Inclusion in the Museum:
A Toolkit Prototype for People
with Autism Spectrum Disorder


by

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Abstract:

    As substantiated through academic inquiry, there is
growing awareness of the benefits of inclusion in a visual
art environment for those who experience autism
(Integrator, 2003). In order to accomplish the creation of
inclusion devices, interventions and attitudes, specific
and generalized characteristics of autism need to be
identified, acknowledged and accepted. This study will
explore the development of strategies (tools) to shape a
positive cultural experience for people with autism. If a
museum or other visual art setting is not accessible to
everyone, then such institutions are exclusive and not
meeting the needs of a diverse society.


Keywords:
**Accessibility, autism, inclusion, intervention, museum,
visual art setting**

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Chapter I

Introduction

Statement of the Problem

Imagine the following two scenarios. While both are fictitious, they are based on my personal experience working with museums and people with Autism Spectrum Disorder (ASD). For the last 7 years, I have been a teacher either in high school resource rooms or in the adults with special needs classrooms at Lane Community College. In addition, during that time I have also been involved in 3 terms of practicum practice and one term as the intern for the director of the Jordan Schnitzer Museum of Art (JSMA). During that time, I have had the opportunity to work with many people who experience the varied challenges associated with ASD and understand the level of dedication to inclusion at the JSMA. These scenarios are useful in illustrating the types of experiences people with ASD are likely to encounter in the American and Regional Art Gallery at the JSMA at the University of Oregon arts setting depending on the utilization of adaptive tools that facilitate inclusion.

When Angeline and her father approached the steps of the museum, the docent was aware of the impending visit. The docent had prepared herself by acquainting herself with

the letter Angeline's father had sent the week before. Angeline's father had requested the museum utilize strategies that would shape a positive cultural experience for his daughter with ASD. The museum understood the importance of accessibility to everyone including those with autism and adapted the environment, provided ASD behavior specific training to the employees, and utilized researched/family suggested tools and strategies. Because of the museum's dedication to understanding the uniqueness of Angeline's behavior traits, she could be included in a rich visual stimulating environment.

The above scenario portrays a proactive positive process that is very different from the experience of Ross and his mother. The following is an example of what could happen without interventions in place that address the needs and characteristics of people with ASD. Ross is a 12-year-old child with ASD. When Ross and his mother approached the steps of the city museum, the docent cringed with anticipation. What typically happened during their art appreciation visits chilled her spine. Ross was able to clear this public institution of patrons within minutes. The over-stimulation that Ross felt created razor sharp screams that echoed in the hollowed chambers. Ross sometimes could not resist racing down the marble lined

corridors that were slippery under his feet. Once he felt his shoes slide, he would often take his shoes and socks off so he could feel the coolness of the smooth material under foot. His shoes and socks would often fly through the air as if it was a kinetic conceptual art piece. Eventually, Ross' mother would resign herself to the fact that Ross was not ready for a visual arts experience even though she believed that art stimulation would benefit her son.

ASD describes a set of developmental disabilities caused by a problem with the brain that can impact a person's functioning from very mild to severely. The characteristics of ASD can affect communication, interaction, behavior, and learning. "The thinking and learning abilities of people with ASDs can vary – from gifted to severely challenged" (Autism Spectrum Disorders, 2006). Autistic disorder is the most commonly known type of ASD, but there are others, including Asperger's Syndrome (AS). With autism growing at a rate of 10-17% per year, the prevalence of ASD could reach 4 million Americans in the next decade (Hecita, 2004). Statistics say that prevalence rates for ASDs is between 2 and 6 per 1,000 individuals. Therefore, it is estimated that between 1 in 500 (2/1,000) to 1 in 166 children (6/1,000) have ASD ("How Common is

Autism," 2006). In Oregon, there has been a 583% cumulative growth rate of autism from 1992 to 2003. (see Appendix A for US cumulative growth chart).

Some general characteristics of ASD include:

*Stimulus over-selectivity:* "…responding to only part of a stimulus, rather than to the whole thing or the whole social setting, with implications for an inability to maintain multiple attention, or stress resulting from over-stimulation. *Literalness of language:* implies that nothing should be taken for granted in the autistic [person's] response to instructions. *Concreteness:*  a difficulty in understanding a slang word or unspecific communication where a general understanding exists within a particular culture (Connor, 1999).

Every person with ASD has unique and specific characteristics within the spectrum. When these symptoms are acknowledged and addressed by employing tools and strategies, a degree of accessibility to museum exhibits and visual art experiences exists. Experts believe some general guidelines exist that can be utilized. Providing the most positive and accessible environment possible to learn and grow takes information, compassion and commitment.

Background of Study

There is a federally mandated goal of every public institution in the US to meet federal requirements for accessibility for people with disabilities. In 1990, The Americans with Disabilities Act, aimed to correct the "serious and pervasive social problem" of "discrimination against individuals with disabilities" in American life (Disability Laws, n.d.). In passing this law, Congress found that "individuals with disabilities continually encounter various forms of discrimination," including the discriminatory effects of architectural, transportation and communication barriers" and "relegation to lesser services, programs, [and] activities" (Disability Laws, n.d.). A principal objective of lawmakers was to provide equal opportunity, not merely equal treatment, for disabled persons. To ensure access to its programs and compliance with the accessibility laws, the Institute of Museum and Library Services issued a regulation (45 C.F.R. Section 1180.44 [d]) requiring that its grantees comply with nondiscrimination on the basis of [disability] in federally assisted programs and activities (see Appendix B for a copy of directive letter). This suggests that there is recognition in the museum community that they must attempt to comply with the Americans with Disabilities Act.

Significance of Study

It is possible for art museums to ensure a pleasant and valuable experience for patrons with ASD. In order to accomplish the creation of inclusion devices, interventions and attitudes, specific and generalized characteristics of autism need to be identified, acknowledged and accepted. The development of strategies (tools) to shape a positive cultural experience is essential if universal 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. Museum administrators and educators can create interventions or tools that enhance the experience of this complex, perplexing, and growing population.

Statement of Purpose

There is growing awareness of the benefits of inclusion in a visual art environment for those who experience ASD (Integrator, 2003). The development of strategies (tools) to shape a positive cultural experience is essential if universal accessibility is the goal.

The purpose of this project is to pair the specific and general characteristics of ASD with strategies/tools that will assist educators to shape a positive cultural experience within a visual art or museum setting. I will

accomplish this purpose through a literature reviews of the nature and characteristics of ASD, visual art accessibility interventions currently utilized in museums and adaptations/strategies/tools with students with ASD in mind that are currently being utilized in education classrooms. I will also accomplish this purpose by creating a toolkit for educators to use when working with visitors with ASD. This toolkit will be specifically for orienting visitors with ASD to the American and Regional Art Gallery at the JSMA on the University of Oregon campus. This design will be based on findings from the literature review.

## Guiding Questions

As substantiated through academic inquiry, there is growing awareness of the benefits of inclusion in a visual art environment for those who experience ASD (Harlan, 1993). In order to accomplish the creation of inclusion devices, interventions and attitudes, specific and generalized characteristics of ASD need to be identified, acknowledged and accepted. To this goal, some fundamental questions arise.

1. What interventions, tools, and approaches can art museum staff employ to enhance the visual art experience for those who experience ASD?

2. What interventions, sensory stimulation or sensory deprivation tools, specific to this audience, are described in the literature associated with ASD that have shown to be effective in assisting students with ASD to be successful in adapting to their environment?

3. What will a toolkit designed for visitors with ASD look like when sensory, emotional and social characteristics of ASD are considered?

<div align="center">Definitions</div>

*Visual Art Toolkit:* A tangible portable box containing items that may contribute to a learning visual art experience for museum visitors with ASD.

*Docent:* A member of the museum staff, often a trained volunteer, who guides visitors through a museum or gallery. At the Jordon Schnitzer Museum of Art, the docents are called "Exhibition Interpreters" (Information, n.d.). For the purpose of this study, this job function will be referred to as a docent.

*Intervention:* A tangible object or intangible method of action or attitude designed to bridge the gap between a need and a beneficial outcome.

*Sensory:* Anything having to do with sensory experiences including touch, movement, body awareness, sight, sound, smell, taste, and the pull of gravity.

## Delimitations

The contents of the toolkit are designed for a specific location, although it can also serve as a model for a design to facilitate meeting the needs of visitors at other museum and visual art locations.

## Limitations

This study was limited to a toolkit suitable for use in the American and Regional Art Gallery at the JSMA on the campus of the University of Oregon. It is my intention to formulate the strategies and contents of the toolkit for this specific location.

While the characteristics of ASD vary, not all possible interventions are possible to be contained in a toolkit. Results of the suggested interventions, tools and strategies may not be tangible enough to be evaluated by an independent person.

The precise nature and severity of the characteristics associated with ASD varies widely, therefore, this study cannot address all the needs of all visitors who experience symptoms of the disorder.

This paper utilizes the most current appropriate descriptive terminology and syntax regarding ASD.

The statistics for autism and autism prevalence noted in this paper is among children aged 3 to 22 years in the 50 states and nationally for school years 1992 to 2003.

Most of the material reviewed for this study was focused on children and youth with ASD and did not deal with the adult population with ASD.

I am not responsible for injuries arising out of the use or misuse of these materials, strategies or tools. It is presumed that the user of these materials and strategies is aware of any physical limitations, which might contraindicate use. Use of the tools and strategies illustrated in this paper may present a remote risk of injury, and should only be used only under the supervision of trained personnel.

## Assumptions of Benefit

There is an assumption that visitors with disabilities experience a benefit when involved in a visual art experience. In addition, there is an assumption that interventions will be effective in a visual arts experience and that people with ASD will be willing or able to utilize any tangible tools within the toolkit or participate in

strategies presented in this study. These assumptions are based on my experiences with people with ASD.

<center>Design of the Study</center>

The design of the study models research by Deborah Carl (1998) that documented the design process to create guidelines for a museum outreach kit on the Ohlone Native Americans at the Monterey Museum of Art (MMA) in California.

The strategy used to complete this project includes a literature review and website search that includes independent research conducted on the:

1. Nature and characteristics of people with ASD and behavioral and the sensory affects to be considered when designing an accessibility toolkit.

2. Visual art accessibility interventions currently utilized in museums.

3. Adaptations, strategies and tools currently utilized in education classroom settings for students with ASD all resulting in a toolkit that incorporates tangible tools and guides for use in the Contemporary Gallery at the JSMA.

Chapter II

Literature Review

The purpose of this project is to research current pertinent research, synthesize it, and create a visual arts toolkit that will provide inclusion tools and strategies for use by visitors with ASD to the American and Regional Art Gallery at the JSMA. In order to accomplish this, information has been gathered via a literature review in three relevant areas: The nature and characteristics of ASD; visual art accessibility interventions currently utilized in museums, and; adaptations/strategies/tools with students with ASD that are currently being utilized in education classrooms.

History, nature and characteristics of ASD

Showcased in ancient stories and fairy tales; cultural legends; family history records; and historical documents, are the unique characteristics of ASD. The condition, before it was determined to be consistent with a syndrome, hid within generalized labels of maladies for many centuries. The first recorded instance of a description 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 toy

soldiers. This is the first evidence that illustrates how the condition is not exclusive to our country or to our modern times (Firth, 1999).

During the late 1800s, a wild boy that was found abandoned in the forests of Aveyron, France fascinated Europeans. This boy, eventually named Victor by his benefactor and educator Itard, was an example of a person who experienced prolonged social deprivation. Itard took on the challenge of educating a "savage" (Firth, 1999, p. 17) and Victor became the first recipient of an educational curriculum that was amended to incorporate his 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.

During the early 1940s in the US and Austria, Leo Kanner and Hans Asperger, respectively and independently,

researched people who exhibited particular traits. Both are considered pioneers in the field of Autism, who coincidentally, both used the terms 'autism' and 'autistic' independently of each other (Connor, 1999) to describe the condition they researched.  Kanner used the term to describe children with classic Autism, while Asperger described more able 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). Asperger's Syndrome, or AS, is characterized by a noticeable impairment in social interaction, restricted and repetitive patterns of behavior, interests, and activities. Often 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. Therefore, the person with AS

may prefer soft clothing, and are comfortable in places
that where they will not be bothered by sounds or lights.
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. Their
vocabularies may be 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 (Kirby, 2005).

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, according to DSM-IV criteria, means
there is the presence of noticeably abnormal or impaired
development in social interaction and communication and a
markedly restricted repertoire 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 reciprocal social interaction skills include impairments
in nonverbal interpretations, failure to develop peer

relationships, manifested by a lack of spontaneous seeking
to share enjoyment, interests, or achievements with other
people, and a lack of social or emotional reciprocity or
lack of give and take with others. In other words, it is
the inability to know what to say, when to say, and how to
say it (M.A.Winters-Messiers, personal communication,
November 16, 2004).

Emotional development is the "least understood" of all
the skills sets (M.A.Winters-Messiers, personal
communication, November 16, 2004).  There isn't any
criterion in the DSM-IV-TR, but Kanner describes it 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 (M.A.Winters-Messiers, personal communication,
November 16, 2004). 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.
The deficit or delay in manifesting these skills, has an

impact on the child's self-esteem and being able to "help

them capitalize on …gifts" (Jansen, p. 385) they possess,

"hold more satisfying jobs in the future and to participate

and contribute more fully to their communities" (Jansen,

2003, p. 385). Experts believe the best communication and

social skills are learned by "natural opportunities…to make

choices, solve problems, and use functional communication

and social skills" (Jansen, 2003, p. 370).

*Inclusion Goals*

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 augment 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.

A 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 wherewithal. 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 constructive [and should be] available to everyone" (Harlan, 1993).

Current Accessibility Interventions

in Museums for Visitors with ASD

A website search reveals that there are some museums in the US, especially those catering to a youth audience, that have programs specifically geared for children with ASD. It is important to note, not all museums in the US have websites and therefore, their programs specific to the ASD patron are not noted in this study. Further research concerning the availability of inclusion tools and strategies is needed, especially those museum accessibility programs aimed at the adult museum patron.

Examples of programs instituted especially for

children with ASD include The Garden State Discovery Museum

Center for Learning that invites families, teachers and

professionals in the Autism Spectrum Disorder field to

participate in Open Arms: Support for the ASD Community.

Their goal, according to their website, is to "create a

safe and supportive environment" (Discovery Museum, n.d.)

for children with autism, their caregivers and siblings.

They offer special family events, support group meetings,

exclusive field trip and birthday party opportunities, and

guest speaker evenings. They state that they have "trained

Museum staff." The Discovery Museum in New Jersey boasts

that they offer monthly support group meetings for adult

parents or caretakers of children with ASD. They also

mention that "Children [are] welcome" only on certain dates

(Discovery Museum, n.d.).

The Children's Museum of (Portland) Maine offers

families with children with autism a series of free private

2-hour playtimes during the winter months. This offering is

available only for families who have children with autism

and their siblings (Autism Society of Maine, n.d.).

Club Discovery is a free after-school program at the

Creative Discovery Museum in Chattanooga, TN designed to

engage children (both with and without special needs) in

learning through creative exploration through the guidance of museum experts in the arts and sciences, and exhibits. To their credit, the museum works to include children who might not otherwise participate in a Museum experience or a school field trip, such as children with ASD. The museum experts engage Club Discovery members in activities that include team building, personal discovery, independence and socialization. They state their goal for children with special needs is to "learn to be comfortable and confident when they visit and explore any museum environment". Club Discovery is designed for children with special needs, ages 8- to 12-years-old and typically developing peers ages 8- to 12-years-old, with a maximum capacity of 15 children with special needs and 15 peers. Summer activities include a Sensory Camp for children with autism and their peers. This unique half-day camp corresponds with exhibits that appeal to children. The camp includes daily museum exploration, art projects, science activities and an off-site field trip. The museum's promotion materials advertise "Socialization, exploration and celebration of all abilities" (Creative Discovery, n.d.).

The term, "Autism friendly" is used on the website of the Children's Museum of Richmond, Virginia. Their mission statement highlights their quest to "stimulate discovery,

learning and understanding about themselves and the world

around them."  Interestingly, they also provide a

disclaimer stating, "Caution, may over stimulate some

children" (Children's Museum, n.d.).

By far, the most adaptive environment offered is by

the Rockford, Illinois Discovery Center. Their Visual Guide

utilizes PECS (The Picture Exchange Communication System)

recognized as being an effective tool for many with autism.

This system helps people with autism focus on the specifics

of the museum exhibits via visual cues and representations.

This tool was a project of the Illinois Autism/PDD Training

and the Illinois Autism Visual Guide Project Training &

Technical Assistance Project –an excellent example of

collaboration to achieve a practical goal (Discovery Center

Museum, n.d.).

Larger museum institutions, such as the Smithsonian,

advertise either adaptive programs or adaptive environments

that provide inclusion for people with general

disabilities. However, the tools and strategies for

accessibility and inclusion do not target the specific

audience of museum patrons with ASD. Of the museums that do

offer ASD specific programs or tools, they targeted

children or they facilitate meetings for caretakers or

parents. Further research about museum programming that

specifically provides organized opportunities, tools and strategies for adults with ASD is needed.

<center>Current Adaptations, Strategies and Tools</center>

<center>Utilized in Classroom Settings</center>

<center>for Students with ASD</center>

Understanding the unique needs of a visitor with ASD is of paramount importance to an institution dedicated to full accessibility. However, adapting the visitor's environment to suit their particular sensory requirements takes more than a commitment to accessibility. It also takes the dedication to spend extra time to find out as much as possible from the patron or the patron's family. In a visual art setting such as a gallery, the information obtained may mean limiting or encouraging the stimulation of the senses.

The literatures emphasizes the importance of keeping the environment predictable and prepare the patron with ASD for what they are likely to encounter during their visit. Since ASD characteristics include hypersensitivity or hyposensitivity, attention to the environment, like noise, temperature, smells, the people in the area, etc. is vital. For ease of communication, use logical, organized, clear, concise words, and use concrete language (Hewitt, 2005).

Having been involved with many ASD students in mainstream educational settings, I have found that successful inclusion is possible when a student's unique and alternative ways of thinking and viewing the world is considered. We need to adapt the environment, and be more flexible in our approaches and view the world through an ASD lens. Public use settings that include galleries, requires the integrated use of communication, socialization and sensory stimulation.

*Language and Communication*

Communication that is clear and universally understood is vitally important when inclusion is to be accomplished. The needs of patron's with ASD include clear and unambiguous multi-sensory and multi-modal maps, signage, and symbols. This insures that people with widely ranging abilities and characteristics can access the exhibit's main messages and navigate the building.

According to Universal Design Principles, "the information design should communicate [essential information] effectively to the viewer" (Universal Design Principles, n.d.) even if that means the viewer requires pictorial, verbal, tactile modes of communication. Ideas that address the issues of the autistic population and barriers that can be creatively approached is discussed in,

"Toward Functional Augmentative and Alternative Communication for Students with Autism: Manual Signs, Graphic Symbols, and Voice Output Communication Aids" (Mirenda, 2003). The author understands that many individuals with autism are candidates for augmentative and alternative communication systems to facilitate expressive communication. The work provides information that supports the notion of aided communication that enhances, or even enables, access to visual art venues to a specific subset of participants with autism. This article accentuates the importance of maximizing the possibility of successful communication for individuals with autism.

A visual schedule is an excellent way to organize a visit to a gallery (Ernsperger, 2002). Not only are the actions of the visit illustrated, the time to be at a particular spot is noted to further support predictability. When "addressing each person's unique level of development, it is important to provide both the written word and a picture. The picture may be a pictorial representation of the activity or an actual photograph" (Ernsperger, 2002, p. 16).

Communication suggestions for docents or tour guides include:

- Use straightforward, uncomplicated and concrete language

- Give one instruction at a time, not a sequence.

- Keep facial expressions and gestures simple and clear.

- Give time to respond.

- Use visual clues whenever possible.

- Be patient and sensitive with the patron's attempts to communicate.

- Set up situations that encourage communication (Cumine, 1998, p. 33).

*Social Interaction*

Much of the literature that describes social interaction with people with ASD encourages the idea of "easy conversation" and "depending on the individual…not to expect too much by way of social communication" (Hewitt, 2005, pp. 24-24). Staff that might expect an enthusiastic response to the art on display or to their comments should be prepared for the patron not to show great or expected levels of interest or appreciation. Social Communication skills vary within the spectrum. However, some communication traits are common. For instance, a person

with ASD may speak with perfect formal language. Often their voice often sounds flat and lacks expression. They may have difficulty in interpreting the different tones of voice of others and have difficulty interpreting non-verbal communication such as facial expressions, understand others in a very literal way, and fail to understand the implied meanings (Cumine, 1998).

Social interaction tips:

- Understand that the patron may feel threatened by the physical closeness of others

- Allow time for a patron to be alone at times and for breaks

- Go at the patron's pace when trying to develop a rapport – you may need to adjust to their developmental level (Cumine, 1998, p. 33).

*Physical and Sensory Environment*

Sensory input starts from the time we are born. Our perceptions, definitions and behaviors are shaped by how all our sensory information is integrated. We all are sensory beings, with our own unique perspectives on our environment. When considering the needs of a patron with ASD, museums require greater awareness and understanding of sensory issues and sensory integration dysfunction of ASD. "It is time to bring sensory dysfunction into the forefront

and begin to look at home and school, learning and behavior differently -through a sensory lens" (Emmons, 2005, conclusion page).

Before we look at ways in which the environment can be modified or adapted for a museum visitor with sensory issues, it is important to identify what factors can be inherently arousing or calming. Emmons (2005) found the following arousing factors:

- Loud, sudden noises and/or voices

- Strong odor(s)

- Fast movement/unexpected movement

- Bright lights, bright colors

- Light or unexpected touch

- Changes in temperature

- Background stimulation/noise

- Unpredictable events

Inherently calming factors include:

- Soft voice

- Soft odor(s)

- Steady, expected movement such as rocking

- Low lights, natural light, muted colors

- Even temperature

- Minimal background stimulation/noise

- Predictable structure and routine (p. 116).

Cumine (1998) composed the following questions to provide a starting point when assessing an environment:

1. Level of stimulation –Is the level of stimulation too much or too little for the child's sensory systems?

2. Level of structure and routine –Is there enough consistency and predictability? Is there too much?

3. Number of sensory activities –Are there enough sensory activities? Is there a variety of sensory activities? Are there so many choices it is confusing or over-stimulating?

4. Types of colors –Are the colors bright? Are they muted? More importantly, do they match the level of arousal of the child? A child who has a low level of arousal may respond to bright colors and become more alert, while a child who is over-stimulated may respond to muted colors and become calmer.

5. Type of light –Are the lights fluorescent? Are the lights low-watt lamps? Is it natural lighting? Is it dark? Is it bright sunlight? Ask yourself; is the type of lighting a good match for this child's sensory systems?

6. Type of music –If there is music, is it loud? Is it soft? How are the child's sensory systems responding to it?

7. Use of textures –What types of textures are in the environment? (Consider carpets, furniture, etc.) How might a visitor with ASD responding to them?

8. Noise –Is there an area where the visitor can go to have some "quiet time" if needed? What is the level of noise? If it is too loud for this person, can something be turned down? Is some type of earplugs or ear protectors appropriate?

9. Types of aromas –What scents do you smell? How many scents do you smell? (Cumine, 1998, pp. 122-127).

## Conclusion

The use of a tools and strategies within a toolkit assists museums in effectively reaching a specific audience of potential art patrons for the American and Regional Gallery at the JSMA. By gathering the most recent and important works on the nature and characteristics of ASD, the current internet-based information on available of visual art accessibility interventions and programs for patrons with ASD, and useful tools and strategies used in educational classrooms for students with ASD, this literature review has provided a vast quantity of

information. This research provides guidelines for

designing and creating a Visual Art Toolkit for use in the

American and Regional Gallery at the JSMA.

Chapter III

Visual Art Toolkit Guidelines

By taking information from the literature review, this study describes practical and useful tools for the Visual Art Toolkit and resources for those using the toolkit. These descriptions are divided into groups of tangible items and are titled, Publicity Materials, Pre-visit, Sensory Materials, Universal Design Materials, Customer Appreciation Materials, and Docent Materials.

*Publicity materials*: All publicity materials should have the goal of informing the public about the museum's dedication to accessibility for all, specifically those with disabilities such as ASD. These materials include sample press release, display advertisement, informational brochure include museum contact information that will guide a perspective patron to the appropriately knowledgeable museum staff, pre-visit introductory letter.

*Pre-visit materials*: Examples of an incoming contact assessment checklist for use by the staff include a checklist questionnaire to be sent to the patron with ASD; 2-d visual floor plan guide showing entrances, exits, restrooms, and seating; social story geared to illustrate the behavior expectations of a museum and what a visitor is likely to encounter; a DVD showing a person entering the

museum and a visual tour of what to expect regarding noise level, other visitors, and routes essential parts of the museum and to the Contemporary Gallery; and picture flip-cards showing expected visual art destinations.

*Sensory materials available in toolkit*: Examples include a light shielding visor, alternate labels that conform to A.D.A. standards, headphone (noise canceling, white noise or no noise), audio tour and player, weighted vest or collar, magnifying glass, blinder (attention fixed) glasses, colored lens glasses, image framing cutouts, slide frames, earplugs, handheld visual map showing restrooms and seating, visual and audio timer and fidget items including hand-held squeeze balls.

*Universal design materials*: These include temporary arrows, temporary footprints for suggested patron physical placement guide, picture flip cards with approximate timing space available, and large visual floor-plan map signage.

*Customer appreciation materials*: Rewards are important incentives for appropriate behavior, therefore a "Return Ticket" for another day and a postage-paid self-addressed survey asking about their experience at the museum.

*Docent materials*: Included is a guide for docents that explain the general characteristics of people with autism, environmental considerations checklist, common scenarios,

answers to common questions; copy of this study; and toolkit contents list with suggested usage.

## Contents of the Toolkit

The following table shows a range of possible issues and characteristics associated with ASD as found in the literature; corresponding specific tools and strategies included in the toolkit that relate to these issues and characteristics; and the references sources for both. The purpose of this table is to systematize general manifestations of ASD with corresponding research-based rationalized interventions to equip a toolkit that addresses accessibility for people with ASD.

| Issues | Intervention | Reference Source |
| --- | --- | --- |
| Confusion | Temporary directional arrows or cones that point to: destination, restrooms, rest areas, exits, floor plans, maps | Emmons (2005), Ernsperger (2002), Mirenda (2003), Universal Design (n.d.) |
| Stress | Handheld squishy "squeeze" balls, small knit juggling ball, tiny slinky, "focus" stone, small prickly-like porcupine ball, small wire puzzle | Emmons (2005), Henry (2004), Janzen (2003), Shore (2001) |
| Visual | Colored lens glasses, blinder glasses, handheld framing cutouts, visor, brimmed hat | Emmons (2005), Henry (2004) |
| Fear of unknown | DVD video, Pre-visit Checklist for patron, | Cumine (1998), Mirenda (2003) |

|  |  |  |
|---|---|---|
|  | "I need help" sign |  |
| Auditory | Sound muffling headphones, earplugs, white noise tapes (fan, running water or nature sounds) | Emmons (2005), Henry (2004), Kranowitz (2002), Shore (2001) |
| Smell | Aromatherapy (cotton balls with pleasant scent –ex: vanilla: soothing) | Emmons (2005), Henry (2004) |
| Decorum | Simply stated rules, "Return Ticket" | Ernsperger (2002), Hewitt (2005), |
| Visual | Object based icons, communication boards, magnifying glass, alternate labels that conform to ADA | Ernsperger (2002), Universal Design (n.d.) |
| Calming | Ask for a hug, weighted garment, deep breathing, mirror to self-monitor emotions | Emmons (2005), Henry (2004) |
| Personal Adaptive | Ask what equipment they can bring in to modify | Parents and/or patron, Emmons |

this environment to      (2005)

make the visit more

successful.

### Practical Considerations

People with ASD can have a visual art experience that
is rewarding, educational and inspiring. The JSMA can
better serve this specific population with this toolkit.
This toolkit provides materials that fosters positive tools
and strategies that pertaining to their particular sensory
needs. Through docent training and toolkit availability,
more of the population will be able to be familiar with the
rich artistic culture represented in the American and
Regional Art Gallery. A number of practical issues need to
be considered in the adaptation of this toolkit. Some
suggestions include making sure the target audience is
adequately informed of the availability of the toolkit, the
docents are effectively trained in the skills needed to
implement the tools and strategies outlined in this study,
and that evaluative follow-up is done to improve or add to
the toolkit for the future.

Chapter IV

Use of Guidelines

Museum Context

The JSMA, located on the University of Oregon campus,

describes itself as a "premier Pacific Northwest visual

arts center for exhibitions of historic and contemporary

art." They consider themselves a "destination for discovery

and education that will deepen the appreciation and

understanding of the human experience" and "engage diverse

communities through innovative and interpretive programs"

(Information, n.d.). The museum acknowledges that they are

ADA compliant, meaning that the building and programs

complies with the stipulations of the Americans with

Disabilities Act.

In keeping with the museum's focus, the JSMA is

hosting an exhibit called *Not Far From Here: Modern and*

*Contemporary Art in America.* By exploring the foundations

of contemporary art, curator Lawrence Fong has assembled a

multimedia representation of the American $20^{th}$ century art

movement that "blurr" (Information, n.d.) the lines between

conventional art mediums and the acceptance of folk and

craft art as fine art. I chose to use this exhibit for use

in this study because of the museum's dedication to display

many art techniques and styles. It is my hope that this

gallery will continue to feature exhibits similar to the present one and will provide a visitor with a tremendous amount of variety of art within a small footprint and afford the possibility of seeing a wide range of art in a small time-frame.

The JSMA website states that the museum is "dedicated to universal accessibility" (Information, n.d.) and that the building is fully accessible and ADA compliant. Even the education outreach department advertises that their kits are accessible by design by including audio and tactile components. Because of the museum's aim of helping visitors of all ages, backgrounds and/or abilities have a rewarding experience; they provide spaces and opportunities for interaction with the art environment. Examples include the Discovery Gallery that promotes personal involvement of all patrons by providing creative materials, games, and manipulative exhibits geared to involve the senses. The tours are accessible, noting that all volunteers are educated about universal design to facilitate inclusion. Even the JSMA website is "dedicated to universal accessibility" (Information, n.d.) by satisfying accessibility guidelines of Section 508 of the U.S. Rehabilitation Act Amendments of 1998, and of the World Wide Web Consortium's Web Accessibility Initiative. By

understanding the importance of inclusion, effort has been made by the JSMA to facilitate accessibility to a generalized disabled population. However, tools and strategies for inclusion specific to the community of people with autism are not available.

<div align="center">Goals of Guidelines</div>

The overall purpose of this study is to pair the specific and general characteristics of ASD with strategies/tools that will shape a positive cultural experience within a visual art or museum setting for patrons with the disorder. A part of this purpose is to provide museum administrators and educators with guidelines for improving accessibility and initiating the implementation of Visual Art Toolkits similar to the one I created for the American and Regional Art Gallery. The main goal is to improve the accessibility of patrons with ASD and therefore, the effectiveness of the inclusion goals of museums like the JSMA. Guidelines in Chapter III include items that promote multi-sensory integration, assessment of audience needs and a visitor's experience at the museum, marketing and exhibit guide instruction that is specific to the needs of a visitor with ASD.

Conclusions and Recommendations

The use of a toolkit that incorporates tools and strategies for sensory integration in a museum invites a meaningful experience for visitors with ASD. Once institutions implement toolkits like this, and the public with disabilities are aware of this organized effort for inclusion, places like museums will be a truly functional source of art inspiration and education for all. This project combines research in ASD and its characteristics, museum philosophy, and documented special education environment adaptation methodology to provide a purposeful method to promote the reachable goal of absolute inclusion into the visual art world.

Future Study

As the population with ASD grows and ages (see Appendix A for growth chart), 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, but continued updating of this

toolkit is necessary. As technology continues to improve,

tools will develop beyond the scope of this study. This

evolution occurs when qualitative, quantitative and mixed

methods approaches are used. These methods may include

participant-observation, case study and secondary analysis

of data done by other researchers, interviews, surveys,

focus groups, and questionnaires. Ideally, the toolkit

described in this paper will continue to evolve. One of the

most productive ways to maintain the toolkit's 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.

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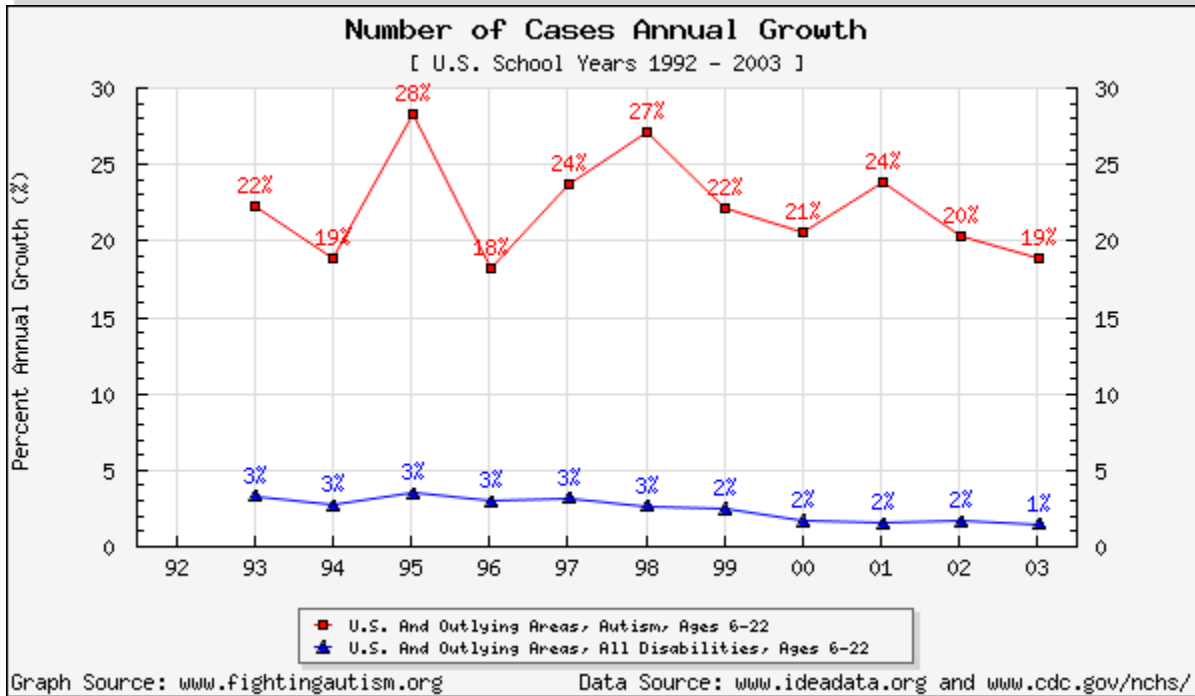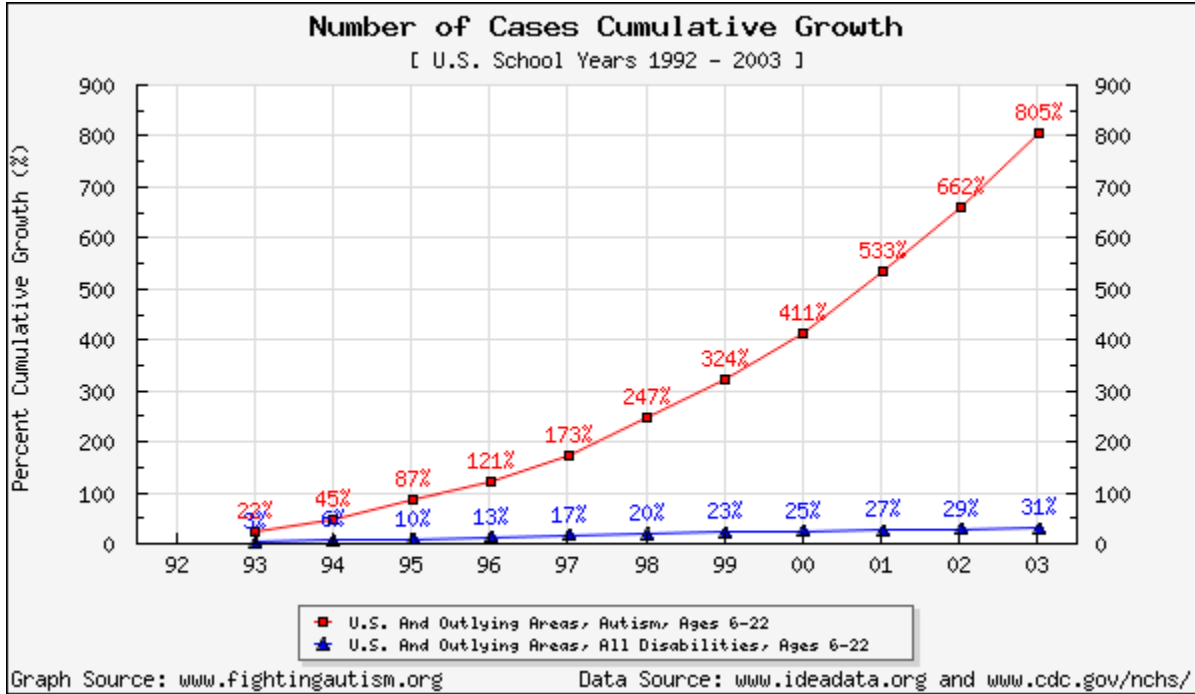http://www.mos.org/exhibitdevelopment/access/

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Appendices

Appendix A

Appendix B

U.S. Department of Justice
Civil Rights Division

Coordination and Review Section
P.O. Box 66118
Washington, D.C. 20035-6118

JAN 17 1992

Mr. Evan Roth
Associate Editor
Museum News
American Association of Museums
1225 Eye Street N.W.
Washington, D.C. 20005

Dear Mr. Roth:

        Please find enclosed the article on the effect of the
Americans with Disabilities Act (ADA) on museums that you
requested.

                        Sincerely,


                        John L. Wodatch
                        Director
                        Office on the Americans with Disabilities
Act

                        Coordination & Review Section
                        Civil Rights Division


Enclosure

Page 2
AMERICANS WITH DISABILITIES ACT

On July 26, 1990, in a ceremony on the White House lawn attended by
more than 3,000 people, President Bush signed into law the Americans
with Disabilities Act (ADA) - landmark legislation that extends civil
rights protection to individuals with disabilities in the areas of
employment, State and local government services, and access to public
accommodations and commercial facilities.

The ADA adopts a comprehensive approach that will enable individuals
with disabilities to move into the mainstream of society. Title I's
prohibition of discrimination in employment will ensure that they have
an equal opportunity to work; title II, which prohibits discrimination
in State and local government services, including transportation, will
ensure that they can get to work; and title III's prohibition of
discrimination in places
of public accommodation will ensure that they have an equal opportunity
to spend their earnings. (The Fair Housing Act Amendments of 1988
already prohibit discrimination on the basis of disability in housing.)
And the ADA's application to theaters, concert halls, museums,
libraries, and galleries will ensure that individuals with disabilities
have equal access to the arts and to the rich cultural heritage our
nation has to offer.

Museums that receive Federal financial assistance are already familiar
with the requirements of section 504 of the Rehabilitation Act, which
prohibits discrimination against individuals with handicaps in
federally assisted programs. The ADA extends those requirements to all
activities of State and local governments, under title II, and, under
title III, to
"places of public accommodation" operated by private entities,
including places of "public display or collection," such as museums.
Museums operated by State or local governments, therefore, are covered
by title II of the ADA, while those operated by private entities are
covered by title III. Both title II and title III are effective on
January 26, 1992. Museums operated by Federal Executive agencies are
not affected by the ADA, but are covered by the requirements of section
504 for federally conducted programs and activities.

The requirements of the ADA for places of public accommodation and
State and local governments are based on the requirements of section
504 and are essentially the same as those requirements. Entities
covered by the Act are prohibited from discrimination in the full and
equal enjoyment of the goods, services, and accommodations that they
offer to the public. They
cannot exclude individuals with disabilities, and must make reasonable
modifications in policies, practices, and procedures that would deny
equal access to individuals with disabilities. For example, a rule
prohibiting animals in a museum would have to be modified to permit the
use of guide dogs and other service animals by individuals with
disabilities visiting the museum.

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Covered entities are also required to provide effective communication with customers or clients with hearing or vision impairments. In some cases, this requirement may necessitate the provision of auxiliary aids or services such as sign language interpreters.

The ADA's requirement for removal of physical barriers is the area that has received the most public attention. In existing facilities, public accommodations must remove barriers when removal is "readily achievable" -- that is, easily accomplishable and able to be carried out without much difficulty or expense. What is "readily achievable" will be determined on
an individual, case by case, basis in light of the resources available. The case-by-case approach takes into account the diversity of enterprises covered by title III and the wide variation in the economic health of particular entities at any given moment.

State and local government entities are covered by a different standard with respect to existing facilities. They must ensure that the services, programs, and activities that they offer are accessible to individuals with disabilities, but may use alternative methods for providing access, such as providing services in an alternative accessible location, rather than making an existing facility accessible.

The most rigorous physical accessibility requirements apply to new construction and alterations. The regulations adopt specific architectural standards for new construction and alterations. Places of public accommodation and commercial facilities must comply with the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG). State and local governments may use either ADAAG or the Uniform Federal Accessibility Standards (UFAS), which is the standard
used under section 504. Both UFAS and ADAAG contain special provisions for alterations to historic properties to ensure that alterations to provide accessibility are not required if they would threaten or destroy significant historic features of an historic property. Where providing physical access is not required, alternative methods may be used to provide services to individuals with disabilities.

The Americans with Disabilities Act has been called a radical piece of legislation. But there is nothing at all radical about this law. Rather, it is the logical extension of the nation's deep commitment to eradicating unjustifiable obstacles that deny anyone the right to enjoy full participation in the American way of life -- a commitment that has President Bush's full support. The Department of Justice is committed to
ensuring that the law is implemented effectively, and has established a program for providing technical assistance to entities with

Responsibilities under the law as well as individuals protected by it. Our goal is to promote voluntary compliance, and we hope and expect that those businesses covered by the law will comply voluntarily so that we will rarely be forced to resort to enforcement procedures.

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The Department of Justice, the Equal Employment Opportunity Commission, and the Access Board have established information lines to answer questions about the ADA. The numbers are:

Department of Justice: (202) 514-0301

Equal Employment Opportunity Commission: 1-800-669-3302

Access Board: 1-800-872-2253

*Appendix B retrieved January 20, 2006 from*

*http://www.usdoj.gov/crt/foia/tal002.txt*

Appendix C

Copy of this paper

on CD

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Appendix D

Photograph of actual

Toolkit for JSMA

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