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NEW WAYS OF SEEING:

EXAMINING MUSUEMS ACCESSIBILITY FOR VISITORS WITH VISION IMPAIRMENTS

by

WENDY SBARRA

Under the Direction of Dr. Kevin Hsieh

ABSTRACT

While I have always loved to go to the art museum I have often found it difficult to convince friends and family to go with me. It seems to be a particularly daunting task for visitors with disabilities and specifically those with vision impairments. This study surveys the accessibility of the programming for visitors with visual impairments at 25 art museums in the United States of America and how they communicate that information to potential visitors. It highlights museums that go beyond what is required by the Americans with Disabilities Act and create programming that is enjoyable for all. This study will be a reference to create a more enjoyable experience for all.

INDEX WORDS: Art Education for the Blind, Art Beyond Sight, Visual impairments, Blind, Art education, Art museum, Metropolitan Museum of Art, Museum of Modern Art, Art Institute Chicago, Museum of Fine Arts, Boston, Touch tours, Braille guides, Accessibility

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WENDY SBARRA

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Art Education

in the College of Arts and Sciences

Georgia State University

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2012

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DEDICATION

I dedicate this thesis to my loving family. Without their love and support I would not be the person I am today. Thank you for always being by my side and enduring my constant instance that we visit every museum I could find. Thank you Mom and Dad for always encouraging me to do my best, and to pursue my dreams. Thank you also to Scott Barnes, your endless patience never ceases to amaze me.

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1 INTRODUCTION

1.1 Personal Statement of the Research

"People soon realize that any division between disabled and able-bodied is of their own imagining because they are all disabled in some way" (Hooper-Greenhill, P. 287).

As long as I can remember I have always loved to go to the art museum. Some times it feels like I spend more time convincing some one to go with me than I actually spend at the exhibit. I am not entirely sure why this is the case, but I know that this is a particularly daunting experience for those like my childhood friend who is blind, and my aging parents. Identification labels are so small that they must get very close to read them. However, museum staff strongly discourages getting that close to the work, and depending on the institution and the artwork, sometimes-actual alarms go off when you move close enough to read them. I can't tell you how embarrassing this can be, and how much it can contribute to the list of reasons I have to convince people to come with me to a museum. This tease of information that will be given, but remains some how just out of reach, can really leave a visitor frustrated. I have also had experiences where galleries were over crowded and there was no flow of traffic, the visitors had no idea how to move about the space and just got in each other's way. This made it very difficult to see the work and did not lead to a positive experience for me, or my low vision companion.

Maps of the museum often have small writing and have low contrast colors, making it difficult for visitors with vision impairments to find their way around with out help. Some labels are hard to find because there is no consistency on where they are placed, something which is not difficult to see, but can be very frustrating to those who cannot find them. It can lead to more frustration if a visitor has to feel around to find the Braille plate in a different location on each piece, as it is generally frowned upon at a museum to touch the art on the walls or the walls around the work. There are, however, several museums that are making great strides toward a universal design that will make the museum more ac-

cessible to all of its visitors. It will help all visitors to be able to figure out which labels belong to each work of art if they are all placed in a consistent manner.

I was reminded of how good universal design works when I was walking through the streets of New York City on a recent trip. I had to drag my luggage behind me as I raced through the city trying to make it to my lecture on time. At every crosswalk there was a ramp that allowed me to simply drag my suitcase up on to the curb. This ramp was not designed to increase my ease of dragging this suitcase, but yet it still served that function. To a person in a wheel chair it makes using the sidewalk possible, but it also helped me make it to my presentation at a conference on that particular afternoon. This demonstrates that increased access will benefit everyone and not just those for whom it is designed. I am sure that there are plenty of parents out there that are very happily using these same sidewalk ramps to roll their strollers around the city.

I remember watching children in art museums. They are always so excited about the work that they want to run around and touch the artwork. Some times I feel this way too when I am standing before a great work of art. There is a sense that I would gain a greater understanding if I were allowed to reach out and touch the surface of the painting. I think that tactile experiences can add a new level of understanding and enjoyment to viewing a work of art. While for some a tactile tour may be the only way that they can directly interact with the work, for other if the tactile experience is paired with both historical and descriptive information it may yield a more enriching result.

The nature of a museum is changing from a space where objects are stored to a space where we go to learn. It is important that if they are to instruct the public they are able to instruct all of the public. So what is it that these museums are doing to create an environment that is accessible to everyone? How are they using the things that they learn to benefit all who visit the museum? Can this move beyond the physical space and create intellectual access to the work? What can be done to provide an

environment that will allow people with vision impairments and blindness enjoy the museum experience the way that I do? Can making these adjustments lead to a better experience for all?

There is a stigma associated with asking for special services. I can remember being made to wait in a special area under a big sign for a wheel chair on a recent trip to a museum with a friend that had a broken leg. Standing there waiting for our mobility aide, I felt as if we were singled out and segregated right from the start. It was wonderful that the museum could offer us the help in moving throughout the galleries, but it was a strange feeling to wait by that sign. Having large print or labels that are auditory can help a wide range of visitors from young children that are still learning to read, to aging adults that can no longer see quite as clearly. I want to take a look at the museums that have been successfully making these adjustments and providing services that make a visit more accessible for everyone and see what commonalities can be found.

I remember touring an installation in Atlanta called *Dialog in the Dark* were the visitors were made to see what it is like to go through life without sight. You are lead through a dark space by a tour guide who is blind. There are many obstacles and opportunities to see how something you do everyday can become a new challenge when your sense of sight is taken away. In the exhibit, you are brought through a grocery store and you not only must figure out which fruit is a lemon and which is a lime, but which box contains your favorite cereal. It was difficult to feel comfortable in this new environment and I found myself moving through much slower than I normally would. I was running my fingers along surfaces to guide me and was worried about running into the back of the person that was walking in front of me. Knowing that the railing to guide you through would always be on your right was very helpful, but it made me consider how you would design a gallery space that would allow for that kind of direction. Museums have walls that can be rearranged depending on what work is displayed and there are podiums and display cases out in the middle of the space. I think that it would be a difficult place to navigate because it is always changing. Even if you have visited the museum before, each time you revisit

the museum the design of the exhibition may create new obstacles. This can be confusing for all visitors, regardless of whether or not they have a disability and can sometimes lead to unnecessary crowding and congestion. It can make it difficult for everyone to enjoy the exhibit.

Too often it seems that museums have the reputation of being a place only for an elite few. This tells me that people perhaps feel like they are not intellectually prepared to visit the museum. From what I have experienced in museums, many of the tours for the blind have descriptors of what is seen, and that may work for those that once had sight and then lost it, but what about those that have never had the sense of sight? How would telling them that a painting is blue enrich their experience if they have never seen the color blue? I wonder if there is a way to grant them intellectual access without having to actually visualize the work. One of my greatest joys in looking at art comes from solving the little problems that the artist has created, such as reading the meaning behind the marks or symbols. There is this wonderful and amazing visual communication that can happen across cultures and it breaks down language barriers and allows us to feel another human beings emotions. This expression is communicating with us, and I can remember having discussions in museums about works and what they mean. These conversations went far beyond the colors used and into the choices that artists made and what they were trying to make us feel with those choices. Visitors who do not have the ability to see still have the ability to feel, and can enrich their experience by being engaged in the meanings behind the work. The artworks that have stood the test of time and are thought of to be relevant and important in today's society are the ones that have struck an emotional connection to their viewers.

As a little girl, I had a good friend with whom I loved to watch adventure stories. Our favorite thing to do was to imagine our own adventures after watching the films. When we were pretty young she became very sick. I couldn't see her for a while because the doctors were worried I would pass my germs to her already struggling body, and I had no idea what to expect. My mother did the best she could to prepare me for the sight of her, but I remember wondering how the person standing before me

could possibly have been the friend from before. She still had her red curls, but I didn't really believe it was her, until she spoke to me. We loved having the freedom that our imaginations afforded us, acting out adventures with our dolls, knowing that we could no longer physically have the same kind of adventures.

A favorite game of ours involved mice and the way that some one so small would experience our world. This may have had something to do with the fact that my friend was losing her sight. She could only see the things that were held a few inches from her face, and working on creating these small creatures allowed her to work comfortably with the low vision field that she had. She loved books, and we would often take the stories we were reading and act them out from the perspective of the mice. We could not quite find the things we wanted and so we spent hours making our own dolls and clothes for them. Thimbles became mugs and spools of thread chairs. My mouse lived in a wicker basket I found that had a lid, but we had boxes of dresses and friends or discarded bits reworked into furniture. In our play we had freedom from all of our ailments. No one judged us, and anything was possible. Even a mouse could be hired by the United Nations to rescue a little girl (Rescuers, 1977).

Through my memories of my interactions with this old friend, I am just blown away by the impact that imagination can have on opening doors, and making the impossible possible. Our child-like renditions of mice we had seen in the movies, opened up a whole new endless vat of possibilities. My friend's world became more about the imagined than the seen, and her ability to see within her mind became one of the most valuable gifts she had. My memories of her are not that she could no longer see, but of the tremendous gift for creativity and artistic talent that she displayed. We had lengthy discussions about all kinds of things, including art, and the meanings that they held. We were able to discuss countless topics through the guise of our play, and our creative projects. It seemed as though she was able to use her creativity and artistic talent to create a safe space where she could work through the

problems in the world. As she lost her sight we spent more and more time creating these small art projects.

Things were always good when we were at home (either hers or mine) playing with the mice and creating our own rules and reality. Leaving the house and attending various institutions proved to be more difficult. It was difficult to navigate in an environment that was so visually based, signs telling you where to go, and information being presented in a written format. She would have to be very close to any text to even begin to read it, and I often read menus and signage aloud to her. She would also use the mouse as an excuse to be so close, dancing it across the menu to try to see it. We did not spend much time out, but she loved to go to the circus every year, and I loved to go to the museum. We would always attend both together. Now that she is an adult and no longer carrying a toy mouse in her pocket, I hope that she is still attending and enjoying both.

It is important that we begin to see beyond the disability and see the person. I ask myself what I enjoy most about going to the museum and I always come up with answers pertaining to intellectual stimulation and inspiration. There is something magnificent about being close to great works and being around original objects. It is a testament to the human spirit. It is a record of our history that reads deeper than the history books because it allows us to interact and find our own conclusions and interpretations. I get so much pleasure and enjoyment out of my outings to the great museums, and I want everyone to have the ability to experience and enjoy them the way that I do.

1.2 Purpose of the Study and Research Questions

Art museums have become institutions of learning; places people can go for social interaction while enjoying learning about something new. It is important that we do not limit who is allowed to learn in such places. Studies have shown that many visitors come to museums in groups (Falk, 2009). They might come with their families or friends, but they are coming to view the works and be able to discuss them or simply to share the experience. Sometimes these groups are a mixture of people with a

wide variety of abilities. If I wished to go to the museum with my legally blind childhood friend we should be able to tour the museum together. People should not be denied the chance to learn in these institutions simply because they are not able to see. This is the reason I think it is very important to take a look at how museums are handling accessibility and specifically how they are addressing the needs of those with visual impairments. I have seen many museums offer alternative programming for those with vision impairments, such as touch tours and alternate descriptive tours, but it is also important that they are not excluded from enjoying the rest of the exhibits as well. While touch tours offer access to the work in a new way, these tours can be limited in scope and sighted visitors are generally not invited to participate due to the conservation restrictions on the works.

As I have been reading through the literature on this topic, I have seen that there are some regions that seem to have a higher concentration of museums with well-publicized accessible programming. I started looking around at museums in different parts of the country to see how they approached making their programs accessible for visually impaired visitors. In looking at the accessibility of museums I hope that one day it will not be so difficult for me to convince someone to visit the museum with me. I hope that it will be a place where people feel comfortable and have access not only to the works but also to the meanings behind them.

My Research questions are:

What efforts do art museums currently take to ensure accessibility to visitors with vision impairments?

What kind of accessible programs, if any, do the museums offer?

In what ways do museums communicate the accessibility of their programs to those that might benefit from them?

1.3 Methodology

For the purpose of this study, I examined the programming of 25 art museums in the United States of America. I chose a diverse sample of museums, most of which are located in large cities where

people with visual impairments are more likely to live. I examined the each museum's websites and advertising materials to see what they are doing to make their programs accessible to visitors with vision impairments and compiled the data into a chart so that the information is easy to see all at once. This way I could compare the programs offered at the various museums and see what the trends are in the programming and to see if there was any programming that seemed to be especially comprehensive.

I also look to see how they are communicating with the potential visitors to make them feel like they are welcome and let them know that their programs are accessible to them. I wanted to see how easy it was to find the information on their websites and if they had any other methods of getting the information out to the people who would be interested in it.

By examining the documents that these museums publish, I have compiled a list of the types of programs that are offered and which museums are offering them. I have taken a more in-depth look at a few of the museums that had remarkable programs that were personally interesting to me. I looked for common threads to see if they have similarities in the programs that they offer and the way that they handle communicating information to those that are looking for it. By compiling this information I hope to help improve the access for all by sharing what different programs are doing across the board and to see if there are any deficits.

I was excited to see these programs in use and how different museums have interpreted the ADA to create an environment that is welcoming to all.

1.4 **Limitations of the study**

I wanted to approach this study as if I was planning a trip with a vision impaired companion. My study was limited to published information from the museums' websites, brochures, or other advertising materials. I was interested not only in the efforts that the museums had made to make their programming accessible, but also how accessible the information was to those that were planning a trip. I

wanted to know what adaptations were made to their websites to allow access to the information with out visual information.

I limited my study to museums in the United States of America. I investigated their websites to see which programming was accessible to the visually impaired, and if that information itself was accessible to someone with visual impairments. For this reason I limited my study to the resources that the museum published. In this way I felt that I was able to get an accurate account of what it would be like to plan a trip with a friend with vision impairments, or to be a vision impaired visitor looking for information on programming and museum access.

By limiting my study to the information that the museums have published I hope to have a more authentic experience. I want to see how difficult it is for someone to acquire information on the services and programs that are being provided by the museums in this study. I am looking to see if the information is difficult to find and if it is located in the same place on each of the websites.

1.5 Definition of Key Terms

When reading through the literature and websites I found that the same words were often used to describe a variety of different things. I have defined below some of the words used in this study to clarify what specifically I am referring to when I use them.

Americans with Disabilities Act (ADA) – a piece of civil rights legislation prohibiting the discrimination against people with disabilities any place where there is public access

Art Beyond Sight - A collaborative project to create a forum for interdisciplinary exchange to incorporate the visual arts into the lives of individuals who have vision impairments.

Art Education for the Blind – An organization, based in New York, whose mission is to make art, art history, and visual culture accessible to people who are blind or visually impaired.

Assistive Technology – Devices that are used to help a person perform a task that would otherwise be difficult or impossible. An example of this is a software application that reads text on a computer allowed.

Blind – only those individuals that have no vision or only light perception

Braille – A form of tactile communication where raised dots represent letters and parts of words. There are three grades of Braille; each one is a little more detailed. Most museums use grade 2.

Docent – A person in museum that leads tours. They are usually a volunteer but may also be a member of the education department staff.

Intellectual Access – having multiple entry points for material and information so that everyone can understand the information. This allows learners to operate at different levels. It will help the viewer discover and manage information. It is access to the information about the work of art, and not just to the visual image of the work.

Legally Blind – a vision acuity of 20/200 or less or a visual field that is no greater than 20 degrees

Low Vision – also known as partially sighted or partial vision. These individuals have significant visual impairments even with the best correction.

Low Vision Devices – Magnifiers, telescopes, and anything used to enlarge what the viewer is looking at.

Mobility Aids – These are devices that help some one with vision impairments get around. Some people may use a cane to clear a safe place for their next step, while others may use a Seeing Eye dog, or a sighted guide.

Multiple Entry Points – Providing multiple tracks to the information so that everyone from the first time art museum visitor, to the professor of art history can get something out of the experience.

Tactile Representation - Museums employ a technique where they raise the lines in an image so that a visitor with vision impairment can feel the contours of the image in the painting or drawing.

Touch Tours – Tours led by docents in the museum where visitors are allowed to touch some of the objects from the collection. This is done for sculptural objects, but also can be done with any work that has texture.

Universal Design – The design of a physical space that enables it to be more accessible for everyone. This includes but is not limited to people with disabilities.

Vision Impaired – covers a wide range of vision loss and can include any vision problems.

WAI – Web Accessibility Initiative. They provide resources to make websites more accessible. They provide guidelines and support materials.

By defining these words I hope to make my meaning for this study more clear. It is through the use of a common definition that we will begin to open the doors to understanding and be able to better assess what each of these programs truly has to offer.

2 LITERATURE REVIEW

2.1 Museum Function

How the term museum is defined is as various as the institutions represented by that name, but there has been a general change in the definition from a place that protects artifacts to a place one might visit to learn about the artifacts. It is because of this evolution that the education departments have become more valuable assets to the institutions that house them. Museums have become about education, interpretation, and communication (Hooper-Greenhill, 1999). Learning can take place through our experiences; it can be self directed and non-linear. In a museum environment, learners are given the opportunity to move through the space at their own pace and they do not have to follow a prescribed curriculum. It is in this way that they are able to make decisions about what they learn and feel a connection to the information they are receiving since it was their choice to learn it (Hein, 2005).

2.2 Visitor Expectations

People visit museums for a variety of different reasons. Some visitors are art historians doing high level research from the original works, while another visit might be there to spend a pleasant afternoon with their family. Some visitors come with significant amounts of prior knowledge and some come with very little knowledge of art or the artists. Many different studies have been done on the motivations and reasons for visiting an art museum. Interestingly, there always seem to be a few common themes when it comes to the reasons why people visit art museums. While they might come to see the rare original piece or for some kind of self-fulfillment, most people come to museums for socialization, or to broaden their knowledge base. Some like to have introspective time, while others enjoy a lively intellectual conversation with their companions. The biggest reason why visitors come to the museum whether or not they remember to state it is because they are hoping to learn something (Falk, 2009). All visitors come with at least some level of prior knowledge upon which they hope to build. They are learn-

ing new things that are constructed from things that they already know. This means that they will choose a variety of different things to look at in an exhibition, and these things may not always align with what those who have designed the exhibit are expecting them to look at. In this way the museum becomes a choice-based learning environment (Falk, 2009).

Sometimes people attend museums by themselves, but more often friends and or family accompany them. People enjoy sharing the experience of looking at the artwork and discussing what they see. In this way they can influence each other's museum experience. "Learning is both an individual and a group endeavor and, as a result, is mediated socially and culturally" (Henry, 2010, p 16). Prior knowledge and familiarity can lead to a feeling of comfort for the visitor. Some novelty is interesting, but too much can become overwhelming (Falk, 2009; Henry, 2010).

2.3 Accessibility

Visitors that have disabilities can be faced with additional challenges beyond those described above. They too are looking for that familiar link that can help them realize the relevance of what they are learning in the museum. Visitors with vision impairments are trying to synthesize partial impressions to create the whole (Wexler, 2009). This can make it difficult to understand things like distance and size. Using multiple senses can help a variety of visitors learn in the museum. Bodily sensations, such as touch, are the key to motivation because it enables the student to remember the sensory experience, and help them to remember what they have learned about the artwork (Wexler, 2009).

Well-designed access can be built into the design of the museum at little additional cost to eliminate the stigma of special services and thus allowing all visitors feel welcome regardless of what disabilities they have. These accommodations can be integrated into the design so that they remain aesthetically pleasing as well as practical (Salmen, 1998). When we say 'Design for all' we mean that the devices used in the exhibition can be accessed by all users, this is independent of their sensory abilities or their competencies with technology (Ruiz, Pajares, Utray and, Moreno, 2011). These kinds of adaptations

should allow all visitors to move around the space together, meaning that all exhibits must be accessible to everyone. It is not enough to simply offer an alternative program. The visitor with vision impairments should have a choice between regular programming and specialized programming. A museum is not allowed by law to exclude a person from a particular activity based on their disabilitie(s) (Salmen, 1998). There are of course extreme exceptions to this rule. When an adaptation could cause a direct threat of harm, or will change the very nature of the exhibit, an alternative experience might not be possible. However, the reason for denying the adaptation cannot simply be because it limited by the liability insurance. Compliance with the law is an on-going process that needs constant updating as both the technology available and the needs of the public change and evolve. If the museum is located in a historic building there may be some additional exceptions. There must be a compromise between accessibility and maintaining the historical significance of the building.

According to Salmen (1998), there are nine building blocks to creating an accessible museum: 1) There must be a commitment to accessibility in the general mission statement of the institution. 2) A coordinator of accessibility should be designated (this could be more than one person if it is a large museum). 3) The institution should obtain information from people with disabilities, and they should organize an Accessibility Advisory Council. 4) Staff and volunteers should be trained on accessibility. 5) The museum should periodically conduct reviews on their facilities and programs. 6) Implement short and long-term accessibility goals such as barrier removal, effective communication, and new construction. 7) Promote accessible programs. Make sure that people know which programs are accessible and to whom they are accessible. 8) There should be some kind of grievance policy so that the museum is able to get feedback and see what still needs to be done. 9) Conduct and ongoing review of accessibility efforts to make sure they are adequately and effectively meeting the needs of your visitors.

Museum program staff should ask themselves questions like: What is offered? Where is the program provided? Is it always available? If not, when is it available? The museum management can

look at the physical barriers and see what can be done so that the visitors can have access to the building. This includes making sure that there are no protruding objects that might get in the way of a visitor with vision impairments. Wall hanging objects should not protrude more than four inches unless the bottom edge is below 27 inches (and therefore detectable by a cane) or over 80 inches (so that they can safely walk underneath it). Freestanding objects should also be detectable. Signage should always be placed on the latch side of the door and should be about 60 inches above the floor so that visitors always know where to look for the information. High contrast letters on a non-glare surface will help those with Low Vision, and tactile letters or grade two Braille will help those who are blind. Stanchions and ropes such as those commonly found containing crowds of people into a line when entering an event or a special exhibition can be a real problem for visitors that use a cane to find their way around because they are very difficult to detect.

Having information delivered in multiple ways can help a great number of visitors. Labels with large print or those that are presented audibly can help a wide variety of visitors, from those that simply do not want to get that close to view the work, to elderly visitors that have a little trouble seeing without their reading glasses, to even the young children that are still learning how to read (Salmen, 1998).

2.4 Accessibility and Technology

Technology has a lot to offer when it comes to accessibility. From websites and audio guides to other communications aids, there is a lot of potential for technology to really help create access for all. Some museums are using programs with hand held devices that provide audio tours to allow visitors to move through the museum at their own pace but still have an audio tour (Howell & Porter, 2003). Many of these types of devices can easily be adapted to aid a visually impaired guest throughout their tour of the museum. While the tours for visitors with vision impairments often have more description, they are also able to give a little information about the work and thus can lead to a more well rounded educational experience. Howell (2003) says that you can offer more information on an audio tour through the

use of metaphor, but that docents and museum staff should be careful because the metaphor may alter the meaning of the artwork constructed by the viewer.

Websites are another great resource for accessibility. There are some simple modifications that can be done to a website to allow screen readers to deliver information to the blind and they offer easier access to a broad range of people for whom travel to the museum would be difficult. It allows these individuals to move through the information at their own pace (Nevile & McCathieNevile, 2002). All learners can benefit from having the information delivered through several modalities, that is to have the words delivered in both written and auditory form. By providing equivalent alternatives you are providing access to a wider variety of people but also enhancing the experience for everyone. This can also help to provide multiple entry points so that all users feel like they can understand what is being taught (Anbel & Alonso 2001).

There are many things that websites can do to help increase their accessibility for users with visual impairments. They should make sure that all images have alternative text. Assistive technology software, like screen readers, will be able to pick up the text and read it allowed to the user. This is also helpful for users that have turned off images in order to increase download speed. Alternative text can also be read by search engines and will help all users locate the page (Henry, 2005). It is also important to make sure that the website still makes sense when images are turned off and when text is enlarged.

In the museum, multi-media guides can be used to provide multiple entry points for visitors of a variety of different experience levels and ability levels. They can allow visitors to move through the exhibit at their own pace. While these guides are no substitute for human interaction, they do have a few advantages. Museums are able to track statistics and see which programs are utilized the most. This can help with event planning and developing guides for new exhibitions. It also allows visitors the opportunity to contribute to the contents and can be adapted to the individual visitors needs (Ruiz, Pajare, Utray, & Moreno, 2011).

2.5 The Tour

While media guides are a good way to learn at your own pace in a museum, there is no substitute for a guided tour with a docent that can interact with the visitors and answer any question asked on a real-time basis. Tours for visitors with visual impairments often include items that can be touched. Sometimes they are actual artifacts and sometimes they are reproductions. Visitors can feel the surface of a sculpture, but paintings may not give as much information. Sometimes tactile maps of two-dimensional images are created to allow visitors to feel the shapes and colors through the use of different textures. Drawings can be recreated by embossing the contours of shapes (Majewski, 1987). Touch tours, while allowing the visitor to feel the surface of the object, can leave a visitor with more questions (Howell & Porter, 2003). All items in the museum may not be able to be touched and so it can limit the tour. Also by touching the work the visitor is only able to have access to a small part of the whole artwork. They collect a bunch of small pieces and use their minds to construct the whole piece. The sighted museum visitor often moves back and forth when looking at an artwork. They are looking for changes that happen as they step back, or walking up closer to get a better look at a detail. Visitors with visual impairments are not able to step back from the work (Coster & Loots, 2004). These tactile experiences are valuable but they do not offer the whole picture. Why does 'art for the blind' have to be separated from 'art for the sighted'? Many visitors come together and would like to remain together as they move through their tours and not be separated into one group that can see and one that cannot. It is important that no one is excluded from the museums programming because of their abilities or disabilities. Separate but equal programming should be a thing of the past. Visitors should be able to enjoy their time together in the museum regardless of their abilities.

Tours work best when they are tailored to the individual person. Some visitors will have limited sight, while others may have none. It is important to find out what sight they do have and how to utilize

it to ensure that the visitor gets the best possible experience. Many people with visually impairments can still see light and it can be more difficult for them to use what sight they have if the lights are too bright, too dim, uneven or flickering (Majewski, 1987).

Providing a verbal description of the work can enhance tactile tours. Descriptions should be objective because visitors should be encouraged to form their own opinions. The descriptions should also be brief, but accurate. The description should embody a wide variety of vocabulary, but remain succinct because if the descriptions go on for too long, they could become boring for the visitor. It is easier to follow a logical and consistent sequence like starting at the top and working down to the bottom. Descriptions must be accurate because they may be the only way that the visitor gets to experience the art. It is important that the description does not reference other works that visitors may not be familiar with (Anbel & Alonso, 2005). Although metaphor is a powerful tool when describing a work, care must be taken not to alter the meaning of the work or to add in a personal interpretation because it is important that the visitor engages with the work to create their own personal interpretation (Howell & Porter, 2003).

Blind visitors may visit the museum with their sighted companions. The tour can be enriched for both of them if they are both allowed to touch the items on the tactile tour. This will allow their guest to help describe the work, and since they are having a shared experience they will be able to discuss the work for effectively. Guides should also be encouraged to touch the works as well. This will help them to be able to give a better verbal description because the work may feel different than it looks and there may be new sensations that they can link to visual connections for their tour (vom Lehn, 2010).

Blind visitors expect to have embossed copies of the artwork, explanations in Braille and some attendants to offer them some information about the museum, while Low Vision visitors expect to find well-lit and spacious interiors, and large print with high contrast lettering (Buyurgan, 2009). These are all things that can benefit all visitors to the museum.

Good tours are like good exhibitions - they provide for ease of access and understand but also include the ability to take the experience to a higher level. They allow for the visitor to enjoy the museum no matter what their starting point when they walk in. In other words they are as accessible for those with no knowledge of art, and still challenging to those who have a strong background of looking at art (Nevile, & McCathieNevile, 2002).

As museums are becoming institutions of learning first and foremost, it is becoming increasingly important to make sure that they are accessible to all. Even though a person may not be able to see they are still able to enjoy art. Researchers have helped museums come a long way in developing ways to give access to visitors with vision impairments, but it is important to see if these theories are put into action.

3 ANALYSIS AND RESULTS

3.1 Museum overview

Museums all seem to approach accessibility in different ways. While some remain focused on creating a physically accessible space, others are interested in creating an intellectually accessible space. This can be seen in the way that they approach their accessible programming. I have always had a love for museums, but I often have difficulty finding a companion that is willing to visit with me. When I have asked them why they do not want to visit with me, they often say that they don't understand it, and that museums aren't for them. I want everyone to feel welcome in the museum. I completed this study in order to try to show that museums are welcoming to everyone, and to show in what ways they are developing programming to provide intellectual access to those with limited or no sight.

For this study I examined the websites of 25 American museums. I conducted a preliminary review of what they said that they offered and recorded the data in a chart so that it would be easy to see the trends in accessible programming for visitors with vision impairments. The Appendix B shows several categories of services provided by museums such as public transportation, audio tours, adapted maps, escorts, tactile kits, touch tours, touch galleries, private tour, service animals, large print/Braille transcripts, assistive devices, large print/Braille label books, and hands-on workshops. I looked at the common adaptations that were made both in physical space and in programming. I was looking for some consistency across museums to see what similarities I could find and also what areas had deficits. I was also looking for museums that went above and beyond the others so I could take a closer look at what made them so successful. This includes not only the programming but also the way that the museum communicated about the program.

It was my hope that by organizing this information it would be easier for a potential visitor with vision impairments to be able to see what kinds of programming are available and which museums have

it. A visitor who is interested in having a guided touch tour would be able to look at the museums on my list and find out in one glace which ones were offering that program.

I took a closer look at the programming offered at a few of the museums that seemed to have more programming. I was interested in seeing what it would be like to be planning a visit to the museum with a companion that was visually impaired. For the purpose of this study I was interested in making sure that my companion and I would be able to participate in the programming together.

I found that many of the museums had programming it was just difficult to find information about their programming. As you can see in Appendix B, 96% of the museums were accessible by public transportation; 36% offered an audio tour; 16% had some kind of adapted maps; 16% offered an escort; 16% had tactile representations of some of the artwork from their collection; 48% offered a touch tour; 24% had a touch gallery; 64% offered a private tour; 52% welcomed service animals; 40% offered large print/Braille transcripts of tours; 8% assistive devices such as magnifying glasses; 20% offered large print/Braille label books; and 8% offered hands on workshops.

Most of the museums I looked at, were located near public transportation. This allows a wider variety of visitors to come to the museum. Visitors with vision impairments might not be able to drive and would have to rely on another way to get to the museum. All but one of the museums I looked at had public transporta-

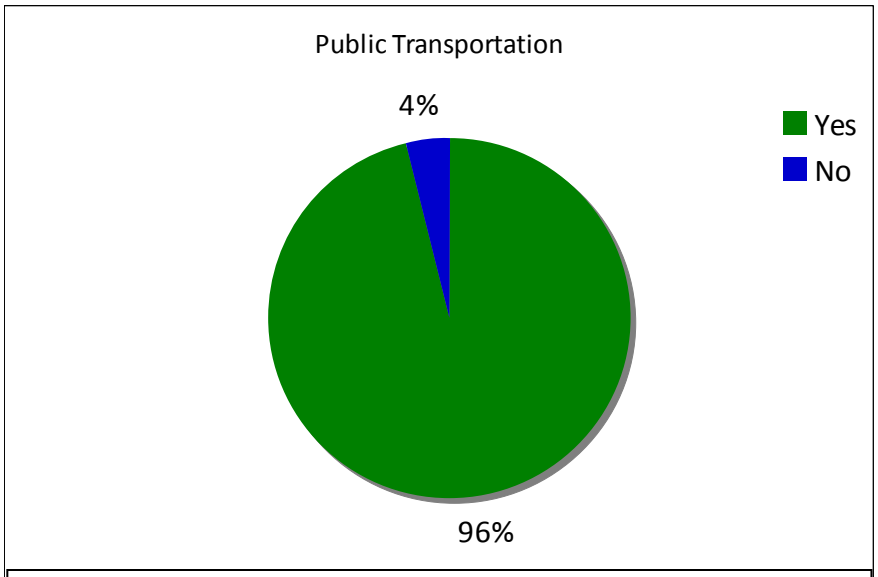

Figure 1: Public Transportation

tion. The Massachusetts Museum of Contemporary Art recommends that visitors take a cab from the closest station. Housed in a former factory, this museum is located in a more rural environment than the others. I noticed that they also had a much more limited offering in terms of accessibility. Since visitors with vision impairments would have a more difficult time getting to the museum I was not surprised to find that they had such a limited offering.

Several museums stated that they have a special services desk where visitors with special needs can check in to receive adapted materials. Many of the museums offered some kind of adapted tour, usually utilizing either touch or oral description. Surprisingly there were a wide variety of different kinds of programming ranging from descriptive tours, to individualized tours and even hands-on art making workshops. Many museums varied in their definition of what was actually offered for example: while the website of two different museums both claimed that they offered private tours, the Baltimore Museum of Art might offer a private tour and be able to accommodate with verbal descriptions, while the Cincinnati Art Museum has some objects for touch during their private tour.

Most of the programming provided a museum staff member or volunteer to help guide the visitor through the museum, but four of the museums I looked at created adapted maps to allow the visitor to have the most independence and be able to choose their own path through the museum. The Museum of Fine Arts, Boston offers a large print map. Both the Museum of Modern Art and the Philadelphia Museum of Art offer maps in large print and Braille. The Art Institute of Chicago offers the Path Finder Floor plan, an online tool that can help you plan your path through the galleries from home. There are filters on the map allowing you to find the most accessible route for your individual needs. It is an interactive tool used to help visitors pick their way through the objects they are most interested in seeing. This is a great tool to be used in conjunction with the escort service because it allows the visitor to clearly communicate what they are interested in seeing and in which order. By having a plan laid out

a head of time the visitor can be sure that they will not miss any of the works that they wanted to see. This also allows the visitor to feel more independent and in control of their visit.

The Denver Art Museum was the only museum in my study to provide visitors with an assistive device that magnifies what the viewer is looking at. This allows the visitor to examine any of the items in the museum at their own pace. It does not limit them to only see the works that have been chosen by someone else and therefore provides less limiting access to the exhibit in a way that a tour cannot. It helps provide a sense of independence that may lead to a more enjoyable museum experience. It is important that visitors are able to enjoy the museum with their companions. Having a magnification device such as this will allow more freedom to stay with their companions and look at the same pieces.

3.2 Museum Compliance with the ADA

The Americans with Disabilities Act (ADA) was signed into action on July 26, 1990. It serves to protect the rights of individuals by ensuring that there are no barriers to employment, transportation, public accommodations, public services, or telecommunications. The ADA is in place to guarantee equal opportunities for individuals with disabilities. This extends to all public spaces. Museums fall under title III: Public Accommodations, which prohibits exclusion, segregation, and unequal treatment in all public and non-profit spaces. It is important that museums are continuously updating their programming to meet the needs of the visitors that come to their institution.

The most recent amendment to the ADA redefined access, and thus challenged museums to provide not only physical access but intellectual access as well. This posed an interesting puzzle when it comes to visitors with vision impairments. What could a person who cannot see possibly get out of a visit to the art museum? It raises questions about how we can provide intellectual access to a person with little or no visual reference. By creating new entry points for intellectual access it is likely that more people will be able to feel like they can engage with the artwork on display.

With the change in the way that museums are being seen from a place where things are stored to a place where we go to learn about the objects, it becomes increasingly important for us to create ways that everyone can learn about the artwork. These museums are offering a variety of programming that goes beyond creating access to the physical space. By taking a strong focus on multi-modal learning, the Metropolitan Museum of Art has created a space where visitors are invited to move beyond what they see and start investigating the meaning behind the images. In fact, this museum is hosting the Multimodal Approaches to Learning International Conference this year in conjunction with Art Beyond Site. This cross-disciplinary conference is a place where a wide variety of individuals from diverse backgrounds (i.e. neuroscientists, cognitive psychologists, teachers, museum staff, product designers etc.) can come together to share ideas that will improve access for all. By hosting this conference the Metropolitan Museum of Art is showing how important access is to them. They are going above and beyond to help share ideas across discipline borders so that the visitors can have the best experience possible.

According to the ADA service animals are defined as dogs that are trained to do work or perform tasks that help people with disabilities, there is however a provision in the law for miniature horses. The ADA states that all businesses that serve the public must allow service animals. In the case of a visually impaired visitor they are often trained as guiding eyes for the blind, and maybe the only way that a person with a visual impairment can get around in a new environment. These animals are not pets, they are working animals and must be allowed to go everywhere that people typically go in the museum including the cafe. They can only be removed if they are out of control and disruptive or if they pose a direct threat to the health and safety of others. This does not include allergies or fear of the animal. If another visitor has allergies or a fear then they might make an effort to stay in a separate gallery. Surprisingly only 52% of the museums mentioned on their websites that service animals are welcome. The ADA ensures that access would not be denied to the visitor who has a service animal, but some of the museums in this study chose not to include this information on their websites.

The ADA maintains that all adapted materials such as large print or Braille transcripts and label books must be kept current and up to date. They should be available as soon as the equivalent information of materials is made available in standard print. The museum must make sure that they are up to date and in stock at all times. 40% of the museums in this study claimed to have large print/Braille transcripts of tours available for guests to use during their visit. Only 20% of the museums claimed to have books or packets containing large print/Braille labels.

Compliance with the ADA is an ongoing process and should be something that is constantly being assessed and looked at. It is important that museums try to meet the needs of all of their visitors and that they do not put up barriers physically or intellectually.

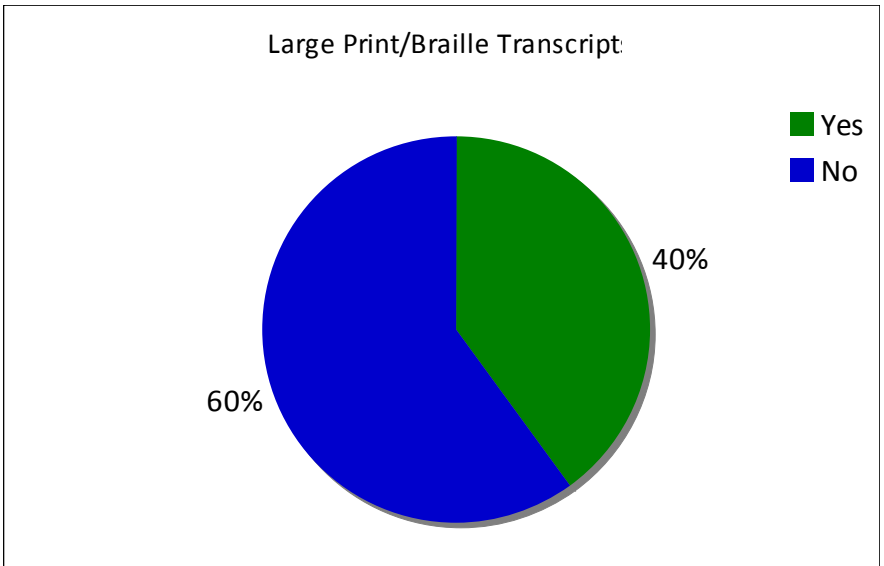

Figure 2: Large Print/Braille Transcripts

3.3 The Nature of The Tour

I found that many of the museums offer some kind of tour, whether it is an audio descriptive tour, an individual escort, a private tour, or a touch tour. No matter the type of tour, they are all designed to deliver information and provide more access to the artworks in both a physical and intellectual way. I found that while 48% of the museums studied offered touch tours, 64% offered private tours some of which also may contain some touch objects. Although many of the museums used the same language to describe what they offered I found that there was quite a variety when you began to look

deeper and read their definitions. For example, some private tours were described as little more than an escort to help the visitor find their way safely through the exhibits. Private tours in some museums were described as having objects that could be touched even if those museums did not also offer a touch tour. Most of the museums mentioned that they would be able to tailor a tour specifically to a visitor's individual needs and offered contact information to work out the details. On average most of the museums in this study asked for 2-3 weeks notice so that they could make the proper accommodations and preparations for the tour.

While some museums offered a tour of touchable items, other museums have a gallery that is reserved for touchable items and can be toured at the visitor's own pace. The Metropolitan Museum of Art has an Egyptian-themed touch gallery with either a descriptive audio tour or a guidebook in large print/Braille to accompany the tour and provide additional information. Visitors are able to move through the space at their own pace with their companions and everyone is invited to touch the objects. The museum also offers guided tours of this same space with descriptions along with touch. The guided tours are only available by request and although they are free, a reservation must be made ahead of time. The museum also has an additional collection of touch objects that cover a variety of different topics from the collection and they offer verbal imaging tours.

Approximately 16% of museums offered an individual escort. Some of these museums claimed to offer someone to help an individual with vision impairments find their way around the museum, while other museums claimed that this guide would be able to provide some information about the art works. Private tours were predominately described as tailored to the specific group coming in. Most museums required two to three weeks notice to give them ample time to prepare and state that they can tailor the experience to the visitors individual needs. The main function of these tours is to provide additional information about the works on display. This may mean visual descriptions, items that can be

touched, tactile diagrams of the art, information about the historical context of the work or some combination of these things.

The museums in this study offered a variety of different tour programming but a few stood out as being remarkable. The Whitney Museum of Contemporary Art was one of these remarkable museums. In conjunction with Art Beyond Sight, they have developed the Youth Insights Teen Program. This program engages local teens and visitors from the New York Institute for Special Education in looking at and talking about art. By allowing the teens to provide the scaffolding for the museum visit, it allows everyone to see the artwork in a new and exciting way. The teens are taught how to paint the pictures using their own words and help the students that have visual impairments to have an aesthetic experience. The teens go through some disability awareness training and come away from the experience enriched, and respectful of how we all experience the same situation in our own way. By asking the visitors to swirl their fingers in the palm of their hands, the teen docent is able to suggest the kind of movement present in the painting they are discussing. This multi-modal style of a tour is very helpful in understanding the way that the painting feels. Visitors are able to experience the work in new ways. Several of the students commented that taking the time to think about how to describe the work made them really slow down and examine it. They said that they made new discoveries and had a greater respect for the work after this close examination.

The Chicago Art Institute has kits of hand held tiles that are tactile replicas of a series of the masterpieces from the museum. Each of these kits contains a color photograph, a description in large print and Braille, and a tile with a texture map of the work of art. These tiles aim to make the art legible through the fingertips. Visitors may also request a guided tour of the tactile kits. By feeling the change in texture they are able to feel where the lines and colors of the image are, and can get a greater sense of the work they are examining.

The Metropolitan Museum of Art offers a variety of hands-on art projects including their *Seeing Through Drawing* series. Visitors with vision impairments are invited to spend an hour and a half on select Saturdays learning to draw from the museums touch collection. The visitors are taught strategies for using touch as a way of understanding the object and creating a likeness on paper.

It is hard to talk about hands-on activities for visitors with visual impairments and not mention the Philadelphia Museum of Art's program *Form in Art.* This program combines studio art and art history for a 13-week class for legally blind visitors. They offer four classes each semester, for a total of eight classes a year. Each class meets once a week. They are introduced to works of art by the museum's curatorial staff and volunteers help them with their art making. The classes are limited to 12 students at a time and there is a nominal fee since the museum provides all of the art supplies and covers half of the transportation costs for the students. The 100 best art works are displayed in an annual show in the museum's education corridor. The program serves as an inspiration not only to its students but to the museum community as well.

3.4 Communication

While most of the museum websites have a preliminary outline of what kinds of modifications they offer under the visit tab, some were harder to find. This made it difficult to gain access to the information. Terminology had a tendency to differ from one museum to the next and there was little consistency among programs offered. It was often hard to find information and even harder to make sense of it. It can be difficult to figure out what exactly is offered and how to make the arrangements. A visitor might spend more time planning for their trip than they actually spent at the museum.

Project Access For All is a joint venture between Art Beyond Sight/Art Education for the Blind and their founding partners. Its mission is to create a searchable database of accessible facilities and to whom they are accessible. By compiling all of the information about accessible programs into one searchable online database they hope to make it a little easier to find a place that offers programming that

meets a prospective visitor's needs. They recognize that it can be difficult to navigate through a series of websites that contain partial information in different locations. Here all of the data is presented in one place and in a consistent way. Users can search by keyword, city or state. The database is written in text and is very easy to navigate with a screen reader and offers the information in a plain and simple way. It provides information on both the physical space and the programming offered. By keeping the information organized in this way, it becomes much easier to understand what exactly the museums offer. The database is constantly growing and is interested in having more cultural institutions participate. It is not a complete list of accessible museums but it is a good resource for information, especially if you are traveling and looking for accessible programs in the city you are visiting. The database is a work in progress and will continue to grow. It does not contain information on all of the museums with programming, but the museums that they do have information for have quite comprehensive coverage.

In searching for information on museums that offered accessible programming, a few museums consistently showed up. The Metropolitan Museum of Art has a seasonal brochure that is specifically designed for visitors with vision impairments. They offer this brochure in both Braille and electronic format, as well as a Facebook page designated for their accessible programming. This museum by far had the most accessible information of all of the museums in my study. They show a constant commitment to offering remarkable programming for all kinds of visitors.

While some museums did an excellent job communicating what was offered and how to access it others hid the information and made it very difficult to find. Over all it was very time consuming to look through the offerings at different museums and try to find out if they had the type of programming that I was interested in. I tried utilizing the search function for websites that offered one and frequently did not have any success using terms like touch tour, accessibility, or service animals. I found it very frustrating to try to find the information, frequently having to move through multiple menus and track

down other information separately. Information about public transportation was frequently left off of the accessibility page.

I found the experience of searching though these websites to be very frustrating. Once I had figured out where to look on one page and thought I had a clear idea of what was offered I would move on to another page and it was like starting from scratch. As I went through the websites my list of services began to grow very long, but I realized that although they all had different names they were all still talking about the same basic services.

I didn't expect to find so many excellent programs in so many different museums. I would like people to know about what is offered. The museums need to make sure that people know about their programming.

4 RECOMMENDATIONS

4.1 Introduction

By increasing access for visitors with disabilities, museums are becoming more accessible and enjoyable to everyone. By utilizing universal design museums can become a place where all visitors can feel comfortable taking risks and having new experiences. It is my hope that this research will be used to create an easier way to gain information about museum programming. By organizing the information into a chart it is easy to see what a variety of museums are offering and where the deficits are. I am interested in getting more visitors into the museum, and the best way I know, is to increase and target communication with the community you are interested in attracting. There are many ways to do this and I intent to outline my recommendations below.

4.2 Communication

There are so many wonderful programs offered by so many different museums. It is so important that people are aware of what is offered so that they are able to utilize these amazing programs that are already in place. Finding ways to increase communication with the target audience is key for the success of the program. As well as making sure that the website is able to work well with assistive technology (Henry, 2005). Some museums have formed partnerships with local organizations that help to get the word out or bring visually impaired visitors in to the museum. Some museums had social media pages that were specific to the accessible programs, allowing potential visitors to keep current with what is going on at the museum. Other museums continued to bury information behind several menus, making it very difficult and time consuming to locate the information. Websites should provide equivalent alternatives to the visual content, this may take the form of audio or text that can be picked up by assistive technology (Anbel & Alonso, 2001).

In my experience it was often difficult to find the information about accessibility on the museum websites and it became increasingly difficult when using a screen reader. When using a screen reader you must listen through the on screen options and choose from the menus then listen to the additional choices in the next menu. It is important for text descriptions of images to be brief and descriptive, the viewer needs to know exactly what it is, but they do not necessarily have a lot of time to sit through long descriptions (Anbel & Alonso 2001) especially when they are searching for something specific. The accessibility section was usually two to three menus from the main landing page. You often had to navigate to another section of the website to find information about public transportation. By altering the text on screen and making sure that there is a text description behind each of the images museums can increase the ease with which some one with visual impairments would be able to navigate their website. It is important to consider how many menus it will take to get to a page that describes what kind of programs are available for a person with disabilities. In my opinion it would be helpful if the information could be found consistently in the same place on every museums website. If for example every website had the accessibilities page listed under the plan your visit tab. There are also easy to identify symbols that are commonly known (Salmen, 1998) and should be used to indicate not only that a program is accessible but to whom it is accessible. These simple high contrast symbols can be helpful for individuals that have some sight to easily locate the sections they should be looking at.

Project Access for All is a great tool that can help visitors select a museum that will meet their needs. Visitors will still need to contact the museum to finalize any arrangements but their database can greatly reduce the amount of work by limiting a potential visitor's search to museums that offer accessible programs. On the website for Project Access for All Elizabeth Axel speaks about the difficulty she had finding accessible programs to attend with her grandmother. She wanted this program to bring ease to individuals that were looking for accessible programs. By compiling all of the data into one place, visitors are able to browse through the programs offered by several different museums in one place and

decide for themselves which ones are worth pursuing. It is important for museums that are interested in attracting visitors with disabilities to get their programs listed in a database like Project Access for All.

Many museums recommend that the visitors with special needs stop by the visitor services desk in order to pick up adaptive materials and alert the staff that they are touring the exhibit. If museums would like visitors to stop by a service desk upon arrival, it would be helpful for their website to offer a specific location, or directions to visitor services from the accessible entry. Visitors will feel more comfortable if they know that the desk to the right when they walk through the entry is the visitor services desk where they will be meeting their escort or picking up the Braille transcripts of the audio tour. It is also important that the staff has proper training in how to interact with people who have disabilities (Kozue, 2005).

I really liked the way that the Metropolitan Museum of Art began to utilize social media to get the word out about the programs that they offer. When I was a kid we had a social newsletter in our small town and every month when it came out everyone would rush to the store and open it up to the centerfold to see if they had made it to the picture pages. Folks would attend all kinds of dinners and benefit auctions in hopes that their images would appear on those pages. The excitement of those images of locals out around town drew people in and made them pick up the paper. Many of us ended up reading the articles with in after checking the photo section. By creating a newsletter that gets attention by including the community museums can have a captive audience for getting the word out about their programming. It will also encourage repeat visitors. If I knew that something I said would be quoted in the next newsletter I would want to come back to the museum to get a copy and then I would see what else was happening in the months to come.

4.3 Adapted Maps

Adapted maps are a great way to make visitors with visual impairments feel more independent. If the visitor has access to the map in advance of their visit it can help them plan their path through the museum. Maps can be created with raised surfaces and audio controls (Salmen, 1998). This can help them whether they are meeting with an escort or not. Escorts are great, but the visitor might not want to rely on another person to help them get around. Having the adapted map can make them feel more at home and in control. Having the escort or other museum staff members around is important in case of an emergency, especially if the museum is not equipped with directional audio signals that indicate the way out (Kozue, 2005).

I believe in allowing all visitors to have their independence in a museum. There are many ways that this is happening, such as with audio tours and large print/Braille transcripts. So many times we worry about granting intellectual access and we begin to neglect the physical access. With the technological advancements we have today, I honestly would like to see a smart phone application that can offer turn-by-turn audio navigation through the museum. By using the phones own internal GPS the user would have to download the floor plan and indicate, by voice control which floor they are currently located on. The museum could update the map with the changing exhibitions, and even integrate some audio tour information right into the map. The phone would know which gallery you were in and could tell you about some of the artwork in the room. I have been in some museums that are so big and intimidating I wished that I could click my heels and suddenly be able to find the exit. With this application you would always be able to find what you are looking for. A visitor could even possibly search for an individual artwork that they wanted to see. The museum could offer some devices for rent for visitors that do not have smart phones.

4.4 Assistive Devices

Another way that museums can make a person feel more in control of their visit and provide more independence for the visitor with vision impairments is to offer an assistive device such as a magnifier. This assistive device will allow visitors with some vision to examine things on their own and move through the museum at their own pace. They will not have to rely on museum staff as a way to get around and they will be able to choose exactly what they want to see.

For young visitors this can become a fun game of art detective. By offering magnifying glasses and arming the young visitors with a quest to find certain shapes, or individual items in the paintings you can create a wonderful journey. Assistive devices become fun for the whole family. This scavenger hunt armed with the proper tools to see, will not only allow the visitors to enlarge wall labels and read the text panels but also teach them how to look at art closely and become their own investigators.

The experience changes when examining a work of art depending on how close you are standing to it. Looking at magnified segments of the painting will give you a great sense of the content, however it can be hard to piece all of those segments together to get a real sense of the whole (Coster & Loots, 2004). This is often the way that some one with low vision sees. Their mind in the end is what put all the pieces together to complete the work of art that they are looking at. Touch tours are similar in that the visitor can only feel what they are touching, and so they only receive information in pieces the size of their hands. It's like seeing a mosaic but only one tile at a time.

Some laminated handouts containing reproductions of the work at varying sizes might be helpful for the low vision or vision impaired visitor to get an idea of what the whole image looks like. By providing a smaller version of the image they may be able to take the whole thing in at once. I think of it like completing a jig saw puzzle. It is hard to tell what the image is from just the pieces, but when you look at the front of the box you have a pretty good idea of where the pieces go and you are able to solve the

puzzle. These smaller reproductions could even be included in the large print/Braille label books. More extensive kits could also include high contrast images, or images in black and white.

4.5 Compliance with the ADA

It is important that museums are constantly making changes and utilizing new technologies that are being developed to enhance the experience of all of its visitors. While compliance with the ADA is important I think that museums should strive to do more than just comply. They should strive to create an environment that is welcoming to all (Salmen, 1998). This may include making it known that service animals are welcome through out the museum including gallery spaces and the museum café. By not just allowing the animals to enter the museum but to actually welcome them will make the individuals who require their assistance feel welcome as well. The law is in place to make sure that people with disabilities are not discriminated against. I believe that since increased access can benefit everyone it is in the best interest of the community that the museum serves to provide programming that exceeds the ADA requirements.

On way that museums can push themselves forward is to make sure that they are communicating to the community. By finding out what the community wants they will be able to serve the visitors that come to the museum. Programs will not grow unless potential visitors can learn about them. This all goes back to increasing the amount and ease of communication.

I have had the experience of going to a restaurant to eat and the food was great, but the service was so bad that I did not return. Museum staff should complete the proper training for working with individuals with disabilities to ensure that they have a positive experience. This is the kind of general statement that is an easy thing to say, but can really make a big difference in the way that a visitor feels about their experience at one individual museum or even museums in general. Most of the potential visitors to an art museum are looking to come and learn something new. They might be coming with their companions who may or may not have visual impairments. I think that they are looking to engage

themselves in looking at and learning about art just the same regardless of what abilities they have. I feel that all visitors like being in an environment where everyone can feel like they are a part of the community and can participate.

4.6 Large Print/Braille

Museums that offered transcripts and label books in large print seem to be on the right track. I think that this is an easy modification that can help a large number of visitors. Several of the museums listed programming for people with dementia, seniors, and others with potentially limiting conditions. I feel that some seniors would benefit from the large print even though they may not be considered vision impaired. A person does not have to be disabled in order to benefit from increased accessibility (Salmen, 1998). This could also help with gallery congestion by allowing viewers to move back from a piece and still be able to read the wall text, thus creating more space for everyone in the gallery to be able to see the artwork. It could also help children feel more independent in the museum. Labels are some times hung too high for them to see, or the print might be too small on the wall. It is very important that this material is available in large print/Braille as soon as it is available in regular print. Large print/Braille copies should always be kept up to date and in stock. This is another great example of universal design in action. Although the museum is producing the large print/Braille materials for one specific target audience, there are many people that are not in that target audience that could benefit from the adaptation.

Having a large print/Braille copy of the menu for the museum café seems like another easy modification that could help a large number of visitors. Visitors who have come to the museum with a sighted companion have the option of having their companion help them to see menu items, but if a visitor has no sighted companion they might have to ask the help of the staff or of a stranger. If the menu were offered in large print/Braille the visitor could experience more independence.

Large Print/Braille label guides can also be made into a fun gallery activity for children or school groups of students with low vision or vision impairments. Students can be offered the labels for the art works in a given gallery and be asked to match the labels to the work based on the observations that they make. Perhaps they can also be given the opportunity to create their own titles for the work.

In the absence of the ability to create Large Print/Braille copy for museum information and documents, museums could offer some assistive devices that will help magnify or read the page out loud. I know that they are some smart phone apps that allow you to use the phones camera to scan words and then the phone will read the text out loud or into your earphones.

As I have mentioned before I think it would be very helpful to include small reproductions of the artworks with the large print/Braille label books. This will enable visitors with vision impairments or low vision to see the whole artwork all at once. Then they will be able to examine the parts of the work up close and have an idea of how the whole thing fits together.

4.7 The Tour

Museum tours offer a wide variety of different information ranging from just descriptive tours to touch tours to those that only offer information about the work. Many of the museums that I looked at stated on their websites that they offered private tours that could be tailored to a specific groups needs. Museums might want to consider offering general information to suggest what kinds of adaptations are available to choose from. This would help potential visitors prepare for the conversation. According to the ADA museums are not allowed to ask questions about the visitors disability. If the visitor could see the kinds of adaptations they could choose from it might help to preserve some of their dignity. For example they could ask for a verbal descriptive tour with some touch items and a hands on element, instead of having to reveal that they have trouble seeing colors and shapes and can only really make out the light source.

It is also important that the companions of visitors with visual impairments be allowed to participate in the same tour (Majewski, 1987). Many times people come to museums with their friends and families and want to share the experience with them. By allowing both the visually impaired person and their sighted companion to take the tour you are allowing them to share the experience and enjoy the visit together (vom Lehn, 2010). Often during touch tours museums try to limit the number of people that are touching the objects, but if the sighted companions and tour guides are also allowed to touch the work the experience can be enriched for everyone (vom Lehn, 2010). The language will be the same when the work is discussed because everyone can talk about how the object felt instead of comparing the way it looks to the way it feels.

I love to visit museums. Even more than that I love to visit museums with my friends and family. My favorite part is often the ride home, where my companion finally gets up the courage to tell me what they really feel about the work. I am not sure if it is the environment or if my friends are worried that the museum staff will have hurt feelings if they say how they really feel in the gallery, but I am always amazed at the things that self pro-claimed non-art people will tell me. I think that it is important to create an open forum for discussion in the museum. Allowing visitors with vision impairments to tour the galleries with their companions allows the discussion to open up. I think that everyone should get to participate in the tour. Not just in terms of touching the objects, but in the discussion. The experience has the potential to become more meaningful for all of the parties involved in the tour.

Museum staff could come up with some default discussion points that could break the ice and let the visitors know that it is ok to discuss the work and that the tour space is a safe place to try out new ideas. Some of the touch tours might also offer comparison objects. If I am feeling a sculpture of a girl, and the artist has taken care to carve out the way that fabric is draped over the figure in stone, it might help to have some fabric to compare it too. Or if we are feeling a tactile map of a still life with fruit, it might be interesting to compare the actual fruit with the painting. Often times in children's

learning centers, museums will show an object and the way that one or more artists have represented that object. The young visitors are then invited to try their hand at representing the image.

I would also like to see more art making workshops for visitors with vision impairments. There is a different connection to art when you begin to create it and not just look at it. This can be illustrated by looking at how many museums offer hands on programming for the general public.

Tours are a wonderful way to guide visitors through their art appreciation. It can offer great in-cite to the works and help visitors not only to learn how to look at art, but also why it is so important to do so. Docents are a valuable part of museums culture. They are often the people that interact on the museums behalf the most with the public.

5 CONCLUSIONS

This study has taken a look at the programming that is offered by a variety of different museums throughout the United States of America. It has shown that there is a trend to offer private tours that can be catered to an individual groups needs, but that the information on their website might not be inclusive of everything they offer. Websites were often hard to navigate, and made even more difficult to navigate when using assistive technology such as a screen reader. There was not much consistency from one website to the next and the community could benefit from agreeing on a few common definitions so that visitors would have an easier time figuring out what is actually being offered.

As technology advances and we learn more about the way we function, we are able to create more access to more experiences. Museums should make an effort to keep current and stay on top of current trends. For example visitors can use their smartphones and download apps that will enrich their experience.

By looking at the programs that these museums offer we saw a great variety of ways to create access and engage visually impaired visitors in new ways. Museums are moving past the idea of just making the physical spaces accessible and are able to create a forum for intellectual access. Programming exists that allows visitors with vision impairments to enjoy the museum alongside their sighted companions. There is no need for individuals with different abilities to separate for the museum experience. This can allow families or groups of friends to enjoy the experience together and help to build their relationships with each other. Visitors often come to a museum looking for an activity that to do with their companion that will help them to build their relationship. Some times one or both of them have an interest in art, but it is good to have an activity for them to get warmed up to the museum if they are not familiar with looking at art or visiting museums.

There are programs for the visually impaired that are lead by sighted docents who get just as much if not more out of the experience than the visitor. This was the case with the Youth Insights Teen program at the Whitney Museum of Contemporary Art. The teen participants got to see the artworks in a new way and bring that insight to their tours. The visitors with visual impairments were able to experience the works and discuss them with their tour guides and it created a new forum for both groups to discuss the work and understand it on a new level. This program is truly remarkable because it is able to tap into two different target audiences for the museum and link them together in a way that is enriching to both of them. By inviting the different groups to work together toward a common goal the museum is empowering the teens to become good leaders and adding to the coolness factor for the young visitors with visual impairments.

By involving school groups the museums are reaching out in to the community and allowing the students to have new experiences that they will bring home with them. I can remember coming home from a trip to a museum when I was pretty young. I had an amazing time and it is all that I could talk about for days. I told my parents about it and made them bring my brothers to see it. By creating a positive experience for school groups you are opening new roads for communication with the community. Museums can form partnerships with organizations and schools that offer programming for individuals with vision impairments. By offering school group tours or even after school programs they will foster a love of art in the hearts of students that might not otherwise ever had the opportunity to set foot into an art museum.

Museum outreach programs could even bring the museum to the school. By working with schools or programs that do not offer art, or art appreciation they are able to enrich the lives of students who would not otherwise know about the arts. By sending museum educators out into to the schools in the area they are able to inspire a desire to visit the museum and take advantage of its programs. It is an amazing opportunity to bring art to students that may not have exposure to it

any other way, but it is also a good chance for the museum to communicate what they have to offer to a specific target audience.

Museums that are in large cities and areas with good public transportation available are more likely to need to provide programming for visitors with vision impairments. Museums need to try to meet the needs of those that visit the museum. If visitors are able to get to the museum then they will be able to take advantage of the things that are offered. Not only does being near public transportation mean that museums are more likely to see an increase in the number of people with disabilities that come to visit their museum but it ensures that they are able to come to the museum independently. Some museums offer a textured path to help visitors with visual impairments find their way from the public transportation to the museum. Creating an easier way to locate the facility lends a welcoming tone. It allows the visitor to perceive the feeling that they are not only granted access but that they are valued and welcomed to the museum.

Websites describing the accessibility of museum programming are often difficult to find and navigate. There are databases on the Internet that can help visitors with disabilities locate museums that will be able to meet their needs. By using a combination of the database and the websites, a visitor can get a pretty good idea of what is offered but they will still most likely need to contact the museum to make arrangements before they visit. There are a few exceptions to this such as the Metropolitan Museum of Art. While it is nice to have so many options in terms of reserving a tour, it is nice to be able to go to the museum on a whim. Maybe the visitor happens to have some extra time on a Sunday afternoon and they would like to drop in and see if they can have an aesthetic experience or learn something new. It can be hard to plan your museum trip two to three weeks in advance, so it is very good that some museums have self-guided tours of exhibits for visitors with visual impairments that can be gone through independently.

Visitors are made to feel more comfortable in the museum environment when they are able to engage in an activity. This can be accomplished in a variety of different ways such as participating in a tour or completing a hands-on project. The Philadelphia Museum of Art has an outstanding hands-on programming. Their 13-week program Art in Form allows students to form a community by having a weekly class where they learn about art history and art making. By gaining access to the programming visitors are opening themselves up to new experiences and new ways of understanding.

By creating a museum environment that is accessible for a wider variety of people we can help to promote the arts. When we begin to think of visitors as people first, we begin to open new doors and form new roads to understanding. Through better communication museums can reach wider audiences and begin to change the way people feel about visiting a museum. It is when we remove the barriers to potential that we open the door for understanding and acceptance.

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APPENDICES

Appendix A

Art Museum in the Study	Websites
Art Institute of Chicago	www.artic.edu
Baltimore Museum of Art	www.artbma.org
Cincinnati Art Museum	www.cincinnatiartmuseum.org
Cleveland Museum of Art	www.clevelandart.org
Dallas Museum of Art	www.dm-art.org
Denver Art Museum	www.denverartmuseum.org
Fine Art Museum of San Francisco	www.famsf.org
Frick Collection	www.frick.org
Harvard Art Museums	www.harvardartmuseums.org
High Museum of Art	www.high.org
J. Paul Getty Center	www.getty.edu/museum/
Massachusetts Museum of Contemporary Art	www.massmoca.org
Metropolitan Museum of Art	www.metmuseum.org
Miami Art Museum	www.miamiartmuseum.org
Minneapolis Institute of the Arts	www.artsmia.org
Museum of Fine Arts, Boston	www.mfa.org
Museum of Modern Art	www.moma.org
National Gallery of Art	www.nga.gov
Norton Simon Museum	www.nortonsimon.org

Philadelphia Museum of Art	www.philamuseum.org
Seattle Art Museum	www.seattleartmuseum.org
Smithsonian American Art Museum	americanart.si.edu
Hirshhorn Museum	www.hirshhorn.si.edu
Solomon R. Guggenheim	www.guggenheim.org
Whitney Museum of Contemporary Art	whitney.org

Appendix B

Museum	Public Transpor-tation	Audio Tour	Adapted Map	Escort	Tactile Kit	Touch Tour	Touch Gallery	Private Tour	Service Animals Welcome	Large Print/ Braille Tran-scripts	Magni-fy- ing Sheets	Large Print/ Braille Label Book	Hands-on Work-shops
Art Institute of Chicago	Yes	Yes	Yes	Yes	Yes		Yes						
Baltimore Museum of Art	Yes							Yes	Yes				
Cincinnati Art Museum	Yes			Yes		Yes		Yes	Yes				
Cleveland Museum of Art	Yes							Yes					
Dallas Mu-seum of Art	Yes								Yes				
Denver Art Museum	Yes					Yes				Yes	Yes	Yes	
Fine Art Mu-seum of San Francisco	Yes					Yes		Yes					

Museum	Public Transpor-tation	Audio Tour	Adapted Map	Escort	Tactile Kit	Touch Tour	Touch Gallery	Private Tour	Service Animals Welcome	Large Print/ Braille Tran-scripts	Magni-fy- ing Sheets	Large Print/ Braille Label Book	Hands-on Work-shops
Frick Collec-tion	Yes	Yes							Yes	Yes			
Harvard Art Museums	Yes								Yes				
High Mu-seum of Art	Yes							Yes					
J. Paul Getty Center	Yes	Yes				Yes	Yes	Yes	Yes	Yes			
Massachu-setts Mu-seum of Con-temporary Art													
Metropolitan Museum of Art	Yes	es				Yes	Yes	Yes	Yes	Yes		Yes	Yes
Miami Art Museum	Yes	Yes				Yes		Yes		Yes		Yes	
Minneapolis Institute of the Arts	Yes			Yes	Yes	Yes		Yes	Yes	Yes			
Museum of Fine Arts, Boston	Yes	Yes	Yes		Yes	Yes			Yes				

Museum	Public Transpor-tation	Audio Tour	Adapted Map	Escort	Tactile Kit	Touch Tour	Touch Gallery	Private Tour	Service Animals Welcome	Large Print/ Braille Tran-scripts	Magni-fy- ing Sheets	Large Print/ Braille Label Book	Hands-on Work-shops
Museum of Modern Art	Yes	Yes	Yes		Yes	Yes		Yes		Yes	Yes		
National Gal-lery of Art	Yes							Yes				Yes	
Norton Si-mon Mu-seum	Yes									Yes			
Philadelphia Museum of Art	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes
Seattle Art Museum	Yes									Yes			
Smithsonian American Art Museum	Yes							Yes					
Hirshhorn Museum	Yes							Yes					
Solomon R. Guggenheim	Yes	Yes				Yes	Yes	Yes	Yes				
Whitney	Yes	Yes				Yes	Yes	Yes	Yes		Yes		