Improving Efficiency for Community

Outing Planning at Seven Hills Foundation

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ABSTRACT

The process of finding quality community outings that are accessible for individuals with disabilities can be time-consuming for employees at Seven Hills. To assist the staff, we created a website that provides detailed accessibility information about local venues. We assessed these venues by creating and using a checklist of available accommodations for a variety of disabilities. The website allows employees to search venues by available accommodations, or to simply view venues by category, e.g. museums, zoos, or theaters. We also made recommendations for employees to provide feedback and update the website as they go on community outings in the future.

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We would like to thank each of these people for allowing us to conduct interviews with them to gain their insights.

And all respondents from venues that we contacted.

EXECUTIVE SUMMARY

1. Community Outings for Individuals with Disabilities

The term "field trip" can refer to a wide variety of recreational and educational activities. There exist a variety of field trips and a range of benefits that they can provide. Studies have shown that field trips can help strengthen the relationship between cognition, social experience and physical experience. In particular, a study conducted by John H. Falk, Director of the Institute for Learning Innovation at Oregon State University, and Lynn D. Dierkling, professor in the Free-Choice STEM learning program at Oregon State University, found that 96% of 128 subjects interviewed could recall where they went, who they went with, and a number of specific aspects about a childhood field trip (1997). Unfortunately, planning a field trip for people with disabilities can be difficult due to the accommodations necessary for participants. People with disabilities should not be excluded, however, from the benefits of field trips because of their disabilities.

The Americans with Disabilities Act of 1990 (ADA), modeled after the Civil Rights Act of 1964, prohibits discrimination against people with disabilities (Introduction to the ADA). Title III of the ADA, in particular, provides a legal basis for what constitutes accessibility in public buildings and accommodations, including basic nondiscrimination requirements as well as many more specific architectural and communication requirements (A Guide to Disability Rights, 2009). However, many buildings still do not meet all ADA specifications, as buildings established before 1990 are only required to show commitment to implement accessibility features in the future. Furthermore, while the ADA provides a helpful baseline for accessibility,

there are often other things that must be taken into consideration when planning a trip for people with disabilities.

For these reasons, the process of planning community outings for people with disabilities can be very time-consuming. Therefore, the goal of our project was to increase efficiency for employees of the Seven Hills Foundation to identify quality community outings for their participants. To accomplish this, our team members from Worcester Polytechnic Institute's Worcester Community Project Center, developed a website that provides information on potential community outings organized by region and type of venue.

2. Determining Important Criteria for Community Outings

Before we could begin identifying and evaluating potential community outings for Seven Hills, we had to first determine important accessibility criteria. We determined this criteria through a series of interviews, focus groups, and discussions with numerous employees, including the Assistive Technology (AT) "Super Users" group, within Seven Hills.

As a result of these interviews and focus groups, **we found that we should refer to the trips, as stated above, as "community outings" and not "field trips" due to the association of the term field trip with children.** Since we are working with an adult population, this was a very significant finding for us. Furthermore, **we found that, in addition to venues lacking up-to-date standards due to them being "grandfathered in", not all important considerations have ADA guidelines, such as sensory accommodations, and that they are equally as important to consider when determining whether or not a venue is accessible.**

The above findings allowed us to develop an *evaluation checklist* that we used when evaluating venues in objective 2. This checklist allowed us to keep every venue's accessibility information organized and consistent.

3. Identify, Evaluate and Document Venues

To begin identifying venues to include within the Resource, and to gain more insight into the process of planning community outings, we conducted interviews with employees of organizations serving a similar population to Seven Hills. We conducted phone interviews with the Cotting School, Crystal Springs, and Easter Seals, as well as an in-person group interview with employees of Triangle, Inc. From these interviews, **we found that community outings may be organized not only for recreational and educational purposes, but also in order to increase participants' independence and inclusion within the community**. These outings can include taking a participant to do their own shopping, or to community service events. As these outings can help individuals develop life skills and connect them with their community, they are important to provide.

Furthermore, we found **that pre-planning, particularly calling ahead, is important to the success of a community outing.** Through communication at an early stage of the planning process, venues can easily take the time to prepare tours, exhibits or experiences to better fit the visiting population. Finally, **we found that communication among employees helps to improve the planning process, and that communication between staff and participants improves the experience for participants**.

After conducting these interviews, we compiled a list of venues mentioned by the organizations interviewed, as well as many other venues of interest in Central and Eastern Massachusetts, as these are the areas where Seven Hills programs are located. Finally, we began assessing these venues using the aforementioned checklist, doing so in person when possible and otherwise sending the checklist to be filled out by appropriate employees at the venue. These assessments continued throughout the project.

4. Determine Most Feasible Resource

Simultaneously while assessing community outings, we began research on the best digital option to display the venue accessibility information. We compared the following:

- Websites - WordPress and Google Sites,
- Databases - Microsoft Access and MySQL
- Searchable PDFs

To decide which resource would be most effective to suit our project goal, we conducted interviews with Wilson Wong, Computer Science Professor at WPI; Nam Tran Ngoc, the student from Worcester Polytechnic Institute primarily responsible for creating the AT database from 2016; and our sponsor, Steven Kessler. By gathering data from these interviews, we found that **Google Sites was the most feasible option to use for the digital resource.** Google Sites was free, easy to create, user-friendly and had several key features we wanted such as: search-ability, a section to add comments, and ease of update.

5. Create and Populate Website and Obtain Feedback

To create the website, we developed an organizational structure to be utilized throughout the entire website. We chose this specific layout by organizing the information from one particular venue, Jackson Homestead and Museum, in three different ways. We then sent the link to the website to fifteen employees from Seven Hills Foundation's Super-User group, asking them to vote on which of the three pages they liked most. The organizational structure that received the most votes, as respondents said that the table format was easiest to read, is shown below in Figure 1.

Jackson Homestead and Museum

General Information

Address: 527 Washington St
Newton, MA 02458
Cost: $6/person
Phone #: 617-769-1450
Website: Jackson Homestead
Peak hours: 1st weekend of each
month

Mobility Accommodations	Sensory Information	Additional Information
Curb ramps at all entrances	Average level of brightness: **Medium**	First Aid Kit available
Some doorways accessible	Average level of noise: **Low**	Outside food is allowed
1 handicap accessible parking space		
Van accessible parking		
1 handicap accessible restroom		
Handicap accessible seating*		
Handrails provided on some sloped walking surfaces		
Unobstructed path of travel		
Ramps available as wheelchair accessible alternative to stairs**		

Figure 1: Organizational structure of Google Sites webpage

Along with the creation of the website, we organized all community outings into the following

categories:

- Museums
- Other
- Outdoor venues
- Shopping
- Sporting events/concerts
- Theaters
- Zoos/Animals

Within each section, a user can easily find all the venues that fit under that specific category

sorted by regions in Massachusetts. Once the structure of the website was completed, populating

it was made easy by copying and pasting each venue's accessibility accommodation into the

table.

6. Conclusion

In conclusion, individuals with disabilities deserve the same opportunities for community inclusion and recreation as all able-bodied people. We hope that the implementation of the website into the Seven Hills community will assist them in providing these opportunities for their participants. In the future, when new community outings are discovered, the website can be easily updated to include the new venue's accessibility information.

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1. INTRODUCTION

As of 2010, approximately 19% of the U.S. population (56.7 million people) reported having a disability (Office, US Census Bureau Public Information, 2012). According to the Americans with Disabilities Act (ADA), a disability is defined as "a physical or mental impairment that substantially limits one or more major life activities" (A Guide to Disability Rights Laws, 2009). This piece of legislation was enacted in 1990 to protect and promote the rights of any person with a disability.

Due to the broad definition of the term "disability," there are several different types of disabilities including, but not limited to, sensory, cognitive, physical, and social or emotional disabilities (What is the category of disability, 2017). Within each of these categories, there exist a wide variety of disabilities that affect people's lives. Due to the fact that different disabilities may require different types of accessibility, it is difficult for outing planners to find venues that provide the necessary accommodations to suit everyone's needs. For example, people with limited mobility may require a ramp or an elevator to reach other floors as well as other possible accommodations, whereas someone who is blind or deaf requires audio or visual aids.

Title III of the ADA provides an important legal basis for what makes public facilities accessible, via a large number of specifications that new buildings should have, and older existing buildings must make strides towards (A Guide to Disability Rights Laws, 2009). However, in the United States, there are still practices or venues that are not fully inclusive or accessible to people with disabilities. For this reason, it is important that these individuals can receive assistance when and where it is needed. To serve this purpose, there are organizations that work to improve the quality of life of people with disabilities.

Seven Hills Foundation, is an example of one such organization. Seven Hills has been providing comprehensive support to individuals of varying life challenges, including disabilities, for over 60 years. They currently offer support to over 28,000 children and adults (Seven Hills Foundation, 2017). One of the ways in which they seek to improve the quality of their participants' lives is by providing enriching and accessible community outings. They hope that these community outings will provide their participants with memorable recreational experiences, as well as some educational value and a sense of inclusion in the community. As noted by Brajša-Žganec, Merkaš, & Šverko (2011), leisure is an important activity for improving an individual's quality of life. Community inclusion is also an important part of one's well-being, which is the primary goal of the Seven Hills Foundation.

The goal of our project was to provide the employees at Seven Hills who plan these community outings with a resource that increases the efficiency of researching accessible and enriching venues. We accomplished our goals by (1) determining necessary and important criteria for community outings planned by Seven Hills, (2) identifying, evaluating, and documenting venues based on criteria determined in Objective 1, (3) determining the best digital option to organize information about venues in a searchable format, (4) creating a digital resource, populating it with the information from Objective 3 and piloting the resource, (5) assessing, making necessary changes and providing recommendations for resource implementation and further development.

This report details how we accomplished our project goal in six chapters. In Chapter 2 of our report, the literature review, we discuss the necessary background information pertaining to our project. This information includes the importance of field trips, the variety of challenges faced by people with disabilities, and legislation and organizations that promote and protect

rights for people with disabilities. In Chapter 3, we state our goal and objectives and discuss the methods we used to achieve each individual objective. In Chapter 4, we present the important findings that arose from our research. In the final Chapters 5 and 6, we discuss recommendations and conclude our project, respectively.

2. LITERATURE REVIEW

Field trips can enhance the lives of participants in many ways. In this chapter, we begin by examining a variety of field trips and their associated benefits. In section 2.2, we discuss the challenges faced by individuals with disabilities. Next, we look at the legislation that works to protect and promote the rights of people with disabilities. Finally, we explore how Seven Hills Foundation and other organizations provide assistance to their program participants and how they work to provide equal opportunities for people with disabilities.

2.1 Field Trips

The term "field trips" refers to a wide variety of recreational and educational activities, such as a hike up a local mountain, a museum visit or an amusement park visit. According to Jay P. Greene (2015), Head of the Department of Education Reform at the University of Arkansas, field trips are becoming rare in the public school system. This is because teachers are finding it difficult to fit them into the curriculum since education is narrowing their focus on improving testing scores in science and math. However, field trips should be incorporated into the curriculum because of their significant benefits, whether a field trip is for pure enjoyment -- for instance a sporting event or an arboretum visit -- or for educational purposes, such as live theater or a museum visit, they have significant benefits associated with them (Falk & Dierkling, 1997).

2.1.1 Benefits of Different Types of Field Trips

Field trips have been studied to understand a relationship between cognition, social experience and physical experience. In a study conducted by John H. Falk, Director of the Institute for Learning Innovation at Oregon State University, & Lynn D. Dierkling, professor in the Free-Choice STEM learning program at Oregon State University, (1997), 96% of 128

subjects interviewed were able to recall a number of aspects of a childhood field trip. The study's participants ranged from children, aged nine years old, to adults, aged twenty years and older. Nearly 100% could recall where they went, who they went with, and a number of specific aspects about a childhood field trip (Falk & Dierkling, 1997). The fact that field trips are directly attributed to successful memory supports the claim that they are an important part of developing as a person.

Table 1 exemplifies the ability of people aged 9-20+ to recall social aspects of a field trip. It illustrates how field trips improved the ability of subjects in different age groups to recall or identify specific aspects of the trip.

	Age			
	9-10 yrs.	13-14 yrs.	20+ yrs.	Overall
With whom did you go?	%	%	%	%
Friend(s), unidentified	41.9	0	71	38.3
Friend(s), specified	48.8	45.7	12.9	27.3
Parent	38.7	48.6	25.8	28.9
Teacher, unidentified	29	22.9	19.4	18
Teacher, specified	19.4	28.6	3.2	13.3
Other	0	0	3.2	0.8
Total	*	*	*	*
Number of replies (N)	31	35	31	128

Table 1: The relationship between social memory and current age adapted from (Falk & Dierkling, 1997)

One of the important purposes of field trips is to act as a form of recreation for people. Leisure activities can improve an individual's well-being by fulfilling the values that lead to a better quality of life. These values include building social relationships, increasing positive emotions, and acquiring additional skills and knowledge (Brajša-Žganec, Merkaš, & Šverko, 2011). In addition, Stebbins, Elkington, & Gammon (2014) identify three different categories of leisure as casual leisure, serious leisure, and project based leisure. Casual leisure includes activities that happen on a regular basis that generate an instantaneous, short-term happiness. Serious leisure includes activities that generate long term happiness because they include hobbies that a person is more attached to. Lastly, project-based leisure includes activities that require planning to complete. Depending on the activity, project-based leisure can lead to either short term or long term happiness. Table 2 provides more comprehensive definitions and examples for each of the three types of leisure described by Stebbins et al. (2014).

Types of Leisure	Definition	Examples
Casual	• Does not require much knowledge or skill. • Pastimes that are more normal to people because they happen on a regular basis. • Significant levels of pure enjoyment or pleasure	Sightseeing, walk in the park, board/card games, gossiping

Serious	• Amateur, hobbyist or volunteer activities
	• Powerful devotion
	• High achievement
	• High Appeal
	  o Self-enhancing work
	• Substantial, interesting fulfilling
	  o Could find a career in this path of leisure that utilizes experience, knowledge and skill
		Athletic activities, artistic activities, collecting items, volunteer work

Project based	• Requires a lot of planning, thinking and effort o Sometimes involve skill or knowledge • All activities that are not casual or serious leisure or have the opportunity to become so	Birthdays, sporting events, holidays, art projects, imaginative projects

Table 2: Casual, Serious and Project-based Leisure (Stebbins, Elkington, & Gammon, 2014)

For a leisure field trip to successfully generate happiness, the activity must appeal to a person's interests (Stebbins, Elkington, & Gammon, 2014). According to Stebbins et al, (2014), a trip with low satisfaction will fail to lead to happiness, as it will tend to be only minimally better than boredom. When possible, it is most beneficial for the three different types of leisure to be integrated to experience a happy, fulfilling life (Stebbins, Elkington, & Gammon, 2014).

B. Educational Field Trips

Educational field trips can have a long-lasting impact on cognitive development due to their combination of project-based, casual and serious leisure. From birth until age 12-15, cognitive development is very important in helping adolescents filter their thoughts using abstract concepts (Manner, 1995). Such concepts are developed through the types of new experiences that are encountered during field trips. For example, visitors are able to learn about the concepts of lightning, conductors, insulators, electricity, magnetism, and storm safety through the experience provided by the "Lightning!" exhibit at the Museum of Science in Boston. While this concept can be learned through an in-class experience, a field trip will be more engaging by providing a new and captivating environment for the students to learn in. Teachers also benefit from bringing their students on field trips. While on the trip, teachers are faced with moments of leadership and instruction that cannot be mimicked in a classroom setting. It allows teachers to expand on the way they teach and learn from new experiences along with their students (Manner, 1995). According to research done by Pallrand for the Journal of Research in Science Teaching (1979), about half of college freshmen were reported to still be in a concrete phase of thinking, meaning that they struggled to understand abstract concepts, due to insufficient new experiences while their mind was developing. Hands-on experiences, including field trips are essential to progressing brain development (Manner, 1995).

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In addition to cognitive development, field trips can strengthen a child's cooperative learning skills and ability to develop human relationships. These essential benefits can be obtained through field trips. Cooperative learning is developed when people have to work together as a group in an activity based setting (Manner, 1995). For example, a student can try to describe an unfamiliar topic using rhetoric that a fellow peer can understand more easily than if they were to simply listen to a formal lesson. Within a cooperative learning setting, when asked a question, it is much easier for people to answer as a group than if they were asked as an individual (Manner, 1995). This group effort also leads to better human relations. Trust is built within the confines of a cooperative learning field trip between students and also between the student and teacher. Memories about the field trip are also formed, and relationships among peers are strengthened through shared experiences. Field trip benefits can be prolonged by incorporating it back into the classroom with discussion. When a teacher reviews the excursion, students relive their experiences and analyze how it made them feel, furthering both intellectual gains and memory retention (Anderson, Storksdieck, & Spock, 2007).

2.2 Challenges when Providing Inclusive Field Trips

While field trip organizers, most notably teachers, understand the aforementioned benefits associated with field trips, it is often a difficult task to provide these valuable experiences to those with disabilities. This is especially true when trying to accommodate individuals with life challenges and special needs. Unfortunately, this reality often leads to limited opportunities for these people with varying disabilities.

The difficulties that arise when trying to accommodate such a wide variety of life challenges are exemplified in the story of Mrs. Anderson, as published by Phi Delta Kappan (Bouck, Albaugh, & Bouck, 2005). Mrs. Anderson was a special education teacher at a high

school in the second-most impoverished county of a Midwest state. She described her experience taking six pre-vocational special education students to a showing of *Beauty and the Beast,* followed by a dinner at a local restaurant. In preparation for the outing, Mrs. Anderson conducted the typical ordering of tickets, contacting parents, collecting permission slips and money, and general coordination. After standard preparation, she proceeded to prepare her students. One girl had issues with incontinence, including an infection complicating things further. Another girl had hygiene concerns and could only wear ill-fitting clothes to the event. Another boy in Mrs. Anderson's class had similar hygiene concerns, as well as, consistent stomach problems. Two other female students of Mrs. Anderson's would need assistance to dress properly. One of these students often smelled of creosote because of how her house was heated, and had to be showered at the school as to not overwhelm anyone else attending the viewing. All of these concerns had to be coordinated along with accommodating her students' disabilities. These responsibilities were beyond Mrs. Anderson's general duties as a teacher and any additional preparation was done on her own time. She was able to provide clothes to dress her students, extra care and protection for health conditions, and organized rides home for her students with little help from the students' families (Bouck, Albaugh, & Bouck, 2005).

Mrs. Anderson's account of the preparation, and care that went into getting ready for the class trip, illustrates how challenging it can be to provide these field trips for children with disabilities, even moreso for poor children with disabilities. Despite the infrequency of these outings, field trips are still enriching and necessary for these children. Special education and organizations working to support people with disabilities struggle to accommodate the wide variety of challenges they face. Mrs. Anderson's story highlights the fact that there are a wide variety of disabilities and they all require different accommodations. Broadly, these disabilities

include, but are not limited to, sensory, cognitive, physical, and social or emotional disabilities

(What is the Category of Disability, 2017). Even within each category, there exists a range of

disabilities that affect lives in an endless number of ways.

2.3 Challenges for Individuals with Disabilities

Many challenges people with disabilities experience often derive from others' perception

of their disabilities (Shapiro, 1994). According to Thomas Hehir (2002), former director of the

U.S. Department of Education's Office of Special Education Programs, people in almost any

society assume a characterization when they notice that someone has a disability. These

assumptions can be accompanied by a range of lower expectations and negative connotations.

Assumptions like these ignore the fact that ability varies among people who share disabilities,

just like how people without disabilities differ in their applicable skills and abilities.

2.3.1 Ableism and Stigma

Ableism is defined by Laura Rauscher and Mary McClintock (1996), long term disability

right's advocates, as the discrimination and exclusion that oppresses people who have

disabilities. Greg Smith, an African-American disability activist and talk-show host, notes his

own experience with ableism, "I've faced unintentional discrimination, and it's just as damaging

as racism. . . . It's called ableism, the devaluation and disregard of people with disabilities"

(Smith, 2001, p. 162). In Western society, there is a strong assumption for what constitutes the

ideal human that is oriented towards the well-functioning, sporty, good-looking person, and

people with disabilities are often not considered befitting these societal norms (Krah &

Altwasser, 2006). Even when the accomplishments of people with disabilities are recognized,

their achievements are often viewed as being in spite of their disability. They are still held to a lower standard than they have proven to be capable of.

Different social groups may tend to be stigmatized more than others. Individuals with disabilities, unfortunately, are often stigmatized due to their circumstances. Physical disability is one of the most prominent driving characteristics in regards to why individuals with disabilities are stigmatized in the way that they are. This is evident when Livneh (1982) mentions that "attributing to those with disabilities certain negative characteristics frequently results when the mechanism of 'halo effect' is in operation" (pg. 340). This idea about the halo effect argues that when an individual sees someone with a physical disability that individual may become blinded and unable to see that person for who they really are. There are standards ingrained in the minds of individuals at a very young age about what constitutes an "able person." According to Livneh (1982), these negative attitudes towards people with disabilities can also be linked to childhood experiences fostering what becomes stereotypical beliefs and values in adult life. Stereotypical thoughts become second nature in a lot of people's minds and contribute to the stigmatization of people with disabilities.

2.3.2 Ableist Practices

The aforementioned beliefs, whether conscious or subconscious, often lead people to engage in particular ableist behaviors that negatively affect people with disabilities. Joe Shapiro (1994) documents the common societal responses to people with disabilities in his book, *No Pity*, using the two major juxtaposed figures of "Tiny Tims" and "Supercrips"; these figures are perpetuated by ableist practices and are clear sources of discrimination and stigmatization of people with disabilities. Shapiro's book discusses how society can have skewed perceptions of

the capability of people with disabilities and how the general public wrongfully dismisses them as incapable (Shapiro 1994).

Shapiro (1994) explains the model of "Tiny Tims" as "the idea that disabled people are childlike, dependent, and in need of charity and pity" (p. 14). The term "Tiny Tim" derives from a boy with a physical disability referred to as a "cripple" in "A Christmas Story" by Charles Dickens. When Shapiro (1994) refers to the poster children of the The Jerry Lewis Muscular Dystrophy Association, he specifically discusses how the role of these children may be perceived as examples of pity to incite donations. The telethon was successful, raising $56,952,177 in its last broadcast in 2014, even reaching the $60 million mark on several occasions. The telethon raised a total over $2 billion for muscular dystrophy research and treatments (Oldenburg, 2015). However, Shapiro explains that, to a certain extent, including these poster children can imply that having a disability is a problem or a shameful circumstance. He also argues that people act as though if you just donate money the disabled child will go away (Shapiro, 1994). Although it may increase donations, Thomas Heir argues that it is incredibly offensive to people with muscular dystrophy to treat them as pitiful characters or show them as if they are "damaged goods" (Hehir, 2002). This example is a microcosm of the patronization that people with any kind of disability can face, setting a precedent for unnecessary charity and offensive treatment.

Furthermore, Shapiro's (1994) "supercrip" model illustrates how many people tend to view a person with a disability who, through whatever instruments or personal effort, was able to reach personal achievement. This model stigmatizes people with disabilities as extraordinary because of feats assumed to be unreachable due to their disease (Shapiro, 1994). Images involving such a heroine are deeply moving to many able bodied people and media outlets, but are widely considered oppressive to people with disabilities (Hehir, 2002). Shapiro (1994)

illustrates this point by recounting the memorial service for Timothy Cook, an attorney with a disability known for his work for the rights of people with disabilities. He recalls Cook's longtime friends saying "he never seemed disabled to me," and "he was the least disabled person I ever met," during their eulogies (pg. 3). Statements like these diminish the accomplishments of people with a disabilities by pigeon-holing them as restricted individuals. People tend to perpetuate the "supercrip" implication whenever a person with a disability thrives, as if the person with a disability did it in spite of their disability (Shapiro, 1994).

While it may not be as prevalent for people with certain cognitive disabilities, people with a range of disabilities are frequently stigmatized. As such, many people with varying disabilities, including many disabilities including deafness, blindness, and learning disabilities, tend to deny or seek to hide their impairment (Kitchin, 1998).

Originating in the times of Aristotle and recognized as untrue in the 1970s, it was argued that without speech then one has no language, and without language, people were presumably unable to reason (Hehir, 2002, and Shapiro, 1994). Taking the form of oralism, people with hearing impairments were expected to learn lip-reading and speech. Since the 1970s, even though American Sign Language includes syntax and grammar, according to Thomas Heir, there exists a false stigma that they are not as well versed in language (Hehir, 2002). Furthermore, blind individuals, under the same pretense, are sometimes not taught braille in full because it can be faster to use books on tape, automated reading technologies, and modern school practices. Using a curriculum that emphasizes reading and writing in disability-specific language significantly improves the chances of a student moving on to higher education (Hehir, 2002). The consequences of these ablest practices can be significant, offensive, and impede the development of a person with a disability by wrongfully dismissing them because of their

disability. These false perceptions and projections can be combatted with early intervention and education, the proper allocation of resources, and a commitment to disability-specific language and learning strategies (Hehir, 2002).

<u>2.3.3 Improving Accessibility</u>

When constructing recreational facilities and public venues, architects often did not consider the breadth of varying abilities of potential users of these spaces. Interestingly, organized recreation in North America began as a concern for the livelihoods of those in a "disadvantageous positions" by having a disability or impairment, with many citing the creation of the Boston Sand Gardens in 1885 as the beginning of the recreation movement in America (Smith, Austin, Kennedy, Lee, & Hutchison, 2001). However, as time went on and community recreation grew, this focus on the "disadvantaged" was lost in favor of the idea of recreation for all. By the latter half of the 20th century, this idea ultimately had the effect of shifting the focus of organized recreation specifically towards those without disabilities. Smith et al. (2001) recognize that there are many pragmatic reasons for the past lack of public recreation services for people with disabilities, including but not limited to a lack of funds, lack of accessible transportation, and poor attitude of staff. They specifically highlight "lack of awareness of the need for these programs" as the most significant factor at play. While legislation has helped the United States increase the accessibility of many public spaces, the Americans with Disabilities Act was not a panacea.

2.4 Promoting Equal Opportunities

The Americans with Disabilities Act of 1990 (ADA), modeled after the Civil Rights Act of 1964, prohibits discrimination against people with disabilities (Introduction to the ADA). In

addition to the ADA, there are numerous organizations throughout the United States that excel in providing equal opportunities for people with life challenges. We will specifically discuss the American Association of People with Disabilities, Cotting School, Triangle Inc, and Seven Hills Foundation and what services and programs they offer.

2.4.1 The Americans with Disabilities Act

Congress passed the Americans with Disabilities Act to prevent discrimination against people with disabilities, explained in three specific Titles that broadly cover (I) employment, (II) state and local governments, and (III) public accommodations and commercial facilities. The Act also declares that all newly designed or constructed public buildings must be accessible for people with disabilities (A Guide to Disability Rights, 2009). In 2010, the Department of Justice adopted new guidelines that were developed by the Access Board in 2004, as revisions to Title II and III called the 2010 ADA Standards for Accessible Design (Rhoads, 2013). These revisions, alongside the original Act, remain today as the standing piece of legislation for prohibiting discrimination against those with disabilities.

Title III of the ADA provides a legal basis for what constitutes accessibility in public buildings and accommodations, including basic nondiscrimination requirements as well as many more specific architectural and communication requirements (A Guide to Disability Rights, 2009). However, as noted by Rhoads (2013), these guidelines may still need to be augmented to provide equal access to as many people with disabilities as possible, as they only represent minimum requirements. She proposes *Universal Design*, a concept developed by architect Ron Mace in 1985, as an important next step from the ADA. Universal Design is an approach whereby the features of a building, as well as products offered, are made to be usable for as many people as possible. The concept can be broken up into the seven principles – Equitable

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Use, Flexibility in Use, Simple and Intuitive Use, Perceptible Information, Tolerance for Error, Low Physical Effort, and Size and Space for Approach and Use – each having its own design guidelines (Rhoads, 2013).

2.4.2 Organizations that Promote Equal Opportunities

For the purposes of this report, we focused our research on The American Association of People with Disabilities (AAPD), The Cotting School, and Triangle Inc.. We chose these organizations because they serve a population similar to Seven Hills Foundation and can help us understand the breadth of organizational practices and programs for people with cognitive disabilities. The following organizations all focus their attention on a different population of people with disabilities. The AAPD is a nationally recognized organization that has information on every disability and are considered to be the expert in their field. The Cotting School, is focused on caring for children with disabilities through more of an educational role and Triangle Inc, places its attention on adults with disabilities through community inclusion. Combining the knowledge of these three organizations, we will be able to get a better understanding on accommodating the needs of people with disabilities from several points of view.

The American Association of People with Disabilities (AAPD) is a national cross-disability rights organization has a direct relationship to the ADA, as it was co-founded by Justin Dart, who was integral in the act's passage. The organization advocates for full civil rights for the millions of Americans with disabilities by promoting equal opportunity, economic power, independent living, and political participation. The AAPD describes itself as a "convener, connector, and catalyst for change," and elaborates on each of these three concepts. As a convener, they promote open and honest conversations that promote solidarity. As a connecter,

AAPD works to join the disability community with the community at large. As a catalyst, they work to create chain reactions that lead to further positive change (AAPD, 2017).

The Cotting School is a schooling facility in Lexington, Massachusetts, which promotes skill development, academic success, independence and social-emotional maturity for children with disabilities. It is relevant to our research because, like the Seven Hills Foundation, it is a local organization that offers services to people with a variety of challenges. Their goal is to help each child to best exhibit their special and individual talents. The Cotting School achieves this goal by employing professional, experienced workers that are dedicated and excited to provide unique care that best caters to each child. Each class has a ratio of about 8 children, 1 teacher and 1 aid. Outside of school, they travel to almost 400 community inclusive trips a year and offer a large selection of after school activities such as, basketball, tennis, chorus, dance, and many more. These activities change periodically to allow each child to find an activity that appeals most to them to foster self-expression and a fun, inclusive atmosphere. They also offer dental and medical services, a variety of schooling topics, summer programs, special classes in the arts and even have a prom! Parents know that when their children are involved in the Cotting school, they will experience excellent guidance to build a concrete foundation of life skills and knowledge (Cotting School, 2017).

Based in Malden, MA, Triangle Inc.'s mission is to empower people with disabilities and their families to enjoy rich, fulfilling lives through support, challenge, and opportunity. Our motivation to examine Triangle Inc. is that they provide support for a similar population as Seven Hills Foundation. Triangle offers services outside of education and serves adults, as well as children. They are a nonprofit company that works to provide equal opportunities and treatment for people with disabilities. Since 2001, Triangle has expanded to provide youth and

adults with the innovative career, leadership, and safety skills they need to live independent, dignified lives. In 2016, Triangle helped people secure or advance 234 careers. They provide a School-to-Career initiative and Empowering People for Inclusive Communities (EPIC) initiative that equip high school students with disabilities and recent graduates with the tools to start careers and to serve and lead their local communities. They also provide 10 homes in Malden, Beverly, Danvers, Reading and Saugus, and they provide the support that people need (Triangle Inc., 2017).

The Seven Hills Foundation, the sponsor of this project, is a non-profit organization that provides an array of services for both children and adults. Established in 1951, these services include education, clinical, and behavioral health services, in addition to day and long-term care programs. As stated in their mission statement, Seven Hills seeks to "promote and encourage the empowerment of people with significant challenges so that each may pursue their highest possible degree of personal well-being and independence." Their foundation is built on the idea that every individual should have the opportunity to live the highest quality of life possible, regardless of their circumstances. Some examples of the life challenges of those individuals who Seven Hills provides support to include poverty, a history of trauma, and cognitive disabilities. However, a majority of their participants have some sort of cognitive disability such as Down syndrome or autism spectrum disorder. Seven Hills provides support on a daily basis to assist their participants in achieving a higher quality of life (Seven Hills Foundation, 2017).

One of the many ways that Seven Hills enriches lives is by providing Seven Hills program participants with field trip opportunities. The goal of this project was to develop a digital resource that increases efficiency for employees at Seven Hills to identify quality field

trips for their participants. We describe our methodological approach to accomplish this goal in

the next chapter.

3. METHODOLOGY

At Seven Hills Foundation, it can be a prohibitively time-consuming task for employees to research interesting and accessible locations for field trips, referred to as community outings, for their participants. Therefore, *the goal of this project was to develop a digital resource that increases efficiency for Seven Hills employees to identify quality community outings for their participants*. We researched venues of interest and collected information about each venue, which we gathered by using an *evaluation checklist* that we developed through interviews and focus groups with staff of appropriate criteria that is important to those planning community outings. We then presented that information in a website that Seven Hills employees could access.

We accomplished our goal by executing the following 5 objectives. We discuss each objective and the methods we used to achieve them in more detail below.

> **Objective 1:** Determine necessary and important criteria for Seven Hills community outings and develop an *evaluation checklist* based on these criteria
>
> **Objective 2:** Identify, evaluate, and document venues based on criteria determined in Objective 1
>
> **Objective 3:** Determine the most feasible resource to organize information about venues in a searchable format
>
> **Objective 4:** Create website, populate it with the information from Objective 3, and obtain feedback
>
> **Objective 5:** Assess, make necessary changes and provide recommendations for further development of the website

Objective 1: Determine necessary and important criteria for Seven Hills community outings and develop an *evaluation checklist* based on these criteria

In order to accomplish Objective 1, we conducted a focus group via video conference with key employees to determine necessary and important criteria for participants at Seven Hills

for each venue. The focus group helped us gain the perspective of employees who plan community outings on location requirements and accessibility needs that would be associated with their community outings. We chose to use this method because, according to Berg & Lune (2012), discussing issues and problems in a focus group could give us more valuable responses than individual interviews about common points of emphasis employees look to address. See Appendix A for Focus Group discussion questions. We used a qualitative, coding approach to categorize the focus group responses into groupings such as physical and sensory (e.g. visual and auditory) accessibility criteria (Jay, 2013). This helped us organize our data collection when completing Objective 2.

In addition to conducting a focus group with Seven Hills employees, we were invited to sit in at an Assistive Technology (AT) "Super User" meeting consisting of representatives from a multitude of Seven Hills programs throughout Massachusetts. While at the meeting, we were given the opportunity to introduce our project and we received feedback about important criteria to include in the digital resource, such as accessibility, cost and location. We organized this information into the same categories from the focus group responses, as well as creating the additional categories of cost and location.

After conducting our focus group, attending the AT meeting and coding our results, we created an *evaluation checklist*, shown in Appendix B, using these responses along with the Americans with Disabilities Act (ADA) guidelines, that we then used to evaluate the accessibility of each location in Objective 2. As noted by Daniel L. Stufflebeam Ph.D., Professor of Education at the University of Western Michigan, "A sound evaluation checklist clarifies the criteria that at least should be considered when evaluating something in a particular area; aids the evaluator not to forget important criteria; and enhances the assessment's objectivity, credibility,

and reproducibility" (Stufflebeam, 2000). This was very helpful for us, as we wanted the same criteria to be used in every evaluation. The contents of the checklist were based on the categories we developed from the information gathered during the focus group, as well as the feedback from the AT meeting.

Objective 2: Identify, evaluate, and document venues based on criteria determined in Objective 1

To achieve Objective 2, we began by interviewing organizations that serve a similar population to Seven Hills. We conducted phone interviews with the Cotting School, Crystal Springs, and Easter Seals, as well as an in-person group interview with Triangle Inc. See sample interview questions in Appendix B. It was important to use interviews because it allowed us to gain information that cannot be found elsewhere (Richards, 1996). We used interviews rather than focus groups because the information we were looking for was more straightforward than discussion-based. In addition, scheduling an interview with someone from another organization is simpler and more convenient for both parties involved than a focus group, so when they are both sufficient, it makes more sense to conduct an interview.

First, we asked these organizations about their process for finding community outings. We did this to gain an outside perspective of how organizations similar to Seven Hills initially identify locations because this information helped us develop our identification process. We also asked the organizations what community outings they have gone on. We considered the community outings listed from these interviews as we began to identify locations for Seven Hills. Lastly, we also asked the organizations what they use to keep track of all their data about community outings. This method was based on benchmarking, a process where companies compare their practices and products to other companies in their industry to improve their own performance (Camp, 1989). During their evaluation of other companies, people responsible for

benchmarking take note of successful practices to incorporate within their own company. After we gained the information about location identification, potential community outings, and organization of data from our interviews, we began finding locations to assess.

We first started documenting potential community outing locations by assessing the venues that were mentioned in the focus group with Seven Hills employees and in the interviews with similar organizations. In addition, we identified and evaluated locations through our own research. When feasible, we conducted in-person assessments of locations using the *evaluation checklist* we developed in Objective 1 to grade all relevant criteria. We sent the *evaluation checklist* digitally, with explicit instructions, to locations we were unable to visit so that they could grade their venue themselves and send us back the completed checklist. It was crucial for the contents of the checklist to be as explicit as possible in order to eliminate ambiguity and ensure that no criterion was left to interpretation. This allowed us to be confident that the results we received were accurate and consistent.

Objective 3: Determine the most feasible resource to organize information about venues in a searchable format

To complete this objective, we started by reviewing the Seven Hills Assistive Technology (AT) database developed by Worcester Polytechnic Institute students in 2016. The software utilized in this database was MySQL. Familiarizing ourselves with this database helped to give us some ideas for how to structure the community outing resource. This information also helped us determine what digital resource we should make and what we should avoid (Berg & Lune, 2012). In addition to reviewing the previous database, we performed research on database construction and alternative digital resources, such as Microsoft Access, WordPress, MySQL & PHP and Google Sites, seen in Figure 3.1.

	Access	WordPress	MySQL & PHP	Google Sites
Ease of creation	easy	easy	involved	easy
Easy to use (intuitive)	moderate	easy	moderate	easy
Ease of update	moderate	easy	easy	easy
Cost to create/maintain	Need Office	monthly fee	free	free
Searchability (tags)	tags available	tags available	tags available	tags unavailable
Additional Comments	No comment section	Comments section	Comment section	Comment sections
Time to create	Medium	Medium	High	Low

Figure 3.1: Comparative list of digital resource options

As a part of our research in determining the most feasible digital resource, we interviewed Wilson Wong, Assistant Teaching Professor of Computer Science at Worcester Polytechnic Institute who teaches courses on database design. See Appendix D for interview questions. We also conducted an unstructured interview with Nam Tran Ngoc, the student from Worcester Polytechnic Institute primarily responsible for creating the AT database from 2016. As a result of these interviews, we determined that due to our lack of coding experience and our time constraints, using MySQL, or other database management systems, to create our resource would be infeasible. Lastly, we performed an unstructured interview with Steven Kessler, one of our sponsors, about what options would be best-suited for Seven Hills' needs. He suggested that a website, particularly one made via Google Sites, would be most appropriate, due to its ease of use and creation.

Objective 4: Create the website, populate it with the information from Objective 3

After we determined that a website was the most feasible option to present the information about venues from Objective 3, we completed Objective 4 by creating the website and populating it with the venue list and any additional information gained from Objective 3. We used the information gained in interviews alongside our own research to create the website and

populate it. The main obstacle we faced was with the limitations Google Sites has on creative edits you can make.

Once we finished creating and populating the appropriate website, we had a group of fifteen Seven Hills employees follow instructions on how to navigate the website, given to them in the text of an email, to attempt to access desired information from the website. The group consisted of employees from previous focus groups because they will be most likely to make use of the website once it is implemented. After they used the website, we asked which organization structure they liked the best. By doing this, we let the employees at Seven Hills chose the way they wanted the website to be organized.

Objective 5: Assess, make necessary changes, and provide recommendations for further development of the website

After we collected feedback from the focus group discussions, we used it to make appropriate adjustments to the website. As previously stated, our goal was to increase efficiency for Seven Hills employees when researching community outings. Therefore, it was most important that we use their feedback in refining it. Time constraints were an obstacle when acting on the feedback we gained from the focus group from Objective 4. Fortunately, these time constraints did not affect our project timeline, as shown in Appendix F.

Finally, after we finished Objective 5, we created recommendations for the implementation of the website, as well as any important ways in which it could be developed further in the future. These recommendations came from relevant independent research that we had previously done, suggestions taken from our interviews with Professor Wong in fulfillment of Objective 4, and from feedback received from employees, as appropriate. In this way, we were able to provide Seven Hills Foundation with a website for their employees to use when planning community outings, and recommendations necessary to make full use of it. In the

following Chapter, Results & Findings, we discuss how following these objectives led to the completion of our deliverable and what we found from our data and research.

4. RESULTS & FINDINGS

While following our methodology and through our data collection methods, which included focus groups, interviews, and observations, we developed a website to assist Seven Hills' employees in the planning of community outings for their participants. In the following chapter, we discuss the website as a whole, including all of its features. We then talk about the importance of community inclusion. Next, we elaborate on the development of the *evaluation checklist* . Finally, we will explain the significance of communication and preparation by the Seven Hills employees and why it is important to the success of a community outing

4.1 Website

The website that we created is intended to increase efficiency for employees when researching and planning community outings for participants. The home page of the "Seven Hills Community Outings" website, as seen in Figure 4.1, includes suggested search strings for users, a list of definitions for some of the unknown ADA vernacular, and a tutorial video that gives the user instructions on how to navigate our resource. The search strings provided can help staff

search the website for specific accommodations or information throughout the website.

Figure 4.1: Web page ScreenShot of Homepage

Also shown in Figure 4.1, there are clickable tabs on the left-hand side of the window, organized by type of outing that takes the user to a catalogue of trips in those category. A user could view a category of venues catalogued and select one that their participants would enjoy. When the user clicks a category, those potential venues are alphabetized and organized by the region of Massachusetts they are located. The regions are Northeast, Southeast, Metro Boston, and Central Massachusetts.

Museums

Northeast

Name	Description	Location
Decordova Museum and Sculpture Park	"DeCordova fosters the creation, exhibition, and exploration of contemporary art through their exhibitions, learning opportunities, collection, and unique park setting."	51 Sandy Pond Rd Lincoln, MA 01773
Durant Kenrick House and Gronds	Durant Kenrick House and Grounds offers "a 1734 farmhouse, restored and renovated in 2013. . . a family-friendly museum with period rooms, interactive games, and puzzles, [and] a place to enjoy historic gardens and play outdoor games"	286 Waverley Avenue Newton, MA 02458
Fort Devens Museum	"The Fort Devens Museum is a civilian operated non profit 501 (c)(3) organization dedicated to preserving the history of the men and women who served at Camp Devens, Fort Devens and the current Military Training Center at Devens."	94 Jackson Rd # 305 Devens, MA 01434
Fruitlands Museum	"Fruitlands is a gathering place that builds connections between nature, people and culture. Recognized nationally and loved locally for its engaging exhibitions and programs, the museum serves as a catalyst for creativity and the development of curious minds for audiences of all ages."	102 Prospect Hill Rd Harvard, MA 01451
Jackson Homestead and Museum	"The Jackson Homestead and Museum displays rotating and permanent exhibits about the history of Newton, Massachusetts, and the Underground Railroad. The Homestead is also home to the archives of Historic Newton."	527 Washington St Newton, MA 02458
National Heritage Museum	"One of our country's finest history museums featuring changing exhibitions on American history and popular culture. Don't miss 'Lexington Alarm'd,' the Museum's permanent exhibition on the American Revolution."	Marrett Rd Lexington, MA 02421
Salem Witch Museum	"The museum features 2 exhibits centered around the Witch Trials of 1692. The main presentation is based on actual trial documents and utilizes 13 life-size stage sets, figures, lighting, and narration. In the second exhibit, live guides provide more information about witchcraft throughout history."	19 1/2 Washington Sq. North Salem, MA 01970

Figure 4.2: Web page screenshot of the Northeast section of Museum's page

As seen in Figure 4.2, we include a table that contains the venue's name, address, and a brief, general description. With this information, staff will be able to get a simple understanding of whether the trip would be appropriate or worthwhile, as well as if the location is viable. When

the user finds an appropriate community outing, they can click the venue title that links to the venue's informational page.

On each venue's individual page, we have included each venue's general information and accessibility information. One example of a venue page of the Jackson Homestead and Museum is shown below in Figure 4.3. General venue information includes the venue address, cost of visit, reachable phone number, and a link to the venue's website. When including accessibility information, **we found that organizing the features by categories of mobility accommodations, sensory information, and additional information in a table would be the most useful format to use.** We chose this specific layout by organizing the information from a Jackson Homestead and Museum, in three different ways. We then sent the link to the community outings website to fifteen employees from Seven Hills Foundation's Super-User group, asking them to vote on which of the three pages they liked most. The categories in the

table include corresponding information that we gathered with the *evaluation checklist*.

Jackson Homestead and Museum

General Information

Address: 527 Washington St
Newton, MA 02458
Cost: $6/person
Phone #: 617-769-1450
Website: Jackson Homestead
Peak hours: 1st weekend of each month

Mobility Accommodations	Sensory Information	Additional Information
Curb ramps at all entrances	Average level of brightness: **Medium**	First Aid Kit available
Some doorways accessible	Average level of noise: **Low**	Outside food is allowed
1 handicap accessible parking space		
Van accessible parking		
1 handicap accessible restroom		
Handicap accessible seating*		
Handrails provided on some sloped walking surfaces		
Unobstructed path of travel		
Ramps available as wheelchair accessible alternative to stairs**		

Figure 4.3: Example of a venue page

4.2 Independence, Empowerment, Community Inclusion

Through focus group discussions, and interviews with our sponsors, other Seven Hills employees, and employees of other organizations serving similar populations, **we found that community outings may be organized not only for recreational and educational purposes, but also in order to increase participants' independence and inclusion within the community.** Some outings are intended to enable participants to perform routine tasks, such as shopping for themselves (A. Binsaid, personal communication, March 24, 2017).

We heard from multiple Seven Hills employees that participants may be taken to malls, or stores such as Home Depot in order to do their own shopping. In our interview with Alda

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Binsaid of Crystal Springs, she described how they recently took an individual to a grocery store in order to pick out and buy the necessary ingredients for a cooking project that the individual wanted to do (A. Binsaid, personal communication, March 24, 2017). Larainne Wilson of the Cotting School mentioned that one of the three categories of community outings at the school was "life skills", which included going to a store (L. Wilson, personal communication, March 28, 2017). In the focus group with Triangle, Inc. employees, participants noted that individuals are commonly taken to job fairs. The purpose of these kinds of trips is to allow participants to further develop life skills, take more responsibility over their own needs, and increase their sense of independence. While individual stores are outside of the scope of the website due to their abundance in all areas of Massachusetts, we included some larger shopping centers, particularly malls, in light of this finding.

In addition to recreation, education, and an increase in independence of individuals, **we found that inclusion within the community is commonly a primary goal of community outings**. This can be achieved in a variety of ways, and can often overlap with other goals when planning community outings. In fact, the Cotting School refers to all community outings, regardless of which category each one falls under, as "community inclusion experiences," implying that increased community inclusion can be achieved by all types of community outings (L. Wilson, personal communication, March 28, 2017). An additional, and perhaps more direct, type of outing which increases community inclusion is one that is centered around community service. Such trips are commonly organized by staff at Triangle, Inc. to give the individuals a chance to feel and become more connected to their community, as well as gaining a sense of accomplishment in helping others (D. Belanger, personal communication, April 5, 2017) . This led to our inclusion of links to community service opportunities on the website.

4.3 Evaluation Checklist

In this section we discuss the development of the *evaluation checklist*, as seen in Appendix B, and how the criteria included in it was reached. The checklist was organized into three categories: Physical, Sensory, and Additional. The contents of each section were developed through multiple interviews, focus groups and discussions with Seven Hills employees, as well as ADA specifications. Additionally, we conducted focus groups and interviews with similar organizations to Seven Hills, in which we discussed accessibility features and any other relevant information of potential community outing venues. We included any new information gained from these interviews and focus groups into the checklist. All of the information covered in the checklist was added to our website.

4.3.1 Physical Accommodations

All of the physical accommodations that we included on the checklist are accommodations that are covered by the ADA. However, **we found that while a venue may be accessible in the eyes of the ADA, due to older venues being "grandfathered in", not all venues are up to current standards which can be an issue during community outings.** For example, during an early meeting with our sponsor, Jean DesRoches, she mentioned an instance where a particular venue did not have a big enough public elevator for a wheelchair to fit in but they did have a large service elevator for employee use that participants could ride in. While this may be a working elevator, it is an inconvenience and unfair for someone to have to use a service elevator just because they have a disability. As a result, we began specifying physical accommodations, such as "public elevator" as opposed to "elevator", on the checklist.

Another common example of venue inconvenience has to do with doorway accessibility. While a venue may have a wide enough doorway by ADA standards, if the doors are

significantly heavy or are not automatic it can become an issue trying to enter the venue, particularly for individuals with physical disabilities. For example, during our visit to Seven Hills' Aspire program, one of the employees mentioned that, on more than one occasion, they have had to wait at a doorway of a venue for a bystander to assist them in opening the door. As a result, we began taking more detailed note of doorway accessibility when conducting assessments.

4.3.2 Sensory Information

Perhaps one of our most significant findings was the large variety of needs that are considered when determining accessible venues. Initially, we only took into account physical accessibility accommodations, such as an elevator, ramp or automatic doorways. However, through a series of focus groups and interviews with employees at Seven Hills Foundation and other organizations, **we found that not all important considerations have ADA guidelines, such as sensory accommodations, and that they are equally as important to consider when determining whether or not a venue is accessible.** During our meeting with the AT Super Users at Seven Hills Foundation, we learned that issues such as noise and lighting can negatively affect a participant while at a venue. As a result, we began asking these venues not only if they were particularly bright or loud, but also when their busiest hours were. This information could be beneficial to Seven Hills employees as they can try to avoid a venue during their peak hours to try to minimize crowdedness and noise level that could potentially negatively affect a participant. Also through these interviews and focus groups, we learned that the availability of braille at a venue can be greatly beneficial for an individual who has a visual impairment. This can make a huge difference for a participant and allows them to be as independent as possible and not feel that they are reliant on the employees. As for accommodations for individuals who

have hearing impairments, we learned that it is not as common for a venue to be able to accommodate people with hearing impairments, such as having an onsite signer, however, sometimes venues can make special accommodations if given enough notice.

<u>4.3.3 Additional Information</u>

In addition to physical and sensory considerations, **we found that other accommodations such as food offerings, or first aid kit availability, may help facilitate a community outing and can be useful for Seven Hills employees to know**. A venue's food availability, is good information to know before-hand so that the employees of Seven Hills can plan whether the participants can purchase their own food while at the venue, or if they will have to bring food with them. After gaining this information through our focus groups we began asking venues about these other considerations.

The more information that a Seven Hills employee has in regards to a venue can make the process of planning a community outing for the participants at Seven Hills more efficient

For all accommodations, **we found that calling a venue prior to planning a community outing can improve the likelihood of an enriching community outing.** Even if they are only calling to give the venue advanced notice that they are coming and to let them know about the population that will be in attendance. More often than not, a venue is more than happy to have them and will try to accommodate to the best of their ability to try to make the participants', as well as the employee's, experience as pleasant, convenient and memorable as possible. As a result, we added contact information to every venue that we assessed and included in the resource so that the employees could conveniently reach out beforehand.

We found that the absence of one or more of these accommodations does not necessarily prohibit individuals from visiting a particular venue. During our first interview

with our sponsor, Ms. Des Roches, she mentioned that some places may not be fully accessible, meaning a particular room or area of a venue may not be accessible to an individual with a physical disability, while some areas are. For example, she mentioned a venue having an entrance ramp that allows access to the venue, however, once inside there was no elevator, so access to higher floors was not possible. As a result, an individual is limited and unable to fully experience a venue.

4.4 Employee-Employee and Participant-Employee Communication

When planning a community outing, communication and preparation are two key components to ensuring a successful trip. Communication must be present amongst employees and between employees and participants. Preparation is done by calling ahead to venues and being aware of the accommodations certain venues offer to ensure the location is suitable for the participants

4.4.1 Communication between participants and employees improves experience for participants

Through interviews with employees of Seven Hills and similar organizations, **we found that communication between employees and participants improves the community outing experience for participants.** Employees must be aware of the interests of their participants and how certain environments affect them. This can be seen through observations over time, but the most direct method is by communication. This open line of communication can allow teachers to pick and choose outings that best suit their participants and get the most enjoyment out of the community inclusion experience.

Referring back to Chapter 2, the Literature Review, a trip can only be satisfying to a participant if it appeals to them. When interviews were conducted with Crystal Springs, the

Cotting School, Easter Seals, and Triangle, Inc., all expressed how communication between an employee and participant is important so that the employee knows their interests. Knowing these characteristics can help an employee plan which trips they can go on. For example, when individuals at Easter Seals expressed their interest in video games, they were taken to an event at a Microsoft Store where they could learn how to code a simple game (P. Remy, personal communication, March, 31, 2017) and the Cotting School designates a category of recreational field trips that students select and can play a large role in planning (L. Wilson, personal communication, March 28, 2017). Easter Seals surveys their participants after a community outing to receive their feedback about their experience of the trip (P. Remy, personal communication, March, 31, 2017). By taking their interests into account in these ways, the participants will be actively engaged and excited about the trip.

4.4.2 Communication Among Employees Improves the Planning Process

Through interviews with organizations similar to Seven Hills Foundation, **we found that an open line of communication among employees is important to improve the process of planning community outings**. By sharing with each other the trips they go on, it allows participants to receive a wider range of community outing experiences. It also allows employees to be aware of the venues that are unable to accommodate individuals with certain disabilities.

Communication allows employees to share how successful or unsuccessful their trips were. If a trip was successful, they share details such as, the events the venue offered, the accommodations they provided, and how well they complied with many of the criteria we pinpointed in the Checklist, shown in Appendix B. For example, program directors at Triangle Inc. are each in charge of creating a monthly schedule of outings which they share with each other for new ideas (D. Belanger, personal communication, April 5, 2017). Similarly, the Cotting

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School keeps information about field trip experiences in a shared folder on their staff website which teachers can update as they take their students on new outings (L. Wilson, personal communication, March 28, 2017). Easter Seals always surveys employees about their experience after a field trip, although it can sometimes be difficult to ensure responses from everyone (P. Remy, personal communication, March, 31, 2017). It is important for employees to share positive past experiences to allow other participants to have the same enjoyable opportunity offered by the outing. Since teachers have different ideas for venues, communication allows participants to go on a wider variety of outings. It can also have an impact on the cost of venue visits. If a teacher finds an organization, such as the Worcester Public Library, that allows people with disabilities to go on an outing for free, it is good to share this information with their colleagues.

As important as sharing gratifying outings are, it is more important to share the community outings that did not go as planned and failed to give the participants a worthwhile community inclusion experience. This situation could occur when an elevator is not present, it is too crowded and overwhelms a participant or the venue only contains activities that able-bodied individuals can partake in, and many more. For example, a teacher at Seven Hills Foundation Aspire affiliate once took her participants on a trip. They followed all of the pre-departure procedures and arrived at the venue with little issue. When they arrived at the venue, it did not contain a ramp from the parking lot to the entrance of the building. Since some of the participants had wheelchairs, they could not enter the venue and the trip ended before it started. The van was forced to return to Aspire without a community outing (Seven Hills Foundation Aspire Program Employee, personal communication, March 27, 2017). To prevent unfortunate experiences like that to happen to other employees and participants, it is important to share the

negative outings. We hope that the website will assist in avoiding these experiences, since the checklist specifies a minimum width for ramps, and other important considerations.

4.5 Pre-planning and preparation is important to the success of a community outing

In our interviews with organizations similar to Seven Hills Foundation, we found that pre-departure planning and preparation are important to having an enriching, successful field trip. By doing the proper research and preparation work, participants, staff, and locations are more likely to be prepared for any accommodations that an individual may require. Preparation can arise from better communication between all parties.

We found that calling ahead and communicating the needs of individuals can allow the location to be better prepared for accommodating people's needs. By communicating at an early stage of the planning process, venues can easily take the time to prepare tours, exhibits or experiences to better fit the visiting population. In our interview with Triangle's Dana Belanger, we learned that locations were often more accommodating when advised beforehand. She included that Triangle, with its non-profit status, has been able to receive discounts and group deals at a number of locations. Ms. Belanger referenced that they had recently gone on a community outing to a museum for free (D. Belanger, personal communication, April 5, 2017). In our interview with Easter Seals, Patrick Remy explained that they also make early contact with locations before visiting, either in person, email or phone calls, to confirm the available and possible accommodations that a location may be able to provide (P. Remy, personal communication, March, 31, 2017). In our interview with Larainne Wilson, we confirmed that the Cotting School also commonly has staff visit a location prior to organizing an outing (L. Wilson, personal communication, March 28, 2017).

We also found that a lack of preparation leads to employees being unaware of the accommodations certain venues have to offer. When we visited Seven Hills' Aspire program, we spoke with staff members and learned about many instances where a trip was either uncomfortable or even impossible for individuals to participate. For example, in the past Seven Hills had visited a location where they were told they could access the location by ramp, but upon arrival learned that the ramp was too small. These miscommunications led to participants not being able to enter a location. If both organizations were able to better plan and communicate the necessary accommodations, then they could have planned a successful outing for this group.

Triangle's Dana Bellanger also referenced several instances where participants were treated inappropriately by venue staff (D. Belanger, personal communication, April 5, 2017). One instance included venue staff talking to a participant as if they were a child, to the extent that a Triangle employee had to speak with event staff to amend the situation. Another instance occurred where a yoga instructor, with whom Triangle had planned a class, gossiped about the lack of an individual's ability to participate and perform exercises properly with another instructor. With better preparation and planning with this venue, participants could have been treated more appropriately, given that the instructor could have had a better understanding of the groups' members' ability.

4.5.1 Effective Methods to find Community Outing Locations

Through our focus group with Triangle and interviews with the Cotting School and Easter Seals, **we found there are various effective methods of finding venues to consider.** Searching town event calendars, Facebook service group pages, Facebook event pages, Eventbrite, University and College sites, and disability newsletters are effective methods when searching for new locations and experiences. Town event calendars often include community

service opportunities and town events that are open to the community as a whole. Facebook

service groups are a useful way to network and become involved in the community. Facebook

event pages can provide the same useful information about locations and events, as well as

contact information to learn more. Eventbrite is a social media website where organizations

promote their own events and experiences, and can be helpful when researching new venues.

University and college websites often include campus inclusion events and service opportunities

that can be accessed through the school. Lastly, disability newsletters can be subscribed to, and

they provide useful information when considering their suggested locations.

5. RECOMMENDATIONS

In the following sections, we provide a list of six recommendations to Seven Hills Foundation. We have come up with these recommendations through our own experiences, interviews and focus group data. With these recommendations in mind, Seven Hills staff will be able to use the website most effectively and improve upon the information that it includes.

5.1 Use the *evaluation checklist* when assessing new potential community outings

The checklist can act as a guide for employees when assessing new venues. They can either fill out the checklist when conducting preparation visits in person, or it can be sent to a venue via email or fax to have the venue complete the assessment for them. The checklist will keep information such as physical accommodations and sensory information consistent and be sure the venue has the correct accommodations for their participants.

5.2 Always call ahead before going on an outing

Calling ahead can be beneficial before going on an outing. It can lead to additional accommodations from and important information about the venue. It can also potentially increase the success of the outing as a whole, and prevent unexpected issues due to any accommodations that cannot be provided.

5.3 Find new outings using methods utilized by Triangle Inc.

- ○ Searching town event calendars
- ○ Facebook service group pages
- ○ Facebook event pages
- ○ Eventbrite
- ○ University and College sites
- ○ Disability newsletters

When looking to discover new interesting and accessible venues or events, the above methods can be particularly useful. Community outing planners at other organizations serving similar populations, particularly at Triangle, Inc., have had success using each of these methods to identify new successful trips.

5.4 Consider community service opportunities as a community inclusion experience

Providing community service can be great way to not only become more involved in the community, but also to gain a sense of independence and empowerment. A disability does not automatically mean that an individual can not serve the community.

5.5 Spread awareness of the website throughout Seven Hills and encourage the utilization of the comment section on the website

More employees utilizing the website can lead to more successful outings for participants, as it can help to reduce time spent researching each individual trip. The comments section will allow them to share their thoughts on a particular venue and the overall experience after they have gone on an outing. Other employees can take these comments into consideration when considering a new venue.

5.6 Continue updating the website with new community outings as employees find them

It is important that new venues are being added to the website because the website will always have up to date information and new experience for participants to partake in. It is also important that new pages added have the same formatting that we originally created. This will keep the website easy to read and organized. We have created a template for creating new pages for future ease of update.

6. CONCLUSION

Seven Hills is committed to helping their participants to achieve the highest quality of independence and empowerment. Community inclusion as well as recreational and educational activities is just one way that they achieve their goal. Our work of creating a website of community outings will allow employees to have a multitude of venues to choose from along with important information, including the levels of accessibility and variety of available accommodations, about each venue. This should reduce the amount of time needed for staff to plan outings for their participants, and hopefully therefore lead to more opportunities for participants at Seven Hills.

In addition to use of the website, we encourage communication among employees and between employees and participants. Communication is important to the success of community outings. Additionally, we encourage use of the comment sections on the website as another form of communication among employees. Communication between community outing planners and staff at the venues of interest is also key to the success of a trip, along with general preparation. While the website can help with the latter, we always encourage Seven Hills employees to call ahead and explain the needs of their participants so that they can be best accommodated during the community outing. Going forward, we hope that the Seven Hills Foundation continues to use the website and populate it further to provide the participants with more enriching opportunities.

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APPENDICES

Appendix A: Sample Focus Group Questions about Field Trip Criteria

We are a group of students from Worcester Polytechnic Institute in Massachusetts. We are conducting a focus group to determine what criteria are considered when researching potential field trip venues. Your participation in this focus group is completely voluntary and you may withdraw at any time. Please remember that your answers will remain anonymous. No names or identifying information will appear in any of the project reports or publications. This is a collaborative project between the Seven Hills Foundation and WPI, and your participation is greatly appreciated. If interested, a copy of our results can be provided at the conclusion of the study.

Facilitator: Shane Farley
Scribe: Owen Chace, Brianna Dozier, and John Mastascusa

Question 1: When researching a potential field trip venue, what criteria do you look for when determining if it is accessible or not?
   Follow-up:
   ● Can you elaborate on the difference between fully and partially accessible?

Question 2: What else do you consider when planning field trips?

Question 3: What distances should we consider appropriate?

Question 4: How many participants attend a typical field trip?
   Follow-up:
   ● Do participants typically have a variety of life challenges?

Question 5: How many employees usually accompany participants on field trips?

Question 6: What goes into determining whether or not a field trip is enriching?

Question 7: What venues have you gone to in the past?

Evaluation Checklist

Seven Hills would like to take their participants on more field trips but they need to know if locations are accessible. Our goal is to create a list of accessible venues for Seven Hills field trips.

Instructions: Check all that apply to your venue. Please answer to the best of your ability.

Mobility options of your venue to accommodate individuals in wheelchairs and with walking impairments

- ❏ Handicap parking
    - ❏ # of handicap parking spaces:_____
    - ❏ Handicap parking for a van
- ❏ Curb ramps leading into venue
    - ❏ At all entrances
    - ❏ At some entrances
- ❏ Handrails
    - ❏ Provided in all elevators
    - ❏ Provided in at least one elevator
    - ❏ Provided on all sloped walking surfaces
    - ❏ Provided on some sloped walking surfaces

- ❏ Unobstructed path of travel
  Continuous, unobstructed way of pedestrian passage by means of which the altered area may be approached, entered, and exited, and which connects the altered area with an exterior approach (including sidewalks, streets, and parking areas), an entrance to the facility, and other parts of the facility.
- ❏ Accessible Doorways
  Doorways should have a minimum width of 32 inches
    - ❏ Some doorways accessible
    - ❏ All doorways accessible
- ❏ Handicap accessible seating
  In stadiums, arenas, and grandstands, wheelchair spaces and companion seats are dispersed to all levels that include seating served by an accessible route
    - ❏ # of available handicap seats: _____
- ❏ Maneuverability
  Turning space of minimum 60 inches in hallways
    - ❏ Maneuverability in all hallways
    - ❏ Maneuverability in some hallways
- ❏ Drinking Fountain
  Spout outlets of drinking fountains for standing persons shall be 38 inches minimum and 43 inches maximum above the finish floor or ground.
    - ❏ # of accessible drinking fountains:_____

Where there are stairs at your venue, please check if you have either of the following to transport patrons to next floor:

- ❏ Public Elevator
  Minimum size of 60 in. by 60 in., with a minimum door width of 36 in., strictly for passenger use
    - ❏ # of Elevators:_____
- ❏ Escalator
- ❏ Ramps
- ❏ None

Sensory accommodations for people with hearing and visual disabilities and sensitivity to specific environment

Peak Hours:_____
The time frame your venue is most populated (Days and Hours)

Visual accommodations
- ❏ Braille
- ❏ Other accommodations: _____

Auditory accommodations
- ❏ Subtitles
- ❏ Sign language translators
- ❏ Other accommodations: _____

On an average day at _____:
Brightness Level
- ❏ Low
- ❏ Medium
- ❏ High
Noise Level
- ❏ Low
- ❏ Medium
- ❏ High

Food
- ❏ Cafeteria/food court
- ❏ Pureed food option
- ❏ Dietary restrictions
    - ❏ Gluten-free
    - ❏ Lactose intolerant
    - ❏ Nut allergy
- ❏ Outside food allowed

Restrooms
- ❏ Handicap bathrooms
    - ❏ # of restrooms: _____
    - ❏ All bathrooms have at least 1 handicap accessible stall
    - ❏ Some bathrooms have handicap accessible stalls

First Aid
- ❏ Nurse/medic on staff
    - ❏ Hours available:_____
- ❏ First Aid kit available

Cost
- ❏ General admission: _____
- ❏ Group rate (if any): _____
    - ❏ # of people to qualify for group rate: _____
- ❏ Disability discount (if any): _____

Please add information about any additional accommodations your venue has that are not listed above

_____
_____
_____
_____

Appendix C: Interview Questions for Similar Organizations

We are a group of students from Worcester Polytechnic Institute in Massachusetts. We are conducting interviews of employees of organizations that provide assistance for people with disabilities to learn more about the criteria and relevant information in planning field trips for participants. We strongly believe this kind of research will ultimately help us create a resource for the Seven Hills Foundation that will assist its employees while planning field trips for participants with disabilities. Your participation in this interview is completely voluntary and you may withdraw at any time. If you are comfortable, we would appreciate your permission to quote you in our report. If you are not comfortable with this, no names or identifying information will appear in any of the project reports or publications. This is a collaborative project between the Seven Hills Foundation and WPI, and your participation is greatly appreciated. If interested, a copy of our results can be provided at the conclusion of the study.

Question 1: What types of field trips do you take your participants on?

Question 2: When researching a potential field trip venue, what criteria do you look for when determining if it is accessible or not?

Question 3: Can you elaborate on your field trip planning process?
    Follow-ups:
- How do you begin your research process?
- What types of venues do you look for?
- What criteria must those venues meet in order to be considered?
- Can you describe your process for selecting a venue for a field trip?

Question 4: What method do you currently use to help organize your field trip information?
    Follow-up questions (If the answer is digital resource or database):
- What do you like about the database?
- What do you dislike about the database?
- What changes, if any, would you make to the database and why?
- Was it easy for employees to learn to use this database?
- Can employees easily expand upon this database?
    Follow-up questions (if the answer is any other resource)
- Can you elaborate on this method?
- How do you update your resource with new field trips?

Question 5: Are there any recommendations of field trips that were successful for your organization in the past?

Appendix D: **Interview Questions for Computer Science Department**

We are a group of students from Worcester Polytechnic Institute in Massachusetts. We are conducting interviews of CS Department employees to learn more about databases and the which are most user-friendly. We strongly believe this kind of research will ultimately help us create a resource for the Seven Hills Foundation that will assist its employees while planning field trips for participants with disabilities. Your participation in this interview is completely voluntary and you may withdraw at any time. If possible, we would appreciate if we could publish your name in our report. This is a collaborative project between the Seven Hills Foundation and WPI, and your participation is greatly appreciated. If interested, a copy of our results can be provided at the conclusion of the study.

Question 1: What databases are feasible to create for people who lack experience in database construction?

Question 2: We have narrowed down our research on possible resources to MySQL, PHP and WordPress can you elaborate on each one of these options?
> Followup:
> - Can you search them?
> - Can you add tags?
> - Can comments be added to by anyone?
> - Do you have to pay to create or update them?
> - Which is easiest to create?
> - Which is most user friendly?
> - Which is easiest to update?
> - Is it easy to make the database/website secure?

Question 3: Which of these would you say are most user-friendly?

Question 4: Could we contact you in the future with any questions we might have?

Appendix E: Focus Group Questions for Employee Feedback

We are a group of students from Worcester Polytechnic Institute in Massachusetts. We are conducting a focus group to gain feedback about the resource we created. We will do this to make any necessary changes to the resource. Your participation in the focus group is completely voluntary and you may withdraw at any time. Please remember that your answers will remain anonymous. No names or identifying information will appear in any of the project reports or publications. This is a collaborative project between Seven Hills Foundation and WPI, and your participation is greatly appreciated. If interested, a copy of our results can be provided at the conclusion of the study.

Question 1: What did you like about our field trip database?
   Follow-up:
   - Can you elaborate on why you like <response>?

Question 2: What did you dislike about our field trip database?
   Follow-up:
   - Can you elaborate on why you did not like <response>?

Question 3: What changes, if any, would you make to our field trip database and why?

Question 4: Was it easy to use this database?

Question 5: Do you have any comments on the specific information that the database provides?