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# How Neurodiversity Centered Museum Education within Art Museums Can Benefit Children with ADHD and Autism Spectrum Disorders

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# State University of New York

# College at Buffalo

Department of History and Social Studies Education

How Neurodiversity Centered Museum Education within Art Museums Can Benefit Children with ADHD and Autism Spectrum Disorders

An Abstract of a Thesis in Museum Studies

by

## Maria Johnson

Submitted in Partial Fulfillment of the Degree of Master of Arts

May 2022

#### **ABSTRACT**

How Neurodiversity Centered Museum Education within Art Museums Can Benefit Children with ADHD and Autism Spectrum Disorders

Within the last twenty years, many major museums have made an effort to be seen and operate as pillars of their communities. They have begun shifting their organizational standards to be more inclusive and accessible to marginalized communities. When looking at the educational practices of modern art museums, there is undoubtedly a common standard of educational programs. While this formula has worked for many, there is a community that has voiced the need for a change. The neurodivergent community, which developed within the last two decades, should have access to art museum education in an accessible way. The following thesis seeks to explain and advocate for a few educational programming methods that would provide an accessible experience.

Within this body of research, I will be focusing on neurodivergent art museum educational programs that benefit children ages 10-16 years old. Additionally, I will be focusing on methods that are specific to Attention Deficit Hyperactivity Disorder (ADHD) and Autism Spectrum Disorders (ASD), as these are two of the more common types of neurodivergence. Throughout this research, I will be discussing the literature surrounding the neurodiversity movement, the common standards of museum education, and several methods that art museums can use to be more inclusive. The Metropolitan Museum of Art (MET) and the Walters Art Museum will be used as case studies to display the effectiveness of neurodivergent-focused educational programs. Both programs focus on creating environments that will foster enjoyable and enriching experiences for children within the neurodivergent community.

### How Neurodiversity Centered Museum Education within Art Museums Can Benefit Children with ADHD and Autism Spectrum Disorders

By

#### Maria Johnson

#### A Thesis in Museum Studies

May 2022

Submitted in Partial Fulfillment of the Requirements Degree of Master of Arts

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### Chapter 1

#### Introduction

Whom Do Museums Serve?

While today we think of museums as massive cultural centers of learning, focused on educating visitors on the works and artifacts which they house, they were not always such welcoming places. Early museums served as locations to store and show large collections of expensive objects that were considered valuable by the wealthy and were used to help enhance their status in society through displaying their wealth. One of the first reported museums in the world dates to 530 BC and was curated by the Babylonian princess, Ennigaldi-Nanna. The trend of individuals in positions of wealth and power having collections of art objects and artifacts continued well into the nineteenth century. During this time, public museums began to appear, The Ashmolean Museum at Oxford University was established in 1683 and is considered to be the world's first public museum.<sup>2</sup> It was gifted the collection of intellectual Elias Ashmole in 1677. This upheld the western museum standard that still stands today, where museums are representative of wealth and elitism within the cultural sector. For centuries, the museum industry has been an unattainable attraction for many because of numerous reasons, mostly relating to socioeconomic status and sociopolitical reasons. Individuals who visited museums could afford the price of tickets, had time aside from work to visit, and knew some background information about the topic which would have prompted them to visit.<sup>3</sup> Even in the present day,

<sup>&</sup>lt;sup>1</sup> European Museums Network. "The World's Oldest Museums." European Museums Network, Museums, EU, accessed November 20, 2021, https://museums.eu/highlight/details/105317/the-worlds-oldest-museums.

<sup>&</sup>lt;sup>2</sup> Claire Parris. "The Story of the World's First Public Museum.", Welcome, Ashmolean Museum, last modified October 3, 2017, <a href="https://www.ashmolean.org/article/the-story-of-the-worlds-first-public-museum">https://www.ashmolean.org/article/the-story-of-the-worlds-first-public-museum</a>.

<sup>&</sup>lt;sup>3</sup> Duncan F. Cameron. "Museums, a Temple or the Forum." *Curator: The Museum Journal* 14, no. 1, (1971), 15, https://doi.org/10.1111/j.2151-6952.1971.tb00416.x.

these can still be unattainable requirements for someone to be able to visit a museum. Within the latter half of the twentieth century, shifts to make museums more accessible have become more popular than ever. This change includes the shift of the museum from "the temple" to "the forum."

The 1971 article "Museums, a Temple or the Forum" by Duncan F. Cameron describes this concept in regards to educational practices within the museum.<sup>5</sup> Cameron establishes the definition of what a museum is, stating, "the museum, sociologically, is much closer in function to the church than it is to the school. The museum provides an opportunity for reaffirmation of the faith; it is a place for a private and intimate experience, although it is shared with many others; it is, in concept, the temple of the muses where today's personal experience of life can be viewed". 6 Museums were born as institutions that idolized the collections of the wealthy and were meant to create moments of awe and amazement in their viewers because of the object's relationship to the wealthy elite of the western world. Cameron notes that this is one of two major problems with most museums.<sup>7</sup> These objects were curated, owned, and exhibited by the wealthy, who became the staff of the museum itself in many cases, which Cameron notes as the other major problem within museums. Visitors would need to have a connection with these objects and have an established background in education to understand the "educational programming" presented with these objects. Even to the present day, this can be an inadvertently classist move made by museums. This excludes many middle and lower-class visitors from attending museums, as they feel the content is not directed towards them. Cameron points to the

<sup>&</sup>lt;sup>4</sup> Cameron, 20.

<sup>&</sup>lt;sup>5</sup> Cameron, 15.

<sup>&</sup>lt;sup>6</sup> Cameron, 16.

<sup>&</sup>lt;sup>7</sup> Cameron, 15.

<sup>&</sup>lt;sup>8</sup> See note 7.

shift from a "temple"- a museum filled with "treasures" - to more of a "forum," centered around education and discussion as a means to invigorate museum reforms that would eventually lead to societal reforms<sup>9</sup>. These reforms are part of a larger goal of cultural democratization, which Cameron refers to as "the equality of cultural opportunity."<sup>10</sup>

For museums to achieve the shift from a temple to a forum, Cameron provides a few means to get there. He first implores that museums must create forum spaces on their own accord, in conjunction with the temple. By attempting to create a forum within a temple, the intentions of the forum are stifled by the elitist nature and tradition of the temple. 11 If a museum is looking to function as a forum, it should create a space that protests, experiments, and confronts the narratives of the objects and histories within a museum. <sup>12</sup> Forums should be spaces to encourage conversation about what visitors are seeing, and they should be able to discuss these ideas with each other. An interesting point about Cameron's article is his assertion that the temple and the forum can coexist in the same institution alongside each other. The forum serves as the active portion of the visit, prompting the viewer to think, express their thoughts, and converse with one another to attempt to understand multiple perspectives. Institutions should be directed by individuals who see the temple and the forum within the museum as separate entities that exist in the same structure. These directors should also be paying attention to their audience, and what their established relationship with the museum is.<sup>13</sup> Within the article, Cameron uses the example of art museums and their audience.

Because the area of research for this essay involves art museums, I used this assertion as

<sup>&</sup>lt;sup>9</sup> Cameron, 16.

<sup>&</sup>lt;sup>10</sup> Cameron, 20.

<sup>&</sup>lt;sup>11</sup> Cameron, 16.

<sup>&</sup>lt;sup>12</sup> See note 7.

<sup>&</sup>lt;sup>13</sup> Cameron, 22.

evidence within my body of research. Cameron asserts that in the case of many museums, especially art museums, those who attend are most likely not art galleries or museum-goers, they are individuals seeking something to do.<sup>14</sup> These people are looking for a family activity to do on a weekend, or somewhere to go if a sports event was canceled, or just a place to go on a rainy day. However, there is still a portion of museum-goers who see the museum as an institution of learning, and many museum staff aim their programming at those who come to the museum for an educational purpose.

The Standard Museum Tour - Is It Enough?

If the necessary shift towards accessibility and inclusion within museums relies on the shift towards a museum as "the forum," then the educational resources in a museum must be able to accommodate all audiences. When people think of learning in the museum, they automatically think about the dreaded museum tour. Traditionally, museum tours consist of a walking tour through a set path in a museum led by a docent, who in many cases is a volunteer that has a passion for the focus of the museum (i.e. history enthusiasts, art lovers, science fanatics, etc.). While many museums do operate in this fashion, this is a deterrent when it comes to exciting visitors about attending museums. Traditional tours can be long, drawn-out, dry, and generally uninteresting. In *The Anarchist's Guide to Historic House Museums*, author Frank Vagnone opens the book with a personal story about a museum tour. <sup>15</sup> He and his daughter were on a historical house tour that seemed to check off all the wrong boxes. He notes that the information was unnecessarily detailed, the tour was set in a single file line down a separated path through the house, and because of the season, it was extremely hot and uncomfortable. <sup>16</sup> Those qualities

<sup>&</sup>lt;sup>14</sup> Cameron, 5.

<sup>&</sup>lt;sup>15</sup> Franklin D. Vagnone and Deborah E. Ryan. *Anarchist's Guide to Historic House Museums*, (London: Routledge, 2016),1-16.

<sup>&</sup>lt;sup>16</sup> Vagone, 5.

alone would deter a person from wanting to attend a museum tour, but in Vagnone's case, he was further deterred when his daughter was shamed by the docent for jokingly taking a selfie with a painting.<sup>17</sup> While it was against museum policy to take the picture in the museum, Vagone was more upset by the attitude and actions of the docent. As someone who is a representative of the institution, the way they act reflects the attitudes of the museum. The conceited, elitist attitude of the docent, and by extension the museum, helped Vagnone to realize that museum tours are an inaccessible avenue when it comes to museum education and that the standards need to reflect the needs of the community they serve.<sup>18</sup>

Many museums have tours built into their educational programming, but not all individuals learn best in this manner. Within the last 50 years, neurologists have begun to understand how brain-wiring affects people's learning habits. This shows that different individuals learn differently based on their brain development. Then why do only a small percentage of museums offer alternative methods of educational programming?

When discussing educational programming within the body of this research, I will be referring to educational practices targeted at children ages 10-16 years old. This age range encompasses a group of children who have accessibility to museums through school trips, after-school programs, and family visits. When looking back on your museum visits as a child, how did you feel about the experience?

In the article, "Children's Perceptions of Their Museum Experiences: A Contextual Perspective," by Nina Jensen, the experiences of everyday children's museum visits are broken down into several categories of how children view museums and how children see museums

<sup>&</sup>lt;sup>17</sup> Vagone, 6.

<sup>&</sup>lt;sup>18</sup> Vagone, 12.

within an educational sphere.<sup>19</sup> Eighty-four children were asked a series of questions relating to locations they like to go to, how they would categorize the experience (fun/non-learning or learning), and visiting museums with school versus visiting with family.<sup>20</sup> For the most part, the children viewed museums as learning environments. They also saw museums as places to look at and learn about unique objects that they found interesting. This shows that children do understand that museums are places for learning, but what happens when museums only provide learning experiences for children who learn in the traditional sense?

Since the increased awareness and understanding of special education needs and practices, museums are beginning to incorporate these ideas into their educational programs. Museums must create and foster experiences for these individuals so that museums and their collections can reach wider audiences, which arguably is a goal of many contemporary museums.

There is no question that since the inception of museum education, changes to the field have been necessary. The recent understanding of the needs of neurodivergent individuals has slowly begun to permeate into the field. Within this body of research, I will be discussing methodology, accessibility, and the need for neurodivergent inclusion within the sphere of adolescent education within art museums.

This thesis will address autism spectrum disorders (ASD) and how museum education can encourage a love for art and museums. Within the field of neurodiversity, person-first language is frequently used when discussing individuals with autism. Person-first language is used to put the person before their disability. For instance, instead of saying "an autistic person,"

<sup>&</sup>lt;sup>19</sup> Nina Jensen. "Children's Perceptions of Their Museum Experiences: A Contextual Perspective." *Children's Environments* 11, no. 4, (1994), 300–324. http://www.jstor.org/stable/41514951.

<sup>&</sup>lt;sup>20</sup> Jensen, 305.

you would say, "a person with autism." There are differing opinions within the neurodivergent community on person-first language, with some stating that it focuses a person's identity solely on their disability. Many people with autism spectrum disorders and educators use person-first language, as it gives respect to people with autism and acknowledges their space and identity. Within this paper, I will be using both person-first language in some instances where I feel it is necessary. I do acknowledge that in some areas and in quoted statements, person-first language may not be used, but will still highlight the importance of the individual and their needs.

### Chapter 2

#### Literature Review

Within this section, I will focus on the body of literature that helped to form the ideas and conclusions of this paper. I will discuss the neurodiversity movement and its history, the current state of the movement, opposing ideas to the movement, and its relationship to children's education. Additionally, museum education standards are discussed concerning in-person informal education experiences for children aged 10-16 years old. An overview of autism spectrum disorders and Attention Deficit Hyperactivity Disorder (ADHD) will be addressed, as they will be the focus of neurodivergent conditions within this body of research.

What is Neurodiversity?

Born out of the need for community, neurodiversity is the newly coined term that has taken a hold of the educational and sociological disciplines within the last twenty years. Many art museums are using the term as a way to expand the intersectionality of their institutions, a trend among current museum practices. But, where exactly did the term come from, what does it mean, and how did it rise to popularity so quickly?

It seems that one of the effects of the human condition is the need for organization.

Throughout all aspects of society, every person, object, and idea are categorized. Unfortunately, societies have found a way to ostracize those that are considered to be outside of the norm,

creating harmful ideas about different communities. Throughout the mid- to late 1900s, numerous disability advocacy and rights groups began speaking up for each other in mass groups so that they may be seen as typical individuals, not outsiders. The disability rights movement within the United States can be traced back to the 1960s, coming on the heels of the civil rights movement. Numerous groups began appearing and representing disabled individuals within the community in the hopes of self-advocacy and equal rights.<sup>21</sup> While there is still much work to do in the disability rights movement, the passing of the 1990 Americans with Disabilities Act (ADA) is seen as a major milestone within the movement.<sup>22</sup> This allowed for the acceptance and understanding of numerous neurological disorders and disabilities, with autism spectrum disorders being a highly diagnosed disability well into the 1990s. Beginning in the early 1980s, Australian sociologist Judy Singer was developing ideas in her honors thesis that would affect sociology for years to come. As a woman on the autism spectrum, Singer knew firsthand what it was like to experience standard western academics as a person with a neurological disability. But even within the autistic community, Singer recognized that there was a hierarchy within the symptoms of herself and those around her. In a reflection on her original thesis, *Neurodiversity*: The Birth of an Idea, Singer notes that her life experiences as an autistic person have dominated her academic ideas. She also notes that her mother and daughter are also on the spectrum.<sup>23</sup>

While the autism spectrum had been around for decades at this point, in the 1998 chapter "Why can't you be normal for once in your life? From a 'problem' with no name to the emergence of a new category of difference in Disability Difference," Singer coined the term

<sup>&</sup>lt;sup>21</sup> Perri Meldon. "Disability History: The Disability Rights Movement", U.S. National Park Service), NPS.gov, Last modified December 13, 2019, https://www.nps.gov/articles/disabilityhistoryrightsmovement.htm.

<sup>&</sup>lt;sup>22</sup> Meldon, "Disability History".

<sup>&</sup>lt;sup>23</sup>Judy Singer, *Neurodiversity: The Birth of an Idea*, (Kindle Edition, 2017). 90-445.

"neurodiversity" as a means for creating a greater community for the neurologically "different community" based on the creation and development of the autism spectrum.<sup>24</sup> She stated, "For me, the key significance of the "Autistic Spectrum" lies in its call for and anticipation of a politics of Neurological Diversity, or "Neurodiversity". The neurologically different represent a new addition to the familiar political categories of class/gender/race and it will augment the insights of the social model of disability."<sup>25</sup> Singer establishes the nature of the term as a political effort for further normalization of the disability rights movement within academia. When discussing the origins of the term, Singer states that the feminist and identity politics movements of the 1960s through the 1990s had been the inspiration behind the movement.<sup>26</sup> While reading through her original thesis, it became abundantly clear that while developing these ideas, the personal experiences of Singer and other members of the neurodivergent were at the forefront of the movement. The self-agency and focus on creating community is the cornerstone of the neurodivergent movement. It is acknowledged that their brains were differently wired than their neurotypical peers but it was not seen as a "disability." 27 (Within the thesis, neurotypical is the term used to describe those who fall outside of the neurodivergent umbrella. This term is used as a way to destignatize the conversation around the neurodivergent brain.)

There is much discourse on whether or not the numerous neurological wirings contained under the neurodiverse umbrella should be referred to as "disabilities." Within this body of research, I do acknowledge that the concept and understanding of disabilities have been born out of western societies' exclusion and maltreatment of those that were not deemed intellectually sound enough for society's standards. Similarly, "condition" is also a word that will be linked to

<sup>&</sup>lt;sup>24</sup>Singer, 90.

<sup>&</sup>lt;sup>25</sup>Singer, 90.

<sup>&</sup>lt;sup>26</sup>Singer, 202.

<sup>&</sup>lt;sup>27</sup> Singer, 330.

the many neurodivergent diagnoses in this essay. By no means should this word be examined negatively, but as a widely understood word available to describe how these individuals' brains function.

By looking at the social model of disability, which Singer also references in her early works, neurodivergence is considered a political and social issue, which lends to the political nature of the term. <sup>28</sup> The social model of disability is a method of viewing the world developed by disabled activists. It states that disabilities are a concept developed by society and that these societal barriers can be changed to better accommodate disabled individuals. The term was developed in the 1980s by British author and disability activist Mike Oliver. Similar to Singer, Oliver sought to make sense of the world around him and the students he taught as a disabled person. An example of Oliver's social model of disability would be: You are a person who uses a wheelchair. You encounter a building that has stairs and you are unable to access the building. The solution would be that a ramp needs to be added to the building so that you can go inside. The model focuses on what the disabled person needs and how it can be fixed, rather than focusing on what is "wrong" with them.

It is important to note that American journalist Harvey Blume popularized the term neurodiversity in a September 1998 issue of *The Atlantic*.<sup>29</sup> In her 2016 book, *Neurodiversity:*The Birth of an Idea, Singer acknowledges that while she did coin the term, Blume was a pivotal part of the popularization of the word. In the article "Neurodiversity," he relates the nature of neurological diversity within the autism spectrum to the use of technology. Blume states that individuals on the autism spectrum can be considered high-functioning autism or HFA, noting

<sup>&</sup>lt;sup>28</sup> Singer, 127.

<sup>&</sup>lt;sup>29</sup> Harvey Blume, "Neurodiversity: On the neurological underpinnings of geekdom." *The Atlantic*, (1998), https://www.theatlantic.com/magazine/archive/1998/09/neurodiversity/305909/.

the range of severity within the autism spectrum.<sup>30</sup> It is important to note though, that this term is outdated and offensive to those in the autistic community when describing ASD. Blume's popularization of neurodivergence is important, but we still must acknowledge that the language used to describe and diagnose those on the spectrum has become more inclusive.

Much like the umbrella of neurodivergent, the autism spectrum has many conditions and symptoms within it. The autism spectrum can be seen as a model for the neurodivergent movement, as a means to create community and inclusivity for those who are not neurotypical. He states that the nature of the internet in the 1990s allowed an entire network of individuals to create a community. They separated themselves from what Blume references as neurotypicals.<sup>31</sup> These individuals are concerned with social norms, they may not be tech-savvy, and this is only one type of neurological wiring. Towards the end of the article, Blume melds the idea of neurotypicals and autistic communities existing together on the internet and compares it to the need for biodiversity within nature.<sup>32</sup> This idea is also present in Singer's writing on the movement. Both authors note that the diversity of neurological wiring mirrors the diversity of the entire planet, and neurodiversity encompasses all human beings. Neurodiversity is a necessary element that the world needs to survive in a new technological age.

Another pivotal theory that not only informed the origins of the term, but for this body of research as well, is the social model of disability, as mentioned previously. This model provides the blueprint for the emphasis on action and systemic change that disabled people call for. A focus on integration and acceptance is key and necessary for disabled individuals to exist in a world that has excluded them for so long.<sup>33</sup> For large-scale change to take place in society, major

<sup>&</sup>lt;sup>30</sup> Blume, "Neurodiversity".

<sup>&</sup>lt;sup>31</sup>Blume, "Neurodiversity."

<sup>&</sup>lt;sup>32</sup>See note 31.

<sup>&</sup>lt;sup>33</sup>Mike Oliver, "The Individual and Social Models of Disability." *People with Established* 

cultural sectors need to adapt and make the necessary changes for disabled individuals. These changes are not only for individuals with physical disabilities, but should include those in the neurological community as well.

It is important to make the distinction that these changes are being made out of genuine care and concern for accessibility. Artist John Loeppky stated in an article for *CBC*Saskatchewan, "It's very hard to watch the adaptations many of us beg for — remote working, live-streamed art, food delivery — become ubiquitous and unchallenged as soon as abled people find themselves needing them."<sup>34</sup>

The Current State of Neurodiversity

The conversations around neurodiversity are a relatively new idea in psychology, education, and the cultural sector. It seems that every day our understanding of the idea is changing and being informed by the discourse in the academic and social world. In blog posts on Singer's website *Reflections on neurodiversity*, she consistently acknowledges that the term is constantly changing and evolving and that her original thesis may not always serve the disabled community as well as it has.<sup>35</sup> This blog contains numerous updates on neurodiversity and disability studies that Singer uses as a public forum. She regularly invites conversations on her concepts and ideas and utilizes the internet, one of the early factors of the neurodivergent movement, to work with other neurodivergent individuals to better understand the movement. It is interesting to point out that on Singer's blog, she states that the current neurodiversity

Locomotor Disabilities in Hospitals, (1990), 7, <a href="https://disability-studies.leeds.ac.uk/wp-content/uploads/sites/40/library/Oliver-in-soc-dis.pdf">https://disability-studies.leeds.ac.uk/wp-content/uploads/sites/40/library/Oliver-in-soc-dis.pdf</a>

<sup>&</sup>lt;sup>34</sup>John Loeppky, "As a disabled person, it's hard to watch accessibility only improve now that able-bodied are affected." *CBC Saskatchewan*, March, 27, 2020, https://www.cbc.ca/news/canada/saskatchewan/disabled-person-covid-19-coronavirus-1.5510234

<sup>&</sup>lt;sup>35</sup>Judy Singer, "What is Neurodiversity?" Blogspot, last modified September 21, 2021, <a href="https://neurodiversity2.blogspot.com/p/what.html">https://neurodiversity2.blogspot.com/p/what.html</a>.

movement is a collection of discourse that seeks to assist in the evolution of the term and understanding of our world.

The importance of the internet as a means of communication and a tool to develop methods of accessibility has been key to the popularization of the term. Many individuals have found a community with others who share the same characteristics as themselves and can learn from each other how to maneuver as neurodivergent individuals. <sup>36</sup> In an interview with *Today*, autistic advocates Kathy Isaacs and Wojciech Nadachowski note the importance of the internet for the founding and continuance of the neurodivergent movement.<sup>37</sup> They brought up the importance of discussing shared experiences that messaging sites, like Twitter and Facebook, allow to become streamlined. Before these sites existed as they are now, neurodivergent people had little means of communicating on a large scale and felt as if they were misunderstood by the world around them and unable to truly exist. Nadachowski stated it "...removes a lot of isolation and has potential to fulfill those core needs to say, 'I am here with others like me.' But it's also about giving people a sense of familiarity and consistency."38 By creating communities online, neurodivergent people were able to band together and work towards solutions to create a neurodivergent-friendly world. This even includes the origins of the neurodiversity movement. Critiques of the Neurodivergent Movement

While the neurodiversity movement has many supporters and is being introduced to education models throughout the United States, some feel the movement does not fully encapture

<sup>&</sup>lt;sup>36</sup>Singer, 441.

<sup>&</sup>lt;sup>37</sup>Today Design. "Neurodiversity and the Digital Divide: How Our Neurological Differences Shape the Way We Experience the Web." *Today*, 2019, <a href="https://today.design/news/neurodiversity-and-the-digital-divide-how-our-neurological-differences-shape-the-way-we-experience-the-web">https://today.design/news/neurodiversity-and-the-digital-divide-how-our-neurological-differences-shape-the-way-we-experience-the-web</a>.

<sup>&</sup>lt;sup>38</sup>Today Design.

the community it seeks to serve. One of the main opposing reasons against the neurodiversity movement is its reliance on identity politics.<sup>39</sup> In an article outlining some of the most popular critiques of the movement, Ginny Russel cites identity politics as the first critique. The diverse nature of identity politics creates the distinct groups of those who are either "in" the neurodivergent group or "out." However, she claims that this cannot coexist with the autism spectrum disorder movement because it exists as a spectrum.<sup>41</sup> In turn, she states that these symptoms can also be found within the non-autistic population, just appearing as certain symptoms on different levels that would not conclude to a completed autism diagnosis. 42 This is referred to as the broad autism phenotype. 43 Traits can be shared by individuals who have ASD or ADHD with individuals who have not been diagnosed. Additionally, Russell touches on the notion that "autistic superiority" has now emerged out of the neurodiversity movement. 44 Some autistic people may feel that since neurodiversity is becoming more accepted by society, academia, and the neurological field, that they can treat neurotypical people the way that they used to be treated in an ableist society. One response from a *Quora* post included in Russel's chapter describes almost a feeling of resentment from an autistic person. They feel that since they had been ridiculed and excluded for so long, that they could do the same to a neurotypical person.45

An additional critique of neurodiversity is that many clinicians, parents, and members of

<sup>&</sup>lt;sup>39</sup>Ginny Russell, . "Critiques of the Neurodiversity Movement."

Autistic Community and the Neurodiversity Movement: Stories from the Frontline, Basingstoke: Springer Nature, edited by Steven Kapp, (Basingstoke: Springer Nature, 2019), 287-303, https://link.springer.com/content/pdf/10.1007%2F978-981-13-8437-0 21.pdf.

<sup>&</sup>lt;sup>40</sup>Russel, 288.

<sup>&</sup>lt;sup>41</sup>Russel, 288.

<sup>&</sup>lt;sup>42</sup>Russel, 291.

<sup>&</sup>lt;sup>43</sup>See note 42.

<sup>&</sup>lt;sup>44</sup>Russel, 292.

<sup>&</sup>lt;sup>45</sup>Russel, 290.

the communities encapsulated by neurodiversity feel that it is too all-inclusive. <sup>46</sup> They state that the movement is under representative of individuals who have more severe symptoms, and those with minor symptoms are held in higher regard by society because they are seen as "more normal." Russel states that it is not always clearly defined who "is" and "is not" considered neurodivergent. This also leads to many individuals self-diagnosing themselves as neurodivergent. <sup>48</sup> Since many neurodivergent conditions are diagnosed through observations, rather than neurological scans or other medical tests, some state that the movement should not present itself with medical terms, but have more political and social justice-oriented terms. <sup>49</sup> It is also noted that some neurodivergent people may not want to be classified or are unaware that these classifications even exist. <sup>50</sup> Is it fair then to classify them as neurodivergent?

Another major critique of the neurodiversity movement is what Satel and Lilienfield refer to as neurocentrism.<sup>51</sup> Within this idea, people attribute their behaviors and actions to their neurodiverse brains. This form of biological reductionism is harmful because it minimizes the many factors that attribute to the actions of a neurodivergent individual. Biological reductionism is a theoretical approach that seeks to explain all societal and cultural phenomena through biological terms. Because neurocentrism can be linked to biological reductionism, this tends to see neurodivergent conditions through a medical lens rather than the political movement it is. Some believe that the neurodiversity movement allows for the medicalization of otherwise normal traits that are considered to be "exclusive" and now fall under a medical diagnosis. This links back to one of the biggest critiques of the neurodiversity movement, that those who have

<sup>&</sup>lt;sup>46</sup>Russel, 293.

<sup>&</sup>lt;sup>47</sup>See note 46.

<sup>&</sup>lt;sup>48</sup>Russel, 291.

<sup>&</sup>lt;sup>49</sup>Russel, 291.

<sup>&</sup>lt;sup>50</sup>See note 49.

<sup>&</sup>lt;sup>51</sup>Russel, 296.

minor symptoms have priority over those who have more severe symptoms.

Types of Neurodivergence

As the name suggests, there are a number of diagnoses under the neurodivergent umbrella. This includes dyslexia, attention deficit hyperactivity disorder, Tourette's syndrome, autism spectrum disorders, obsessive compulsive disorder, and other diagnoses as examples of neurodiversity. Additional conditions that fall under the umbrella are: dyspraxia, dyscalcia, and auditory processing disorders. While I do acknowledge that all of these disorders have equal importance and require specific necessary changes from the cultural institutions that serve them, it would be impossible to discuss all of them at once. Within the scope of this research, I will be focusing on ASD and ADHD.

Attention Deficit Hyperactivity Disorder (ADHD)

A 2007 study showed that in the United States, 12% of children are diagnosed with ADHD.<sup>53</sup> Worldwide up to 5.29% of children are diagnosed with ADHD.<sup>54</sup> It is the most widely diagnosed neurodevelopmental disorder, according to the CDC.<sup>55</sup> In this study, it was also shown that adults with ADHD were diagnosed 4.4% less than children. This demonstrates that ADHD and neurodiversity at a larger scale are neurodevelopmental conditions that if diagnosed in childhood, there is a greater chance to learn to work with their diagnoses and destigmatize the conversation that surrounds it. Within popular culture, especially within the United States, there is an association of ADHD and children. This is due to the majority of diagnosis during

<sup>&</sup>lt;sup>52</sup>Singer, "What is Neurodiversity?".

<sup>&</sup>lt;sup>53</sup>Susan Mayor, "ADHD Diagnosis in US Schoolchildren Rose 43% in Past Decade, Study Shows." *BMJ: British Medical Journal*, (2015), <a href="https://www.jstor.org/stable/26523716">https://www.jstor.org/stable/26523716</a>. <sup>54</sup>Mayor, "ADHD Diagnosis".

<sup>&</sup>lt;sup>55</sup>Centers for Disease Control and Prevention. "What is ADHD?", Centers for Disease Control and Prevention, last modified January 26, 2021, https://www.cdc.gov/ncbddd/adhd/facts.html.

childhood and adolescence, but this continues on throughout adulthood. By providing more resources early on in life, people with ADHD can explore and understand what accommodations they need to thrive for their whole lives.

A study by the *British Medical Journal* from 2015 reported that from 2003 to 2011, children diagnosed with ADHD aged 5-17 years old, increased by 43%.<sup>56</sup> When considering ADHD, most people think of individuals who are unable to pay attention, fidget often, and are careless. These symptoms have almost become stereotypes about the diagnoses. While there is some truth to them, there is much more to the condition than that. In addition, within this review, I will not be focusing on the medical treatments related to ADHD, but acknowledge that they are an important part of the conversation concerning the educational experiences of those with the diagnoses.

ADHD can be grouped into three categories: predominantly inattentive (ADD or ADHD-PI), predominantly hyperactive-impulsive (ADHD-HI), and combined (ADHD-C).<sup>57</sup> It is important to note that when discussing ADHD, ADD is a diagnosis that is often brought up. While both diagnoses lived alongside each other for several years, physicians no longer use the ADD diagnoses. Instead, there has been a shift towards the three types and their severity of attentiveness amongst three categories. To be placed into this category, the individual must show at least six or more of the following symptoms for the past six months.<sup>58</sup> It is important to note that the following symptoms and diagnostic criteria are intended for children ages 3-16 years old.

<sup>&</sup>lt;sup>56</sup>Mayor, "ADHD Diagnosis"

<sup>&</sup>lt;sup>57</sup>Ike C. de la Peña, Michael Pan, Chau Giang Thai, Tamara Alisso,

<sup>&</sup>quot;Attention-Deficit/Hyperactivity Disorder Predominantly Inattentive Subtype/Presentation: Research Progress and Translational Studies", *Brain Sciences*, Vol. *10*, 5, (2020), https://doi.org/10.3390/brainsci10050292

<sup>&</sup>lt;sup>58</sup>de la Peña, Pan, Thai, and Alisso, "Attention-Deficit/Hyperactivity Disorder "

Predominantly inattentive or ADHD-PI, is the type that most people think of when it comes to ADHD. The symptoms include:

- 1. lack of attention to detail
- 2. "spaciness"
- 3. trouble staying focused
- 4. difficulty following directions
- 5. misplacing objects
- 6. lack of organization
- 7. avoiding mentally strenuous tasks.<sup>59</sup>

It is found that more girls are diagnosed within this category. Boys, on the other hand, are most frequently found in the combined category, ADHD-C.<sup>60</sup> This group is a combination of ADHD-PI and ADHD-HI. The symptoms include fidgeting, being unable to keep quiet during activities, interrupting others, being unable to wait their turn, talking excessively, not following rules or instructions, and playing aggressively.<sup>61</sup> Additionally, when discussing ADHD subtypes, the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* made the shift to call them "presentations," from the previous usage of "types." The *DSM-5* was last updated in 2013. This update included changes to disorders including ASD and numerous others. This is attributed to the numerous shifts in symptoms that can occur over a person's lifetime.<sup>62</sup> At different points, the symptoms present differently, and children could potentially shift from ADHD-PI to ADHD-C during their lifetime.

Another important aspect of ADHD, especially in adolescent-age children, is the impact of dual diagnosis, which is referred to as comorbidity. In many cases, ADHD is not a stand alone diagnosis. Frequent diagnoses that are paired with ADHD include anxiety disorders, oppositional

<sup>&</sup>lt;sup>59</sup>See note 57.

<sup>&</sup>lt;sup>60</sup>See note 57.

<sup>&</sup>lt;sup>61</sup> de la Peña, Pan, Thai, and Alisso, "Attention-Deficit/Hyperactivity Disorder"

<sup>&</sup>lt;sup>62</sup> American Psychiatric Association. "Updates to DSM-5 Criteria & Text." Home Psychiatry.org, 2015, <a href="https://www.psychiatry.org/psychiatrists/practice/dsm/updates-to-dsm-5/updates-to-dsm-5-criteria-text">https://www.psychiatry.org/psychiatrists/practice/dsm/updates-to-dsm-5/updates-to-dsm-5-criteria-text</a>.

disorder/conduct disorder, and social phobias. Results showing comorbidity with disorders such as depression and other mood disorders have shown to be inconsistent, but many individuals with ADHD report experiencing these as well. Frequently, these dual diagnoses have an impact on the social and emotional lives of individuals with ADHD.<sup>63</sup> It is shown that children with ADHD are six times more likely to experience behavioral and emotional issues inside the classroom and with their classmates in comparison to those without a diagnosis.<sup>64</sup> These children are also nine times more likely to experience difficulty in their daily lives, like completing chores, interacting with family members, and using their spare time.<sup>65</sup>

In the article *Emotional and Behavioral Problems in Children with Attention Deficit-Hyperactivity Disorder: Impact of Age and Learning Disabilities*, it is mentioned that there are very different observations made at school and home when discussing dual diagnosis. <sup>66</sup> In some cases, parents may be more sensitive to their children's difficulties in social settings or interacting with family members. Educators are also sensitive when it comes to these observations but have an advantage in educational settings, as it lends to their profession. In addition to the more social comorbidities, learning disabilities are often also present with ADHD diagnoses. In ADHD diagnosed students, their academic performance is often related to the severity of their symptoms, i.e the more severe symptoms they have, the more difficult students have within an educational setting. <sup>67</sup> In 2000, it was noted that globally, 70% of children diagnosed with ADHD were also diagnosed with a learning disability. These children were also

<sup>63</sup> de la Peña, Pan, Thai, and Alisso, "Attention-Deficit/Hyperactivity Disorder "

<sup>&</sup>lt;sup>64</sup> See note 62.

<sup>&</sup>lt;sup>65</sup>de la Peña, Pan, Thai, and Alisso, "Attention-Deficit/Hyperactivity Disorder "

<sup>&</sup>lt;sup>66</sup>Ana Miranda, Manuel Soriano, Inmaculada Fernández, and Amanda Meliá. "Emotional and Behavioral Problems in Children with Attention Deficit-Hyperactivity Disorder: Impact of Age and Learning Disabilities." *Learning Disability Quarterly* 31, no. 4 ,(2008).171–85. https://doi.org/10.2307/25474650.

<sup>&</sup>lt;sup>67</sup>Miranda, Soriano, Fernandez, and Meliá, "Emotional and Behavioral Problems", 174.

up to seven times more likely to be placed into special education programs, repeat grades, or be expelled from school.<sup>68</sup>

In a 2006 article for *The Learning Disability Quarterly*, Kenneth Barron, Steven Evans, Lisa Baranik, Zewelanji Serpell, and Elizabeth Buvinger explore the learning goals of students with ADHD.<sup>69</sup> This is an important conversation to have in regards to neurodivergent centered education, as many of the studies that have been conducted focus on how to assist students, rather than what the students want for their educational outcome. Within this study, the "Achievement Goal Theory" (AGT) is applied to understand the relationships between students with ADHD and their classroom environments and how it pertains to their educational goal orientations. AGT seeks to understand why students have certain educational goals, rather than focusing on the goals themselves. Through this theory, educators can break down a student's motivations and understand how their goals and motivations relate to cognitive abilities and strategy. There were three questions asked within this study:

- 1. What are the goal orientations and perceptions of classroom goal structure for students with ADHD?
- 2. How do goal orientations and perceptions of classroom goal structure for students with ADHD differ from those without ADHD?
- 3. How do goal orientations and perceptions of classroom goal structure relate to other academic variables for students with ADHD?<sup>70</sup>

For this study, children diagnosed with ADHD in the sixth grade were the demographic group. Of this group, 74% were boys, 96% were caucasian, and 74% had comorbid diagnoses. Within this study, it is addressed that more studies are needed, as the testing pool was limited to ADHD-C and ADHD-PI. More research including ADHD-HI should be conducted to understand the

<sup>&</sup>lt;sup>68</sup>Miranda, Soriano, Fernandez, and Meliá, "Emotional and Behavioral Problems", 172.

<sup>&</sup>lt;sup>69</sup> Kenneth E. Barron, Steven W. Evans, Lisa E. Baranik, Zewelanji N. Serpell, and Elizabeth Buvinger. "Achievement Goals of Students with ADHD." *Learning Disability Quarterly* 29, no. 3, (2006). 137–58. https://doi.org/10.2307/30035504.

<sup>&</sup>lt;sup>70</sup>Barron, Evans, Baranik, Serpell, and Buvinger, 140.

relationship between AGT and these students as well. Measurements of this study took place throughout the entirety of the sixth-grade year, and progress was marked at the beginning, middle, and end of the year. The conclusions of the study showed that students with ADHD were more likely to work towards mastery goals or acquire new skills and techniques within the classroom. Even when compared to students without ADHD, the pool of students with the diagnosis would gravitate towards learning new skills, and their performance goals, which relate more to comparative skills between disciplines, would fall. By asking and making attempts to understand these questions, Barron, Evans, Baranik, Serpell, and Buvinger are making space for more inclusion of neurodivergent children within the educational sphere. It is mentioned numerous times at the beginning of the article that there has been little study of AGT concerning students with ADHD, but hopefully, more studies can draw from this and work towards more accessibility in ADHD awareness and education.

Autism Spectrum Disorders (ASD)

A study by the Center for Disease Control and Prevention showed that from 2006-2010, the percentage of children diagnosed with ASD increased by 120%, and 1 out of 68 children were diagnosed.<sup>74</sup> By 2018, the CDC's Autism and Developmental Disabilities Monitoring Network reported that 1 in 44 children, or 23% are on the spectrum.<sup>75</sup> The *DSM-5* describes

<sup>&</sup>lt;sup>71</sup>See note 69.

<sup>&</sup>lt;sup>72</sup>Barron, Evans, Baranik, Serpell, and Buvinger, 151.

<sup>&</sup>lt;sup>73</sup>See note 71.

<sup>&</sup>lt;sup>74</sup>National Center on Birth Defects and Developmental Disabilities. "Basics About Autism Spectrum Disorder (ASD)", Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, last modified August 11, 2020, <a href="https://www.cdc.gov/ncbddd/autism/facts.html">https://www.cdc.gov/ncbddd/autism/facts.html</a>.

<sup>&</sup>lt;sup>75</sup>Matthew J. Maenner et al., "Prevalence and Characteristics of Autism Spectrum Disorder among Children Aged 8 Years — Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2018," *MMWR. Surveillance Summaries* 70, no. 11 (March 2021): pp. 1-16, https://doi.org/10.15585/mmwr.ss7011a1.

autism spectrum disorders symptoms as communication deficits, such as responding inappropriately in conversations, misreading nonverbal interactions, or having difficulty building friendships appropriate to their age.<sup>76</sup> In addition, people with ASD may be overly dependent on routines, highly sensitive to changes in their environment, or intensely focused on inappropriate items.<sup>77</sup>

The main symptoms of ASD in children manifest in a wide variety of ways. Having difficulty looking others in the eyes, not being able to understand social interactions, not being able to adapt to changes in a routine, having difficulty with auditory processing, are all symptoms which emphasize how many variations this spectrum encompasses. Previously with the *DSM-4*, diagnosis of ASD were divided into five categories: autistic disorder, Asperger's disorder, childhood disintegrative disorder, Rhett's Syndrome or the catch-all diagnosis of pervasive developmental disorder. In the article "Educational Implications of the DSM-5 Criteria for Autism Spectrum Disorders" by Debra A. Prykanowski, Nicholas A. Gage, and Maureen A. Conroy, the impact of this change in diagnostic naming is examined through an educational lens. By moving towards language that emphasizes the wide variety of severity of ASD diagnoses, educators are better equipped to create individualized lesson plans for students based on their specific situations. The article even notes that even in the case of students who have not received an official ASD diagnosis, the *DSM-5* makes inclusion possible, through its

<sup>&</sup>lt;sup>76</sup>American Psychiatric Association. "Updates to DSM-5 Criteria & Text." Home | Psychiatry.org, 2015, <a href="https://www.psychiatry.org/psychiatrists/practice/dsm/updates-to-dsm-5//updates-to-dsm-5-criteria-text">https://www.psychiatry.org/psychiatrists/practice/dsm/updates-to-dsm-5//updates-to-dsm-5-criteria-text</a>.

<sup>&</sup>lt;sup>77</sup>See note 74.

<sup>&</sup>lt;sup>78</sup>Debra A. Prykanowski, Nicholas A. Gage, and Maureen A. Conroy, "Educational Implications of the DSM-5 Criteria for Autism Spectrum Disorders." *Beyond Behavior* 24, no. 2, (2015), 30-38. http://www.jstor.org/stable/26341297.

<sup>&</sup>lt;sup>79</sup>Prykanowski, Gage, and Conroy, 30.

understanding of the numerous symptoms of ASD. <sup>80</sup> There are still people who use these diagnoses, however within this body of research, when these are used, I will substitute them with ASD.

When discussing and researching ASD in adolescents, the impact that socializing had on education and their overall daily life was common. In the article, "The daily lives of adolescents with an autism spectrum disorder: Discretionary time use and activity partners," authors Gael Orsmond and Hsin-Yu Kuo describe ASD as social interaction impairments. Within this study, the lives of adolescents with ASD are recorded over 24 hours, showing how their diagnosis affects their lives. Within the testing pool for this study (145 participants), 75.7% were male, the age range was from 12-21 years old with a median age of 17.8, and 56.3% had a diagnosed intellectual disability. This study shows that many adolescents with ASD prefer to spend time doing solitary activities in their free time. They often gravitate towards watching television, video gaming, or physical activity. By participating in these activities outside of school hours, it showed that students may be participating in these activities to allow themselves to decompress after socializing in an educational setting during the week.

Many children who have ASD also experience sensory issues and what is commonly referred to as "sensory overload." When an autistic person is unable to properly process sounds, touch, feelings, smells, space, or visual sensations occurring around them, they are caused stress, anxiety, and physical fatigue.<sup>84</sup> It is important to note that this can occur if there is a lack of a

<sup>&</sup>lt;sup>80</sup>Prykanowski, Gage, and Conroy, 33.

<sup>&</sup>lt;sup>81</sup>Gael. I Orsmond, Hsin- Yu Kuo, "The daily lives of adolescents with an autism spectrum disorder: discretionary time use and activity partners" (*Autism: the international journal of research and practice*, 15, (2011), 579–599. https://doi.org/10.1177/1362361310386503

<sup>82</sup>Orsmond, and Kuo, 588.

<sup>83</sup>Orsmond, and Kuo, 589.

<sup>&</sup>lt;sup>84</sup>National Autistic Society. "Sensory Differences - a Guide for All Audiences." (National

sensation as well. This may result in an inability to regulate emotional stress if the overload is severe enough. During periods when students with ASD find difficulty in regulating their stress and emotional responses, they may become unable to communicate, become irritable, or become physically disabled. Sensory processing difficulties affect many cognitive abilities, which can prove troublesome for adolescents who are in the middle of their educational lives. In a 2016 study, Howe and Staag examine how sensory processing affects adolescent education, and possible methods to create solutions for accessible learning. 85 Out of the 14 students, all of which had an ASD diagnosis, all reported that they experienced a sensory processing difficulty and that it affected their learning in some way. 86 While this is only one study, it can be inferred that most students with ASD experience sensory overload within the classroom at some point in their lives. How can this be addressed within an educational setting then? Howe and Staag state that individual sensory profiles can be created by educators to aid in understanding what the student is experiencing, and what methods the student prefers to self-soothe and regain sensory balance.<sup>87</sup> An individualized approach is a key to the management of sensory processing difficulties in ASD teens. They learn that taking the time to soothe following an overload is important as their bodies have just experienced major stress. Additionally, it is creating a system within the educational system that prioritizes the individual needs of the student, as ASD is a highly individual diagnosis.

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Autistic Society), Accessed November 30, 2021, https://www.autism.org.uk/advice-and-guidance/topics/sensory-differences/sensory-differences/all-audiences.

<sup>&</sup>lt;sup>85</sup>Fiona E. J. Howe, Steven. D. Stagg, "How Sensory Experiences Affect Adolescents with an Autistic Spectrum Condition within the Classroom," *Journal of autism and developmental disorders*, 46(5), (2016), 1656–1668. https://doi.org/10.1007/s10803-015-2693-1

<sup>86</sup> Howe, Staag, 1657.

<sup>&</sup>lt;sup>87</sup>Howe, Staag, 1665.

In regards to education, the internet has been a tremendous help when developing methods and skills for teaching neurodivergent students. As a whole, the education field has begun to utilize online learning techniques to assist children who may struggle with focus and sensory overload issues. Sensory-related issues can be found in many of the symptoms of numerous neurodivergent conditions. For these students, some who do not yet realize what they are experiencing, this can cause major disruptions to their focus and emotional state. It could be something as simple as they do not like the texture of a toy, the room could be too warm, or too loud, etc. Students should be able to voice these concerns to their educators and be received with support and a willingness to find a solution. By moving certain elements of the classroom online, educators can control aspects of their lessons in a more focused way, free of outside distractions, which could assist with cognitive function and provide a better experience for their neurodivergent learners. This will be discussed more in-depth during the "Methodology" section of this research.

Many educators have also looked toward free-choice learning as a means to motivate their learners and provide a sense of autonomy within the neurodivergent classroom. Students are encouraged to focus on subjects they are more interested in and move at their own pace to encourage absorption and enjoyment in their studies. John Falk, one of the leading experts on free choice learning, helped to popularize the theory in the 1990s. Many neurodivergent students can be found to have difficulties following directions within the classroom. For example, a

<sup>&</sup>lt;sup>88</sup>Kristi S.Gaines, Zane Curry, JoAnn Shroyer, Cherif Amor, and Robin H. Lock. "The Perceived Effects of Visual Design and Features on Students with Autism Spectrum Disorder." *Journal of Architectural and Planning Research* 31, no. 4 (2014). 282–98. http://www.jstor.org/stable/44113088.

<sup>&</sup>lt;sup>89</sup>Gaines, Curry, Shroyer, Amor, and Lock, 295.

<sup>&</sup>lt;sup>90</sup>John Falk., Martin Storksdieck, and Lynn Dierking. "Investigating public science interest and understanding: evidence for the importance of free-choice learning." *Public Understanding of Science*, (2007). 458.doi:10.1177/0963662506064240.

neurodivergent student has been given a task by their teacher: Do X, Y, and Z in that order. The instructor has their reason as to why the instructions were given this way and an educational outcome as well. However, because the neurodivergent learner's cognitive development is wired differently than that of their neurotypical peers, they want to complete the assignment as Y, X, and then Z. The end goals are the same, but the road taken to the outcome is different. The introduction of free-choice learning allows neurodiverse students to choose their path and actions in regard to their education. This helps to create more excitement about learning, increases cognitive functions, and helps ease the stress students may go through during these formative years.

#### The Standards of Museum Education

When researching the standards of museum education for this body of work, the 2016 edition of *The Manual of Museum Learning* by Brad King and Barry Lord, served as a major source. Since its original release in 2007, the second edition made many new additions and added many contemporary and new conversations about museum education. <sup>91</sup> Throughout the entire book, there is a heavy focus on the importance of changing the idea of how a museum can work together with educators to better serve their community and institution. Within the first section, King and Lord choose selections that relate to the change in museums at the end of the 20th and the beginning of the 21st century: the shift from collection to education.

As mentioned in the introductory chapter of this paper, museums previously were created to be private collections for the wealthy to show off and be included in institutions of exclusivity. 92 This change from collection to education marked a shift in the cultural sector and

<sup>&</sup>lt;sup>91</sup>Brad King, and Barry Lord. *The Manual of Museum Learning*, (Lanham: Rowman & Littlefield, 2016), 13-29.

<sup>&</sup>lt;sup>92</sup> King and Lord, 15.

how people absorbed educational information, however, it took the institutions many years to catch up with this shift. Even into the 21st century, museums are still working to fully transform into centers of learning for the greater public. One of the first major principles of the book is that museums are centers of informal learning, museum learning is voluntary, and that museum learning is effective. While this concept was first addressed in the first edition, in Chapter 3 "Planning for Informal Learning: Understanding and Simplifying the Interpretive Process," author Jennifer Shepherd elaborates and expands on the original idea. He agrees that museums have become centers of informal learning, and this requires that museums seek to understand numerous viewpoints to connect with their visitors. To achieve this goal, museums need to show numerous stories and allow visitors to choose whichever story they want. By promoting this independence, museums can make visitors feel as if they are actively learning about the topic and themselves, which Shephard refers to as the "No Corridor" policy. By allowing visitors to learn multiple viewpoints or stories, it opens up numerous "rooms" to them to find various truths. This avoids a single viewpoint or "corridor."

Another important element from *The Manual of Museum Learning* can be found in Chapter 9, the section by Katie Stringer, "Accessibility in Museum Education: Universal Design, Programs, and Real Solutions for Museums." Within this section of the book, Stringer addresses the fact that disabled people are often overlooked by museums as a whole. Museums must take into account that disabled visitors deserve just as many educational experiences as their peers. She points to the use of universal design to provide valuable museum experiences for disabled individuals. While universal design mostly applies to the physical presence of the

<sup>&</sup>lt;sup>93</sup>See note 92.

<sup>94</sup>See note 92.

<sup>95</sup>King and Lord, 15.

<sup>96</sup>King and Lord. 181

museum, i.e. ramps when necessary, appropriate signage, adequate lighting, wide doorways, and hallways, etc., it also applies to making educational information and learning opportunities more accessible to visitors. <sup>97</sup> In addition to the learning aspect of the museum experience for disabled visitors, knowledge on how to interact with disabled visitors is a must for museum employees. <sup>98</sup> All employees, from directors to facilitators to security personnel, should receive training on how to properly interact with disabled visitors so that as a whole the institution can provide an inclusive experience. All employees are extensions of the museum's image and should provide the same experience for disabled visitors as they would able-bodied visitors. <sup>99</sup> Sensitivity training should be provided annually for all employees, and the institutions should be open to critique and suggestions from the disabled community in which they serve. Museums could achieve this by working directly with community members or disability advocacy groups to create these programs. This would be yet another way museums could show that these changes are a genuine decision and a way to respect the disabled community.

Another study that proved helpful to this body of research is the article, "An Examination of Art Museum Education Practices Since 1984," by Betty Lou Williams. In this article, Williams addresses the changes made within ten years of "The Uncertain Profession:

Observations on the State of Museum Education in Twenty American Art Museums" by Elliot Eisner and Stephen Dobbs. 100 This study and the following article, which was commissioned by the Getty Center for Education in the Arts, was a comprehensive evaluation of art museum education practices from twenty American museums, in the rapidly growing field. 101 In the

<sup>&</sup>lt;sup>97</sup>King and Lord, 183.

<sup>&</sup>lt;sup>98</sup>See note 97.

<sup>&</sup>lt;sup>99</sup>King and Lord, 185.

<sup>&</sup>lt;sup>100</sup>Betty Lou Williams. "An Examination of Art Museum Education Practices Since 1984." *Studies in Art Education*, (1996), 34–49. <a href="https://doi.org/10.2307/13203">https://doi.org/10.2307/13203</a>

<sup>&</sup>lt;sup>101</sup>Stephen M. Dobbs and Elliot W. Eisner, "The Uncertain Profession: Educators in

study, nineteen evaluations or "Generalizations" summarize thoughts on problems within art museum education programs. 102 In the 1996 article, Williams focuses on nine of them. 103 For this body of research, I focused on William's evaluations of Generalizations eight, nine, twelve, fifteen, and seventeen. 104 Each of these Generalizations relates to the educational training and diversity needs within art museum education. In Generalizations eight, nine, twelve, and fifteen, Eisner and Dobbs discuss the educational training of museum educators within the art museum. 105 Generalizations eight, nine, and fifteen focus on the over reliance of art history within museum education, stating that the education basis of these programs is lacking and needs to be revised. Generalization twelve focuses on inclusivity within museum staff, stating that museum staff do not represent those that they serve. Overall it is noted that museum educators are trained and teach from an academic art historical background. While the field is born out of art history, educators should be well versed in educational standards for a wide variety of visitors. Williams notes that since the 1986 study, art museums have not yet made enough of an increased effort to include more comprehensive educational methods for their audience. <sup>106</sup> For the most part, these programs are still dominated by those from an art historical background, and they have not yet made an effort to evaluate their education practices and apply them. 107 However, Williams did report that there was an increase and success found in museum-school partnerships, the focus of Generalization seventeen. 108 Museums made an effort to provide more

American Art Museums," *Journal of Aesthetic Education* 21, no. 4 (1987): pp. 77-86, https://doi.org/10.2307/3332832.

<sup>&</sup>lt;sup>102</sup>Williams, 35.

<sup>&</sup>lt;sup>103</sup>Dobbs and Eisner, 79.

<sup>&</sup>lt;sup>104</sup>Williams, 37-38.

<sup>&</sup>lt;sup>105</sup>Williams, 40-43.

<sup>&</sup>lt;sup>106</sup>Williams, 45.

<sup>&</sup>lt;sup>107</sup>See note 105.

<sup>&</sup>lt;sup>108</sup>Williams, 45.

teacher-centered programs so that museum educators and teachers could collaborate to provide a recreational and educational experience for visiting child learners. These included workshops, curriculum development, museum visits, and outreach programs. Williams finishes the article by saying that while there has been a tremendous change since the original 1984 study by Eisner and Dobbs, art museums still regard their education programs as art history education programs. This distinction still keeps ties with the academic elitism that exists within the art historical communities. Art museum educators must work towards a more integrated educational curriculum so that a more diverse audience can be included in the museum experience. Even in the present day, while researching educational practices in art museums, there is much room to be made in neurotypical educational programs, let alone special education and neurodivergent informed programs.

## Chapter 3

## Methodology

What is a Museum's Role Within Neurodivergent Education?

Neurodivergent-focused methods are a newer method of thinking and teaching when it comes to education. It is no doubt that these methods warrant necessary implementation within middle and high schools, but where do museums fit into this picture? The shift from museums as temples of wealthy collections into centers of learning certainly makes the point, but even more so, museums should serve the communities around them and the neurodivergent community spans across all races, genders, and socioeconomic groups. The inclusion of neurodivergent

<sup>&</sup>lt;sup>109</sup>Williams, 44.

<sup>&</sup>lt;sup>110</sup>Williams, 46.

informed education not only provides a greater incentive for neurodivergent visitors to attend the museum but there is an increase in excitement for museum learning, as some may never have had the opportunity before.

Within the methodology portion of this paper, I will be discussing two neurodivergent centered educational programs that art museums can use to be more inclusive. Sensory days, touch-based learning, and the assistance of museum planning guides are methods by which art museums can provide a better learning experience for children and teens with ADHD and ASD. Two museums will serve as case studies for the second half of this paper: The Metropolitan Museum of Art (The Met) in New York City, and The Walters Art Museum (The Walters), in Baltimore, MD. Within the past ten years, both museums have shown the initiative to become inclusive to visitors who belong to the neurodivergent community. The programs that they have implemented can serve as examples for museums who seek to reach a wider audience and are unsure of where to begin.

It is important to note that during the coronavirus pandemic, many programs were impacted by the stay-at-home policies that New York State and the state of Maryland put into effect. During this time, The Metropolitan did its best to accommodate and move to a virtual environment. This created a large audience of people who were able to participate in many programs held by the museum. Virtual events create opportunities for guests to participate and view events and exhibits from anywhere that has internet connection. During my research, I did find that many institutions are utilizing virtual technology when creating programs for neurodivergent visitors. For the scope of this research, both programs at The Met and The Walters are in-person events, which lends to the educational tools they utilize. These programs may utilize technology as a tool, but it is not the main element.

"Discoveries" is a program run by The Met that seeks to provide a hands-on arts experience for adults and children with developmental and learning disabilities<sup>111</sup>. This program was created in 1988. It was reported that in 2018, nearly 650 people attended the workshops. The program is one of the more continuous events that occur at The Met that is targeted toward disabled visitors. At least once a month, on a Sunday, three separate Discoveries are held, to accommodate different age groups: 5-13, 14-22, and 23+ years old. Within this scope of research, we will be focusing on the groups from 5-22, as it encompasses the 10-17 age range of this paper. The event is held within The Met in the Ruth and Harold D. Uris Center for Education. The event is free, but reservations are required. It is wonderful to see that The Met makes these types of programs available to the public at no cost, as special events or programs may come with a price tag which inevitably leaves some visitors who may have been able to afford the cost of admission, but not the event, and would be excluded.

There is no doubt that The Met is one of the most famous art museums in the world. Garnering over 7 million visitors annually in 2019, individuals from all walks of life may one day find themselves within the galleries. The museum has not always been inclusive of all individuals, as the institution, like many, was built to serve the wealthy white upper class. However, over the more than 200-year history of the museum, major changes have been made to make admission more accessible, make exhibits available in braille and other languages, and

<sup>111</sup>The Metropolitan Museum of Art, "Discoveries," Metmuseum.org, accessed April 11, 2022, https://www.metmuseum.org/events/programs/met-creates/visitors-disabilities/discoveries.

<sup>&</sup>lt;sup>112</sup>The Metropolitan Museum of Art, "Discoveries @ 30," *Discoveries* @ 30, accessed April 11, 2022, https://www.metmuseum.org/exhibitions/listings/2018/discoveries-at-30.

<sup>&</sup>lt;sup>113</sup>Press Resources, "The Met Welcomed More Than 7 Million Visitors in Fiscal Year 2019," Metmuseum.org, The Metropolitan Museum of Art, July 10, 2019, https://www.metmuseum.org/press/news/2019/fy-2019-attendance.

make environmental changes, like adding ramps and elevators. Each of these changes led to more and more individuals being able to experience the thousands of works of art within the museum. As an institution, The Met has made it obvious that they will continue to work towards making the institution accessible to any individual who would like to visit. In July of 2020, former president and CEO, Daniel H. Weiss, and Max Hollein, the Marina Kellen French Director of The Metropolitan, released a statement detailing the museum's commitment to change, titled, "Our Commitments to Anti-Racism, Diversity, and a Stronger Community." This consisted of thirteen statements, outlining how the museum planned to serve its community within the coming years. The statements that pertain to this body of research include:

5. Invest in recruiting, hiring, retaining, and advancing BIPOC candidates and staff across the institution, including curatorial, conservation, all administrative departments, and all program departments.

- e. Work with the Volunteer Organization to increase the diversity of its members, with the goal of more closely reflecting the city's ethnically diverse population and neighborhoods.
- 7. Further strengthen a program of exhibitions, events, and publications that addresses complex and unfamiliar narratives, and cross-cultural perspectives, and foster a more diverse and expanded canon of art history.
- 12. Deepen collaborations with our communities.
  - a. Strengthen partnership with the Advisory Committee on Cultural Engagement (ACCE) by inviting members to join the External Affairs Committee of the Board of Trustees and by adding Board of Trustee representation on ACCE.
- 13. Commit to an annual diversity audit to be conducted by the CDO to review progress and establish new objectives. The CDO will provide an annual report on Museum diversity, equity, inclusion, and accessibility (DEIA) progress to the Board of Trustees in Executive Session and provide regular updates on DEIA initiatives to staff and volunteers.<sup>114</sup>

While these statements were made in response to the Black Lives Matter protests in the summer of 2020, these statements are related to educational equality within the institution as well. The neurodivergent community spans all races, ages, and ethnicities. Much like many other factors that are affected by systemic racism, it can be argued that special education and neurodivergent diagnoses are more accessible to white communities, leaving Black neurodivergent children at a disadvantage. While researching for this paper, many studies had larger percentages of white students than black students. Even fewer of these students were girls, which can lead to the point that young black girls are some of the least diagnosed with ASD or ADHD. By creating educational programs that can be catered specifically to the Black neurodivergent community, The Met can truly embody those values that they seek in their statements. While we do not have time to fully explore the impact of less accessible ADHD and ASD diagnoses on the Black community, it is important to discuss this as inclusion is one of the

<sup>&</sup>lt;sup>114</sup>Daniel H Weiss and Max Hollein, "Our Commitments to Anti-Racism, Diversity, and a Stronger Community," Metmuseum.org, The Metropolitan Museum of Art, July 26, 2020, https://www.metmuseum.org/blogs/now-at-the-met/2020/the-mets-plans-for-anti-racism.

<sup>&</sup>lt;sup>115</sup>David S Mandell, "Racial/Ethnic Disparities in the Identification of Children with Autism Spectrum Disorders," *American Journal of Public Health*, (March 2009), https://ajph.aphapublications.org/doi/10.2105/AJPH.2007.131243.

most important conversations within the museum industry and at the heart of this research. Additionally, it may be too soon to decide if The Met is staying true to its mission and the released statement. It is imperative that museum professionals and visitors alike hold large institutions like The Met accountable for their actions, and remind them of the promise they made to their communities.

Rebecca McGinnis oversees the Access and Community Programs at The Met and has held the position since 2000. McGinnis has a strong track record of being an advocate for the disabled community throughout her career, pioneering programs like "Crip the Met," which utilizes the museum's collection to discuss disabled narratives and provide visibility within the collection. McGinnis discusses her involvement in the Crip the Met program and states, "Involving and partnering with museums, disabled artists, and others from the cultural sector are crucial to the sustainability of inclusion." The focus on community and the understanding that a museum needs to be inclusive of all those who visit is what makes The Met a fine example of moving with what the public needs in an institution.

Within ASD and ADHD-centered learning practices, physical touch is important. For many years, educators have embraced and implemented activity and touch-based educational practices for students on the spectrum. An article by Gillian J. Furniss, an artist and arts educator who specializes in and has held numerous ASD focused workshops, explores the importance of

<sup>&</sup>lt;sup>116</sup>New York City Department of Cultural Affairs, "Facebook," *Facebook* (blog), December 20, 2018, https://www.facebook.com/nyculture/photos/this-week-at-the-metropolitan-museum-

inmanhattan-we-joined-the-first-in-a-series/2340114929543636/.

<sup>&</sup>lt;sup>117</sup>Emma Sheply and Rebecca McGinnis, "Advancing Disability Inequality Through Cultural Institutions", Leicester: University of Leicester (2020), pp. 23-28. https://le.ac.uk > uol > docs > rcmg > publications

artmaking in young artistic students.<sup>118</sup> People with ASD tend to be visual learners and can learn better when they have a visual image of what they are being taught. By allowing students to explore concepts visually, they are better able to express their thoughts and communicate. There is no doubt that the physical act of touching an object is linked to seeing the object in your hands, linking touch and sight. By incorporating activities that are based on touch and sight, educators can collaborate with museums and provide programs that will enrich students and build their confidence.

Each session, the program follows a similar format but with a different theme that can be found within the museum's collection. Throughout the workshop, education will utilize special education and neurodivergent-centered educational styles to foster a fun and memorable learning experience. Some themes that have been explored in past Discoveries have been: Museum Safari, From Trash to Treasure, Guitar Heroes: Legendary Craftsmen from Italy to New York, and Discoveries—Powerful Portraits: Patrons and Painters. While there are differences in these themes, and the artworks discussed during the workshops change, the Discoveries program follows the same structure of events. There is first a group discussion of the theme, introducing the theme to the group and opening the floor to comments. Next, there is a gallery tour and guests can see examples of the works that fit within the theme. Lastly, the program will finish with hands-on activities, recreating the works or creating art that is inspired by the theme.

<sup>&</sup>lt;sup>118</sup>Gillian J. Furniss, "Celebrating the Artmaking of Children with Autism," *Art Education* 61, no. 5 (2008): pp. 8-12, https://doi.org/10.1080/00043125.2008.11518990.

<sup>&</sup>lt;sup>119</sup>Different Roads to Learning, "Discoveries Program at the NY Metropolitan Museum of

Art," Different Roads to Learning Blog, October 16, 2018,

https://blog.difflearn.com/2011/02/17/discoveries-program-at-the-ny-metropolitan-museum-of-art/.

<sup>&</sup>lt;sup>120</sup>Elise Freed-Brown, "A Different Mind: Developing Museum Programs for Children with Autism" (Master's thesis, Seton Hall University, 2010), pp. 26-47.

Many children who are on the spectrum flourish with a routine, as a change can be very overwhelming and lead to sensory overload and the inability to regulate emotions. The attention is focused on keeping a routine and making ASD visitors feel prepared for their workshops. This shows the understanding that educators at The Met have achieved within the resources they provide to educate parents or autistic visitors.

For many of the programs within The Met, there is something called a social narrative. The social narrative is a document created by the Accessibility Programming department that walks through exactly what an autistic visitor would experience at the museum, or during a museum workshop like Discoveries. Social narratives are stories that help to direct students with ASD through situations that have increased emotional stress. These narratives target specific events that can trigger emotional responses that children may not know how to regulate their reactions to. Social narratives tend to follow the same structure. They identify a situation, discuss how it would make the individual feel and how they would respond, and then give a suggestion on how to regulate their emotions in the situation<sup>121</sup>. By having stories that children with ASD can relate to, they are better able to process and regulate their emotions in the future. Social narratives are also successful teaching tools for students with ASD, and help teach what is expected of them in social situations. They provide a step by step guide on how to navigate a situation, and it can give insights on how others may process and respond.

The social narrative for the Discoveries program can be found on the Resources for Visitors with Learning and Developmental Disabilities page on The Met's website and is available as a downloadable PDF. The document is written in the first person, so that the visitor

<sup>&</sup>lt;sup>121</sup>Kristie Brown Lofland, "Writing and Using Social Narratives," Indiana Resource Center for Autism, *The Reporter*, (2015), https://www.iidc.indiana.edu/irca/articles/writing-and-using-social-narratives.html.

can feel that they are experiencing the program, using first-person language. Even though the Social Narrative on the Metropolitans' website is named as such, there are some elements of a true social narrative that are missing. While there is instruction on navigating events, following directions, and knowing the sequence of events for the activity, the emotional aspect of a social narrative is missing. Traditional social narratives will have sections that reference emotional responses. For example the narrative may say, "When the teacher gives me directions I do not understand, it makes me want to yell. Yelling may scare my other classmates. Instead of yelling I will ask the teacher for help.". Without this element, the Metropolitans' social narrative reads more closely to a preparation guide, or a "know before you go". This document still provides a detailed overview of the Discoveries program, and while it is not quite a social narrative, it can help popularize the use of social narratives. There is no doubt that the popularity of The Metropolitan could lead to other institutions incorporating social narratives for visitors with ASD.

The introduction to the document reads, "I am going to a Discoveries program at The Metropolitan Museum of Art. During Discoveries, I will look at art and make art with other people. The Metropolitan Museum of Art is one of the biggest art museums in the world and it is right here in New York City! It is next to Central Park." No step is left out of the social narrative, from entering the museum, explaining about coat check, introducing yourself to the other attendees, the instructors that may be present, what types of people can be encountered in the galleries, and the hands-on portion of the workshop. Not only are verbal explanations given

<sup>&</sup>lt;sup>122</sup>The Metropolitan Museum of Art, "Social Narrative: Going to a Discoveries Program at The Metropolitan Museum of Art," Social Narrative Going to a Discoveries Program at The Metropolitan Museum of Art, 2015,

 $https://www.metmuseum.org/\sim/media/Files/Events/Programs/Progs\%20 for \%20 Visitors\%20 with \%20 Disabilities/Social\%20 Narrative\%20 Discoveries.pdf.$ 

and provides emotional regulation assistance, but images are included as well so that visitors can have visual cues to recognize so that they can feel comfortable in the museum (Fig.1, Fig.2, Fig.3).

We will enter the Museum through the Ruth and Harold D. Uris Center for Education. The entrance is located on Fifth Avenue and 81st Street, just south of the main entrance.

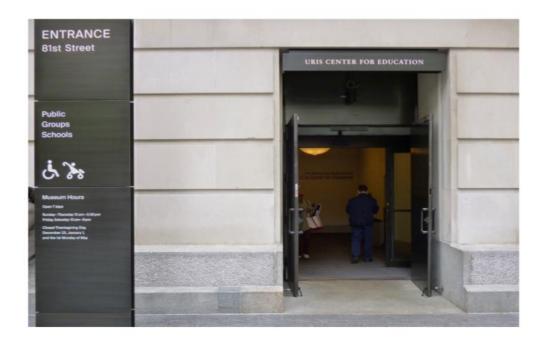


Figure 1. A screenshot from the "Social Narrative: Going to a Discoveries Program at The Metropolitan Museum of Art."

We will stop at different places to talk about the things we see. We will probably sit on the floor in front of a work of art while we talk. We might copy the poses of people in the artwork.



Figure 2. A screenshot from the "Social Narrative: Going to a Discoveries Program at The Metropolitan Museum of Art."

After we look at the art we will go back to the Studio to make some art of our own. We will listen to the teacher's instructions and start our art projects.



Figure 3. A Screenshot from the "Social Narrative: Going to a Discoveries Program at The Metropolitan Museum of Art."

By keeping the same format, but changing the theme, visitors can feel encouraged to continue returning to the program, which access coordinator Deborah Jaffe mentions in a personal interview with Elise A. Freed-Brown.<sup>123</sup>

It is encouraging to see that the Discoveries program has been so successful in creating fun art-making experiences for children with ASD and ADHD. While the program is mostly targeted toward children with ASD, there are elements and educational techniques used within the program that have been found to be helpful for ADHD students. Like children with ASD,

<sup>&</sup>lt;sup>123</sup>Freed-Brown, 34.

ADHD students also benefit from group activities that they are given alternative solutions to so that they do not feel that they need to be "right." Within the art-making portion of the program, visitors are encouraged to create artwork based on the gallery tour and discussions surrounding the theme. The materials are provided to the students and a general idea of what to make is presented, but there are no exact examples of what the museum educator is looking for. 124 Students are able to use their own techniques and be comfortable with the way they are creating art and fostering a sense of confidence in their artmaking skills. The use of visual cues is also a method that allows both ASD and ADHD students to learn better. 125 By using works of art within the galleries to explain and show examples of the theme they are discussing, educators are able to give examples of the concepts they are introducing. For example, in the Discoveries-Powerful Portraits and Painters, the workshop is centered around an exhibition of Medici portraits from 1512-1570, which showed at The Metropolitan from July-October 2021. <sup>126</sup> One of the concepts that would be explored in the program is the use of symbolism in the Medici portraits. By combining lessons about symbolism as a concept and having visual examples in front of them it gives students clear examples of concepts they might think of as more abstract.

It is hopeful to see that The Metropolitan has been able to be accessible to the neurodivergent community. There is no question that the museum is one of the most famous art museums in the United States, and they serve as an example to many smaller institutions.

Because of this status, it is important to hold the institution accountable for continuing to practice these teaching methods and provide accessible programs and content to its community. While

<sup>&</sup>lt;sup>124</sup>Freed-Brown, 35.

<sup>&</sup>lt;sup>125</sup>Furniss, 11.

<sup>&</sup>lt;sup>126</sup>The Metropolitan Museum of Art, "Discoveries—Powerful Portraits: Patrons and Painters," Metmuseum.org, 2021, https://www.metmuseum.org/events/programs/metcreates/visitors-disabilities/discoveries/powerful-portraits.

some may see accessibility as a "trend," we must always remember that for some people, these programs can be some of the only resources available to experience a museum. Museums are vital in cultural education and can help foster lifelong learning and communication skills in all types of people.

Case Study 2: Sensory Mornings at The Walters Art Museum, Baltimore, MD.

Since its inception, The Walters Art Museum has been a cultural institution that was meant to serve its community. Founded in 1934, the museum was donated to the City of Baltimore by Henry Walters, "For the benefit of the people." <sup>127</sup> By making this statement, The Walters is attempting to break away from the antiquated standard that museums were institutions for wealthy, white guests. One of the key accessibility features of this museum is its admission. The Walters has no admission costs and this even applies to special exhibitions as well, which allows people of all socioeconomic backgrounds to visit. Statistically, Baltimore, Maryland, is 62.3% Black and 29.7% white, and less than 12% Asian, Indigenous, or Latine, and it is reported that 20% of the city's population lives in poverty. 128 By having one of the major museums in the city have free admission, it shows that the visitor experience is a priority, and that the staff and museum administration want to have as many people as possible experience what the museum has to offer. It is also important to note that the current museum administration has made a concerted effort to unpack and address the controversy surrounding the founding family, the Walters. Both the founder, Henry Walters, and his father, William Walters, were known to have supported the Confederacy, and their collection resembles many upper-class white art collections

<sup>&</sup>lt;sup>127</sup>"About the Walters Art Museum," The Walters Art Museum, April 7, 2022, https://thewalters.org/about/.

<sup>&</sup>lt;sup>128</sup>"U.S. Census Bureau Quickfacts: Baltimore City, Maryland," The United States Census Bureau, accessed April 16, 2022, https://www.census.gov/quickfacts/baltimorecitymaryland.

from the 19th and 20th centuries. On the museum's website, they state that they are committed to researching the provenance of objects within their collection, showcasing non-white exhibitions, and acknowledging that the land the museum sits on was stolen from the Indigenous Piscataway, Lumbee, and Susquehannock peoples. Another effort made by the museum to address the shift to being more inclusive and diverse is the *Diversity, Equity, Accessibility, and Inclusion Goals* agenda, which was last updated in March 2021. In this document, there are five points that The Walters set out to achieve within two years. They are as follows: Activate the Collections; Engage through Personal Experiences; Create Innovative Partnerships; Strengthen Accountability and Sustainability, and Build a Dynamic Team. The combination of these goals all aim to better connect and understand the City of Baltimore, address systemic barriers and promote access and accessibility, and establish an administration that will help the museum and the people it serves to flourish. There is a section that even mentions the Sensory Morning and Evenings program in the expansion of accessibility programming and arts education:

Created and launched new education programs to address barriers to access and engagement as well as to build trust with the community, including new school tour and family programs that served students and families across the digital divide; distributing 2,000 Art Kits in partnership with Baltimore City and Baltimore County; new programs to serve families with children with autism and sensory processing disorders (Sensory Morning and Evening), in partnership with Kennedy Krieger Institute; and community programs to provide space for Baltimore communities, support local business, and create opportunities for communities to see themselves reflected in our collection, such as Día de Los Muertos and Lunar New Year. Created the Adult & Community Programs team. 131

These guidelines hold the museum accountable to support its visitors and keep accessibility and

<sup>&</sup>lt;sup>129</sup>"About the Walters", 2022.

<sup>&</sup>lt;sup>130</sup>The Walters Art Museum, *The Walters Art Museum DEI Goals*, March 2021, <a href="https://thewalters.org/wp-content/uploads/2021/03/deai-goals-1.pdf">https://thewalters.org/wp-content/uploads/2021/03/deai-goals-1.pdf</a>, 3.

<sup>&</sup>lt;sup>131</sup>"The Walters Art Museum, 6.

inclusion at the forefront of its mission. It is also impressive to see another museum set in stone its intentions when it comes to addressing its own histories of ableism, classism, and racism.

Ashley Hosler helped to create the "Sensory Morning" at The Walters program in 2010, after working at the Museum of Fine Arts Boston. Hosler was a senior education coordinator, and has a background in painting and teaching, with a BFA in painting and an MA in teaching. In addition to Embrace International, a nonprofit that aims to help disabled children worldwide, the museum also partnered with the Kennedy Krieger Institute (KKI), which is also located in Baltimore. The Institute seeks to "improve the lives of tens of thousands of children, adolescents and adults with neurological, rehabilitative or developmental needs through inpatient and day hospital programs, outpatient clinics, home and community services, education, and research." <sup>132</sup> Collaborating with a local institution that is known for educating, researching, and supporting people with ASD and ADHD, and other neurodivergent disabilities shows that there is a real effort to create programs that come from medical and community support. The KKI also takes approaches that center on the patient, finding resources and accommodations that are tailored specifically from person to person, not using blanket techniques that only partially help. The Walters takes this same approach in their Sensory Mornings program. There are numerous options presented to visitors, and no two experiences are alike. Through the planning process, preliminary events are set up and students gave their feedback to museum educators so they can understand exactly how the students felt about the exhibits and what prevented them from enjoying the visit. 133 Many educators cite trips to museums as exciting trips for students, and they help support communication and education. But what happens when the student is unable to

<sup>&</sup>lt;sup>132</sup>Kennedy Krieger Institute, "Get to Know Kennedy Krieger Institute," Kennedy Krieger Institute, accessed April 16, 2022, https://www.kennedykrieger.org/about-us.

<sup>&</sup>lt;sup>133</sup>Ashley Hosler, "Museum Access for All," in *Engagement and Access: Innovative Approaches for Museums*, ed. Juilee Decker, (2015), pp. 27-34.

fully enjoy the experience because the museum is inaccessible to them?

Have you ever visited a major art museum and felt as though you could not make a single sound, or that you were not allowed to comment on the works you were seeing since talk is reserved for docents? Or have you ever felt like the lighting in a gallery was too dim or too bright, and it was preventing you from properly seeing every artwork you came upon? Or maybe you are in a gallery and all of a sudden you can only focus on how many people are around to the point that it becomes so overwhelming and you can not focus on the artwork in front of you? These are very real problems for ASD and ADHD children visiting art museums. Many individuals within the neurodivergent community experience some kind of sensory processing difficulty. When reviewing art museum experiences, a very common note was that art museums could be over or under-stimulating to the point where you cannot focus on the artworks in front of you, leading to a sensory overload episode. This is exactly what Sensory Mornings at The Walters seeks to prevent.

From one hour before the museum opens and closes on Sundays, there are special programs held to accommodate student visitors and their families, who may experience sensory processing disorders (SPD). During this time, changes are made to a few aspects of the museum, from environmental to educational. It should be noted that The Walters currently is not offering any in-person programming due to the coronavirus pandemic, but they have offered virtual programming during this time. During Sensory Mornings at The Walters, families, and visitors with sensory disorders are encouraged to visit the museum and experience the museum in a way that avoids any potential sensory triggers. This includes turning down lights in the galleries, having "quiet rooms," or having ambient music playing during exhibitions. While it seems like these may be insignificant changes, to a visitor with ASD or ADHD, this can make all the

difference. And in accordance with the museum's regular admission policy, Sensory Morning events are free, only reservations are required. In a flier for the event (Fig.4), all resources for visitors with ASD are listed, and a schedule of the event is provided. This gives visitors and their families an idea of what the event will offer and how much time they can expect to spend at the museum. Visitors with ASD may find this to be extremely helpful, as following a schedule and knowing what to expect helps reduce stress in these situations.

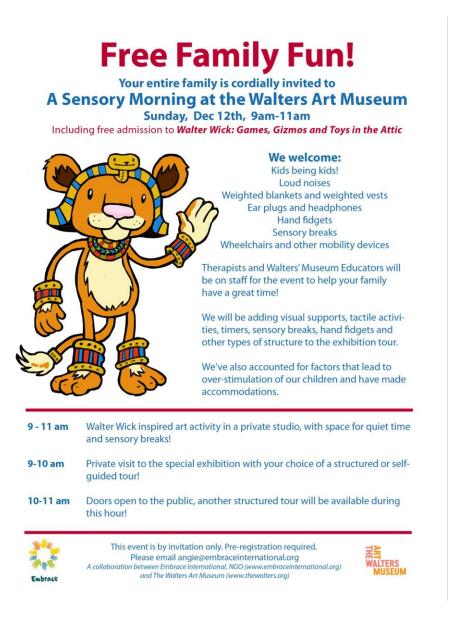


Figure 4. A flier advertising Sensory Mornings at The Walters Art Museum.

Once the event starts, visitors have numerous options on how to begin their morning at the museum. There are two key rooms that are designated as "Sensory Break Areas," the auditorium and Sculpture Court. The auditorium is a dimly lit space and is cozy, providing a relaxing space where visitors can decompress and enjoy their own privacy and company for a moment. There is also the Sculpture Court (Fig.5). The main source of lighting in this room is the skylight, and there is a natural brightness to the room, an alternative to traditional artificial lighting in galleries. The room is large enough that there is more than enough space to feel comfortable, not cramped and full of others, especially when there is only a handful of others in the museum.



Figure 5. An image of the Sculpture Court at The Walters Art Museum.

Additionally, in these rooms there are resources to help in the case of a sensory episode occurring. Weighted blankets, fidget toys, earplugs, and headphones, as well as therapists on

<sup>&</sup>lt;sup>134</sup>Hosler, 29.

hand, are available if needed. <sup>135</sup> In every section of the museum, there are museum educators, volunteer therapists, and trained museum staff ready to assist visitors in the gallery activities. There is even one room that holds a yoga activity. Students who learn better with movement can participate in yoga flows while learning about the pieces within the gallery. There are hide and seek stations where students can utilize play to learn methods, and touch-based play objects so students can associate textures and feelings with information. Similar to the Social Narrative guides utilized by The Metropolitan, The Walters also utilizes pre-visit materials to minimize the anxiety of visiting a new place. <sup>136</sup> It also encourages communication about behavior and expectations, which is important for ASD children who may experience anxiety and stress in social situations.

By removing the physical barrier that prevented many visitors from going to The Walters, they saw an increase in community support and engagement. Parents who took their children to Sensory Mornings reported that their children were engaged, found interest in the activities held, and were able to fully enjoy what the galleries and staff had to offer. The popularity of the program was astounding. When the program first began in 2010, there were 30-40 visitors per event, but by 2015, they were reporting that 100-125 visitors were attending. This program and others like it can provide introductions to museum experiences for children within the neurodivergent community.

<sup>&</sup>lt;sup>135</sup>Catalina Sofia, "The Walters Museum Breaks All the 'Rules' with Sensory Mornings," *Cool Progeny*, (2015). https://coolprogeny.com/2015/05/sensory-mornings-walters-art-museum/ <sup>136</sup>Hosler, 32.

<sup>&</sup>lt;sup>137</sup>"Sofia, "The Walters Museum Breaks All the "Rules"".

<sup>&</sup>lt;sup>138</sup>See note 137.

#### **Chapter 4:Accessibility in Action**

How Accessible are These Programs?

Educational programming is an important element to a museum's commitment to its community and visitor experience. A museum should be able to provide programs and activities that help communicate its message. Additionally, these programs need to be accessible to all types of guests. It is costly to support and run a museum, and funding is continuously mentioned whenever any suggestions are raised. When looking at programs run by institutions like The Metropolitan and The Walters, there is an obvious advantage in funding and costs. In 2020, The Metropolitan's programming expenses totaled \$217 million, which was a decrease due to constraints from the coronavirus pandemic. 139 There are so many resources available to the staff at The Metropolitan, resources that smaller institutions could only dream of, resources that are limited based on their much smaller budgets. While they do not have the same budget or revenue total, The Walters reported that in 2020, their total programming expenses were over \$4 million, which is still incomparable to many institutions around the country<sup>140</sup>. It is also important to note that when comparing these two institutions' financials, there are differences in what programming consists of. The Walters has a designation for education, while The Metropolitan's includes conservation and curation as well. In theory, all museums and cultural institutions should be able to have access to any resources they need to assist and support the museum, its staff, and its content, but money does play a part.

All around the country, there are local institutions, many with less than twenty paid staff members, mostly relying on volunteers to keep the museum running from day to day. These

<sup>&</sup>lt;sup>139</sup> The Metropolitan Museum of Art, "The Metropolitan Museum of Art Financial Statements for the Years Ended June 30, 2021 and 2020" (New York City, NY, 2021), pp. 2-5. <sup>140</sup> "The Walters Art Museum Annual Report 2020" (Baltimore, MD, 20212), pp. 23-25.

museums still have the same goals and visions as their larger counterparts, and strive to provide the same access and resources to all visitors, but how can they do so when their budgets are minimal?

How Can Smaller Institutions Provide Accessibility?

Based on the case studies reviewed in the Methodology section of this thesis, there are principles and methods that smaller institutions with realistic budgets can adapt and apply to encourage stress-free visits for ASD and ADHD visitors. While the programs at The Walters and The Metropolitan took years to develop and had the massive financial resources to implement, I think there are ways to use these techniques in a more cost-effective manner. Museums can still provide programming to encourage accessibility and inclusion, and look to the resources they already have to put these necessary changes into action. The neurodivergent community spans all socioeconomic levels, and they deserve to experience museums just like neurotypicals do. Removing these barriers is a requirement for all institutions if they want to have a relationship with the people that they seek to serve.

The first possibility is utilizing community volunteers to help with supervising and assisting with programs. A museum can never have too many volunteers, and more often than not, these valuable community members love to be a part of the museum experience. Volunteers can range from all walks of life, and the job is much more accessible than some positions within a museum's staff. In many cases, this requires years of higher education, which may not be feasible for some people who are interested in being in a museum setting. Through training provided by museum educators and educators specializing in disability education, volunteers can help support museum programs, help give tours to disabled visitors, and give staff feedback on how to improve programming. By seeking out volunteers, the museum can help with staffing for

programs, and volunteers can serve as a connection between the community and the museum. While they are representatives of the museum, as many assist with running programs, serving as docents, and helping in ticket sales or the gift shop, they also provide feedback to the museum from a visitor's perspective, as they are members of the community as well as the museum.

A second possibility is partnering with local organizations that cater to ASD and ADHD individuals. It can be a significant step that institutions can take to help develop resources within their museums for neurodivergent visitors. In both Discoveries and Sensory Mornings, The Walters and The Met partnered with local organizations that aim to increase visibility and accessibility for disabled guests. This helped museum staff to understand how standard museums can be difficult for ASD, SPD, and ADHD visitors. They were able to sit down with autistic people and ask them to participate in trials of their programs and give feedback so that the programs could be as helpful as they possibly could be. 141 Museums should use these organizations as a resource to explore alternative methods of education for ASD and ADHD students, get in contact with community leaders and create professional relationships, and collaborate to fundraise and support each other, and their community.

Thirdly, within the museum, there are ways to alleviate some of the environmental stress that they are typically known for encouraging. Sensory Morning utilizes "sensory break areas" in case visitors are too overwhelmed at a program or in a gallery. Smaller institutions can use galleries and rooms and designate them as quiet areas to recharge, which would benefit all visitors. Occupancy limits can also be imposed for a limited time during the day, just to provide some space if a room tends to feel claustrophobic. By giving visitors a moment to collect themselves and recharge, not only will they avoid sensory overload, but they will be better able

<sup>&</sup>lt;sup>141</sup>Hosler, 29.

to absorb information and remember their visit. It could also be helpful in areas such as these to provide fidget objects that visitors can use, or even bring throughout the entire museum visit, which would be especially helpful for children with inattentive type ADHD. There are many types of fidget toys that are available, and museums could apply for grants to purchase them.

While it may be a sensitive topic to discuss, there is always a financial aspect to museums, because they are a business and it requires money to run and operate them. But there should be no reason that accommodations are out of the question for an institution, no matter what the financial constraints are. While these changes might not cost as much as those at major institutions, like The Metropolitan, these changes are no less important. They spread the message that neurodivergent visitors are just as important and deserve to be able to enjoy museums without fear of anxiety, embarrassment, or financial constraint.

# **Chapter 5: Conclusions**

The American Alliance of Museums defines 'accessibility' as, "giving equitable access to everyone along the continuum of human ability and experience. Accessibility encompasses the broader meanings of compliance and refers to how organizations make space for the characteristics that each person brings." Museums should be environments that foster the love of learning for all people. Why then have so many people been unable to visit because the resources that would make the visit enjoyable are not available. Imagine how unfair that would feel, especially to a child. Everyone in class goes on a field trip to a local art museum, but about 25 minutes into the trip, they are unable to focus on the visit, focusing instead on how many people are around them, how bright the lights are, and how overwhelming it feels. This is an all too common experience for young neurodivergent children who visit museums that do not provide accessible programs and galleries.

Disability advocacy within museums is a role that many staff members take on.

Educators, front-end staff, docents, administration, and all members of the museum work so that visitors with all kinds of disabilities are accommodated. Many museums around the world are becoming more and more aware that their institutions have left out so many people in their communities for so long. It is impertinent that they make the necessary changes, as museums

<sup>&</sup>lt;sup>142</sup> "The Walters Art Museum DEAI Goals", 3.

have shifted into cultural centers that serve all members of the community. Large institutions, like the ones mentioned in the previous section, serve as examples to smaller art museums on how to take steps to be more inclusive of ASD and ADHD visitors. It goes without saying that the two case studies explored within this research are the best way to accommodate neurodivergent visitors. There are so many more avenues museums can take, but these are two long-running programs that have shown that art museums can be accommodating and that all types of people belong in museums.

Educational programming can be extremely impactful to student visitors. There are so many opportunities within an art museum for students to find a passion for learning about art and art-making. Museum educators can help students by facilitating activities that encourage communication, movement, thinking, and creativity. Some students need extra resources in order to understand and participate in these principles, and museums have a responsibility to provide them.

While I do feel that the educational programming methods reviewed in this paper are substantial, there is more than can come out of these conversations. In future research, there is more that needs to be understood on how ASD affects young girls and non-white children, as many statistics on ASD have been profiled from studies on mainly young white boys. While there may not be a substantial amount of differences in the programming methods that would differ from boys to girls, it would assist in creating even more of a community within the neurodivergent sphere. Additionally, I think there is room to expand the use of touch and play learning in art museums. In order to preserve many of the fragile pieces within an art museum, there is an idea that objects will be ruined if they are handled. Many museums have adopted exhibits that have objects available to touch. Not all objects are able to be handled by visitors

though, due to fragility, or sensitivity to oxygen and light. What would happen if there were replica objects that were made to be touched? It would be interesting to see if the use of 3D printed art replicas could be used in educational programs targeted toward children with ASD and ADHD. By normalizing disability accessibility within museums, these types of programming and funding can become more widely available.

## **Bibliography**

Access and Community Programs. *Screenshot of Page 3 of the Discoveries Program Social Narrative Guide*. *Social Narrative: Going to a Discoveries Program at The Metropolitan Museum of Art*. The Metropolitan Museum of Art, 2015. https://www.metmuseum.org/-/media/files/events/programs/progs-for-visitors-with-disabilities/social-narrative-discoveries.pdf.

Access and Community Programs. *Screenshot of Page 3 of the Discoveries Program Social Narrative Guide*. *Social Narrative: Going to a Discoveries Program at The Metropolitan Museum of Art*. The Metropolitan Museum of Art, 2015. https://www.metmuseum.org/-/media/files/events/programs/progs-for-visitors-with-disabilities/social-narrative-discoveries.pdf.

Access and Community Programs. *Screenshot of Page 3 of the Discoveries Program Social Narrative Guide*. *Social Narrative: Going to a Discoveries Program at The Metropolitan Museum of Art*. The Metropolitan Museum of Art, 2015. https://www.metmuseum.org/-/media/files/events/programs/progs-for-visitors-with-disabilities/social-narrative-discoveries.pdf.

Australian Federation of Disability Organizations. "Social Model Of Disability." Australian Federation of Disability Organizations. Accessed November 14, 2021. https://www.afdo.org.au/social-model-of-disability/.

Autism Society of Southern Arizona. "DSM-IV – Diagnostic Classifications." Autism Society of Southern Arizona. Last modified May 15, 2020. <a href="https://www.as-az.org/dsm-iv-diagnostic-classifications/">https://www.as-az.org/dsm-iv-diagnostic-classifications/</a>.

American Psychiatric Association. "Updates to DSM-5 Criteria & Text." Home. Psychiatry.org. Last modified 2015.

https://www.psychiatry.org/psychiatrists/practice/dsm/updates-to-dsm-5//updates-to-dsm-5-criteria-text.

Barron, Kenneth E., Steven W. Evans, Lisa E. Baranik, Zewelanji N. Serpell, and Elizabeth Buvinger. "Achievement Goals of Students with ADHD." *Learning Disability Quarterly* 29, no. 3 (2006): 137–58. https://doi.org/10.2307/30035504.

Blume, Harvey. "Neurodiversity: On the neurological underpinnings of geekdom." *The Atlantic*, September 1998.

https://www.theatlantic.com/magazine/archive/1998/09/neurodiversity/305909/.

Cameron, Duncan F. "Museums, a Temple or the Forum." *Curator: The Museum Journal* 14, no. 1 (March 1971), 11-24. <a href="https://doi.org/10.1111/j.2151-6952.1971.tb00416.x">https://doi.org/10.1111/j.2151-6952.1971.tb00416.x</a>.

Centers for Disease Control and Prevention. "What is ADHD?" Centers for Disease Control and Prevention. Last modified January 26, 2021. https://www.cdc.gov/ncbddd/adhd/facts.html.

D'Acquisto, Linda. *Learning on Display: Student-Created Museums That Build Understanding*. Alexandria: ASCD, 2006.

de la Peña, Ike. C., Michael Pan, Chau Giang ThaiTamara Alisso, Attention-Deficit/Hyperactivity Disorder Predominantly Inattentive Subtype/Presentation: Research Progress and Translational Studies. *Brain Sciences*, *10*(5), 292.(2020) <a href="https://doi.org/10.3390/brainsci10050292">https://doi.org/10.3390/brainsci10050292</a>

Different Roads to Learning. "Discoveries Program at the NY Metropolitan Museum of Art." Different Roads to Learning Blog, October 16, 2018. https://blog.difflearn.com/2011/02/17/discoveries-program-at-the-ny-metropolitan-museum-of-art/.

Dobbs, Stephen M., and Elliot W. Eisner. "The Uncertain Profession: Educators in American Art Museums." *Journal of Aesthetic Education* 21, no. 4 (1987): 77–86. https://doi.org/10.2307/3332832.

European Museums Network. "The World's Oldest Museums." European Museums Network | Museums. EU. Accessed November 20, 2021.

 $\underline{https://museums.eu/highlight/details/105317/the-worlds-oldest-museums}.$ 

Evans, Bonnie. "How autism became autism." *History of the Human Sciences* 26, no. 3 (2013), 3-31. doi:10.1177/0952695113484320.

Falk, John H., Martin Storksdieck, and Lynn D. Dierking. "Investigating public science interest and understanding: evidence for the importance of free-choice learning." *Public* 

Understanding of Science 16, no. 4 (2007), 455-469. doi:10.1177/0963662506064240.

Frasier-Robinson, Michele, and Aimee Graham. "Autism Spectrum Disorder: A Guide to the Latest Resources." *Reference & User Services Quarterly* 55, no. 2 (2015): 113–17. https://www.jstor.org/stable/refuseserq.55.2.113.

Freed-Brown, Elise. "A Different Mind: Developing Museum Programs for Children with Autism." Thesis, Seton Hall University, 2010.

Furniss, Gillian J. "Celebrating the Artmaking of Children with Autism." *Art Education* 61, no. 5 (2008): 8–12. https://doi.org/10.1080/00043125.2008.11518990.

Gaines, Kristi S., Zane Curry, JoAnn Shroyer, Cherif Amor, and Robin H. Lock. "THE PERCEIVED EFFECTS OF VISUAL DESIGN AND FEATURES ON STUDENTS WITH AUTISM SPECTRUM DISORDER." *Journal of Architectural and Planning Research* 31, no. 4 (2014): 282–98. http://www.jstor.org/stable/44113088.

Hartman, Ashley. "The Museum as a Space for Therapeutic Art Experiences for Adolescents with High Functioning Autism (HFA)." PhD diss., Florida State University, 2018. https://diginole.lib.fsu.edu/islandora/object/fsu:647235/datastream/PDF/view.

Hosler, Ashley. "Museum Access for All." Essay. In *Engagement and Access: Innovative Approaches for Museums*, edited by Juilee Decker, 27–34. Lanham, MD: Rowman & Littlefield, 2015.

Howe, Fiona. E. J, & Stagg, Steven. D., How Sensory Experiences Affect Adolescents with an Autistic Spectrum Condition within the Classroom. *Journal of autism and developmental disorders*, *46*(5), 1656–1668. 2016. <a href="https://doi.org/10.1007/s10803-015-2693-1">https://doi.org/10.1007/s10803-015-2693-1</a>

Hughes, Jonathan A. "Does the Heterogeneity of Autism Undermine the Neurodiversity Paradigm?" Wiley Online Library. Last modified June 15, 2020. <a href="https://onlinelibrary.wiley.com/doi/10.1111/bioe.12780">https://onlinelibrary.wiley.com/doi/10.1111/bioe.12780</a>.

Jensen, Nina. "Children's Perceptions of Their Museum Experiences: A Contextual Perspective." *Children's Environments* 11, no. 4 (1994): 300–324. http://www.jstor.org/stable/41514951.

Kapp, Steven K., and Ginny Russell. "Critiques of the Neurodiversity Movement." In *Autistic Community and the Neurodiversity Movement: Stories from the Frontline*, 287-303. Basingstoke: Springer Nature, 2019.

https://link.springer.com/content/pdf/10.1007%2F978-981-13-8437-0 21.pdf.

Karpoff, Greg. The Walters Art Museum. 2010. Cilo. https://www.theclio.com/entry/14443.

Kennedy Krieger Institute. "Get to Know Kennedy Krieger Institute." Kennedy Krieger Institute. Accessed April 16, 2022. https://www.kennedykrieger.org/about-us.

King, Brad, and Barry Lord. *The Manual of Museum Learning*, 2nd ed. Lanham: Rowman & Littlefield, 2016.

Leadbitter, Kathy, Karen Leneh Buckle, Ceri Ellis, and Martjin Dekker. "Autistic Self-Advocacy and the Neurodiversity Movement: Implications for Autism Early Intervention Research and Practice." Frontiers. Last modified April 21, 2021. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.635690/full#B28.

Levent, Nina, and Alvaro Pascual-Leone. *The Multisensory Museum: Cross-Disciplinary Perspectives on Touch, Sound, Smell, Memory, and Space*. Lanham: Rowman & Littlefield, 2014. Kindle Edition.

Loeppky, John. "As a disabled person, it's hard to watch accessibility only improve now that able-bodied are affected." *CBC Saskatchewan*, March 27, 2020. https://www.cbc.ca/news/canada/saskatchewan/disabled-person-covid-19-coronavirus-1.5510234.

Maehr, Martin L., and Akane Zusho. "Achievement Goal Theory: The past, present, and future." In *Handbook of Motivation in School*, 77-104. New York and London: Routledge, 2009.

Maenner, Matthew J, Kelly A Shaw, Amanda V Bakian, Deborah A Bilder, Maureen S Durkin, Amy Esler, Sarah M Furnier, et al. 2021. "Prevalence and Characteristics of Autism Spectrum Disorder Among Children Aged 8 Years - Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2018". *Morbidity and Mortality Weekly Report. Surveillance Summaries (Washington, D.C.: 2002).* 70 (11): 1-16.

Mandell, David S. "Racial/Ethnic Disparities in the Identification of Children with Autism Spectrum Disorders." American Journal of Public Health, March 2009. https://ajph.aphapublications.org/doi/10.2105/AJPH.2007.131243.

Mayor, Susan. "ADHD Diagnosis in US Schoolchildren Rose 43% in Past Decade, Study Shows." *BMJ: British Medical Journal* 351 (2015). <a href="https://www.jstor.org/stable/26523716">https://www.jstor.org/stable/26523716</a>.

Meldon, Perri. "Disability History: The Disability Rights Movement (U.S. National Park Service)." NPS.gov (U.S. National Park Service). Last modified December 13, 2019. <a href="https://www.nps.gov/articles/disabilityhistoryrightsmovement.htm">https://www.nps.gov/articles/disabilityhistoryrightsmovement.htm</a>.

- The Metropolitan Museum of Art. "Discoveries." Metmuseum.org. Accessed April 11, 2022. https://www.metmuseum.org/events/programs/met-creates/visitors-disabilities/discoveries.
  - "Discoveries @ 30: Exhibition Overview." *Discoveries* @ 30. The Metropolitan Museum of Art. Accessed April 11, 2022. https://www.metmuseum.org/exhibitions/listings/2018/discoveries-at-30.
- The Metropolitan Museum of Art. "Social Narrative: Going to a Discoveries Program at The Metropolitan Museum of Art.", 2015. https://www.metmuseum.org/~/media/Files/Events/Programs/Progs%20for%20Visitors%2 0with%20Disabilities/Social%20Narrative%20Discoveries.pdf.
- The Metropolitan Museum of Art. "Discoveries—Powerful Portraits: Patrons and Painters." Metmuseum.org, 2021. https://www.metmuseum.org/events/programs/met-creates/visitors-disabilities/discoveries/powerful-portraits.
- The Metropolitan Museum of Art. Rep. *The Metropolitan Museum of Art Financial Statements* for the Years Ended June 30, 2021 and 2020. New York City, NY, 2021.

Miranda, Ana, Manuel Soriano, Inmaculada Fernández, and Amanda Meliá. "Emotional and Behavioral Problems in Children with Attention Deficit-Hyperactivity Disorder: Impact of Age and Learning Disabilities." *Learning Disability Quarterly* 31, no. 4 (2008): 171–85. https://doi.org/10.2307/25474650.

Myles, Brenda Smith, Winnie Dunn, Louann Rinner, Taku Hagiwara, Matthew Reese, Abby Huggins, and Stephanie Becker. "Sensory Issues in Children with Asperger Syndrome and Autism." *Education and Training in Developmental Disabilities* 39, no. 4 (2004): 283–90. http://www.jstor.org/stable/23880207.

National Autistic Society. "Sensory Differences - a Guide for All Audiences." National Autistic Society. Accessed November 30, 2021. https://www.autism.org.uk/advice-and-guidance/topics/sensory-differences/sensory-differences/all-audiences.

National Center on Birth Defects and Developmental Disabilities. "Basics About Autism Spectrum Disorder (ASD)." Centers for Disease Control and Prevention. Last modified August 11, 2020. <a href="https://www.cdc.gov/ncbdd/autism/facts.html">https://www.cdc.gov/ncbdd/autism/facts.html</a>.

New York City Department of Cultural Affairs. "This Week at the Metropolitan Museum #InManhattan." Web log. *Facebook* (blog), December 20, 2018. https://www.facebook.com/nyculture/photos/this-week-at-the-metropolitan-museum-inmanhattan-we-joined-the-first-in-a-series/2340114929543636/.

Oliver, Mike. "The Individual and Social Models of Disability." *PEOPLE WITH ESTABLISHED LOCOMOTOR DISABILITIES IN HOSPITALS*, July 1990, 7. https://disability-studies.leeds.ac.uk/wp-content/uploads/sites/40/library/Oliver-in-soc-

dis.pdf.

Orsmond, Gael. I., & Kuo, Hsin- Yu, "The daily lives of adolescents with an autism spectrum disorder: discretionary time use and activity partners", *Autism: the international journal of research and practice*, *15*(5), 579–599. 2011. https://doi.org/10.1177/1362361310386503

Parris, Claire. "THE STORY OF THE WORLD'S FIRST PUBLIC MUSEUM." Welcome | Ashmolean Museum. Last modified October 3, 2017. https://www.ashmolean.org/article/the-story-of-the-worlds-first-public-museum.

Press Resources. "The Met Welcomed More Than 7 Million Visitors in Fiscal Year 2019." Metmuseum.org. The Metropolitan Museum of Art, July 10, 2019. https://www.metmuseum.org/press/news/2019/fy-2019-attendance.

Prykanowski, Debra A., Nicholas A. Gage, and Maureen A. Conroy. "Educational Implications of the DSM-5 Criteria for Autism Spectrum Disorders." *Beyond Behavior* 24, no. 2 (2015): 30–38. http://www.jstor.org/stable/26341297.

Sheply, Emma, and Rebecca McGinnis. *Advancing Disability Inequality Through Cultural Institutions*. Leicester: University of Leicester, 2020. <a href="https://le.ac.uk>uol>docs>rcmg>publications">https://le.ac.uk>uol>docs>rcmg>publications</a>

Singer, Judy. Neurodiversity: The Birth of an Idea. 2017. Kindle.

Singer, Judy. "What is Neurodiversity?" Blogspot. Last modified September 21, 2021. <a href="https://neurodiversity2.blogspot.com/p/what.html">https://neurodiversity2.blogspot.com/p/what.html</a>.

Sofia, Catalina. "The Walters Museum Breaks All The 'Rules' with Sensory Mornings." (*Cool Progeny*). May 5, 2015. https://coolprogeny.com/2015/05/sensory-mornings-walters-art-museum/

Today Design. "Neurodiversity and the Digital Divide: How Our Neurological Differences Shape the Way We Experience the Web." Creating Brighter Futures | Strategic Design Agency | Today. Last modified March 2019. https://today.design/news/neurodiversity-and-the-digital-divide-how-our-neurological-differences-shape-the-way-we-experience-the-web.

"U.S. Census Bureau Quickfacts: Baltimore City, Maryland." The United States Census Bureau. Accessed April 16, 2022. https://www.census.gov/quickfacts/baltimorecitymaryland.

Vagnone, Franklin D., and Deborah E. Ryan. *Anarchist's Guide to Historic House Museums*. London: Routledge, 2016. Kindle Edition.

Weiss, Daniel H, and Max Hollein. "Our Commitments to Anti-Racism, Diversity, and a Stronger Community." Metmuseum.org. The Metropolitan Museum of Art, July 26, 2020. https://www.metmuseum.org/blogs/now-at-the-met/2020/the-mets-plans-for-anti-racism.

The Walters Art Museum. "About the Walters Art Museum." The Walters Art Museum, Accessed April 7, 2022. https://thewalters.org/about/.

The Walters Art Museum. Rep. *The Walters Art Museum Annual Report 2020*. Baltimore, MD, 20212.

The Walters Museum of Art. "Diversity, Equity, Accessibility, and Inclusion Goals." *The Walters Art Museum*, March 2021. The Walters Art Museum. https://thewalters.org/wp-content/uploads/2021/03/deai-goals-1.pdf.

The Walters Art Museum, and Embrace International. The Walters Art Museum Sensory Mornings for Families. December 20, 2010. Walters Sensory Morning for Families- Free Event. https://awaa.org/blog/my-entry3/.

Williams, Betty Lou. "An Examination of Art Museum Education Practices Since 1984." *Studies in Art Education* 38, no. 1 (1996): 34–49. https://doi.org/10.2307/13203