: “Sometimes, we can have vocabulary that is not geared towards 5-year-olds, but the caregivers are going to be talking to the children about things, so we can have different levels of learning in one activity.”

All three case study museums intentionally utilized small clusters of tables and chairs, instead of long rectangular tables, to encourage dialogue within and between groups. Staff from Museum 3 explained their reasoning behind these small clusters of tables and chairs:

“One thing that we do at [this exhibition], is have small circular tables rather than long tables because a long table invites the kids to do the activity and the parent to hang back. With circle tables, you see family groups, one-or-two-family groups, all working together on the thing.”

iii) Encouraging different learning styles or levels of engagement. Another affordance of the various in-gallery family engagement strategies that emerged was that these strategies encouraged different learning styles and engaged visitors at different levels. For example, the most popular reason given by these three case study museums for including sensory elements was that it allowed for different kinds of learning:

“We talked about different learning styles and tried to incorporate different senses into the types of activities for creating. So, if it is looking closely, smelling something, a sound component. We tried to, where we can, incorporate different sense activities for different learning styles.”

Additionally, case study sites included multiple engagement strategies within an exhibition because, “we know that different families or different audiences are looking for different things. So, we like to have a variety of things for them to engage with.”

Not only did staff allow for different types of learning, but they also acknowledged that visitors would have different levels of engagement: not everyone wanted to read every word of every label or smell every scents included within an exhibition: “Whether it is within an exhibition or program, there is some engagement that is a little bit more shallow and some that is a little deeper.” Staff at Museum 3 echoed this sentiment:

“We are more interested in meeting families where they are at and providing what they need. We are not necessarily saying that it is only successful engagement if families do every single element of this activity and stay here for twenty minutes. If the family participates in something, then we feel like they get something from it.”

Sometimes, staff at these three art museums noted that visitors would completely ignore activity prompts, which they found acceptable, as long as staff ensured that “people are not having a hard time understanding what the instructions are.” Staff from Museum 3 also explained: “We are okay with [scribbles]. They are not responding to the prompt, but if that is what their kid needs to have a moment and go crazy on a piece of paper, then we are happy to provide it.”

iv) Giving visitors a place to relax. The final affordance of the strategies that encouraged families to engage with art was that these strategies gave families a place to relax. The tables and chairs that accompanied art making activities, reading areas, or other educational spaces allowed groups to “sit down and regroup,” as one focus group participant explained. One staff member from Museum 1 said, “We included little ottomans and stools, comfortable seating designed for people to relax and socialize.” Another staff member from the same institution also noted,

“[Tables and chairs are] a good break for [families]. We have a station right in the middle of the exhibition, a little bit shy of the halfway mark. I think it is a good spot for families to sit down and take a break. It is stationed right by those books that [redacted] was describing earlier, and near ottomans, so it is kind a nice built-in rest area for people to hang out.”

Seating was comfortable to encourage visitors to relax and socialize. According to one case study museum, visitors have noticed the comfortable seating and thanked staff.

b) Constraints

Four constraints emerged when focus group participants discussed the various family engagement strategies used in their museum exhibitions: i) requiring early buy-in from a range of staff and early collaborative planning; ii) needing adequate levels of facilitation or scaffolding to function properly; iii) maintenance issues; and iv) content-dependent exhibitions.

i) Requiring early buy-in from a range of staff and early collaborative planning. All three of the case study museums acknowledged that the success of family engagement strategies often depended on when and by whom the family engagement strategies were integrated into an exhibition plan. Early buy-in from other departments helped to ensure that family engagement strategies would be included within an exhibition plan. As a staff member from Museum 1 said,

“[Designing for families] cannot be an afterthought, in order to be generous with the space that you are allowing for the visitor interactions, for people to feel comfortable, to even interact within the space, and want to come in the first place.”

When curatorial and design departments agreed that family engagement was an important goal for an exhibition, it more easily allowed for space to include engaging activities. A study participant from Museum 2 explained how crucial early involvement of the education department, in order to incorporate the family engagement strategies: “From the beginning, after the exhibition was accepted and approved, interpretation is involved with the exhibition planning process, and therefore, work with the curators and directors.” When the staff buy-in allowed for education and interpretation staff to become involved early in the process, the exhibition has a chance to successfully integrate family engagement strategies.

However, if individuals on the exhibition planning team did not all agree on the importance of family engagement strategies, it might be harder to successfully integrate these family engagement strategies into the exhibition. In the words of a participant from Museum 2,

“We brought in a guest curator [for this exhibition], which brings in lots more challenges because if it is a [redacted] curator, then they know our philosophies. They know what we are, our expectations for our exhibitions, and how they need to be visitor-centered. I guess outside curators come with their own expectations of what an exhibition should look like.”

Institutional buy-in of the importance of family engagement strategies did not automatically occur for every exhibition within these sites. If a department, or individuals within a department, did not see the importance of incorporating these family engagement strategies, then the whole system could fall apart. An individual from Museum 2 perfectly explained the importance of early and complete interdepartmental buy-in for family engagement strategies:

“I think that not thinking about a visitor can inhibit their engagement in an exhibition. We are individuals and we design exhibitions and spaces for a particular audience. Historically, [lacking interdepartmental buy-in] still happens, especially when guest curators, in my experience, are designing for very strong and other historical ideas and not really thinking about the drop-in visitor, that is, our social groups like families and experiences that they come with. That can really hinder the process. Teams need to be on the same page. I think it is so easy for interpretation and education to be on board, because of course every museum is a little different, but they can isolate themselves based on their theories. Our exhibition designers have to at least know what we [education staff] are talking about. Ideally, they would even be on the same page because, again, design is so important to facilitate learning, which is what an exhibition is designed for. Unlike programs, [exhibitions] are not facilitated by a person most of the time. Since that is so important, curators, the design team, even marketing, we all need to be on the same page. That is where the work place culture and making sure that we have a respectful and collaborative environment comes in.”

Staff from Museum 1 echoed the importance of buy-in from other departments saying that exhibitions were often, “dependent on the exhibition curator or the exhibition planning team to

push those types of [family] engagement strategies to happen.” Staff from Museum 3 also noted similar importance of buy-in:

“It might depend on who is working on [the exhibition]. Some curators and interpretive planners are eager, willing, and ready, but sometimes they are not...Having curators that are open to these teaching components is really key. Sometimes, they are not.”

According to staff at all three institutions in this study, a key tool to ensure buy-in for successful strategies that encouraged families to engage with art was the creation of realistic learning outcomes and goals. All three art museums for this study had tangible learning or engagement goals for each of its exhibitions. These goals were either discussed during focus groups or were included within documents analyzed for this study.

ii) Needing adequate levels of facilitation or scaffolding to function properly.

Another constraint that emerged from the family engagement strategies used by these three museums was the need for proper scaffolding. Staff from all three art museums discussed the danger of not properly scaffolding activities and how that might discourage families from participating. When asked to rank the three least successful family engagement strategies, two of the three case study museums noted art activities that lacked proper scaffolding as one of the least successful strategies. One participant from Museum 3 said:

“There does seem to be a sweet spot between intimidating and accessible with art making activities. We are constantly trying to figure that out, every time we develop an activity for an exhibition. Activities tend to be more personable than just a pencil and a blank piece of paper. That tends to freak people out. So, we are trying to constantly to figure out what is that balance to make everyone feel comfortable and engage with it. But, when we find that sweet spot, it really works. They will spend 30-45 minutes working on coloring, design, and construction.”

Staff from Museum 2 echoed the same sentiment: “Usually, activities that have a blank piece of paper that is like, ‘Okay, do this thing!’ is not successful. Activities usually need to be scaffolded

more.” When activities were properly scaffolded, families engaged with the activity, but inadequate scaffolding discouraged participation.

iii) Maintenance issues. Another constraining theme that emerged with the strategies designed to encourage family engagement with art dealt with potential activity maintenance issues. One participant from Museum 3 acknowledged that often, these family engagement activities required extra resources of both time and money:

“Another hindrance is that a lot of these things do take maintenance. When we have a response station, we have to have someone go down, clean the boards, and remove all the responses, so there is room for new people to put their responses. We have to go and replace the scent bottles because the scent starts to wear off over time and we want visitors to be able to smell something. It definitely needs staff buy-in. If we are going to do this, then we also have to be able to maintain it and move forward with that.”

Similarly, staff at Museum 1 noted the frustration of visitors if technology included within exhibitions break down as well as the time it takes staff to correct technology issues when they arise.

iv) Content-dependent exhibition. A final theme of constraint that emerged was that two museums within the case study felt that the use of family engagement strategies was exhibition content-dependent. These two study museums agreed that only certain types of exhibitions lent themselves to family engagement strategies. While historical or anthropological exhibitions worked well for family engagement, contemporary exhibitions or exhibitions with potentially difficult subject matter might not warrant such strategies. Staff from Museum 1 explained,

“Sometimes, contemporary shows are a little hard [to include family engagement strategies] because of the subject matter. If we had explicit content, then we did not really do much for the younger learners because of the content of the exhibition.”

Participants from Museum 3 said they had to make sure that there would be appropriate content for families before including family engagement strategies. Often, contemporary art from living artists or exhibitions that dealt with social issues did not include family engagement strategies.

One case study site participant explained why family engagement strategies were not included in a contemporary exhibition that was not examined for this study:

“There are some exhibitions that, content-wise, are just not right for families. We just know that they won’t have a lot of family visitorship, period. Some of these exhibitions deal with very difficult subject matter, like social isolationism or depression. Those are things where we know families were going to see the images or descriptions and think, ‘This is not for me. That is not appropriate for my child.’... We knew that show just was not going to have a lot of family audience, so it was not worth staff time to focus on a family audience. Our suspicions were born out; there were very few children who were brought to that show. It was a very adult-oriented show. Sometimes, we just have to try our gut and past experiences with exhibitions about what is a good draw for families.”

When considering which content subjects would be appropriate to include family engagement strategies, staff from the same museum noted, “Famous artists are always good because parents want to expose their children to these artists; anything that is colorful, anything with narrative, human figures in it, animal figures in it tends to do well.”

Even if potential exhibitions contained family-appropriate content, some staff felt that exhibitions did not always lend themselves to the inclusion of family engagement strategies. One education staff from Museum 1 explained further,

“These are really focused exhibitions in a lot of ways. Some exhibitions have too many materials, too many processes, too many different things to cover. So, the education components can get really thinned out or there are too many things to explore. It can get really cumbersome. In a lot of ways, these exhibitions [discussed during the focus group] are tightly focused to where we can really concentrate on specific types of interactives.”

If an exhibition is too encyclopedic and covered too broad a subject matter, then it might not encourage family engagement.

Chapter 5: Conclusions and Implications

The purpose of this study was to characterize interpretive strategies used by art museums to engage families within exhibitions. The study focused on describing the various ways in which staff try to engage families with art in exhibitions as well as the ways in which staff perceive of the affordances and constraints associated with these strategies. Using a case study design, data were collected from three art museums through semi-structured focus groups and document analysis of exhibition photographs provided by staff at participating museums. This chapter highlights conclusions from the study, situates these findings within the literature, and suggests further implications for both practitioners and the field.

Conclusions

1) How do art museum staff characterize family audiences and family learning within their exhibitions?

While not a part of the study, all three case study art museums noted that they consider the type of engagement occurring within their exhibitions not to be specifically aimed at families, but instead often related this engagement to atypical visitors (first-time, “butterfly”, etc.). Data from this study suggest that art museum staff may not solely consider the needs of families when planning exhibitions. Instead, it seems that families are part of a number of groups that museums now take into account for exhibitions, as part of an attempt towards becoming more inclusive. They focused on ideas and activities that will engage social groups as a unit. Research has shown a move towards multigenerational or all ages participatory learning (Borun, 2008; Ching-Fang, 2018). Like the Crocker Art Museum (2014), these case study museums expanded their definitions of family beyond the nuclear unit. However, while the Crocker’s

study focused on the art museum can work as an entire organization to engage families, this study focused exclusively on strategies utilized within exhibitions.

2) How do art museum staff characterize the various ways in which they try to engage families with art in their exhibitions?

a) Exhibition engagement strategies

The findings from this study suggest that art museums utilize a number of different strategies within a single exhibition to engage families with works of art. These strategies included design-based considerations, spatial-based considerations, and text-based considerations.

Design. The largest and most diverse category dealt with design-based strategies to engage families with art within an exhibition. Museums included sensory elements, art making activity spaces, placed objects closer to the ground, and included maps or timelines. Museums have increasingly focused on including sensory experiences for audiences (Bell, et al., 2009; Porter, 2012). Some research has shown that families improving looking skills while engaging with close looking activities in interpretive gallery spaces (Ash, 2003). Research shows that parents see interactive “galleries as play spaces, rich and unique play spaces where children can connect to their creative selves certainly, but parents tend not to have a school-like agenda” (Luke, et al., 2011, p. 15). Museum standards for best practice with exhibition design reinforce the importance of not mounting objects too high; the center of the work of art should not be mounted more than five feet off the ground to allow children and individuals in wheelchairs a better chance to view works of art (Bogle, 2013; Dean, 1996). When maps and timelines were included within exhibitions, staff felt the tool gave families context into the time and place of an artist or art-making culture.

Space. A second major strategy these case study museums used to engage families with art within exhibitions was through the use of space within the exhibition. Findings from this study suggest the benefit to giving enough space within an exhibition plan for families to move as a unit are twofold: the space allows multiple members of the family to participate in a single activity at the same time and allows families the chance to observe other groups participating in the activity before deciding to joining themselves. Exhibition design best practices warns against overcrowding exhibitions to prevent visitors from feeling overwhelmed (Dean, 1996). Findings from Perry (2012) also recommends these engagement strategies as important for family learning within exhibitions. Research from the field suggest that these spaces are important because a 2012 (Ash, et al.) study found that families spend a majority of their time near an activity or exhibition “figuring out”, rather than interacting with the activity itself. So, allowing adequate empty space around an activity is important. Research suggests that families and children benefit from being able to preview an activity by watching peers before participating (Dancstep, 2016; Perry, 2012; Vygotsky, 1978). The museum field agrees that providing at two or more seats for an exhibition are important for visitors because these chairs naturally invite people to stay longer (Baker, 2011; Perry, 2012).

Text and labels. Staff at these case study museums include questions and articulate prompts within exhibition text and labels. Encourage families to express their own opinions, and to ensure that all text and labels were written for a basic reading level. All three case study museums utilized some combination of these strategies. The goal of including the first two text-based strategies was to encourage dialogue and conversation within and between groups of visitors. Research about family learning as well as museological best practices encourage this type of prompting. Expressing opinion encourages dialogue, which follow’s Vygotsky’s 1978

theory about Sociocultural Learning. Vygotsky emphasized dialogue as a key component to learning. Almost every family engagement strategy utilized by the three case study museums was included to encourage dialogue within and between groups. Studies have shown that families learn by sharing and exchanging information with each member of the group to help make sense of the world (Kim, & Crowley, 2010; Palmquist, & Crowley, 2007; McClain, & Zimmerman, 2014). Questions are a key tool to encourage meaning making for family learning (Ash, 2004). There is a great deal of research about best practices for label writing agree that language should be clear, concise, and not overly complicated, which practices which write towards a basic reading level (National Park Service, 2001).

3) What do art museum staff perceive as the affordances and constraints associated with these strategies?

a) Affordances

Findings from this study suggest that staff found one of the most common benefits for included certain family engagement strategies were to give families context about a time, place, material culture, or art process. Museum staff also encouraged group collaboration, encouraged different styles or levels of engagement to occur. Staff at these case study museums also felt that by including places to sit or activities to engage with, they provided families places to sit and relax, which research has found that families use these areas to relax and recuperate (Luke, et al., 2011; Adams, et al., 2011). Researchers have found that discussions about context of art was one of four broad categories of conversation topics families discussions while looking at art within museums (Knutson, Crowley, Russell, & Steiner, 2011). There is a great deal of research to support collaboration as a natural habit learned by families through a number of informal learning environments because adults and children in museum prefer to exchange information

between generations, (Hilke, 1989; Palmquist, et al, 2007). Families work together collaboratively to make sense of the world or an exhibit (Callanan, Castaneda, Luce, & Martin, 2017). Research found that different families will play either collaboratively, independently, or in parallel within interactive gallery spaces, meaning that these visitors react differently within spaces (Adams, et al., 2011). Serrell (2015) also the increasing number of ways museums can sort and separate various audiences and learners, all of whom represent a different motivation or identity.

b) Constraints

Findings from this study suggest that successful implementation of family engagement strategies within exhibitions were resource intensive - both time and money - because of need for early buy-in from non-education exhibition staff to allow adequate time to plan these engagement strategies. Staff also felt that these activities needed proper facilitation or scaffolding to successfully engage families and that the inclusion of these strategies might depend upon family-friendly content within exhibitions. Studies suggest that adults expect a certain level of scaffolding during their visits and feel poorly equipped to explain children, if visiting a museum for the first time (Laetsch, Diamond, Gottfried, & Rosenfeld, 1980).

Scaffolding has been seen as a key component for sociocultural learning, which is influential learning framework within fam (Vygotsky, 1978). A 2012 (Ash, et al.) study found:

“Scaffolding activities form the essential foundation for families' social practices of, first, determining how ‘to do’ the exhibit, and subsequently, approaching what they perceive to be the science (or other) content, typically interpreting that content in their own way.”

Implications

These three art museums with their associated data offer the field an example of the strategies implemented within exhibitions to encourage family engagement with art, as well as

perceived affordances and constraints associated with these strategies. Museum educators and exhibition design staff who deal with exhibition interpretation may find the results of this study interesting. Additionally, art museum staff associated with exhibition planning, but who do not deal with interpretation, like curators or other exhibit design staff, might find the results interesting to help encourage the inclusion of these strategies in future exhibition to engage families with art.

It would be interesting to explore the tension surrounding the family as a strategic audience. While the data was given by staff members at all three case study museums, it would be interesting to explore these ideas surrounding the perceptions of family audiences. Further study could help illuminate if the trend of art museums increasingly trying to become inclusive of a number of different groups and audiences when planning exhibitions. While the implications of my study are interesting around this topic, it requires a more in-depth study to understand more fully.

Considering that there were a number of family engagement strategies that dealt with the senses when focused on exhibition design, future study would benefit from exploring research on sensory experiences. With more of an emphasis on the literature surrounding these sensory experiences, future study could explore if this study aligns with or extends what we know about this topic.

While this study outlined design, spatial, and text-based family engagement strategies included within art museum exhibitions, a larger survey study conducted across more art museums of both varying size and location could potentially confirm and expand upon the findings of this study. This study focused on the opinions of education and exhibition interpretation staff, but further exploration into audience perceptions of these strategies could

provide important insights into the strategies that best encourage family engagement with art. Do visitors see these engagement strategies, like the use of scavenger hunts or art making activities, are meant for all ages or do they assume these activities are aimed primarily at children?

While outside of the scope of this research, participating case study staff members anecdotally discussed that programming specifically aimed at attracting families typically occurred outside of exhibition spaces. Often, these programs included family days with family-friendly activities. More research is needed to see why these types of programs take place more often outside of exhibition spaces as opposed to inside of them. It would also be interesting to see how many of these family engagement strategies were utilized within family programming. Further research along these lines would provide a more holistic understanding of family engagement across and within art museums.

Final Thoughts

It is my hope that these results add important insights into the field. I aimed to explore more in-depth one aspect of the Crocker Art Museum's 2014 study on organization-wide family engagement strategies, specifically looking at exhibition interpretation strategies. The strategies that encourage families to engage with art, range from the simple addition of a microscope for close looking to ensuring that families have enough space to move or relax, in a variety of ways. It is my hope that more art museums introduce these strategies into their exhibition interpretation plans in order to better engage families and other social groups.

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Appendix A: Call for Participants

Date

Dear [Appropriate Museum Educator Contact]:

My name is Claire Bennett and I am currently a second-year Museology student at the University of Washington working on my graduate thesis. I am studying how art museums characterize interpretive strategies to engage families in exhibitions. Your museum is known for its focus on family learning within its exhibits and I believe my study would be stronger and richer from your perspective.

I would like to schedule a short 15-minute phone call with you to discuss your institution's potential participation in my study. I have also attached a short informational sheet to this email with details of my thesis as well as the goals of my research.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,

Claire Bennett
Masters Candidate '18
Museology Graduate Program
University of Washington

Appendix B: One-page summary of research project
Characterizations of Family Learning in Art Museums
Graduate Thesis Study – University of Washington

Who

- Claire Bennett: Master's Candidate, Museology Graduate Program, University of Washington
- Jessica Luke, PhD: Committee Chair, Museology Graduate Program, University of Washington

What

The purpose of this graduate research study is to characterize the interpretive strategies implemented by art museums to **engage families within exhibitions**.

Art museums have increasingly aimed to engage families in exhibits, both through programs and interpretation, because museums have come to see families as an important audience.

Research questions to help guide the study:

- How do art museum staff characterize the various ways in which they try to engage families with art in their exhibitions?
- What are the affordances and constraints associated with these engagement strategies?
- How are art museums assessing the impacts of their in-gallery interpretive strategies on participating families?

When

February 2018

Entails:

- 1) A 60-to-90-minute focus group of education and exhibit professionals from your institution to discuss family learning strategies from the three most recent exhibitions, but I will keep the focus group efficient to cut down on time and try to be closer to 60 minutes.
- 2) I would ask you send me any photographs of exhibitions (including programs) that demonstrate family learning strategies one week prior to the focus group.

Why

This is original research in the field of museum education with a focus on family learning in art museums. This study is richer and stronger with participation from museums like yours. The end result will hopefully prove helpful to the larger art museum community to think about potential effective family learning strategies within their exhibits.

Please do not hesitate to contact me or my thesis advisor if you have questions or need further information. Thank you very much for your consideration.

cmb86@uw.edu

Appendix C: Focus Group Guide

Purpose:

The purpose of this study is to characterize interpretive strategies used by art museums to engage families within exhibitions.

Research questions for context:

- 1) How do art museum staff characterize the various ways in which they try to engage families with art in their exhibitions?
- 2) What are the affordances and constraints associated with these engagement strategies?

Methods:

- 1) **Focus group** of education and exhibit staff within art museums at three different institutions, where they have previously been cued to bring photographs of the past three exhibitions that engaged family learning. Photographs will give visual context for the exhibition and will allow staff to cite specific strategies employed within exhibits to encourage family learning.
- 2) **Document analysis** of photographs shared by staff one week before the focus group takes place to demonstrate the various family engagement strategies. I will also analyze notes taken during the focus group. Focus group participants will have been cued approximately one week prior to email relevant photographs, exhibit text drafts, or any other material that might be found useful to demonstrate to family engagement.

Introduction:

Discuss focus group consent protocol with staff and receive verbal confirmation from each participant before proceeding.

Questions

	Questions
1.	Do you define successful family engagement? If yes, what does successful family engagement look like? (Probe: For example, do you think conversation within multigenerational members as key? Demonstrated peaked interest through pointing? Play? Art making? Etc.)
2A.	Think back to the most recently opened exhibition for the museum, please identify (list) all of the things you did to try to encourage family learning specifically. Just list, do not worry about descriptions or details yet. (ex. programs, exhibit text, interactives) [Make notes of their comments in shared online document.] <ol style="list-style-type: none"> a. [After all of the ideas have been written down, go back through each item and ask each question before moving onto the next listed item.] What is x? Can you describe it to me? b. What do families do here at x? c. Frequency (if more than one)? d. How long did it/they last?
2B.	Now, think back to the museum’s second most recent exhibition that opened. Please identify all of the things that you did to try to encourage family learning specifically. Just list, do not worry about details yet. (ex. programs, exhibit text, interactives) [Make notes of their comments on the shared document. List any repeated ideas.] <ol style="list-style-type: none"> a. [After all of the ideas have been written down, go back through each item and ask each

	<p>question before moving onto the next listed item.] What is x? Can you describe it to me?</p> <p>b. What do families do here?</p> <p>c. Frequency?</p> <p>d. How long did it/they last?</p>
2C.	<p>Now, think back to the museum’s third most recent exhibition that opened. Please identify all of the things that you did to try to encourage family learning specifically. Just list, do not worry about details yet. (ex. programs, exhibit text, interactives) [Make notes of their comments on the shared document. List any repeated ideas.]</p> <p>a. [After all of the ideas have been written down, go back through each item and ask each question before moving onto the next listed item.] What is x? Can you describe it to me?</p> <p>b. What do families do here?</p> <p>c. Frequency?</p> <p>d. How long did it/they last?</p>
3.	<p>Let’s look at the list of the all the ways your museum encouraged family engagement in exhibits. Which do you think were the most successful? Let’s pick the top three most successful. [Go around the group. Mark repeated answers with tick marks and circle the top three most successful ones.] It looks like you as a group think x was the most successfully engaged families.</p> <p>a. What worked about them?</p> <p>b. Why do you think these were the most successful?</p> <p>It looks like you think y was the second most successful at engaging families.</p> <p>a. What worked about them?</p> <p>b. Why do you think these were the most successful?</p> <p>It looks like you think z was the third most successful way to engage families</p> <p>a. What worked about them?</p> <p>b. Why do you think these were the most successful?</p>
3A.	<p>What do you think it was about the art exhibitions that lent themselves to engaging families?</p>
4.	<p>Now, let’s look at the list of the all the ways your museum encouraged family engagement in exhibits. Which do you think were the least successful? Let’s pick the three least successful. [Go around the group. Mark repeated answers with tick marks in a different color and circle the top three most successful ones.] It looks like you as a group think x was the least successfully engaged families.</p> <p>a. Why do you think these were the least successful?</p>
4A.	<p>What do you think it was about the art museum exhibition(s) that can hinder family engagement?</p>
5.	<p>Thinking back over the last 12 months, how would you say your thinking about engaging families in your exhibitions has changed? (Probe: What do you think caused those changes in thinking?)</p>
6.	<p>How does your institution assess the impact of these in-gallery family engagement strategies?</p>
7.	<p>Is there anything else you wanted to say that you had not yet had the chance to talk about?</p>

Thank you for your time!

Appendix D: Coding Rubric

Code Name		Rule	Example	
RQ1: How do art museum staff characterize the various ways in which they try to engage families with art in their exhibitions?				
Design	Sensory Experiences	Touch	Talk about visitors able to touch objects: art, raw materials, etc.	"There was other raw material as well that you could touch. We had alpaca fur"
		Close looking	Encourage close looking explicitly (ex. looking glass or puzzle) to explore details of art	"Our learning outcomes for this phase for visitors was to look closely at works of art in the gallery to inspire their questioning and continued play."
		Scent	Called out scent specifically	"We also had a station sort of across the way, but in a similar area, where you could smell different scents used in the ancient Roman perfume."
	Art making activity spaces		Explicitly mentions art making space within gallery	"...which I think has been wildly popular, is a magnetic Picasso face"
	Play		Games played stately explicitly	"It could be doing a scavenger hunt.", "Puzzles are another strategy we use a lot ", "Play is, again, a big element for ..."
	Technology		Mention ipads, computers, audio tours with cell phones, etc.	"We had a digital interactive that was a digitized manuscript."
	Physical placement of objects		Object or image placed closer to the ground for children or ADA needs	"We specifically had one screen intentionally much lower with children and people in wheelchairs in mind"
	Collaboate with outside groups		Work with non-museum individuals for aspects of exhibition	"We collaborated with [redacted], who is a weaving professor at [redacted]"
Map/Timeline		Included either map or timeline	"We also included a map...of the world that showed where a lot of the different objects were coming from ..."	

Space	Rest/sit	Discusses tables, chairs, place to rest, but did not include reading resources	"It is a big table with ample seating for multiple people to sit there and try to put these puzzles together."
	Reading rooms	Calls out the space of tables and chairs as a reading room or place where people can read	"By the timeline we also have a group of tables..."
	Space to move around	Allows enough room for groups to move within the space	"With enough space for people to walk around and see the art"
Text and labels	Asking questions or prompts	Asking questions within exhibition labels or text	It includes prompts about things like "wonder" or "look closely".
	Encouraging the expression of opinions	Encouraging visitors to respond to a prompt	"If we have a response station: did the person actually respond to the prompt rather than something random."; "Then we have these stations that we call "Join the Conversation Stations" which are written response areas, usually used to... but not always..where we will have a concept theme or reiterating the idea of the exhibition or specific work of art and then a question to prompt critical thinking and conversation"
	Writing for a basic reading level	States that making sure not at high reading level	"We try to write to an 8 th -to-10 th grade reading level."
RQ2: What are the affordances and constraints associated with these engagement strategies?			
Affordances	Encourage group collaboration	Encourages collaboration	"It really encourages collaboration within the group..."
	Gave context to visitors	Talks more broadly about culture (time/place) or process (including raw materials) of artists	"So, people could contextualize what those different fragments were."
	Encourages different layers of engagement	Calls out space to allow different	"We tried to, where we can, incorporate different sense

	or learning styles	learning styles to occur/foster	activities for different learning styles"
	Place to relax	Gives families spots to relax and regroup	"Comfortable seating designed for people to relax and socialize."
Constraints	Maintenance issues	Cost to replace art making materials, books, etc. OR issues with technology (glitches or crashes)	"Digital things will also have technology issues that might arise."; "We have to go and replace the scent bottles because the scent starts to wear off over time "
	Facilitation/scaffolding required	Adequate amounts of facilitation and scaffolding required for visitor	"[X] was a pre-made thing that was easy to customize. Those tend to be more personable than just a pencil and a blank piece of paper. That tends to freak them out. "
	Required early buy-in from a range of staff and early collaborative planning	Staff in other departments need to agree with the family engagement strategies (buy-in); Family engagement strategies must be included in early collaborative exhibition planning	"Also, having curators that are open to these teaching components."
	Content-dependent	Family engagement strategies should not be in all art exhibits, instead its inclusion depends on the subject of the exhibition	"Some curators and interpretive planners are eager and willing and ready and sometimes not. Sometimes it is also based on the content of the show."