Recommendations to Designing Art Programs for Children on the Autism Spectrum in Art Museums

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A Master's Project

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Recommendations to Designing Art Programs for Children on the Autism Spectrum in Art Museums

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Abstract:

Art education programs offer formal and informal learning opportunities to individuals with various experiences and abilities. However, there are fewer resources available to contribute to the cognitive, social, and emotional progress of children with Autism Spectrum Disorder (ASD). Many types of museums offer creative art programs that are accessible for students with ASD but this trend has not reached smaller museums or art centers. Similar practices that are used in large art museums can be applied to smaller establishments throughout the country by creating awareness of ASD and providing examples of programs for children with autism. This research seeks to discover the practices used in Art Therapy, formal learning environments, and free learning environments in order to understand how to educate children with ASD through literature reviews. This research project also consists of two case studies of programs specifically designed for children with ASD at the Denver Art Museum, in Denver Colorado and at the Jordan Schnitzer Museum of Art in Eugene, Oregon. By understanding ASD and comparing these case studies, brief recommendations are provided to help implement programs for children with ASD. Small museums can use these recommendations to help create accessible learning opportunities for children with ASD that will enhance their social learning skills.

Key Words

- Informal Learning Environments
- Autism
- Autism Spectrum Disorder
- Accessibility
- Well-Being Programs
- Art Therapy
- Group Therapy
- Care Giver Recovery

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National McNair Scholars Symposium, University of Washington	Summer 2013
Regional McNair Symposium, University of Kansas	Summer 2012
McNair Scholars Symposium, Montana State University	Fall 2012, Spring 2013
Undergraduate Symposium, Montana State University	Fall 2012, Spring 2013

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Chapter I: Introduction to the Project

Problem Statement and Background

In America, the idea that the main purpose of a museum was to collect and house collections for the public peaked by the 1960s and 1970s. But it was not until 1997 that the American Alliance of Museums (AAM) came out with their publication about the ideal roles of museums that shifted museum leader's interests towards an emphasis on educational opportunities. This shift was towards museums engaging audiences by developing public programs. (Weil, 2002). The AAM recommended "[museums] effectively identify and know the characteristics of its existing and potential audiences and whether it effectively evaluates its programs and exhibitions in terms of their audience impact." (AAM, 2014).

Since 2002, there has been another change in museum educational curriculum and programming. A new approach emerged called "well-being" programs, also known as health programs in the United States. (AAM, 2014). Art museum educational programs are still addressing a variety of concerns, but there is a new focus on health, both mentally and physically. Educational Programs and their functions in museums are not limited to just providing information. They offer formal and informal learning opportunities to individuals from all parts of society with various experiences at all ages. However, there are fewer resources available that explain the ways in which museums can contribute to the cognitive, social, and emotional progress of children with autism. This is a particular problem for art museums because these learning environments have high stimulus effects because of using pictures, installations, unstructured projects, and new technology devices. This can cause children with Autism Spectrum Disorder (ASD) to over stimulate easily in art museums. Therefore, there are certain precautions that need to take place and certain programs that can be established for the ASD community.

Even though mid-size art museums and larger museums are currently providing these programs for a growing ASD population, these programs have not reached smaller art centers or art museums in rural areas or museums with a lack of resources or funds. However, there are cost efficient ways for these facilities to create programs designed for children on the autism spectrum.

Statement of Purpose

Providing more programs for children with autism should be a concern for art museums because according to the U.S. Centers for Disease Control (CDC), autism diagnosis has increased at an unprecedented rate in recent years. The CDC reported that about 1 of 68 or 1.5% of children were identified with ASD by tracking 11 communities across the United States. (Centers for Disease Control, [CDC], 2012). It is vital for these children to have free-learning opportunities that are provided for all children. Having high stimulus atmospheres have not stopped larger museums, like the Museum of Modern Art, in New York City, from developing programs accessible for children with autism. Therefore, with the growth of new programs specifically designed for students who are placed somewhere on the autism spectrum there needs to be a way for these programs to be successful for museums with limited resources. This study focuses on these types of program designs created by art museums to help understand teaching techniques and provide recommendations for designing programs for museums with limited resources.

Significance of Study

All sizes of art museums or centers have the possibility to provide a valuable and pleasant experience for children with ASD. Even museums with limited resources need access to devices and knowledge about the generalized characteristics of autism and for these participants to be acknowledged and accepted. The development of these recommendations can help shape a positive cultural experience, and is essential if social accessibility is the goal. If a museum is not accessible to everyone, then the cultural world is exclusive and not meeting the needs of a diverse society. By providing these key elements to design programs specifically for children with autism, museum administrators and educators can enhance the experience of this complex, perplexing, and growing population.

Chapter II – Research Design

Research Methodology

This research explores the different conditions of ASD and the practices being used in different museum environments. It also explores the benefits of using practices similar to art therapy. The literature review begins by understanding the history of ASD and certain characteristics of children with ASD. Then, I examine some of the literature on teaching techniques of formal learning environments and the history behind special education for children with ASD. Lastly, I discuss the benefits of using art museums as a place of social learning and freedom of expression.

The other primary focus of this research is to compare and contrast two museums programs that are designed to support children with autism. This research was guided by two main questions: What are the learning habits of children with autism in museum education? How are art museums creating a curriculum that is accessible for children with autism? These questions helped guide my research and identify characteristic of programs that are designed to support children with ASD and ways to sustain these programs in art museums with little funding resources.

To explore these questions, I used qualitative research methods. Due to time limitations, I focused my study on art museums because art museums can be highly stimulating environments with much activity and information available. Highly stimulated environments can be difficult for autistic children. In fact, a diagnosis for autism is performed when children are over stimulated at a rapid rate. (Marie, 2002). There are many art museum programs designed for children with autism. I selected two museums for case studies, the Denver Art Museum and the University of Oregon Jordan Schnitzer Museum of Art. These museums are comparable on the basis of having the same number of staff responsible for their accessible programs for visitors with ASD. (Denver Art Museum, 2015). The other criteria for choosing DAM and JSMA is their

relatively young programs, DAM is in their its first year and JSMA is in its fourth year.

However, they are quite different in size and location, i.e., the Denver Art Museum is a municipal museum located in a large metropolitan area in the Rocky Mountain region, and the JSMA is a mid-size university museum located in a small town in the Pacific Northwest.

Analysis of these two case studies helped me capture what types of programs are being offered in art museums that are similar in some respects but different in others. Comparing and contrasting these programs provides a better understanding of common practices that can be used at any level of operation. Meaning, these curriculums could be used at any level of an art museum's capacity.

My main research question is how are art museums' programs made accessible for children with autism and their families through visiting a museum and art activities?" I was also interested in how these programs are finding partnerships or other resources to provide these programs. Are they using outside sources such as funds from private donors? What tools are being used in these programs? How is the staff being trained to provide this health service to children with ASD?

The objective of this research is to gain knowledge in the work field and possibly provide consultancy services for museums that may not have the capacity to support programs for this certain demographic. I also hope to be able to create curriculum that can involve children with and without disabilities.

The purpose of this project is to gain insight into how different programs are developing in art museums. Creating programs for children with autism will help a community that is generally not reached in rural areas. After the literature review and case studies, I provide recommendations for starting programs in art museums or art centers in rural areas. These

recommendations also provide information on how museums might possibly make these programs sustainable.

Case studies are a great tool for understanding program background, history, structure of curriculums, and terminology used in different programs. Data on which this study based was obtained by analyzing printed marketing materials used for the programs, lesson plans as well as other materials available on museum websites. I also obtained valuable information and insights by attending the National Education Association Conference, in Chicago on March 13 through 14, 2015 and the Making Disabilities Public Conference, at the University of Washington, Seattle May 14, 2015. Materials used to analogue the public information about the programs included endnote software, computer storage with files, and notes on paper.

This research compares and contrasts two curricula from two informal learning environments. First, the Jordan Schnitzer's Museum of Art's Art Access program, a series of art activities specifically designed for children with autism. The other program being studied is the Denver Art Museum's Custom Access Tours Program and Low Stimulus Morning program. Using these two sites, this research was the beginning of looking at programs for children with autism and possibly other developmental disabilities. My project may also act as a tool for programs making lessons accessible for different learning capabilities. For instance, this could potentially provide a program that children at all levels of ability could take classes together. Both programs have a particular program dedicated to the abilities of children with autism. Both of the programs help children understand art and create social learning environments that can be directly related to group therapy. Both museums have a particular program designed for children with autism, to help them understand art, and to create social learning environments that can be directly related to group therapy.

I hope this project provides tools and insights for the development of programs and lesson plans to make museum programs accessible for children with different learning capabilities. For instance, this could potentially provide a program that children with all different levels of ability can be together.

Data Collection and Analysis Procedures

Data was collected and analyzed from the Jordan Schnitzer Museum of Art in Eugene, Oregon and the Denver Art Museum in Denver, Colorado. Both of these locations make art accessible for children with autism. The Jordan Schnitzer Museum of Art has a program called Art Access in which once a month children come to do an art activity for free. DAM has a similar program called Low Stimulus Day and a tour program called Custom Access Tours. Both art museums use different approaches for the curriculum and at different times during the week. They also have parents assist in the program, as well.

Lastly, the goals of this study were to make suggestions for building curriculum and art activities for children with autism for small museums in rural areas. Eventually, I hope to be able to develop a measuring tool to evaluate these programs by using observations of the interactions between students with autism and their teachers.

Chapter III: Review of Literature

History, Nature, and Characteristics of ASD

The first recorded instance of a behavior that resembled what we now call autism was in 1799 in a mental hospital in London. The Bethlem Hospital admitted a 5-year-old boy that exhibited a lack of bonding with others in the institution and only played in isolation with toys. It was not until the late 1800s, however, when the story of a "wild" boy found abandoned in the forests of Aveyron, France appeared that fascinated Europeans. This boy, eventually named Victor by his educator Itard, was an example of a person who experienced prolonged social deprivation. Itard took on the challenge of educating Victor and became the first recipient of an educational curriculum that was amended to incorporate Victor's unique needs. His special education was the focus of observations, social and educational experiments. Abbé Pierre-Joseph Bonnaterre provided a scientific profile of the sociological and educational effects on Victor. His published observations included evidence of "specific intellectual impairment" (Firth, p. 22), "characteristic impairment of sensory attention" (Firth, 1999, p. 22) and "evidence [of] stereotyp[ical] behavior" (Firth, 1999, p. 23). The autistic type characteristics described in his writings are important because they describe the consequences of sustained socialization and education. They are also important because they provide some of the first evidence of how the condition is not exclusive to the United States or to our modern times, as is often thought (Firth, 1999).

Leo Kanner and Hans Asperger are considered pioneers in the field of Autism. Both used the terms 'autism' and 'autistic' independently of each other (Connor, 1999) to describe the condition they researched. Austism and Autistic was defined as, a developmental disability characterized by difficulties in social interaction and communication and by restricted or repetitive patterns of thought and behavior. (Webster, 2010). Kanner used the term to describe children with classic Autism, while Asperger described capable and intelligent individuals. He

published a paper in the 1940s that described a pattern of behaviors in several young boys who exhibited autistic-like behaviors and marked deficiencies in social and communication skills even though their intellectual ability was within the "borderline to gifted range" (Jansen, p. 4). He coined the term Asperger's Syndrome, or AS, and diagnosed clients by having noticeable impairment in social interaction, restricted and repetitive patterns of behavior, interests, and activities. For example, children with AS have difficulties with transitions or changes and prefer sameness that manifests into eating only certain foods, obsessive routines and preoccupation with a particular subject of interest. They have a great deal of difficulty reading nonverbal cues and often the individual with AS has difficulty determining proper body space. Some people with AS are overly sensitive to sounds, tastes, smells, and sights. These characteristics result in "significant impairment in social, occupational, or other important areas of functioning" (American Psychiatric Association, 2000, p. 70). The disorder can range from mild to severe. People with ASD can have limited vocabularies unusually robust and some children sound like "little professors". However, persons with AS can be extremely literal and have difficulty using language in a social context. When a child has social, communication and emotional deficits, this means that they have a markedly abnormal or impaired development (American Psychiatric Association, 2000) in each of these areas. Since they are all interrelated, it is important to understand what each means. Social deficits mean there is the presence of noticeably abnormal or impaired development in social interaction and communication and a markedly restricted range of activity and interests. This means that the child does not play well with others and only likes to do a few specialized activities. The lack of mutual social interaction skills includes impairments in nonverbal interpretations, failure to develop peer relationships, manifested by a lack of spontaneity seeking to share enjoyment, interests, or achievements with other people, and a lack of social or emotional interchange. Emotional development is the "least understood" of all

the skills sets (Winters-Messiers, 2004). Kanner describes the emotional state of children with ASD as, "Children born with an innate inability to form the usual biologically provided affective contact with people" (Kanner, cited in Firth, 2003, p. 109). In simple terms, it means the inability to bond with someone who can meet your needs. It is important to note that there is not an absence of emotion, just a lack of appropriate expression of that emotion. All of these deficits have significance related to the way the child interacts with the world and in their ability to bond, make friends, keep friends, and express their emotions appropriately and to communicate on all levels.

Successful integration of people with disabilities into educational visual art programs is highlighted in "The Arts and 504, A Handbook for Accessible Arts Programming" from the National Endowment for the Arts. Its intention is to "assist arts organizations [museums] in complying with disability access regulations (Arts and 504, n.d.)." This work speaks to the importance of integrating the needs of the disabled into programming efforts. Along with providing approaches for accessibility, it also discusses communication techniques that supplement the success of people with disabilities, including autism, within visual art environments. The value of this publication is that it validates the efficacy of inclusion along with compliance to federal accessibility laws. IA case is made for advocating art inclusion to persons who experience a disability in a paper presented at the Annual Meeting of the American Association on Mental Retardation (Harlan, 1993). The speaker made relevant observations about the creative abilities of people with developmental disabilities, including autism spectrum disorder. The paper highlights how limited cognitive functioning impairments can coexist with artistic means. The conclusion of the paper reinforces the benefits of art inclusion by saying that the process of creating and being involved in the visual arts can be a "satisfying and constructively available to everyone" (Harlan, 1993).

History of public education for children with autism

Public education has worked to address the needs of all students with disabilities, although it has been a gradual process. The most pivotal change in public education for students with disabilities in general education classrooms dates to the implementation of the federal law, Education for All Handicapped Children Act of 1975 (PL 94-142), which is now known as the Individuals with Disabilities Education Act (IDEA, 2004). The law itself has undergone several revisions over the years from 1975 to 2004, including but not limited to: (a) disability category changes, (b) age group modifications, (c) a name change, and (d) expansion of services (National Information Center for Children and Youth with Disabilities, 1996). One of the most significant revisions of IDEA pertinent to autism was in 1990 when it was added as a disability category (U.S. Department of Education Office of Special Education Programs [USDE OSEP], 2006), having not been included in the law previously. While IDEA (2004) has been a driving force for change in the education of students with disabilities, another federal law, The No Child Left Behind Act (NCLB, 2001) has also contributed to educational changes for students with disabilities. NCLB has stressed not only access to the general curriculum, but also access to all state mandated tests for students identified for special education (Karger, 2005; Karger & Hitchcock, 2003). NCLB requires state mandated assessment in the major subjects of math, reading, writing, and science. As a result of the combined requirements of IDEA and NCLB, general education teachers are required to adapt their instructional strategies in the general education classroom to accommodate students with disabilities (Karger, 2005; Simpson, de-Boer-Ott, & Smith-Myles, 2003; Wagner, 2002). The degree of intervention needed to facilitate academic supports for students with autism in general education classrooms differs. Because of variability in manifestations of their disability, students with autism need curriculum modifications or

instructional accommodations to access the general curriculum (Hanbury, 2005; Myles, 2005; U.S. Department of Health and Human Services, [U.S. DHHS], 2001; U.S. GAO 2005; Wagner, 2002). Curriculum modifications require the teacher to make adjustments to what is being taught or expected in the general education classroom, for instance a student could be given shorter assignments (National Dissemination Center for Children with Disabilities [NICHCY], n.d.). Instructional accommodations are changes in the methods used for student responses or curricular involvement (NICHCY, n.d.). For example, an accommodation for a student who has trouble writing down answers could be given the option to answer orally (NICHCY, n.d.). Instructional (Moores-Abdool).

Educational Approaches to Teaching Children with ASD

There are many treatments that help manage harmful behaviors or overcome barriers in communication and social interaction for children with autism in formal learning environments. Prevalent educational approaches for assisting children with ASDs are reviewed in these readings.

Though many medical treatments exist for children with ASDs, it appears that the most effective intervention is early and intensive educational support that addresses behavioral, social, and communication deficits (Dempsey & Foreman, 2001). Below are prevalent educational interventions and complimentary treatments that may guide the development and implementation of museum programs. Educational approaches for children with ASDs are usually divided into Behavioral Approaches, Communication Therapies, and Social Skills Therapy. Some educators have found that a system of reinforcements has helped children with autism overcome problematic behaviors and learn productive behaviors. A series of rewards (and, at times,

punishments) can be an effective way to teach children with ASDs to compensate for their disabilities.

For a behavioral approach, Applied Behavior Analysis (ABA) is a popular and widely known intervention for children with ASDs. ABA uses the principles of behaviorism to eliminate problematic behaviors in children with autism. In the 1960s, Ivar Lovaas laid the groundwork for Applied Behavior Analysis, developing a program in which children were rewarded for correct behavior and punished for incorrect behavior (Tutt, Powell & Thornton, 2006). Since then, the "Lovaas approach" has undergone decades of development, refining techniques and eliminating questionable practices.

ABA assumes that the behavioral problems of people with ASDs have a neurological base and that they may change in controlled environments. Rather than a wide-ranging view of the child, ABA focuses on specific behaviors that are either to be encouraged or suppressed (Tutt, Powell & Thornton, 2006). Treatment focuses on both simple and complex responses and breaks them down into small steps. For example, a simple response would be maintaining eye contact, a complex response would be a social interaction. Then, the steps are broken down into smaller steps. Each step is taught by an instructor or caregiver, using cues to prompt a response. The correct response to a prompt is rewarded, while an incorrect response is punished. This method has been used to teach a number of skills, such as communication and academic skills, while vindicating aggressive and self-stimulatory behavior (Dempsey & Foreman, 2001).

An example of a communication approach used in many educational settings is called Treatment and Education of Autistic and related Communication Handicapped Children (TEACCH). TEACCH was originated by Eric Schopler and colleagues at the University of North Carolina over the last 30 years. It uses a behaviorist approach to foster communication and self-care skills, but it is flexible enough to allow incidental learning in addition to structured teaching

(Dempsey & Foreman, 2001; Tutt, Powell & Thomton, 2006). The goal of TEACCH is to help students feel more comfortable in an inclusive setting, much like art museums. For example, a classroom teacher may give a child with autism an individual workspace to eliminate distractions that can overwhelm the child. Each student is regularly assessed as an individual, allowing for personal development that may not be possible with ABA. At the same time, group identity is encouraged during collaborative activities (Tutt, Powell & Thomton, 2006). Possibly because TEACCH is designed for a classroom setting, teachers with an integrated class often prefer components of the TEACCH method as opposed to ABA (Callahan et al., 2010).

One of the defining features of TEACCH is an individual workspace kept free of distractions from other children. This allows the child to have a structured but adaptable environment. The workspace is a place for the child to do individual activities. The child is directed away from the space for group activities, creating boundaries for the child and creating a sense of routine. This practice also allows for augmentative/alternative communication (AAC), which are objects and techniques that assist with expressive and functional communication (e.g., PECS or sign language) (Mirenda & Iacono, 2009). Visual materials like picture schedules, which depict the day's events in easily identifiable graphics, may also be included in TEACCH.

Like other programs, TEACCH relies on collaboration between parents and professionals to continue the intervention at home (Dempsey and Foreman, 2001; Tutt, Powell 62 Thornton, 2006; Panerai et al., 2009). One study by Panerai, Ferrante, and Caputo (1997) showed significant improvement in adaptive behavior; perception, motor, and cognitive performances; and self-help skills over a 12-month period in children and adolescents with autism. This study, however, did not have a control group, and the potential benefits of TEACCH are not guaranteed (in Dempsey & Foreman, 2001). As mentioned earlier, the differences in each individual with

autism make it difficult to demonstrate efficacy; however, just because efficacy has not been proven does not mean the program or approach will not work.

There is a lack of literature on social skills therapy for children with autism, revealing an urgent need for additional research. (Marie, 2008). Past research has focused on the use of small groups or single-case study designs. A study by Marie from the book *Outcome-Based Evaluation* of a Social Skills Program Using Art Therapy and Group Therapy for Children on the Autism Spectrum study examines the effectiveness of a social skills therapy program for school-age children ages 11 through 18. The program uses art therapy and cognitive-behavioral techniques in a group therapy format to broaden and deepen the state-of-the-art techniques used in helping children with social developmental disorders to improve their social skills. The measure of social improvement were Pre- and post-test tools distributed to parents and teachers during a school year in 2004. The scores revealed a significant improvement in assertion scores, coupled with decreased internalizing behaviors, hyperactivity scores, and problem behavior scores in the students. Implications for social work and policy are discussed. (Marie, 2008).

There were many key terms used in this work. For example, the "autism spectrum" is a phrase that presently includes several specific diagnoses, each with its own particular characteristics and symptoms. The autistic spectrum comprises a broad range of disorders characterized by interference with communication and social interactions and circular patterns of interest, activities, and behavior. The autistic spectrum referred to are autism disorder that include; Rett syndrome, childhood disintegrative disorder, Asperger's syndrome, and pervasive developmental disorder that have not been specified. (Marie, 2008).

In the study, Marie's theory of mind, branch of cognitive science, that investigates how we ascribe mental states to other persons and how we use the states to explain and predict the actions of those other persons. (Marie, pp. 25). The theory of mind has been particularly helpful

in identifying the neurological component, rather than relying on family dynamic theory, in the assessment of Pervasive Developmental Disorders (PDD).

One challenge that the study faces was the integration of observational studies groups of children suffering from PDD with whom to work. To complicate matters, many social skills deficits are due to emotional or behavioral causes, not neurological conditions. Therefore, it is contraindicated to group children with emotional disturbances with children with ASD. Although the issue being addressed for both groups may be social skills, the origins of the deficits are different. Children with ASD have a neurological condition that makes it difficult for them to read and intuit social cues, whereas children with ED have a psychological impairment but are able to read social cues. Grouping these children together can result in a situation in which social "aggressors." Because of these reasons there were challenges with getting participants for the study.

Benefits of using Informal Learning Environments for Children with Autism

There is now a significant body of literature in the field of museum studies that discusses the benefits of using informal learning environments for children of all abilities. What follows is a review of readings that address how art museums, and other museums, are an ideal social learning places for children with ASD.

Dierking and Falk did extensive research by using studies showcasing museums as active learning centers for children. Free learning, also known as informal learning, was the focus of Dierking and Falk's work showing that 95% of cognitive learning happens outside of a classroom. (Dierking, 2010).

Dierking and Falk believe that non-school resources are the vast majority of science learning in America. They describe in-depth one case study from the California Science Center

in Los Angeles. In the study, they showed that out-of-school institutions support the public's science learning by enhancing the audience's curiosity. The results from California Science Center in Los Angeles' surveys showed that 60 percent of residents had visited the Science Center since it was renovated in 1998, including residents of all races/ethnicities, neighborhoods, incomes and education levels. It also showed that a large number, 95 percent, of these visitors felt that after visiting the museum they had a better understanding of science and technology. The experience also expanded their interest in science, and encouraged further inquiries after the visit. Other case studies have had similar results.

Dierking and Falk used a variety of methods for collecting data as well as different kinds of data. The data ranged from onsite surveys, interviews, and focus groups. Case studies were done over decades while others were done in less than a year.

Falk categorized visitors on the basis of the kind of experience they are seeking when visiting museums. These include: Facilitator, Explorer, Recharger, and Experience Seeker. The Facilitator wants to socialize. The Explorer wants to learn. The Recharger wants to reduce stress, and the Experience Seeker looks for a "once in a lifetime opportunity." (Dierking, 2010).

In a different study conducted by Harriet R. Tenenbaum's called "Supporting parent-child conversations in a history museum" the author examined different ways parents and children interact with each other in the museum. Tenenbaum found that parent-child discussions were generally brief and tended to involve more explanation rather than conversation. When comparing conversations between people in other groups of visitors, parent and child conversations were limited in time. (Tenenbaum, p 23-29) Even though children may need more explanations than other visitors, the explanations were also brief and most of the time incomplete because the child's attention span was not long enough or the parent did not know the answer to the child's question.

Tenenbaum decided to use an interactive designed exhibit to test the amount of time families spent at a certain exhibit. The interactive exhibit was an art activity backpack for children and adults to engage with each other in the museum. This helped Tenenbaum observe whether or not the child and parent connected around their conversations about the activities inside the backpacks and the exhibits in the art museum. This particular study was conducted at the British Museum in an exhibition focused on culture and history. In this example, the British Museum used a backpack of activities. At the time of the backpack activities, the exhibition at the museum was not hands-on or interactive, which possibly made it difficult for groups with families to engage with the exhibit and created the need for a family activity greater than at other types of exhibitions. The backpack study did increase time but most recent studies have found it was difficult for families to want to participate in the activity. Furthermore, the study showed that the backpack had to be compiled with ever changing material otherwise, families that would visit multiple times got "bored" with the subject matter. (Tenenbaum, 2010).

The issue of being "bored" or under stimulated does happen easily for children on the Autism Spectrum. In the book by Tenebaum, there were many other examples of how museums can create activities to engage the whole family. For art museums, there should be opportunities for a parent and child with ASD to communicate with one another during their visit at any art museum whether their visit is an art activity or exploring the exhibits.

The benefit of studying conversation and interactions between parents and children, according to Tenenbaum, is seeing how a museum can create a social learning environment for any child and parent. Observations by Tenenbaum did result in longer conversations that, in turn, enhanced the children's vocabulary. (Tenenbaum, 2010). Children on the autism spectrum can benefit from programs that are interactive for the whole family because one of their conditions is communication issues. Tenenbaum also found that the child and parent's interaction created

social learning from one another. Difficulty with social interactions is another symptom of a child with ASD. Having someone they feel comfortable interacting with for a conversation can create a better understanding of social cues. Tenenbaum gave art museums examples and benefits of engaging youth visitors by enhancing communication between child and parent and having social learning opportunities.

Chapter IIV – FINDINGS AND ANALYSIS

Current Roles of Museums in Health Care

In recent years, museums have increasingly demonstrated their public value as educational providers, community anchors and stewards of our national heritage. They've also earned a reputation for driving tourism, creating jobs, attracting businesses to the community and serving as a source of immense civic and community pride. As society has changed, so has the work of museums. Museums are facilitating job training programs, celebrating cultural diversity and awareness, teaching English as a Second Language classes and serving as locations for supervised visits through the family court system. Now, they are playing a significant role in many health care issues. (AAM, 2012).

In 2012, the AAM assembled a report to help showcase how museums are contributing to wellness issues. In one of many sections, it provided a helpful insight to assisting the public about autism. In the report, AAM estimated that five percent of children seven and under have a disability or special need. They are aware that these children have challenges with social interaction, sensory processing, verbal and nonverbal communication and repetitive behavior. Museums are leading the charge in creating programs for families facing these challenges. Some of these museums are opening early to offer a quieter, less crowded experience for these children and their families, or offering a summer art camp for children with special needs. Others are carefully monitoring the building temperature or adjust lighting in some areas to create a more "sensory-friendly" environment.

Many museums also utilize multiple learning styles, creating visual representations of what visitors can expect to see and do, in order to help parents, prepare their child and minimize unfamiliar and unexpected experiences. These museums also train their staff to understand what to expect, how to react and what community resources are available to help these visitors. One of the most significant elements of these programs is supporting a parent's confidence about not

being judged or ridiculed by others. In the report by AAM a parent reported "My son was able to run around and be himself without any stares or people telling him he is acting inappropriately. It is a relief to not have people looking and staring like you're the worst parent because your kid is acting out or making loud noises in a public place."

In other cases, art museums are also starting to have children create collaborative art projects focusing on building self-expression and communication with peers and teachers in a unique environment. In one program, educators saw marked improvement in individual students' creative expression, an increased comfort level in handling transitions and an awakened openness to new tactile materials. Museum educators have worked with teachers, parents, occupational therapists, and art therapists to create ways to utilize art-making as a regular communication tool for students.

In addition to advancing children's development, some museums invite local specialists and resource providers to these programs so that parents and kids can talk to experts about their needs or questions. One museum professional explained the low-stress environment this way: "No diagnosis, no lab coats in sight, just Q & A." (Museum Access Consortium, 2015). The benefits are not just limited to families. Some museums are offering therapeutic memberships so that health care practitioners can bring their patients to a fun, enriching environment. Some museums are also working to increase awareness about kids with special needs with different projects and programs.

Custom Access Tours and Low Stimulus Mornings at Denver Art Museum

Since 2015, DAM has made great improvements in making more programs accessible not only to children with autism, but the people with various disabilities in all age groups. These programs started due to a new position funded by local partnerships and a private donor. Future

funding is also being searched through other grants. The leader and creator of these programs is Daniel Schulz, the Adult & Access Programs Coordinator. She has been at the museum since 2015. In a recent article she stated, "[I am] dedicated to engaging the Denver community through accessible and inclusive arts programming for a wide variety of abilities and audiences." (Schulz, 2016). The programs that Schulz and the other educational staff members have created at the DAM include Art & About Tours, Tactile Tables, ASL Collection Highlights Tours, and Low-Sensory Morning.

All of these programs have been developed over the past year. These are relatively new programs and the reason they are a case study is that they are an art museum just developing and implementing these programs in an area that needed programs like these to create a new audience for the museum. The DAM was also chosen because it is providing great insight to program visitor experience. The two programs I looked at are the Low-Sensory Morning and the Custom Access Tour. The Low-Sensory Morning is a program that engages visitors using their own experiences. It is not structured in a tour and the groups coming to the museum are open to move around the space of the museum on their own.

The other program, Custom Access Tour, is a guided tour that provides guidance through the museum with a docent. Both of these programs provide children on the autism spectrum with a choice to explore the museum on their own or be guided through the museum.

One of the newest programs at the museum is a Low-Sensory Morning at the museum for families with children on the autism spectrum. The program allows the museum to open the museum's doors before public hours to welcome the groups who prefer to explore the museum in a less sensory-stimulating way. Loud gallery sounds are turned down or off. Attendance is also limited and there are numerous hands-on activities and artmaking projects for children and their families to enjoy. (Schulz, 2016).

In recent pilot projects, the museum has expanded the experience of children on the autism spectrum and their families by providing them with a tool that includes a social story, visual schedule, and sensory map of the museum. This tool is meant to help prepare family groups for their outing, as they can familiarize themselves with the various activities and spaces they will come in contact with during their visit. These tools are used to help increase the comfort and confidence level of all the family members while in the museum. (Schulz, 2016).

Something that can happen during these visits is emotional behavior issues, commonly known as triggers. A family may decide it wants to find a quiet space in the museum in case a trigger happens in the child or they need to take a break. The family can find the quiet space or an activity space in the museum by referencing the sensory map and see other options for the best location. The whole sensory map provided by DAM shows all the floors of the museum and images of certain objects located on those floors. It also shows where children can take part in a scavenger hunt, and notes a location for the families to go if the child experiences a trigger. By providing these spaces it creates flexibility for children on the autism spectrum. (Schulz, 2016).

This program is still in a pilot stage for the museum. DAM has called it a "test event." Because the program is still new the museum needs to keep attendance numbers to a minimum. The museum requires participants to register beforehand to ensure a sensory-friendly environment. Families can for these test events by contacting Adult and Access Programs Coordinator at DAM. (Schulz, 2016).

The other program used to help children diagnosed with autism and their families are tours custom designed to fit the needs of any family or child anywhere on the autism spectrum.

Custom Access Tours are available for these visitors and other families whose needs are not met by other access offerings. Their option for tours include a Tactile Tour, featuring touchable materials and description, American Sign Language (ASL) interpreted tours, and tours designed

for groups from assisted-living facilities. All these visits must make arrangements two weeks prior to the date of the visit.

DAM has also established many partnerships in the area to these programs. At the start of initial design phase for DAM, they have partnered with community members and local organizations dedicated to serving individuals on the autism spectrum. On the DAM website and according to Danielle Schulz, "These partners have also helped us spread the word about our "test events," and most important have helped ensure that we achieve our goal of creating a welcoming museum environment." DAM's partnerships include the Autism Community Store, Blue Ribbon Arts Initiative, Autism Society of Colorado, Firefly Autism, Ana Antonetti (occupational therapist) and Robin Baba.

Art Access Program at Jordan Schnitzer Museum of Art (JSMA)

The JSMA has many programs as well that are catered to the needs of children on the autism spectrum. It too is developing programs that engage participants with different disabilities and ages. Most of the programs are art activities provided through the museum using a grant received from the John F. Kennedy Center for Performing Arts. (Abia-Smith, 2012). These programs started five years ago and continue to allow participation from the different groups.

Art Access VSA Workshops are designed for children anywhere on the autism spectrum. This program is free to all children who have special needs and want to participate in a studio activity. It is an art activity that lasts about an hour and takes place once a month. The goal of this program is to make these activities accessible to all students with different abilities. (Abia-Smith, 2012). It is also the goal of the Occupational Therapist, Molly Pierce from Oregon Health & Science University, for the students to have the opportunity to share their emotions and gain confidence in making artwork by themselves or as little help as possible from the care givers or

volunteers. (Pierce, 2016). That is the purpose of and goals of the JSMA program called ArtAccess.

The ArtAccess program has many partnerships and volunteers that help with this program. Being a University Museum, ArtAccess has the ability to have student volunteers assist the children on the autism spectrum to create work. As mentioned before, children on the autism spectrum have many challenges with their abilities. Some have social anxiety and others may have mobility issues or challenges speaking. Therefore, students on the higher spectrum need one-on-one help with their projects. By providing enough volunteers, they can help assist the children with the activity. This gives the care-giver the opportunity to take a break or create their own artwork. Having complete support, it creates a calming and comfortable atmosphere. Art Access studio time also provides another social relationship for the families and the children experience a healthy relationship outside the family nucleus. (Family Caregiver Alliance, 2016).

These accessible art lessons and activities are provided by two members of the education department, Nori Rice, Art Educator from Imagination International, and Pierce, Occupational Therapist from Oregon Health & Science University. They design the activity for each class and make an effort to have artwork the students can take home and group projects as well. (Abia-Smith, 2012).

For training, all volunteers and assistance are provided three videos from JSMA. The video specifically for children with autism is called *Art Lessons for Children with Disabilities: Spectrum of Autism.* (Jordan Schnitzer Museum of Art [JSMA], 2013). They are quickly educated on the signs of autism in children;

- Challenged communication skills in both expression and understanding
- Immature social interactions
- Difficulty understanding social and nonverbal cues
- Stereotypical movement patterns
- May have language delays

- Repetitive and ritualistic behaviors
- Poor Imitative play
- Sensory processing challenges
- Can have resistance to change
- Can be anxious in new surroundings
- Fixated on certain subject matter

When the art teacher and occupational therapist at the JSMA build the art activity curriculum, they have a clear outline of what to follow. First, they have clear expectations for the art activity. Looking at the list of signs of autism, this helps when a child has difficulty with communication and they can focus on one subject matter when they are fixated on certain tasks.

The other consideration for designing the art activity is repetition. By providing repetitive steps it establishes routines for the children. This helps in many ways for the child on the ASD. First, it helps when the child is sensitive to change. It also helps because it plays with their repetitive and ritualistic behaviors. By establishing a repetitive process in the activity, it makes the child feel more comfortable in the art studio and in the museum.

Sensory motor tools to help the child with self-regulation or stay calm and focused is another aspect used when designing these drop in studio times. For example, instead of using a paintbrush for the child to create their own Jackson Pullock painting, they can use tubes to easily squeeze the paint out of the bottle. This only requires simple hand motions. Or, they can use the brush if they have the ability to move their arms. Simple movements help the child stay calm but also creates a focus point. Other tools mentioned in the JSMA's *Art Lessons for Children with Disabilities: Spectrum of Autism* video include; manipulative, tactile activities, Water actives/water colors using brushes or droppers, and other tools if the student is touch sensitives. Making accessible tools and using various tools creates confidence for the child and supports their own independence.

There are also many things to avoid in order for an optimal experience for the children. For instance, some children dislike "messy" activities and the museum should have a washcloth available for these children. The museum should also work toward improving tolerance for messy activities.

At the museum, the Art Access program looks into each child's interest. There is a limit to how many children can come to the drop in hour and usually requires an RSVP to Rice, Art Educator at JSMA. However, the program encourages many families to use the resource because the program provides the students an opportunity in an informal learning environment to do group work.

The effectiveness of the program can be seen through the child's reaction. After every session, there is a debriefing with the volunteers, art teacher, and occupational therapist. They explore which part of the activity is useful and what were the challenges. They also ask about the children's reactions. Did the child want to take the piece home right away? Did they talk about certain topic? It is also good for the feedback of parents. In the Art Lessons for Children with Disabilities: Spectrum of Autism video, a mother of a child participates said; Art has enabled [my son] to be more well-rounded in his life. Art is giving him a lot of confidence and he is seeing what he can do and not what he can't." (JSMA, 2013). These are the observations and data the art teachers at JSMA are collecting for every Art Access studio drop in hours.

Chapter V – RECOMMENDATIONS TO DESIGNING ART PROGRAMS F CHILDREN FOR CHILDREN ON THE AUTISM SPECTRUM IN ART MUSE	OR UMS.

There are many art museums providing highly regarded programs for children on the Autism Spectrum. As the Denver Art Museum grows, they are becoming more aware of this demographic need in their local community. The Jordan Schnitzer Museum of Art is a new program based in Oregon, an area that is known to be rural and have limited resources. Both museums are in the early stages of building sustainable art programs for children with ASD. Many of DAM's and JSMA's programs can be seen as models for art museums that have limited resources or in small communities. However, it is important for small art museums to still research topics such as art therapy, art educations programs, and to stay current with common practices used in health programs. The following recommendations are aimed at helping smaller institutions build sustainable programs.

Recommendation 1 – Knowing Your Audience and Building a Network

Both art museums started their programs by developing partnerships with local organization that shared an interest in the well-being of children with autism. After gaining sponsorships, both museums started reaching out to families that had children with ASD. It is important for art museums to know their audience by either researching the conditions of ASD or gaining insight from occupational therapists or other partnerships. For example, DAM established partnerships with institutions such as Autism Community Store, Autism Society of Colorado, and Firefly Autism. All of these institutions assist the autism community making them have a similar goal to DAM. (Schulz, 2015).

JSMA also partnered with institutions that had similar goals as their Art Access program. The majority of funding for the Art Access program came from the John F Kennedy Center of the Performing Arts grant called VSA Programs. VSA Programs, formally known as Very Special Arts Programs but is now commonly referred to by the acronym VSA, is a grant given to museums that help fund art activities for children with development disabilities. (Abia-Smith, 2013). Art museums can use these partnerships to attract families and start creating a network of participants for their programs. Establishing partnerships with corporations or other funding sources is part of the first steps in creating programs for children with ASD.

Art museums also need to reach out to families who may not use resources like occupational therapists or other programs. In fact, there are families that have children on the Autism Spectrum but they may not know about the resources, or, they may decide to not use programs such as assisted living programs. In many cases, these families will not know about programs in art museums or centers if they don't have easy access to the museum. That is why it is vital to start building programs for children with autism by setting up partnerships that also cater to the needs of these families. It is also up to staff members at the art museum to reach out to other participants, for instance, by mentioning the program to schools, parents, or through other outlets.

Another strategy is to start art educational programs in art museums by using volunteers with experience in occupational therapy or a similar field. The DAM works with two occupational therapists, Ana Antonette and Robin Baba, to help support the Custom Access Tour and Low Stimulus Morning programs. The JSMA created a partnership with an occupational therapist, Molly Pierce, to collaborate on art activities with the Art Educator at JSMA, Nori Rice. Pierce is a volunteer for the program and brings the majority of her clients to the Art Access program.

Once partnerships have been established for funding, getting to know the families and children with ASD is the next step. "Knowing your audience" is critical to most museums today. As the literature shows, children with ASD have a spectrum of levels of their conditions. With the help of an occupational therapist with knowledge of ASD, the museum can better know the certain conditions of the participating children. After knowing the children's conditions, it is best to train staff members. DAM used trained tour guides for the Custom Tour Access program. DAM also used an occupational therapist to help design quiet spaces for their Low Stimulus Morning program. JSMA trained their volunteers for the Art Access program by providing a YouTube video found on their JSMA social media account that shows the common conditions for children with autism. Any art museum can use different resources that best fits within their institution's budget or resources.

Recommendation 2 – Accessible and Structured Programs

Children with ASD need structure in most of their activities. (Firth, 1999). If an art museum decides to provide a tour program for children with ASD or for groups in which a child with ASD might be included, it is best for a staff member to be trained or at least have the knowledge of the conditions of ASD. The Custom Tours provided by DAM have trained docents. They are trained internally at the museum and only certain tour guides volunteer for these tours.

If an art museum is doing an art activity, they need to offer certain tools and possible step-by-step instructions of the activity. For instance, children with ASD may need a longer time to take in the subject matter or content. They usually take longer time to process the content and they are rushed they can become frustrated and over-stimulated with content. (Firth, 1999).

At JSMA's Art Access Program, volunteers are trained with a video and discuss the conditions of children with Autism with the volunteer occupational therapist. The structure of each class is similar for each drop in studio. Instructions for the art activity are on a board and the volunteers are instructed beforehand about the steps to be taken. Even though there are steps to each activity, each child has the freedom to express his or her emotions or choices for their artwork. (Abia-Smith, 2012).

Art museum staff also need to consider the materials and tools being used for projects. Gluing and collage making seem to be the most common activities and materials used because they are easy for the children to create by themselves. However, there are many art activities that are manageable for children with ASD.

Recommendation 3– Care for the Care Givers

Both the DAM and JSMA programs try to provide a relaxing and stimulating atmosphere for the caregiver and parents of children with ASD. Both art museums acknowledge the caregiver and parent's roles for the program by providing information about low stimulus areas and joining their child in their art programs.

At DAM, the caregivers are encouraged to join the Custom Access Tours. The art museum also provides a sheet with information on what programs are being offered and where they can take their child if they have an emotional behavior issue. This is made possible from their sensory map that is given to each family for the Low Stimulus Day and for any general visit. (Schulz, 2015).

At JSMA, volunteers are trained and expected to help children in the art studio. This provides the option for the caregiver to experience the process of art making and maybe have a more relaxing time. For parents, this could be vital because they may have limited opportunities to have a break from parenting. The same can be said for caregivers. But in order for parents and caregivers to be able to relax, there has to be trust in the museum and the volunteers that work there. This is usually gained through the occupational therapist or art teacher at JSMA.

Most of the participants are clients of the occupational therapist or they have built a rapport with the museum. Museums should not be discouraged if the parent is active in the activity. Trust needs to be built overtime. The children and the caregiver need to feel comfortable and the more they participate in the programs the more trust grows as does the museum as a trustworthy place. In case of the JSMA, some students that started going to their program in 2012 are still going today. They have seen the program from its beginning, and continue to talk about it at home. This creates a comfortable environment for the children and a trust in the museum on the part of the primary caregiver. If a museum does not feel comfortable or have the resources to provide adequate training for working with children with autism, the caregiver and/or parent can be present. More often than not, according to museum staff, the parent stays to assist in the activity and may create his or her own artwork. In this way, the importance of the caregiver is acknowledged.

Recommendation 4- Having a Plan for Emotional Behavior or "Triggers"

Both the DAM and JSMA had plans in place for emotional behavior issues or triggers, which are unpredictable and are when a child with ASD has a behavioral problem. (Firth, 1999) Therefore creating "low stimulus" spaces can create a better museum experience for the child, the family, and museum staff.

At the DAM, they have a sensory map where children with ASD can create a structured activity or can go if they are over stimulated from the content of the art. Both the DAM and JSMA require participants to RSVP beforehand in order to provide a comfortable atmosphere for the families. DAM does this for their Low-Stimulus morning because it is for crowd control. JSMA also takes reservations for the purpose of crowd control and to ensure they have the right art supplies.

At JSMA, there is a trained Occupational Therapist to assist with any behavioral issues. There is also a quiet space provided for when a "emotional trigger" happens. Their space allows the child to continue their art or to stand rather than sit in order to release their stress. If an organization has limited resources, they need a volunteer or partnership with a medical professional to help in this situation.

Volunteers or trained staff can help support the child with ASD if they experience any stressful environments. It is important to have this support because children with ASD can experience vulnerbility at random. This emotional experience happens to any person who may visit a museum. If the child is having a bad day or does not agree with something said or the art he or she is making, it creates a negative experience. Reactions are heightened for children with ASD because they are not able to control their emotions. Knowing your audience and triggers can eliminate a lot of triggers. Having a safe space for safe behavior is vital for these programs.

Recommendation 5 – Networking with Participants

One of the most frequently asked questions about these programs is how museums can sustain their relationships with children with ASD I these programs. One way is for staff to stay connected with both the children and the care givers.

Reservations at both the DAM and JSMA not only limits participation to a manageable number, but it is also a way for both museums to stay connected with their visitors. Having the names and contact information for the families so the museum staff can contact them when there is a new or expanded program or just to remind them to sign up for the next program. Being in regular contact with families may also help the museum expand its audience for their programs parents can invite other families who

have children diagnosed with ASD. Having more friends and family around can also create a more comfortable surrounding and more effective social learning environment.

By maintaining up to date contact lists, museums have an opportunity to compile quantitative data on their programs. For example, the number of participants participating in a program can be compared over time. Data can also be used to see what dates and times have the most number of participants. All of this information can be used in marketing materials and used when applying for grants or gaining partnerships.

Recommendation 6 - Debriefing/Evaluating the Program

A crucial part of sustaining ASD programs is debriefing and evaluating of these programs. 2015 was the first year for the DAM to provide these programs. Staff is currently evaluating these programs through mixed methods of evaluation. They are collecting the number of participants, conducting surveys with participants, and using other methods to get feedback from families. The JSMA uses a similar process. It also tracks the number of participants, number of caregivers, and requires parents and caregivers to complete a survey that provides them with feedback. Another way JSMA evaluates effectiveness is by debriefing the volunteers right after the activity. The art teacher and occupational therapist in charge facilitate the debriefing. They ask if the art activity was accessible for all the participants; if the volunteers faced any challenges; and what they liked and disliked about the overall program. All of this data is important for making the programs better for the children and families as well as for its continuation.

A mixed method strategy is the best approach when evaluating programs for children with ASD. One of the best practices is observing the behavior of the children during the activity, looking for how they are incorporating their interests into their artwork; where or not they are talking about the tour and visit; and noting if they are engaging in relationships with other participants. There are some observations that can be made by OT or parents depending on where the child is on the autism spectrum. The benefit of gaining these qualitative observations is that it is a direct measurement of a child's joy. Even though they

are not being interviewed or speaking directly, a positive behavior can be observed, especially from a caregiver or sometimes the teacher.

Another fast and proficient way to gain valuable data is by giving the family or other groups of people a brief survey on the behavior of the child and if the program is effective for them. The survey form can be very simple and brief and still pose important questions regarding whether or not these programs are efficient or if there are other resources the children with ASD might need in the program. It is also a way to gain insight into what other programs are using or what needs the family has that may not be addressed otherwise.

Conclusion

Many museums play an important role in addressing numerous health issues and the public is embracing and greatly benefitting from these initiatives. They provide meaningful experiences for children with autism by creating programs designed for them or creating curriculum accessible for children with all abilities. These are vital programs that need to be further developed and promoted in the museum field because "[m]any children are living with autism spectrum disorder (ASD), and they need services and support, now and as they grow into adolescence and adulthood. (Centers for Disease Control, [CDC], 2012).

As the population with ASD grows and ages, all parts of society will need to embrace changes that adapt environments and incorporate communication, socialization and sensory integration needs associated with the disability. Therefore, it is befitting for social institutions such as art museums to dedicate resources to stay informed of emerging effective interventions, tools and strategies. This study gathers current knowledge of ASD and ways to facilitate inclusion of children with ADS in museums. Although beyond the scope of this study, new and constantly emerging technologies will also provide tools for improving programs. Evaluation should be central to programs to assist children on the autism spectrum and their families.

Evaluation can take the form of qualitative, quantitative and mixed methods approaches for collecting and assessing data. These methods may include participant-observation, case study and secondary analysis of data done by other researchers, interviews, surveys, focus groups, and questionnaires.

Hopefully, methods for building and evaluating programs like those described in this paper will continue to evolve. One of the most productive ways to maintain these programs viability and usefulness is to encourage frequent participation of this process by museum patrons with ASD. Continued effort to recognize and adopt changing innovative inclusion tools and adaptive strategies is vital if people with ASD are to derive benefit from art museums. It is up to all Art Museums to create these types of programs with or without certain resources and encourage partnerships that can help connect to and expand this audience. This study hopefully makes a contribution to this important and growing field of work in United States art museums.

REFERENCES

- Abia-Smith, L. (2012). ArtAccess VSA Workshops for K-12 Children with Special Needs Retrieved April 4, 2016, from http://jsma.uoregon.edu/classes-children.
- American Alliance of Museums. (2014). *Museum Facts at American Alliance for Museums*. Retrieved from http://www.aam-us.org/about-museums/museum-facts.
- American Alliance of Museums. (2014). *Museums On Call: How Museums Are Addressing Health Issues*. Washington D.C.
- American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders DSM-IV-TR* (text revision). 2000, Washington, DC: American Psychiatric Association.
- Callahan, K., Shukla-Mehta, S., Magee, S., & Wie, M. (2010). ABA versus TEACCH: the case for defining and validating comprehensive treatment models in autism. *Journal of Autism and Developmental Disorders*, 40(1), 74-88. doi: 10.1007/~10803-009-0834-0.
- Centers for Disease Control. (2007). Autism spectrum disorders overview. Retrieved from http://www.cdc.gov/ncbddd/autism/overview.htm
- Connor, M. (1999). Autism and asperger syndrome. Retrieved 1-21-06, from http://www.mugsy.org/connor1.htm
- Firth, U. (1989). Autism: Explaining the enigma. Malden, Massachusetts: Blackwell Publishers, Inc.
- Family Caregiver Alliance. Taking Care of YOU: Self-Care for Family Caregivers. (n.d.). Retrieved June 03, 2016, from https://www.caregiver.org/taking-care-you-self-care-family-caregivers
- Harlan, J. E., Yes We Can: Overcoming Obstacles to Creativity, *Annual Meeting of the American Association on Mental Retardation*, June 3, 1993 in Washington D.C.
- Jordan Schnitzer Museum of Art. (2013, September 04). Art Lessons for Children with Disabilities: Spectrum of Autism. Retrieved June 03, 2016, from https://www.youtube.com/watch?v=C4am2r0C6UQ
- Marie, Kathleen, (2008). Outcome-Based Evaluation of a Social Skills Program Using Art Therapy and Group Therapy for Children on the Autism Spectrum. *Children and Schools, (pp 23-37).*
- Moores-Abdool, W. (2010). Included students with autism and access to general curriculum: What is being provided?. *Issues in Teacher Education*, 19(2), 153-169. Retrieved from

- http://libproxy.uoregon.edu/login?url=http://search.proquest.com.libproxy.uoregon.edu/docview/76231943 8?accountid=14698
- Museum Access Consortium. Audio Clips: Adults on the Spectrum Share Their Museum Experiences. *Museum Access Consortium Workshop*. (2015, February 29). Retrieved April 26, 2016, from http://museumaccessconsortium.org/resource/adults-spectrum-share-museum-experiences/
- Rose, J. (2006). Shared Journeys Curriculum Theory and Museum Education. Journal of Museum Education, 31(2), 81-93. doi:10.1080/10598650.2006.11510535
- Schulz, D. (2016, January 16). *Creating a Welcoming Environment for People with Autism*. Retrieved May 01, 2016, from http://denverartmuseum.org/article/creating-welcoming-environment-people-autism.
- Tutt, R., Powell, S., & Thornton, M. (2006). Educational approaches in autism: what we know bout what we do. *Educational Psychology in Practice*, 22(1), 69-8 1. doi:10.1080/02667360500512452.
- Weil, S. E. (2002). From being about something to being for somebody: the ongoing transformation of the American Museum. *Making Museums Matter* (pp. 28-52). Washington DC: Smithsonian Institution Press.



DATE: June 6, 2016 IRB Protocol Number: 05022016.003

TO: Halley Perry, Principal Investigator

College of Arts and Science Dean's Office

RE: Protocol entitled, "Key Elements to Designing Art Programs in Mid-Size Art Museums for

Children on the Autism Spectrum"

Notice of Review and Determination-Not Human Subject Research as per Title 45 CFR Part 46.102 (d-f)

Research Compliance Services has reviewed the proposed project identified above. Based on the project description and materials provided, the study activities do not meet the definition of research with human subjects according to Title 45 CFR 46.102 (d-f).

You may conduct your activities as described without further IRB review. However, should the nature of your interactions with individuals or the nature of your project aims be modified, you will need to contact Research Compliance Services to determine if further review and approval is required by the University of Oregon Institutional Review Board (IRB).

Should you have any questions regarding this determination, please contact Research Compliance Services at ResearchCompliance@uoregon.edu or (541)346-2510. Sincerely,

CI __

Sheryl Johnson, BS, CHES, CIP Director

Research Compliance Services

University of Oregon

CC: Christina Kreps, Faculty Advisor

COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS • RESEARCH COMPLIANCE SERVICES 677 E. 12- Ave., Suite 500, 5237 University of Oregon, Eugene OR 97401-5237 T 541-346-2510 F 541-346-5138 http://rcs.uoregon.edu

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