

Highlights of Recent Research: Common Target Audiences for Museums

Prepared by MSTD6601.15 • Museums and Community Engagement • Spring 2019
Max A. van Balgooy, Assistant Professor
Corcoran College for the Arts & Design • George Washington University

A. Students in grades 3-5

Andre, Lucija, Tracy Durksen, and Monique L. Volman. "Museums as Avenues of Learning for Children: A Decade of Research." *Learning Environ Research* 20, no. 1 (2017): 47-76. Submitted by Ray Cwiklinski.

This article discusses recent innovations in museum education, mainly focusing on the interactions between elementary schoolers and the human personnel, artifacts, and learning technology of museums. It acknowledges that motivation is a highly important factor in learning and attempts to determine which methods work best with an audience of elementary school students. Through the systematic analysis of various sources (including journals, studies, and the Web of Science database) the researchers were able to determine that children responded particularly well to storytelling, interactive games, and conversations with responsive adults. It was also noted that the practice known as "scaffolding" (in which guides would first demonstrate how to use the available interactives before giving the children free rein to operate them) proved to be especially effective. When interacting with elementary school children, museum employees are advised to ask open-ended questions and provide their young audience with suggestions, prompts, and hypotheses in order to inspire greater curiosity. The article ends with the call for further research.

Barnes, Donna R. "Playful Experiences for Children in Museums." In *Play from Birth to Twelve: Contexts, Perspectives, and Meanings, Third Edition*, edited by Doris Pronin Fromberg and Doris Bergen, 319-328. London: Routledge, 2015. Accessed February 26, 2019. Submitted by Sarah Ledoux.

This chapter focuses on school-aged children and the concept of "play" as it applies to museums. It speaks of children as visitors to the museum, which of course they are, but it is noteworthy that children are included in the whole, rather than singled out as a token group to be appealed to. Of particular interest is the section on page 320, which discusses school field trips and programs for homeschooled children. The key to reaching them, unsurprisingly, is interaction. Whether the museum is letting them participate in interesting discussion or work on a project hands-on, the experience of a child feeling included in the museum's mission or work is invaluable in giving them a productive and enjoyable experience.

Bergen, Doris, and Doris Pronin Fromberg. "Play and Social Interaction in Middle Childhood." *Phi Delta Kappan* 90, no. 6 (2009): 426-30. Submitted by Kelsey Timpone.

Middle childhood is a time of growth and discovery. Play supports young children's social, cognitive, emotional, and physical development. Play is defined as voluntary and child organized. Play differs from exploring an object because that asks the

question “what can it do” instead of “what can I do with it?” (427). During play children learn how to self-direct, self-organize, self-control, and negotiate with peers. Play builds confidence and defers immediate gratification, even when dealing with tough topics, play can help children cope with real life experiences. Play creates a community amongst children that is optimal for development. Utilizing play in the context of the museum allows for meaning making and creating a lasting impression in youth.

Brito, Pedro Quelhas. “Tweens Characterization of Digital Technologies.” *Computers & Education* 59, no. 2 (March 6, 2012): 580-93. Submitted by Candace Tyrrell.

While this source does not explain students in grades three through five for Raleigh specifically, studies were conducted using students from the city. This group is also been called “tweens” by various sources due to its period between childhood and teens. The tweens in Raleigh, like most tweens, are often at the age of maturity ambiguity and treated by adults as being too naïve. But they are very critical consumers, because they are better able to pinpoint problems with technology. Museums in general should not assume immaturity about this group, because they are going to be more aware of poorly executed attempts of using technology. Museums should not use technology until they have properly researched their options.

Crow, Sherry R. “Exploring the Experiences of Upper Elementary School Children Who Are Intrinsically Motivated to Seek Information.” *School Library Media Research* 14 (2011): 1-22. Submitted by Nichol Gabor.

Using research intended to understand the experiences of children in academic settings, these authors describe particular traits common to students with “intrinsic motivation for information seeking”. Although the study found that the students observed all came from various home and school experiences, each of them exhibited three common traits, an affinity for play, creativity, and a noncompetitive disposition. The article is aimed at school librarians but can also apply to those who are attempting to help students become lifelong learners. They recommend creating student-centric experiences with tasks which use higher-order thinking, encourage collaboration, and “foster responsibility for learning” in students. Additionally, the article suggests teaching methods which encourage students to question and investigate for themselves. Ultimately, this study could be used by museums creating programs for this group to build programs that will assist in the facilitation and creation of motivated, information seeking children.

Davis, Heather A. “Development: 3-5.” In *21st Century Education: A Reference Handbook*, by Thomas L. Good. Sage Publications, 2008. Submitted by Lance Boushell.

In this chapter, Davis begins by recognizing that (pre-adolescent) children in grades 3-5 are dealing with biological changes as they enter into puberty. They also grapple with epistemology, trying to connect what they already know with new experiences. They confront situations where new ideas, answers and information conflict with existing beliefs and problem-solving skills. During these grades they must adapt to new ways of thinking and understand how to accept their successes and failures. In terms of activities, games with rules that can be played in teams facilitate pre-adolescent development. At this stage in life, children learn about the social construct of winning and losing. They also understand how to control their

behavior and they know that they should treat their peers fairly and compassionately. In terms of engaging with a 3rd-5th grade audience, museums could offer activities that can be performed in teams such as scavenger hunts, or murder mysteries.

Fuller, Sarah C. "The Effect of Prenatal Natural Disaster Exposure on School Outcomes." *Demography* 51, no. 4 (Aug 2014): 1501-25. Submitted by Candace Tyrrell.

Children in North Carolina have interestingly been looked at for signs of education difficulties as the result of natural disasters during their mother's pregnancy. The chemical called cortisol is released in the mother's body in high stress situations such as natural disasters, which leads to prenatal birth and further cognitive complications later on down the road. The study was conducted with children in the 3rd grade to see how they were affected. Results of the study reported a decrease in math and reading test scores between one and five percent, with more likelihood of special education placement increased to between ten and twenty percent. While the change was not significant, museum educator should keep this in mind when planning programs in the area, especially if there had been recent natural disasters.

Kanevsky, Lanie. "The Academic Resilience and Psychosocial Characteristics of Inner-City English Learners in a Museum-Based School Program." *Education and Urban Society* 40 (May 2008): 452-473. Submitted by Catherine Sumrall.

A group of at-risk inner-city English learning students in the third through fifth grades participated in a museum-based school program for two years and were compared to non-participants on several factors. The factors included character, self-efficacy, and attitude toward school. Students worked with museum professionals and teachers in both museum and classroom settings to learn California state curriculum standards, while the control group learned the same curriculum with just teachers in the classroom. The experiment found that younger non participants and all ages of participants had an increase in academic self-concept, while all participants' and non-participants' attitude toward school declined as they aged.

Lehman, Meredith, Sabrina Phillips, and Andrea Saenz Williams. "Empowering Identity Through Art: Bilingual Co-Teaching at the Blanton Museum of Art." *Journal of Museum Education* 43, no. 4 (2018), 375-384. Submitted by Silvana Oderisi.

This case study of the Bilingual Co-Teaching Program at the Blanton Museum of Art in Austin, Texas examines the efforts of the Austin Independent School District to promote dual language learning in informal learning settings beyond the classroom. At the Blanton, undergraduate students in Bilingual Bicultural Education from the University of Texas along with graduate teaching fellows from the Art and Art History Departments co-facilitate tours in English and Spanish simultaneously for K-12 students. Together, they plan, develop, and co-facilitate lessons using both languages fluidly in the galleries, not simply translating (which can exacerbate power dynamics), and encouraging students to respond in either language. In this way, the Blanton affirms and promotes the diverse cultural identities within their community, with 25 percent of residents whose primary language is Spanish. This sends a message to the Spanish speaking members of

their community that they have a place in their museum, becoming socially relevant to them.

Mah, V. Kandice and E. Lee Ford-Jones. "Spotlight on Middle Childhood: Rejuvenating the 'Forgotten Years.'" *Pediatric Child Health* 17, no. 2 (2012): 81-83. Submitted by Sheridan Small.

Middle childhood (6-12 years of age) is a "sensitive period" during which experiences have a great impact on the development of the brain. Therefore, it is critical that children of this age participate in physical activities that provide opportunities for strengthening friendships and self-confidence: "getting children in motion gives them a sense of accomplishment, resiliency and security." Positive exchanges with their peers teach children empathy and morality, as well as critical thinking and effective communication. Equally important are parental guidance and modeling of behavior as children become hyper aware of their environments and newly sensitive to the social world as opposed to their inner lives. Museums can provide stimulating environments in which positive peer interactions can occur, thereby creating an optimal community for children to experience.

Murmann, Mai and Lucy Avraamidou. "Animals, Emperors, Senses: Exploring a Story-based Learning Design in a Museum Setting." *International Journal of Science Education* (2014): 66-91. Submitted by Molly Cadwell.

This study explored the use of storytelling for educational purposes for children in grades three through six. The study looked at three things: "the story as a tool for learning; the student as subjects engaging with the story; and the context in which the story learning activity takes place." Researchers collected data through interviews with teachers and students, observations, and through student assignments all surrounding a particular exhibit at a science center. In the end, researchers had two main findings: stories have a lot of potential as learning tools (particularly in science) and the way stories are used in this setting depends heavily on the teacher's personal teaching philosophy.

B. Families with children under 12 years

Adams, Mariana, Jessica Luke, and Jeanine Ancelet. "Family Learning in Art Museum Interactive Spaces: A Literature Review." *Engage Journal* 20 (2010): 19-30. Submitted by Ray Cwiklinski.

Through the analysis of several surveys, this article attempts to determine the value of interactive galleries based upon the effect they have on visiting families. The authors break down the different types of parents into distinct groups based on their interactions with their children, defining them as demonstrators, leaders, partners, etc. Their motivations for visiting are predictable: parents view the museum as an environment in which they and their children can build interfamily relationships, acquire new skills and knowledge, find inspiration for their own creative endeavors, and just have fun. The interactive galleries are shown to be very popular with these families, often to the point that other exhibits are shunned. The authors cite this as a major obstacle to be overcome. They do not blame the families; rather, the responsibility lies with museums to make their permanent exhibits more accessible. (The article does not proffer any solutions).

Archer, Louise, Emily Dawson, Amy Seakins, and Billy Wong. "Disorientating, Fun or Meaningful? Disadvantaged Families' Experiences of a Science Museum Visit." *Cultural Studies of Science Education* 11, no. 4 (2016): 917-939. Submitted by Molly Cadwell.

This smaller study took a qualitative look at equity and inclusion in museum education in science museums by conducting pre- and post-interviews with ten parents and their children from an urban school while they visited a large science museum. In analyzing data, researchers placed each family's experiences in one of three descriptive categories: disorientating, fun, or meaningful. Researchers found that visits which could be characterized as meaningful provided the most benefits in terms of inclusion and learning, but were the least likely kind of visit. They found that when the family's and the museum's culture or way of doing things did not align there were fewer opportunities for informal science learning and that most informal learning opportunities in the museum aligned more with middle-class practices and attitudes.

Christensen, Kathleen, Barbara Schneider, and Donnell Butler. "Families with School-Age Children." *Future of Children* 21, no.2 (2011): 69-90. Submitted by Nichol Gabor.

By examining the workplace and schools of families with school-age children, these authors discuss the scheduling demands of children in school on working parents. They first address the potential schools have to help meet the needs of working families but also acknowledge that those needs are often not met. Although some workplaces have begun to make allowances for parents, these benefits are often not accessible to low-income workers or are offered only to employees at certain levels, and the current mentality in the workplace makes some parents reluctant to take advantage of these options. Ultimately the authors argue that in order for parents to be able to care for their children while balancing job responsibilities, there needs to be a shift in the workplace culture. This article and the concerns it raises are important for museums to consider when programming to this demographic and can, perhaps, offer inspiration for ways to market to their needs.

Donlon, Peter, Jason Lake, Emma Pope, Christine Shaw, and Mary E. Haskett. "Community Action Targeting Children Who Are Homeless (CATCH): Addressing the Mental Health and Developmental Needs of Children Experiencing Homelessness." *Families in Society: The Journal of Contemporary Social Services* 95, no. 3 (2014): 163-70. Submitted by Candace Tyrrell.

Unfortunately for North Carolina, the families with children in the area need to have their basic needs met. The State was ranked 44th within the nation by the 2009 "America's Youngest Outcasts: State Report Card on Child Homelessness" and specifically in Wake County (Raleigh's county), with data from 2011 indicating around 500 family members lived in a shelter (sixty-four percent were children).¹ The negative impact can happen to families on an emotional level, such as homeless mothers having difficulty providing sensitive care to their children (with reports of more frustration in parenting than non-homeless mothers). The stress

¹ Donlon, Peter, Jason Lake, Emma Pope, Christine Shaw, and Mary E. Haskett. "Community Action Targeting Children Who Are Homeless (CATCH): Addressing the Mental Health and Developmental Needs of Children Experiencing Homelessness." *Families in Society: The Journal of Contemporary Social Services* 95, no. 3 (2014): 163-70.

many families might be under because of financial instability is a factor museums in Raleigh should consider when charging for admission, because cost could become a barrier to families with children.

Lee, Bethany R. and Michael A. Lindsey. "North Carolina Family Assessment Scale: Measurement Properties for Youth Mental Services". *Research on Social Work Practice* 20, no. 2 (March 2010): 202-211. Submitted by Candace Tyrrell.

This study assessed the life of youth within families in North Carolina, focusing on children under the ages of 12. Transportation and housing ability was scored lowest in the study, indicating for North Carolina museums that the largest barriers for visitors with children is getting there and the cost of admission. Museums in the are should consider offering free admission days and ways to get to museums to increase visitation. But the study also showed child behavior and school performance as scoring higher in the study, demonstrating that if museum get families with children into the building that they are more likely to be well behaved and easier to engage than in other parts of the U.S. Overall this study shows museum can be successful if they remove some of the larger barriers for families with children.

Martensen, Anne and Lars Grønholdt. "Children's Influence on Family Decision Making." *Innovative Marketing* 4, no. 4 (2008): 14-22. Submitted by Sheridan Small.

This study concludes that children can have a great deal of influence on family decision making, especially if the decision pertains to a product (or activity) personally relevant to the children, as opposed to being meant for the whole family more generically. Influence can remain high despite substantial financial cost. Older children tend to have more influence over family decision-making than younger children because they are more knowledgeable about the subject and can use rational argument and effective persuasion with their greater cognitive ability. Museums have to recognize that their marketing must target children as well as their parents, since children often initiate potential decisions. Additionally, museums should try to provide frequent, positive, meaningful experiences for children in order to increase their knowledge of and love for the museum, which will be helpful in influencing decisions to return as parents value their children's input.

Martinko, Megan and Jessica Luke. "'They Ate Your Laundry!' Historical Thinking in Young History Museum Visitors." *Journal of Museum Education* 43, no. 3 (2108), 245-259. Submitted by Silvana Oderisi.

This study seeks to disprove the assumptions many adults make of a child's inability to think critically or understand abstract and complex historical concepts. By examining the way young learners (ages 8-12) demonstrate evidence of historical thinking in history museums' hands-on spaces (through the lens of Peter Seixas' six historical thinking skills), the research suggests that young learners do have the ability to think critically and understand abstract concepts when their historical thinking is activated. In this study the two most used historical thinking skills by the study sample group were using primary sources and taking historical perspectives. In both cases, tangible objects and exhibit interactives stimulated the evidence of these aspects of historical thinking. The research suggests that historical thinking may come from the hands-on experiences children have in these

spaces, the labels they read, and the conversations they have with accompanying adults.

Nelson, Melvin D., Jr. "Socioeconomic Status and Childhood Mortality in North Carolina." *American Journal of Public Health*, 82, no. 8 (August 1992): 1131-1131. Submitted by Candace Tyrrell.

Museums have a way to make a difference in their community and help with state issues, with the State Health Department of North Carolina being a good partnership to start with in dealing with the child abuse in the area. It is a problem that takes place at the national level, with 676,569 children victims of abuse or neglect in the U.S. The State Health Department has worked to develop programs to combat this issue by implementing a series of steps; 1) define the problem, 2) identify the risk and protective factors, 3) develop and test prevention strategies, and 4) ensure widespread adoption. Step four is where the museum can help its community, by showing support and awareness to the issues around them. Bringing children from the programs out to museum would be a good way to show how much museums can serve the public and become relevant to them. North Carolina museum can also show support in the partnerships that bring funds for both parties, thus benefiting the organizations working to implement their programs. Requirements such as community and agency planning or quality assurance has to be funded, and partnerships can be a way to aid these evidence-based programs.

Otaka, Miyuki. "Museum Family Programmes as a Model to Develop Democratic Education: A Pedagogy Inspired by the Principles of Cha-no-yu." *International Journal of Education Through Art* 12 (March 2016): 39-56. Submitted by Catherine Sumrall.

The author, Miyuki Otaka, developed a pedagogy for creating art-based family museum programs based on "cha-no-yu," the four principles of the art of tea in Japan, which are harmony, respect, purity, and tranquility. When programs are based off these four concepts of cha-no-yu teachings, they include an appreciation and creation component, a reflective and respectful atmosphere, and the use of multiple senses. Because an art program needs to have a connection to the participant's life, the ritual and process of tea time is perfect for Japanese families, who are knowledgeable about the process and have this in common. The calming, centering nature of tea preparation and consumption sets a respectful tone for art appreciation and ushers in families with a format they can relate to.

Rennick-Egglestone, S., P. Brundell, B. Koleva, S. Benford, M. Roussou, and C. Chaffardon. "Families and Mobile Devices in Museums: Designing for Integrated Experiences." *Journal on Computing and Cultural Heritage* 9, no. 2 (May 20, 2016): 1-13. Accessed February 26, 2019. doi:10.1145/2891416. Submitted by Sarah Ledoux.

This article describes a study done by researchers at Cite de l'Espace (sometimes referred to in the article as CITE), which is a science museum and education center in Toulouse, France. The study was based off of cell phone and tablet use in museums, and how to best integrate these technologies to appeal to families. The conclusions were that overall, technology adds to the visitor experience, but needs to be tailored to visitors rather than forcing an interpretation on them. In regards to families with children specifically, they found that technology appealed specifically to children, as it allows them a deeper connection with the information

being presented, and when children are the members of the family controlling the technology they feel as if they are the masters of their own museum experience.

Waldfoegel, Jane. *What Children Need*. Cambridge: Harvard University Press, 2010. Submitted by Lance Boushell.

In the first 3 chapters of her book, Waldfoegel explains the needs of families with children under 12. She argues that during the first year of a child's life, children should be cared for by their mothers because it fosters cognitive, emotional and behavioral development. Parent friendly employment policies can facilitate this process. After the first year of childhood, it is less imperative for a child to be cared for by its mother full-time. That said, ALL childcare should be high quality. She also addresses the fact that families need childcare before and after pre-primary and elementary school hours. Further, they need childcare when school is in recess. Families depend on the community to fill this gap by providing out-of-school programming, which must be affordable, accessible, interesting, and age appropriate. Programs that take place at schools and in close proximity to schools are preferred, because transporting children from one location to another is a challenge. Museums could help to fill this gap by partnering with nearby schools to create and coordinate out-of-school programming for these children.

Weiss, Heather B., and M. Elena Lopez. "Engage Families for Anywhere, Anytime Learning." *Phi Delta Kappan* 96, no. 7 (2015): 14-19. Submitted by Bailey Glover.

This article written by Heather B. Weiss, founder and director of the Harvard Family Research Project, and Elena Lopez the associate director is focused on the roles that community organizations can play in engaging families. Weiss and Lopez' analysis of family engagement outside of schools comes from data collected by the Harvard Research Project. The main argument in this article is that community organizations should work with schools and families to encourage learning outside of the classroom. The benefit of family engagement programs outside of school is that children are able to expand their learning and overall growth. Weiss and Lopez state that children and youth thrive when they are free to explore their own interests in and out of the classroom, and the support of their families is crucial in this process. Community organizations such as libraries or museums that provide programs for families as a whole help to create the perfect learning environment for children.

Xie, Chunyan, Richard P. Bagozzi, and Jens Østli. "Social and Emotional Influences in Family Decision Making by Use of the Key Informant Model." *Marketing: ZFP – Journal of Research and Management* 37, no. 3 (2015): 113-25. Submitted by Kelsey Timpone.

When families make a decision, they need to be considered as a social entity instead of individual decision makers acting autonomously. Families have "we-intention" or "a commitment of an individual to participate in joint action that involves an implicit or explicit agreement between participants to engage in that joint action" (114). Anticipated emotions have the greatest effect on families. These are emotions that any member of the family may imagine as a result of their joint decision. In order to make decisions that benefit the whole family, each member must consider their own emotional, physical, and cognitive needs and then cross reference their needs with other members of the group.

C. Adults over 50 years

Bennington, Rose, Amy Backos, Jennifer Harrison, Arnell Etherington Reader, and Richard Carolan. "Art Therapy in Art Museums: Promoting Social Connectedness and Psychological Well-Being of Older Adults." *The Arts in Psychotherapy* 49 (July 2016): 34-43. Accessed February 26, 2019. doi:10.1016/j.aip.2016.05.013. Submitted by Sarah Ledoux.

This article focuses on the "and older" part of the prescribed age group and examines the potential therapeutic benefits of bringing elderly people into art museums. It found that museums as settings for therapy have many positive effects, by providing opportunities for leadership, social connection, and personal growth and development. Though the article focuses on art museums (and classes within them), the information provided can be applied to any museum, as long as the institution provides interactive learning experiences for elders. Many of these articles, regardless of the age group being studied, emphasize interaction in a major way. Visitors feel welcomed and engaged when a museum makes an effort to include them, rather than just throw information at them and tell them how to interpret it.

Giasson, Hannah L., Tara L. Queen, Marina Larkina, and Jacqui Smith. "Age Group Differences in Perceived Age Discrimination: Associations with Self-Perceptions of Aging." *Gerontologist* 57, Supplement (2017): S160-S168. Submitted by Candace Tyrrell.

As people age, they are looked at in society differently and often play in different roles than they had in previous decades. While people in the beginning of the fifty and up age group are at the peak of their careers, in their sixties they retire and move down in social status, with few roles left to be assigned to them. If people over fifty retire and then come back to work, they are often have a lower job status. As a result, over sixty-one percent of the study sample reported discrimination against them in at least one context to their age. Why does this matter to museums? Because museums should create more opportunities for the aging by getting relevant programming for them, as well as providing volunteer prospect. But it is also important to understanding why this group might come to a museum, because they desire something different to do to get them out and active.

Hansen, Anna and Henrik Zipsane. "Older People as a Developing Market for Cultural Heritage Sites." *Journal of Adult and Continuing Education* 20, no. 1 (2014): 137-143. Submitted by Bailey Glover.

This article focuses on the importance of designing programs for older adult visitors at heritage sites and museums. Hansen and Zipsane use Jamtli, a museum in Sweden as an example of a site that is designing programs that cater to different groups of older visitors. Museums and heritage sites tend to focus the majority of their programs on children, but the population of visitors over 50 is increasing and it is time to shift attentions to this audience. One thing that Hansen and Zipsane stress is that older visitors are not a homogenous group, they are individuals who have different needs and abilities; therefore, it is important for museums to create a range of opportunities for older people. An example that the authors provide of this method being used successfully is at Jamtli, where there are programs for senior citizens with dementia, and there are also programs and volunteer opportunities for older people who are retired but still have energy and a

desire to be appreciated for their skills. Hansen and Zipsane also add that not all older visitors have the same economic status, therefore creating programs that are accessible financially and otherwise is necessary in order to engage all groups of people over 50.

Jenkins, Andrew. "Participation in Learning and Wellbeing among Older Adults." *International Journal of Lifelong Education* 30, no. 3 (2011): 403-420. Submitted by Molly Cadwell.

This study looked at data from the English Longitudinal Study of Ageing (ELSA), which surveyed adults over 50 in the UK. Researchers looked at how well being correlated to three different kinds of educational opportunities adults over 50 participate in. The three educational opportunities were: formal courses, music/arts/evening classes, and gym/exercise classes. Researchers found that the music/arts/evening classes kind of learning was most associated with positive changes in wellbeing while the other two types of learning were not associated with wellbeing. The author suggests this could be because of the opportunities for socializing in this kind of class and the intrinsic interest in learning in these classes.

Johnson, James H., Jr., and Allan Parnell. "Aging in Place in the Carolinas." Chapel Hill, NC: Kenan-Flagler Business School, University of Carolina at Chapel Hill, August 2013. Submitted by Candace Tyrrell

The importance of the elderly audience is further proven in the "Aging in in Place" article. Wake is one of four counties in North Carolina that has a higher concentration of elderly, with over 45,000 in each county. This means that the Raleigh area specially has to address the large. Adults over 50 are prone to disabilities, with thirty-nine percent having some form of disability and museum need to provide comfortable space for these disabilities. Museums in North Carolina should still try to bring energetic programming to this age group because they are still active, with over fifteen percent of all elderly still active workers in the labor force in 2010 While this group has limited mobility needs to be met, the museums need to balance this with healthy activity that keeps the elderly moving.

Kanning, Martina, and Sylvia Hansen. "Need Satisfaction Moderates the Association Between Physical Activity and Affective States in Adults Aged 50+: An Activity-Triggered Ambulatory Assessment." *Annals of Behavioral Medicine* 51, no. 1 (August 18, 2016): 18–29. Submitted by Lance Boushell.

In this article, Kanning and Hansen argue that physical activity for adults ages 50 and older is imperative. Physical activity reinforces an individual's sense of competence and relatedness, and when the activity is autonomous it produces psychological benefits for members of this demographic, improving positive feelings. Physical activity can also make people ages 50 and older feel as if they have more energy and it can increase their overall sense of calmness especially in activities involving other people. In order to engage with adults 50 years and older, museums could offer walking tours, gardening workshops, or solicit them for help with maintaining museums and their collections. They could also recruit members of this demographic to work as docents.

Lee, Sung-Jin, Kathleen R. Parrott, Valerie L. Giddings, Sheryl Renee Robinson, and Gene Brown. "The Influence of Home Modifications on Aging in Place for North Carolina Low-Income Elderly Homeowners." *Journal of Family & Consumer Sciences* 109, no. 4 (Fall 2017): 26-32. Submitted by Candace Tyrrell.

This article is helpful for museums in gathering the information on how many adults over the age of fifty live in North Carolina and what should be in the museum buildings. The data on Adults over 50 is important for museums in North Carolina, since the age group in the state between 2003 and 2013 increased almost thirty-eight percent with 1.2 million in the state in 2010. The most significant changes this groups makes in their homes is a grab bar, ramp, and insulation, so, museum should make sure their museums have these changes in their buildings too.¹¹ Since many museums are required to be accessible, it is important to look at the elderly disabilities to make sure their needs are also addressed.

Meshram, Kanika and Aron O’Cass. "Empowering Senior Citizens via Third Places: Research Driven Model Development of Seniors’ Empowerment and Social Engagement in Social Places." *Journal of Services Marketing* 27, no. 2 (2013): 141–154. Submitted by Nichol Gabor.

This article focuses on the ways in which senior citizens are empowered through social engagement in "third places" and how that social engagement fosters loyalty between the third place and the senior citizen. Although the article is largely written from a business perspective, there are areas that are useful and relevant to museums. For example, the findings of the study suggested that consumer-centric marketing and consumer empowerment are integral to fostering loyalty from that particular group. The authors support this point by describing how declining health, higher dependency on others, living alone, a loss of social networks contribute to feelings of disempowerment and a lack of socialization and community engagement in seniors. Businesses or, in our case, museums can promote loyalty and visitation from senior citizens by fostering customer-owner friendships and community engagement in order to create feelings of empowerment and positive self-image in seniors.

Rosenblatt, Brooke, "Museum Education and Art Therapy: Promoting Wellness in Older Adults," *Journal of Museum Education* 39 (October 2014): 239-301. Submitted by Catherine Sumrall.

The Creative Aging program hosted by The Phillips Collection in Washington, D.C. is a program for older adults affected by various mental and physical illnesses that allows them to come together and explore their feelings and personal identity, and foster a community through art. This program is a discussion-based meeting facilitated by an art therapist and given context by a museum professional. It is designed to create a conversation and allow participants to share personal stories that connect them to the art. Over time the program has morphed and changed to better serve the participants in several ways. First, the number of artworks discussed was taken down from three to two to allow for a longer discussion, then artworks for each session would be paired to create a theme, finally, the participants were sent home with materials to recreate and further explore the artworks discussed that day. Family members and participants responded positively to the program and it has continued to grow and change and has even

inspired an exhibition displaying participant's recreations of the discussed artworks.

Todd, Carolyn, Paul M. Camic, Bridget Lockyet, Linda J. M. Thomson, and Helen J. Chatterjee. "Museum-based Programs for Socially Isolated Older Adults: Understanding what Works." *Health & Place* 43 (2017): 47-55. Submitted by Silvana Oderisi.

This article presents research on how museum programs can counteract social isolation in older adult visitors by enhancing social interaction and overall wellbeing. As a way of avoiding dependence on clinical interventions, this study suggests providing a "social prescription" to improve the wellbeing of an increasingly aging population. Although the museums in the study did this in various ways, all sessions included whole group information sharing led by staff (ie; lectures or introductions to the topic), followed by a range of activities depending on the museum, such as object handling, discussions of objects, participatory art activities (creative writing, drawing, painting, crafting), or performance art activities (singing, making music together) all in connection to the exhibition or discussion. The study highlights four components that museum programs use to create opportunities to enhance social interaction and wellbeing-interacting social context, museum as positive enabler, individual journey and relational process. In order for museums to counteract social isolation in older adults, the museum must become a social place of interaction between people and objects.

von Humboldt, Sofia and Isabel Leal. "Adjustment to Aging in Late Adulthood: A Systematic Review." *International Journal of Gerontology* 8 (2014): 108-113. Submitted by Sheridan Small.

This meta-analysis examines factors in adjustment to aging (AtA), a key factor in quality of life, in individuals over 60 years of age. Worldwide, the "elderly population is projected to grow from 6.9 percent of the population in 2000 to 19.3 percent in 2050" (108). As people reach late adulthood, they are more likely to face physical, mental, and social changes such as chronic medical conditions, sensory loss, memory difficulties, role changes in relationships, and challenges to maintaining active mental lives and social integration. Studies show that people are better able to face age-related challenges when they maintain a strong sense of purpose and self and remain connected to a support network rather than becoming increasingly isolated. Museums can provide opportunities for older adults to fulfill their social needs and indulge personal interests. To properly meet social needs, the museum has to make these individuals genuinely feel like valued members of the community.

Weil, Joyce. "The History of Senior Centers: The Rise of the Center Movement and How Centers Form Spatial Identity." In *The New Neighborhood Senior Center: Redefining Social and Service Roles for the Baby Boom Generation*, 25-42. New Jersey: Rutgers University Press, 2014. Submitted by Kelsey Timpone.

In this article, the author explores senior centers as a place for older individuals to get reacquainted with themselves and a new social network that they may have previously lost. The author links senior centers as a way of continuing to "age in place" (the idea that seniors psychological health is better served by aging in their home or community) while remaining involved with others. Aging in place allows

for “active aging by optimizing opportunities for health, stimulation, peacefulness, resource and physical amenities, and security in order to enhance the quality of life” (32). Taking a look at senior centers in your museum’s community is a great way of engaging an older population.