

ILLINI SERVICE DOGS-CHANGING PERCEPTIONS

BY

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THESIS

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ABSTRACT

This was a comprehensive study of the change of perceptions related to the disability culture among undergraduate students at the University of Illinois at Urbana-Champaign who are members of the Illini Service Dog Program. The purpose of the study was to determine if participation in the Illini Service Dog Program affected perceptions of participant's related to disability culture. The four main focuses of this study were disability, awareness, advocacy, and accessibility. A study group of 31 members of the Illini Service Dog Program took part in a pre-test and post-test survey that evaluated their perceptions related to the four main focuses of this study that related to the disability culture. The data consisted of 20 usable pre-test and post-test surveys. The data was analyzed with Paired Samples T-Tests by using SPSS software. It was found that there were statistically significant results regarding changes in perception among areas related to awareness and advocacy. The results for perceptions of disability and accessibility experienced positive improvements. The study showed that participation in an engaging and enriching program, such as the Illini Service Dog Program, could have positive impacts on perceptions of disability, awareness, advocacy, and accessibility.

To Coal Evans, the dog that started it all.

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TABLE OF CONTENTS

| | |
|---|----|
| CHAPTER 1: INTRODUCTION..... | 1 |
| CHAPTER 2: LITERATURE REVIEW | 6 |
| CHAPTER 3: METHODOLOGY | 20 |
| CHAPTER 4: RESULTS | 25 |
| CHAPTER 5: DISCUSSION..... | 28 |
| REFERENCES | 35 |
| APPENDIX A: INSTITUTIONAL REVIEW BOARD CERTIFICATION..... | 41 |
| APPENDIX B: INFORMATION SHEET | 42 |
| APPENDIX C: QUESTIONNAIRE FOR PARTICIPANTS..... | 43 |
| APPENDIX D: DEMOGRAPHIC INFORMATION | 45 |
| APPENDIX E: DISABILITY RELATED QUESTIONS | 46 |
| APPENDIX F: AWARENESS RELATED QUESTIONS | 47 |
| APPENDIX G: ADVOCACY RELATED QUESTIONS..... | 48 |
| APPENDIX H: ACCESSIBILITY RELATED QUESTIONS..... | 49 |

CHAPTER 1: INTRODUCTION

The Illini Service Dog Program is the first program of its kind in the world. The program provided college students with the opportunity to foster and train service dogs on the University of Illinois at Urbana-Champaign campus. The students fostered the dogs from puppy hood to placement while training the dogs to know over forty commands to assist people with disabilities by helping with activities of daily living. The students gained the enriching experience of training a service dog for a person with a disability while obtaining an understanding about the disability culture and disability rights.

There are several different definitions of a disability. According to the Americans with Disabilities Act [ADA], a disability is defined as "...a physical or mental impairment that substantially limits a major life activity" (ADA, 2013). There are a wide variety of disabilities and a vast spectrum of severities of those disabilities. For example, two people might share the same diagnosis or disability, but have differing levels of severity, which therefore can impact their ability to perform activities of daily living. An article by Monaci and Morris stated that activities of daily living (ADL) included the ability to perform tasks such as self-care, ambulation, eating, and much more (2012). Prior to the enactment of the ADA in 1990, people with disabilities faced many struggles and challenges from the environment and other people's misconceptions or perceptions. The ADA helped provide rights and accommodations to people with disabilities by establishing laws and regulations. The ADA required businesses and public places to become accessible in order to accommodate people with disabilities.

According to the ADA, a service animal is any guide dog, signal dog, or other animal specifically trained to provide assistance to an individual with a disability (ADA, 2013). Service dogs have been around for many years. During the world wars, the dogs served in

unconventional ways, like helping the medical response teams and assisting in communication transmissions. Today, service dogs have rights to access public places with their handlers in order to assist them. Service dogs can be trained for people with mobility impairments, hearing impairments, blind, diabetic, epileptic, and much more. Service dogs are critical to a person with a disability's ability to live independently (as possible) while maintaining or achieving a high quality life.

People with disabilities are often labeled as the largest and most diverse minority in the United States. However, many people are unaware or unfamiliar with many of the components of the disability culture. Common things in the disability community, such as person first terminology, are often overlooked or unaddressed by the general public. Person first terminology is a language adoption that has become more popular in the past couple of decades. It puts the focus on the person rather than the disability. An example is saying "a person with a disability" rather than saying "a disabled person". It aims to emphasize that they are their own individual person rather than defined by their disability. Person first terminology is widely accepted, promoted, and preferred way to discuss and interact with people with disabilities. (Lynch, R., & Thuli, K., 1994). According to a study published in 1994, 26% of participants considered "person with a disability" and "disabled person" to be equivalent terms. The study concluded that person-first terminology was still not universally recognized as the preferred method of communication about and among people with disabilities (Lynch, R., & Thuli, K.).

Approximately twenty percent of adults in the United States have a disability (Centers of Disease Control and Prevention [CDC], 2010). It is commonly believed and accepted that service dogs can provide several benefits for people with disabilities. However, it is estimated that the demand for service dogs is greater than the supply. Several service dog organizations have

waiting lists with waiting times that often exceed two years. These lengthy lists demonstrate that the need for service dogs is greater than the supply. Not only are the wait lists extremely long, but also the costs of training a service dog are substantial. It is very time consuming and expensive to train a service dog and many organizations struggle to produce enough quality trained service dogs. In addition, many programs choose to charge for their service dogs and the cost can be as high as \$50,000 for an individual with a disability. Numerous organizations offer fundraising options, but still require that people with disabilities cover the costs of the service dog. It believed the long waiting lists are due to expenses, available trainers, and people with more pressing needs requiring the assistance of a service dog

The University of Illinois at Urbana-Champaign has been a pioneer for disabilities resources for decades. The University of Illinois at Urbana-Champaign has led the way with accommodations, wheelchair athletics, accessibility, and much more. Students training service dogs on campus was another positive form of advancement in the world of disability. According to the Department of Disability Resources and Educational Services at the University of Illinois at Urbana-Champaign, over 1,200 students with disabilities were served in 2011 and the graduation rate is 91% higher than the campus average (“Thinking About Illinois”). The Illini Service Dog Program is housed in the College of Applied Health Sciences, which aims to improve quality of life for everyone. It was a logical and progressive relationship for the Illini Service Dogs and the College of Applied Health Sciences and the University of Illinois at Urbana-Champaign to partner based on their shared ideals of disabilities accommodations and quality of life importance. The College of Applied Health Sciences is the perfect fit for the Illini Service Dog Program because of the mutual efforts to increase awareness and understanding of disability culture as well as the goal of improving the quality of life of individuals and the public.

The objective of this study was to determine if the Illini Service Dogs Program changed student member's perceptions of disabilities. Measurements of participant's levels of understanding regarding disabilities, advocacy, awareness, and accessibility were collected. The study evaluated member's own perceptions of disabilities, their knowledge of disability laws and culture, and their feelings and responses toward disabilities and service dogs. The goal was to determine if participants increased their knowledge of disability culture by participating in an activity that provided them with an "in your shoes perspective". The "in your shoes perspective" was gained by the students through the use of a service dog and participation in disability related activities. Students bringing a service dog with them to every outing depicts that the student has a disability and therefore may experience social interactions and potential barriers that people with disabilities and service dogs face daily.

There were four research questions for this study, including "What is the effect of participation in the Illini Service Dog Program on disability perceptions among members?", "What is the effect of participation in the Illini Service Dog Program on perceptions of awareness among members?", "What is the effect of participation in the Illini Service Dog Program on advocacy perceptions among members?", and "What is the effect of participation in the Illini Service Dog Program on accessibility perceptions among members?". There were four null hypotheses including "participation in Illini Service Dog Program will have no effect on disability perceptions among members", "participation in Illini Service Dog Program will have no effect on perceptions of awareness among members", "participation in Illini Service Dog Program will have no effect on advocacy perceptions among members", and "participation in Illini Service Dog Program will have no effect on accessibility perceptions among members". The alternative hypotheses consists of "the participation in the Illini Service Dog Program will

effect member's disability perceptions", "the participation in the Illini Service Dog Program will effect member's perceptions of awareness", "the participation in the Illini Service Dog Program will effect member's advocacy perceptions", and "the participation in the Illini Service Dog Program will effect member's accessibility perceptions". The intervention was membership in the Illini Service Dog Program. The dependent variable was measurement levels related to disability, awareness, advocacy, and accessibility.

This introduction discussed the key terms associated with the disability community, such as disability, service dogs, activities of daily living, and person first terminology. The Illini Service Dog Program was examined as well as an explanation was provided as the why the setting was the University of Illinois at Urbana-Champaign and the College of Applied Health Sciences. The remainder of this paper explores the existing literature in the field, the methodology of the study conducted, the results of the study, and a discussion of the results compared to the existing research. The reference section cites all sources within this paper. The appendixes included many tables, documents, and surveys that were crucial to the study.

CHAPTER 2: LITERATURE REVIEW

The review of the literature has been divided into four main parts: disability, awareness, advocacy, and accessibility. People with disabilities are the largest and most diverse minority in the United States. According to the CDC, there are fifty-four million people with a disability in the United States and thirty-five million of those reported having a severe disability. “In 2006, disability-associated health care expenditures accounted for 26.7% of all health care expenditures for adults residing in the United States and totaled \$397.8 billion” (CDC, 2006). Expenses included personal assistants to aid with activities of daily living. Service dogs can be trained to help with tasks that would normally require assistance from another individual, such as a personal assistant.

The Americans with Disabilities Act [ADA] was enacted in 1990. It provides many rights to people with disabilities, including issues concerning accommodations, accessibility, resources, education, and service animals. The ADA was the civil rights movement for people with disabilities to ensure equality and fair treatment in every environment including employment, academics, and public places. The ADA granted public access to service dogs that assist people with disabilities. Therefore, a service dog can go to any public place with their handler and the person with the disability cannot be discriminated against based on their service dog (ADA, 2013).

Disability

Benefits of Service Dogs

Service dogs have been growing in popularity in the last few decades based on recent trends among waiting lists of service dog organizations. Some people with disabilities have looked for assistance from service dogs in order to live their lives as independently as possible.

People have also used service dogs to improve their confidence levels. According to an article published in the Mayo Clinic Health Letter, studies have found that having a service dog reduced dependence on others, reduced the need for paid human assistance, provided constant companionship and reduced loneliness, provided relief and peace of mind of family members and caregivers, improved social interactions, increased independence, as well as increased the feelings of safety (“Service Dogs”, 2009). There are many benefits of service dogs for people with disabilities but also the realities should be considered before any individual pursues a service dog. Service dogs require care and attention as well as additional costs. Many service dog owners feel that the additional requirements are more than worth it in the long run. Several service dog owners believe that the benefits that the service dog provides are priceless and worth any expenses.

It can be difficult to imagine how one can measure all of the impacts of a service dog on the life of a person with a disability. An article published by Rintala, Matamoros, and Seitz, the researchers tried to measure the affects of service dogs and hearing dogs on the lives of people with disabilities. Their study followed people through the process of waiting, obtaining, and utilizing a service dog. 89% of people were very satisfied with their service dog and 78% of service dog owners stated that retrieving items was the greatest positive impact on their lives. The owners also said that emotional support and companionship were major positive impacts on their lives (44%). All but one participant listed that the service dog made a positive difference in the lives of family members and/or caregivers. The study also examined the negative aspects of having a service dog. The most frequently stated negative aspect was unwanted attention in public, especially being challenged in public settings. This negative aspect can potentially be eliminated with improved education and awareness efforts. Another negative aspect was costs of

obtaining the dog and caring for the dog. In the end, the positives outweighed the negatives associated with owning a service dog (Rintala, Matamoros, & Seitz, 2008).

There are over 10,000 service dogs already working for people with disabilities. However, it is still not enough to meet the demand since service dog organizations have long waiting lists, commonly over two years. Most service dogs cost a substantial amount of money to obtain from organizations since the costs of training the dogs are so high. There are several common misconceptions related to service dogs especially related to praising a service dog. For example, some people felt that service dogs should be praised all the time or the dogs will fill unfulfilled. However, an article by Coppinger, R., Coppinger, R., and Skillings, E. found that constant commending and praising should not be necessary for service dogs. Excessively praising service dogs during performance is actually a fault. The motivation to perform and work is inherent with most service dogs. This article helped demonstrate the human-animal bond through the work of the service dog as well as addressed some of the common misconceptions (Coppinger, R., Coppinger, L., & Skillings, E., 1998).

Costs

Having a disability can be emotionally stressful and physically exhausting. In addition, the article “The Economic Costs of Childhood Disability” explained that there are several economical stresses related to raising a child with a disability. The study examined the direct costs, out-of-pocket expenses, and indirect costs associated with a child with a disability’s care. In regard to direct costs, such as medical care and treatment, the study found that the estimated annual direct costs associated with severe physical disabilities in childhood are around \$8,000. They also estimated the out-of-pocket expenses for just rehabilitative and mental health service to be approximately \$1,000 per year. The indirect costs are much more difficult to estimate

because they included things such as a parent having to stop working in order to provide care for their child, increased risk of poor health for the parents, parental separation, and much more. Indirect costs can have a significant impact on the quality of care and the health of the family as a whole. The authors also discussed societal costs and used the example that in Sweden the estimated costs to society for caring for a child with autism per year to be approximately \$70,000. It is important to know the financial impacts of disabilities, especially among children and the impacts on families and society as a whole (Stabile & Allin, 2009).

Social Interactions

People with disabilities, especially children, often face additional obstacles to social interactions. An article published by McMaugh studied the social interactions and peer relationships among children with disabilities in Australia. The study found that nearly one-third of children reported very happy and positive relationships with peers. They found that these relationships contained standard criteria of a friendship such as shared interests, common sense of humor, and shared academic goals. In addition, the friendships provided support to the children with disabilities such as shared school work when absent, companionship when physical barriers forced isolation, and most importantly their friend(s) provided a defense against harassment related to the child's disability. The authors found that an overwhelming majority of children in the study, regardless of peer relationship status, were bullied and harassed related to their disability. Ultimately, the study found that positive peer relationships and friendships were critical to understanding disability and improving self-confidence for children with disabilities (McMaugh, A., 2011).

Awareness

Treatment of People with Disabilities

People with disabilities, especially children, are often stigmatized in social situations. According to the article “Social Acknowledgments for Children with Disabilities: Effects of Service Dogs”, the researchers explained that people without disabilities often feel negative attitudes towards people with disabilities including feelings of awkwardness, aversion, guilt, or pity. A service dog can be an intervention to help overcome these socially awkward situations. The authors explained that in addition to providing assistance in activities of daily living, the service animal helped to eliminate social barriers by enhancing how people are socially perceived. People with service dogs reported an increase in friendly approaches in public settings and a four-fold increase in social acknowledgements. The researchers concluded that service dogs’ facilitated social acknowledgment, increased exposure, and enhanced interactions between people with disabilities and those without. These transformations can affect positive attitudinal changes as well as increased knowledge about disabilities, which can help facilitate closer peer interactions. The researchers went onto to say that there was a dramatic increase in the number of smiles received from people in public settings when there was a service dog present. A smile traditionally means acceptance and a sign of friendliness; therefore the presence of a service dog facilitated a change in the social climate in those public settings (Mader, B., Hart, L. A., & Bergin, B., 1989).

People without disabilities have frequently treated people with disabilities differently by the use of subtle behaviors. Examples of these subtle behaviors included providing less eye contact and avoiding gazing, greater personal distance, and shorter social interactions in general. A study completed by Eddy, Hart, and Boltz studied how those social interactions were impacted

by the presence of a service dog. They found that service dogs helped facilitate social interactions for people with disabilities and reduced feelings of social isolation and social rejection. The authors also noted that it had been found that people with disabilities levels of assertiveness and self-confidence increased after the inclusion of a service dog. The benefits of service dogs extended far beyond tasks for activities of daily living to include enhanced social interactions (Eddy, Hart, & Boltz, 1998). Having a service dog can greatly improve social interactions between people with disabilities and those without disabilities, which may help improve the quality of life for the individual with the disability.

Acceptance

Social acceptance is often seen as an obstacle for people with disabilities. Developing peer relationships can sometimes be more difficult for people with disabilities due to environmental and/or physical limitations. A study published by Wendelborg and Kvello wanted to determine how people with disabilities (both physical and intellectual) perceived their social acceptance and peer intimacy. The study found that it was frequently believed that children with disabilities often experienced barriers to recreational, community, and school participation. In addition, children with disabilities did not participate in other social activities as compared to their non-disabled peers. The researchers believed that the severity of a child's disability has a negative correlation with participation in social activities. However, they found that even though the perception of social acceptance and peer intimacy strongly depended on social participation, the type of disability and degree of impairment only plays an indirect role. Often times, environmental and educational arrangements are the greatest barriers to social acceptance (Wendelborg, C., & Kvello, O., 2010).

Changing perceptions is a difficult goal. There are many avenues one can take in order to change perceptions. “Changing Perceptions Through Contact” stated that changing perceptions through contact could be a major vehicle for change. The article claimed, “contact, as compared to no contact, does contribute to positive changes in perceptions” (Roper, 1990, p. 243). The author continued to state that groups in contact often lead to improved relationships and therefore lead to changes in perceptions. The article studied contacts between volunteers and people with mental disabilities at a Special Olympics event. Roper found that even if positive perceptions were made, it was common for negative impressions to be discarded. Increased interactions and contact with other populations has the capability to change people’s perceptions about those groups, including people with disabilities.

Dogs have been “man’s best friend” for thousands of years. An article published by Haubenhofner and Kirchengast explored the relationship between working dogs and their handlers. The researchers measured the emotional and cortisol secretion responses in working sessions with the dogs. They found that the dog’s handlers used more positive emotions, such as “positive” or “interesting” to describe their experiences. The researchers also found that when they studied therapeutic work, it affected the handler-dog teams who worked in animal assisted health care services both emotionally and physically as learned by the cortisol secretion tests (Haubenhofner, D., & Kirchengast, S., 2007). Therefore, service dog interactions between the handler and dog are more commonly positive experiences.

Advocacy

According to *Health and Human Rights*, advocacy is defined as pleading in support but it can also be generalized to describe actions that empower individuals (Drage, 2012). Advocates, especially related to the disability culture, have several roles. Some of the examples listed in the

article “New Zealand’s National Health and Disability Advocacy Service: A Successful Model of Advocacy” included ensuring the people are aware of their rights, promoting awareness, and working towards resolutions and improving the status quo for the population as a whole (Drage, 2012). The goal of advocates should be to work with the individual(s) to support them and provide them with skills, knowledge, and most importantly, the confidence to resolve and conquer issues that may arise.

The purpose of advocacy is to assist people with disabilities in accessing resources and supporting them in their decision-making skills and confidence (Flynn, 2010). Flynn went on to discuss that there had been on going tensions differentiating best interests and empowerment. Flynn emphasized that when possible, advocates should empower individuals to voice their own opinions and not to make decisions for people with disabilities depending on what they believe are their best interests. Flynn also touched on the importance of allowing people to make mistakes and learn from those mistakes (Flynn, 2010). It follows the “teach a man to fish” philosophy to encourage individuals to overcome barriers and become their own advocates.

There are several different frameworks and theories regarding advocacy. According to an article by Test, Fowler, Wood, Brewer, and Eddy, there were four main components to encourage self-advocacy. These components included knowledge of self, knowledge of rights, communication, and leadership (2005). The self-advocacy movement for people with disabilities was modeled after the civil rights movements of the 1950s and 1960s. The self-advocacy movement has evolved over the years to grow from simply deinstitutionalizations to self-help movements and independent living inspirations. Knowledge of self and rights are viewed as foundations of advocacy due to the fact that it is critical for advocates to know themselves and what they require before they can communicate their desires to other people. Communication is

crucial for successful advocacy and it can be done through many ways including negotiation, assertiveness, and collaboration. The final component is leadership, which allowed an individual to progress from a self-advocate to an advocate for other people with disabilities. The main goal of most advocacy efforts is to ultimately have the individuals become their own advocates. Therefore, providing people with disabilities with the leadership skills, such as self-confidence, would allow them to grow and promote their needs as well as the needs of other people with disabilities (Test, Fowler, Wood, Brewer, & Eddy, 2005).

Key Players

An article titled “Privileged Advocates: Disability and Education Policy in the USA” identified the new phenomenon that parent’s of children with disabilities are now encouraged to be actively involved in their child’s education and decisions associated with their child’s well-being (Ong-Dean, C., Daly, A. J., & Park, V., 2011). Parental activism was not widely accepted in the past. The success of the interactions between the child, parent, and school depended on the parent’s prior knowledge. The article identified that Individual Education Plans [IEP] made many parents feel intimidated due to all of the legal complexities associated with those meetings. However, if the parents can become informed and confident in the complex process, then they have the potential to become invaluable advocates for children with disabilities. The evolution of the role of parent’s of children of disabilities shows that advocates can have a major impact in the direct treatment and resources available to children with disabilities (Ong-Dean, C., Daly, A. J., & Park, V., 2011).

Advocacy for change is a collaborative process among all of the key players. The article “Advocacy in Disability Policy: Parents and Consumers as Advocates” explained that the role of parents and people with disabilities have greatly evolved over the years from powerlessness to

empowerment. The study completed by Cunconan-Lahr & Brotherson found that people that participated in an advocacy training program were better at empowering their voices, networking with others, and improving their attitudes of courage and leadership. The study also identified the most common barriers to successful advocacy, which included time, expenses, and emotions (1996).

Employment

People with disabilities have had to face struggles obtaining employment. The enactment of the ADA has improved employment rates for people with disabilities, but there are still disparities between people with disabilities and people without disabilities. In the 1980s, unemployment rates for men with disabilities were 73% and for women with disabilities were 88% (Roessler, 1987, p 188). Even though significant progress has been made in the past few decades, the disparity between people with disabilities and without disabilities in the labor market is still present. According to the Bureau of Labor Statistics, the unemployment rate for people with disabilities was 15% as compared to the unemployment rate for people without disabilities, which was almost nine percent (2012). Additional progress is necessary in order to close the gap and disparity between employment rates.

Education

Higher education has also faced disparities in attendance rates for people with disabilities. According to Civil Rights for Disabled Students, people with disabilities face additional barriers related to “recruitment, admission, physical and academic access, assessment, career development, and dispute resolution” (Konur, 2000, p 1052). However, Section 504 of the Rehabilitation Act of 1973 have regulations in place to promote accessibility, adaptive communication, accessible new construction, and much more in order to provide people with

disabilities equal access to education (Konur, 2000). The Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 required a free and appropriate public education in the least restrictive environment in schools. However, the individual was responsible for initiating support services for disability related issues in the college environment. Recently, increased rates of people with disabilities are attending college. In fact, college participation rates for people with disabilities have more than doubled during the past two decades (Hadley, 2011, p. 77).

Accessibility

Barriers

Environmental factors can have a major role in impairments related to disabilities. Environmental factors such as design of the physical environment, legislation policy, services, and attitudes of peers can have a major impact on disability. Environmental factors are also a major predictor for participation in activities and events. It has also been recognized that there was an interplay between different factors related to people with disabilities such as personal, interpersonal, and external factors on participation (Ison, N., McIntyre, S., Rothery, S., Smithers-Sheedy, H., et al., 2010).

Imrie and Thomas believe that there are interrelationships between place, space, and social disadvantages and outcomes that play a role in the broader awareness of the lack of accessibility for people with disabilities (Imrie & Thomas, 2008). The authors went on to say that working together with other groups would allow people to explore other's struggles and learn each other's solutions to barriers. Social and environmental barriers can often be seen as related in the fact that a limited environment often leads to less social interactions. The authors urged groups with similar needs to unite in order to make a change occur and for their voices to be heard by politicians (Imrie & Thomas, 2008).

Education

One of the most common accommodations for students with disabilities at colleges was to have their class relocated due to accessibility issues. According to the U.S. Department of Education National Center for Education Statistics, 22% of college students with disabilities believed that they were not given accommodations or services that they needed. Environmental barriers have often limited people with disabilities' participation in everyday activities, but the barriers can also limit their ability to pursue higher education (Adams & Proctor, 2010).

In addition to accessibility requirements to overcome physical and environmental barriers, there were obstacles to obtaining accessible technology resources. For example, some people with disabilities have benefited from adaptive computers and other adaptive technology. Many places, especially schools and businesses, still do not have these technologies available to people with disabilities. Interestingly, one article predicted that the integration of computer information and instructional technologies would only increase in the future. Therefore, the need for these services will have to be met by increasing the availability of these resources to people with disabilities (Fossey, M. E., Asuncion, J. V., Fichten, C., Robillard, C., Barile, M., Amsel, R., & ... Morabito, S., 2005).

Accessibility of recreation facilities is also a growing concern. For example, 90% of people with disabilities in an undergraduate program stated that they never attended an organized campus recreation event and 88% said that they never used recreational facilities. The study explained in the article "Research Application: Accessibility in Campus Recreation Program" that it was found that less than 20% of the college campus recreation programs that were surveyed offered activities for people with disabilities (2006). Accessibility on college campuses was a growing issue as the rates of people with disabilities pursuing higher education have

increased. The need for accessible technology, resources, and physical structures requiring accommodations will only grow as the rates continue to increase as predicted.

Home Environment

Accessibility was not only a concern in public places, but also the home environments as well. As stated in the article “Accessibility in the Home Environment”, people with disabilities have had “difficulties with household activities and mobility and that certain areas of their homes were unusable because of inaccessibility” (Prellwitz, 2006, p 194). The article continued to discuss that many people with disabilities, especially families with a child with a disability, had to move and relocate to a house that was more accessible. A home’s accessibility is especially important for a child with a disability because it has been found that children with disabilities spend more time at home than children without disabilities. “A lack of accessibility of the outdoor environment can result in fewer leisure activities outside the home and fewer social contacts with peers” (Prellwitz, 2006, p 195). The differences between ‘accessibility’ and ‘usability’ were examined how even if a space is accessible; it might not be truly usable for people with disabilities. A kitchen could be considered accessible meaning that a person with a disability can enter the room and move freely around and within the main areas, however the person might not be able to utilize the kitchen due to lack of accessible fixtures on cabinets, the height of tools or resources, and many other factors. Therefore, perhaps an area is accessible but not truly usable for a person with a disability (Prellwitz, 2006).

Universal design is a solution to the accessibility requirements listed in the ADA. Universal design aims to encompass all accessibility needs and incorporate those needs into one environment (work, home, school, business, etc.). Universal design concepts have grown in popularity in order to accommodate the increased amount of people with disabilities. There has

been great progress over the past few decades, but many people with disabilities still feel as though accessibility remains incomplete, especially among stores and local businesses. Even though doors have been widened and ramps have been added, simple things like counter heights in stores and maneuverability within businesses are still major barriers for people with disabilities (Kaufman-Scarborough, C., 1999). Improvements can be made to create an inclusive environment for everyone.

Summary

This review of the literature focused on the following four areas: disability, awareness, advocacy, and accessibility. Disability literature discussed the benefits of service dogs, the costs of having a disability, and the social interactions of both having a disability as well as having a service dog. Awareness literature reviewed treatment and acceptance of people with disabilities. The section that discussion advocacy highlighted articles that talked about general obstacles to advocacy and what made someone a good advocate. Key players in advocacy as well as employment and education barriers were discussed. The accessibility literature talked about barriers, education, and home environments. The next section of this paper discussed the methodology of the study.

CHAPTER 3: METHODOLOGY

Participants

The research sample consisted of a total of 31 undergraduate students at the University of Illinois at Urbana-Champaign. There were 11 post-test responses that were missing due to drop out rates of the program and the study as well as low attendance on the day the post-test survey was administered. Due to academic conflicts, two students had to drop out of the Illini Service Dog Program. While the remaining nine students were absent when the post-test data was collected. The missing post-test scores did not impact the overall results because of the utilization of the Paired Samples T-Test, which only evaluated the 20 completed pre-test and post-test survey data. There were 20 pre-test and post-test data samples that were usable for the study, which gave the study a 65% response rate.

Of the 20 participants, four (20%) were male and 16 (80%) were female. Additionally, 16 (80%) participants were classified as white and four (20%) participants were classified as non-white. 18 (90%) of participants were 20 years or younger at the time of the data collections and two (10%) participants were over the age of 20 years old. The participants were from a diverse background of majors at the University of Illinois at Urbana-Champaign, so the participants were categorized based on the college in which their major belonged. There were six (30%) participants from the College of Liberal Arts and Sciences (LAS), three (15%) participants were from the College of Applied Health Sciences (AHS), nine (45%) of the participants were from the College of Agricultural, Consumer and Environmental Sciences (ACES), and two (10%) participants were from the College of Engineering. The demographic data is displayed in Table 1 of Appendix D.

Research Procedures

Participants were new members to the Illini Service Dog Program beginning in the fall of 2012. The members went through an interview process and were chosen based on their qualifications for the program. The interview process involved having students sign up indicating their interest in the Illini Service Dog Program. The students signed up on Quad Day, which is an event on the University of Illinois at Urbana-Champaign campus in which all Registered Student Organizations (RSO) gather on the quad to recruit members. The next step involved attending an informational meeting held during the first week of the fall semester. Students learned about the Illini Service Dogs Program as well as the membership requirements and commitments. The criteria for selection into the program were also discussed such as availability, experience with dogs, and experience with people with disabilities, motivation for joining the program, and much more. The next step in the interview process was the completion of an online application. The final step was an interview by a panel of four to five existing members and the new members were chosen based on their qualifications. Qualifications included level of commitment, availability, experience with dogs, and motivations regarding why they wanted to participate. The members did not have any prior training or education through our program. Participants could elect not to participate in this research study and could drop out at anytime. Participants were notified that their participation in the survey had no impact on their membership in the Illini Service Dog Program.

The participants of this study were a self-selected population. The students expressed interest in service dogs and the disability community when they signed up to join the program. The participants understood that the program involved working with service dogs and people with disabilities, and therefore needed to have an interest in these areas prior to admission into

the program. The application and interview process further screened the self-selection of the participants. Therefore, participation in the Illini Service Dogs Program may have reconfirmed prior beliefs rather than enlightened them to new issues. The study did not only look at significance rates, but aimed to determine if there were positive changes related to disability culture perceptions after participation in the Illini Service Dogs Program.

New members to the Illini Service Dog Program were asked to participate in a survey. The survey determined the member's existing knowledge about topics related to disability culture. After the members participated in the program, they were asked to complete another survey that determined if their perceptions about disabilities, awareness, advocacy, and accessibility had changed. A pre-test and post-test survey was administered in a classroom setting and the survey took no longer than 20 minutes to complete. The pre-test survey was administered in November 2012 and the post-test survey was administered in April 2013. An unbiased third party requested the member's participation in the survey. By having the unbiased third party request participation, it ensured that members did not feel pressured to participate. All documents related to this research study were kept in a locked file drawer to ensure confidentiality. Information sheets were provided to all participants, which explained the purpose of the study as well as who to contact if they have questions. See Appendix A and Appendix B to see the Institutional Review Board Certification and information sheet.

Research Design

The literature review for the foundation for existing research was completed through the EBSCO host. Key words that were searched included "disability awareness", "changing perceptions", "benefits of service dogs", "Americans with Disabilities Act", "disability

advocacy”, “accessibility issues”, and much more. The article results provided an encompassing understanding of issues related to disability rights and disability culture.

Participants were asked questions and their responses corresponded to the Likert scale of 1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, and 5= Strongly agree. The questions on the pre-test and post-test surveys measured areas related to the four main concepts discussed in this paper: disability, awareness, advocacy, and accessibility. Questions 1, 7, 8, 14, and 19 measured one’s knowledge of disabilities. These questions were determined to pertain to disability as compared to the other areas because of the nature of the questions related to either disability or service dogs specifically. Questions 2, 3, and 15 evaluated one’s awareness about the disability community and service dog related issues. Questions 4, 5, and 16 determined people’s advocacy levels including understanding of disability and service dog related laws. Questions 6, 9-13, and 17 were related to a person’s understanding of accessibility issues and acceptance of service dogs in public places. The questions can be found in Appendix C. Average means for the pre-test scores and post-test scores were collected for each of the four main focuses. Inverse scores were calculated for Questions 8, 15, and 19 due to the fact that the desired outcome was a lower score. Therefore, in order to obtain accurately reflective total mean score, inverse scores were obtained.

The data from the pre-test and post-test surveys were compiled and analyzed using SPSS (Statistical Product and Service Solutions) software version 17.0. The survey questions were not changed because enough time had past between the pre-test and post-test surveys to eliminate the risk of recall bias. Frequencies were completed for each of the questions regarding demographic information, including age, gender, major, and ethnicity of each participant. Analysis was completed on the questions that pertained to the four main groups of study, which included

assessments on disability, awareness, advocacy, and accessibility. Significance tests, such as the Paired Samples T-Test, were conducted on each question and the four focuses of assessments.

Summary

The methodology discussed the participants, research procedures, and research design. The data consisted of 20 undergraduate students that were members of the Illini Service Dog Program. The research procedures talked about how students became members of the Illini Service Dog Program and then eventually how they became participants in this study. The research design briefly described how the data was collected as well as what analyses were conducted on the data.

CHAPTER 4: RESULTS

Analysis

Paired Samples T-Tests were conducted to determine if significant statistical differences existed between the pre-test and post-test responses to the survey questions among participants in the Illini Service Dog Program. The research was also examined to see if differences were observed among the four variables: disability, awareness, advocacy, and accessibility. The questions on the survey listed in Appendix C each pertained to one of the four variables focused on in this study. Results of the study supported the hypotheses that participation in the Illini Service Dogs Program changed perceptions of participants related to disability, awareness, advocacy, and accessibility.

Disability

Questions 1, 7, 8, 14, and 19 related to disability. The questions required the participants to evaluate how much they agreed to each statement with the Likert scale. The questions included whether they felt they were knowledgeable about service dogs, their experience with dogs, their perception whether the severity of a person's disability impacts their quality of life, did service dogs provide independence, and whether the participant's felt that a person's disability greatly limited their activities of daily living. The average means were collected and the pre-tests mean for those questions was 3.63. The average means for the post-test was 4.16. These results show an increase in their perceptions of disability related topics. The sum of the significances from the Paired Samples T-Test related to disability showed that the average was a p-score of 0.139, which was not considered statistically significant. However, there were many individual questions that were classified as statistically significant. See Table 2 in Appendix E. It should also be noted that question 8 and 19 were inversely coded in order to accurately reflect

the true mean scores. This was due to the fact that these questions were written to indicate that a lower score meant a higher level of understanding. However, those responses impacted the overall mean scores and were therefore adjusted to be an accurate representation of changes in perceptions related to disability.

Awareness

Questions 2, 3, and 15 were related to awareness of disability issues. Question 2 asked if the participants felt that they were familiar with the disability community. Question 3 asked if the participants felt that they knew many terms associated with the disability community. Question 15 asked if the participants felt that it was appropriate for someone to put a service dog vest on his or her pet. The pre-test mean was 3.35 and the post-test mean was 4.15 (see Table 3 in Appendix F). The combined p-value significance was 0.005 for the three questions, therefore it is considered statistically significant. However, question 15 desired a lower score, such as strongly disagrees, and was inversely coded in order to obtain an accurate representation of mean scores related to perceptions of awareness.

Advocacy

Advocacy related questions were 4, 5, and 16. Question 4 asked if the participants felt knowledgeable about the laws associated with disabilities. Question 5 asked if the participants felt knowledgeable about the laws associated with service dogs. Question 16 asked if the participants felt that the individual was a good advocate for people with disabilities. The combined mean pre-test score was 2.87 and the mean post-test score was 4.11. The summation significance for the questions related to advocacy had a p-score of less than 0.001, which is statistically significant. In addition, the Paired Samples T-Test showed that the significance for two of the three questions in the advocacy focus were statistically significant. These results

demonstrated that the Illini Service Dog Program caused an increase in disability advocacy skills among participants. This data is shown in Table 4 in Appendix G.

Accessibility

The final variable was accessibility and questions 6, 9-13, 17 and 18 related to accessibility issues. Question 6 asked if participants felt that the University of Illinois at Urbana-Champaign is a very accessible campus. Questions 9 through 13 asked escalating questions regarding where the participants felt service dogs should be permitted starting from professional environments to living with an individual. Question 17 asked if the participants felt that disability accessibility was a priority in the United States and question 18 asked if disability accommodations were a priority at the University of Illinois at Urbana-Champaign. The following data can be found in Table 5 in Appendix H. The mean pre-test scores for questions related to accessibility were 4.40 and the mean post-test scores were 4.61. The p-value significance was 0.15, which is not considered to be statistically significant. However, all of the responses to each questions moved in a positive direction, which showed that improvements in accessibility perceptions occurred.

Summary

The results section discussed the findings from the study involving the participants from the Illini Service Dog Program. The focus of the results section examined the four areas of this study: disability, awareness, advocacy, and accessibility. Improvements were made in all categories but some were not statistically significant. Statistically significant findings were seen among questions that pertained to advocacy and awareness. Participation in the Illini Service Dog Program improved perceptions of disability, awareness, advocacy, and accessibility towards positive scores. Every response to each question moved in the desired direction.

CHAPTER 5: DISCUSSION

Review of Findings

As noted in the literature review, previous studies have shown that there have been improvements in general understanding regarding the disability culture and community in the past few decades. However, there is still a need to enhance knowledge about issues and perceptions pertaining to the disability culture. In this study, it was found that there were encouraging developments among the four main focuses: disability, awareness, advocacy, and accessibility. Some of the results were not statistically significant, but that may have been due to the fact that many of the participants had a preconceived understanding of the disability culture and service dogs, therefore perhaps the Illini Service Dog Program simply reconfirmed the participant's prior beliefs. The sample of participants could be considered as a bias due to the fact that they self-selected to become members of the Illini Service Dog Program and were further selected through the application process of the program. Also, all of the participants expressed interest in the disability culture and community prior to the initiation of this study.

Advocacy

The most dramatic results were found in questions that pertained to advocacy. The pre-test mean was 2.87 and the post-test mean was 4.11 with a significance value less than 0.001. The questions that were asked pertained to their knowledge of disabilities and service dogs. The other question evaluated their advocacy levels on behalf of people with disabilities. Yuker explained in *Attitudes Toward Persons with Disabilities*, that there is more diversity in attitudes about people with disabilities than other minorities such as race. Disability attitudes encompasses a wide range of functional and cosmetic conditions with varying degrees of severity, which makes it more difficult to identify clusters of general beliefs (1988, p. 55). The participants of the

Illini Service Dog Program have learned proper terminology and etiquette when interacting among people with disabilities. The evidence shows that the participant's self-confidence levels related to their advocacy skills increased during the duration of the Illini Service Dog Program.

Awareness

The results of the data collection that focused on awareness variables were statistically significant with a significance score of 0.005. Even though the mean scores of the pre-test and post-test did not change much, it was still enough of a difference to be considered significant. It should be noted that the ideal score for question 15 was that they would strongly disagree, which was why the question was inversely coded to become an accurate representation of the perceptions. We can understand from question 15 that the participants realized that it is never appropriate for someone to put a service dog vest on a pet. There were statistically significant changes in perceptions related to awareness and advocacy. The participant's attitude in regards to awareness and advocacy noticeably improved between the pre-test and the post-test surveys. The participants became more self-confident in their abilities to be advocates for people with disabilities as demonstrated in their responses to question 16. The participants also became more aware of issues that people with disabilities faced such as their familiarity with the disability community and terminology.

Disability and Accessibility

Responses to questions related to disability and questions related to accessibility were not statistically significant. However, individual answers within the questions related to disability did have statistical significance. For example, question 1 asked if the participants felt that they were knowledgeable about service dogs. That specific question had a pre-test mean score of 3.20 and a post-test mean score of 4.60. This means that most of the participants originally felt neutral

about their knowledge of service dogs, but those feeling improved to represent that most of the participants agreed that they had substantial knowledge about service dogs after participating in the Illini Service Dog Program. Question 1 had a p-value significance of less than 0.001, which means that the results were statistically significant and that the findings can be attributed to the effects of the Illini Service Dog Program.

Importance of Findings

The findings of the literature review as well as the study have shown that improvements are still needed in regards to perceptions disability culture. The participants of the study saw meaningful advances in their pre-test and post-test scores in relation to disability, awareness, advocacy, and accessibility. Even though the participants experienced improvements, they still did not have a comprehensive understanding of the disability culture and community. As the literature review showed, there are many variables and factors in relation to the disability culture. This illustrates that the disability culture can be a challenge to master a comprehensive understanding.

The participants of the Illini Service Dog Program were given the pre-test survey in November 2012 and the post-test survey was administered in April 2013. Therefore, in the five months of their membership in the Illini Service Dog Program, there were evident improvements in participants perceptions related to factors of the disability culture. The most significant changes occurred in areas that pertained to awareness and advocacy. One question that related to awareness asked how confident the participants were with their knowledge of terminology related to the disability community. There was a positive increase in pre-test and post-test means for that question, even though it was not statistically significant. However, as stated by Lynch and Thuli, it is not unusual for people to be unaware of terminology differences within the

disability culture, such as their study on person first terminology usage demonstrated. Even though the change was not statically significant, the mean scores still experienced a meaningful progression towards agreement that the participant was confident in terminology (Lynch, R., & Thuli, K., 1994).

Overall, disability and accessibility areas did not see statistically significant outcomes, but they did see positive results. The participants began the study with high levels of knowledge related to disability and accessibility due to prior experiences, education, and the fact that the environments at the University of Illinois at Urbana-Champaign campus were renowned for their disability culture and accessibility initiatives. Even though participants had a high level of knowledge prior to participation in the Illini Service Dog Program, their understanding of disability and accessibility variables still had observable improvements. These changes in perceptions have shown that people can increase their knowledge and understanding of the disability culture by participating in an enriching and engaging experience, such as the Illini Service Dog Program.

The demographic information found in Appendix D showed interesting data. For example, 90% of participants in this study were 20 years of age or younger. The levels of the participant's knowledge of disability culture would surprise many people considering the young age of the participants. Many people would also be interested in knowing that the participant's were from a wide variety of majors and colleges at the University of Illinois at Urbana-Champaign. The participant's were a group with diverse disciplines with areas including Animal Sciences to Mechanical Engineering. These participant differences added a potential variety of experiences and prior exposures to the data.

Limitations

It should be known that there were some limitations and biases in this study. The limitations and biases did not appear to have an impact on the outcomes of the study, but were noteworthy. The first limitation was that the participants already had preconceived perceptions due to the fact that they self-selected to join the Illini Service Dog Program. The participants had an already high awareness level to disability, awareness, advocacy, and accessibility related issues when they signed up to join the Illini Service Dog Program. The participants understood that the Illini Service Dog Program was a program that educated and raised awareness about service dogs and the disability culture. Part of the requirements for membership in the Illini Service Dog Program was to be an advocate for people with disabilities and improve awareness levels in the community. Therefore, the participants in the survey had already been informed about general facts regarding the disability culture.

In addition, the participants were from the University of Illinois at Urbana-Champaign campus, which is widely known for disability accommodations and accessibility. The participants were also considered to be a predisposed population since they have had an increased exposure to people with disabilities and disability related events due to the fact that there is a high population of people with disabilities on campus (“Thinking About Illinois”). Another potential bias was that a majority (60%) of participant’s studied in the Colleges of Applied Health Sciences (AHS) or College of Agricultural, Consumer, Environmental Sciences (ACES). The college of ACES is composed of many Animal Sciences majors, which possibly gave those participants’ an advantage by having prior experience with animals. Additionally, the college of AHS is composed of many Kinesiology majors, which potentially could have provided participants with a higher level of exposure to people with disabilities.

Another potential limitation was the fact that the founder and chair of the Illini Service Dog Program conducted the research study and constructed the paper. However, precautions were taken to ensure that the founder's role did not impact the study results. One such precaution was that an unbiased third party administered the surveys as well as informed the participants that their participation was not required and did not impact their membership in the Illini Service Dog Program. The participants were provided with an information sheet and were informed that they could drop out of the study at anytime. The data was labeled with a four-digit code established by the participant and unknown to the researcher. Therefore, the data could not be attributed to an individual member and could not have an impact on their membership to the Illini Service Dog Program.

Future Studies

It would be beneficial for future studies to evaluate the success of changing perceptions by participating in an enriching and engaging program, such as the Illini Service Dog Program. It would be interesting to see if similar results were found when replicating this study. It would be advantageous to have a larger sample of participants in future studies. The sample for this study was smaller due to the size of the club at the time of the survey administrations. Perhaps using a control group would be interesting when comparing the results. Since the populations of participants were already predisposed to the disability culture, it would be fascinating to see if a randomly selected control group of participants with limited prior knowledge of the disability culture would experience more dramatic and statistically significant results. A randomly selected control group with a variety of ages could provide greater insight into the effectiveness of the Illini Service Dog Program on changing perceptions. A qualitative study would provide a lot of insight into the experiences that occur during participation in the Illini Service Dog Program,

such as social interactions among the public while handling a service dog in training. There are many potential improvements that could be made for future studies.

Summary

All of the results from each of the questions from the pre-test and post-test surveys had positive results. Even though not all responses were significant, there were clear benefits of participation in the Illini Service Dog Program. Outcomes related to advocacy and awareness were statistically significant and experienced dramatic improvements in the pre-test and post-test scores. Disability and accessibility outcomes had strong positive improvements, but were not statistically significant due to preconceived beliefs. Overall, the study showed that participation in an engaging and enriching program, such as the Illini Service Dog Program, could have positive impacts on perceptions of disability, awareness, advocacy, and accessibility.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD CERTIFICATION

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research
Institutional Review Board
528 East Green Street
Suite 205
Champaign, IL 61820



November 27, 2012

Stephen Notaro
Community Health
2005 Huff Hall
1206 S Fourth St
M/C 588

RE: *Illini Service Dogs - Changing Perceptions*
IRB Protocol Number: 13338

Dear Stephen:

Thank you for submitting the completed IRB application form for your project entitled *Illini Service Dogs - Changing Perceptions*. Your project was assigned Institutional Review Board (IRB) Protocol Number 13338 and reviewed. It has been determined that the research activities described in this application meet the criteria for exemption at 45CFR46.101(b). Category 2 applies because surveys will be used to determine if participation in the Illini Service Dog program changes perceptions of disabilities, advocacy, awareness, and accessibility. Any disclosure of participants' responses outside the research could not reasonably place the participant at risk of criminal or civil liability or be damaging to participants' financial standing, employability or reputation.

This determination of exemption only applies to the research study as submitted. **Exempt protocols are approved for a maximum of three years.** Please note that additional modifications to your project need to be submitted to the IRB for review and exemption determination or approval before the modifications are initiated.

We appreciate your conscientious adherence to the requirements of human subjects research. If you have any questions about the IRB process, or if you need assistance at any time, please feel free to contact me or the IRB Office, or visit our website at <http://www.irb.illinois.edu>.

Sincerely,

A handwritten signature in black ink that reads "Ronald A. Banks".

Ronald A. Banks, Human Subjects Research Coordinator, Institutional Review Board

c: Bridget Evans

APPENDIX B: INFORMATION SHEET

INFORMATION SHEET

Purpose and Procedures: The purpose of this research is to gain a better understanding of the impact of participation in the Illini Service Dog Program. If you agree to take part in this research, you will be asked to complete a survey titled *The Illini Service Dogs Program- Changing Perceptions*. You will be asked to complete the surveys today in this location and it is expected to take less than 20 minutes. You will be contacted in approximately six months by the program investigator, Bridget Evans, to complete an additional survey.

Voluntariness: Your participation in this research is voluntary and you must be 18 years of age or older. You may refuse to participate, discontinue participation, or skip any questions you don't wish to answer at any time without penalty or loss of the benefits to which you are otherwise entitled. Your decision will not affect your grades or status at this university. Your decision will not affect your membership in the Illini Service Dogs

Risks and Benefits: The risks for participating in this study are not greater than those experienced in daily life. Benefits expected from this study may include increased awareness of disability culture.

Compensation: You will not receive any extra credit or other form of compensation for your participation in this study.

Confidentiality: Only the project investigators, Bridget Evans and Dr. Steve Notaro, will have access to research results and there will be no personally identifying information. In the event of publication of this research, no personally identifying information will be disclosed. To make sure your participation is confidential, please do not provide any personally identifying information on the questionnaires. All documents will be kept in a locked drawer in Dr. Steve Notaro's office.

Who to Contact with Questions: Questions about this research study should be directed to the primary investigator and person in charge, Bridget Evans or Dr. Steve Notaro. They can be reached at (217) 265-6232 or snotaro@illinois.edu or bmevans2@illinois.edu. If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board at (217) 333-2670 (collect calls will be accepted if you identify yourself as a research participant) or via email at irb@illinois.edu.

I certify that I have read this form and volunteer to participate in this research study and "I am 18 years of age or older."

(Print) Name

Signature

Date: _____

APPENDIX C: QUESTIONNAIRE FOR PARTICIPANTS

4-digit number: _____

Survey Questions

Please rate how much you agree with the follow questions.

1- Strongly disagree, 2- Disagree, 3- Neutral, 4- Agree 5- Strongly agree

- 1. I have a lot of knowledge about service dogs.
1 2 3 4 5
- 2. I am familiar with the disability community.
1 2 3 4 5
- 3. I know many terms associated with the disability community.
1 2 3 4 5
- 4. I am knowledgeable about laws associated with disabilities.
1 2 3 4 5
- 5. I am knowledgeable about laws associated with service dogs.
1 2 3 4 5
- 6. The University of Illinois Urbana-Champaign is a very accessible campus.
1 2 3 4 5
- 7. I have a lot of experience with dogs.
1 2 3 4 5
- 8. The severity of a person’s disability impacts their quality of life.
1 2 3 4 5
- 9. I believe that service dogs should be allowed in public places.
1 2 3 4 5
- 10. I believe that service dogs should be allowed in professional environments.
1 2 3 4 5
- 11. I believe that service dogs should be allowed in my class.
1 2 3 4 5
- 12. I believe that service dogs should be allowed in my residence.
1 2 3 4 5

APPENDIX C: QUESTIONNAIRE FOR PARTICIPANTS (cont.)

13. I believe that service dogs should be allowed to live with me.
1 2 3 4 5
14. Service dogs provide independence.
1 2 3 4 5
15. It is appropriate for someone to put a service dog vest on his or her pet.
1 2 3 4 5
16. I am a good advocate for people with disabilities.
1 2 3 4 5
17. Disability accessibility is a priority in the United States.
1 2 3 4 5
18. Disability accommodations are a priority at the University of Illinois Urbana-Champaign.
1 2 3 4 5
19. A person's disability greatly limits their activities of daily living.
1 2 3 4 5

Please answer the following demographic information

20. What is your gender?

Male

Female

21. What is your ethnicity?

22. What is your age?

23. What is your major field of study?

APPENDIX D: DEMOGRAPHIC INFORMATION

| <i>Table 1. Demographic Information of Participants</i> | | | |
|---|-----------|---------------|--------------------|
| Variable | Frequency | Valid Percent | Cumulative Percent |
| Gender | | | |
| Male | 4 | 20 | 20 |
| Female | 16 | 80 | 100 |
| Total | 20 | | |
| Age | | | |
| Less than or equal to 20 | 18 | 90 | 90 |
| Greater than 20 | 2 | 10 | 100 |
| Total | 20 | | |
| Ethnicity | | | |
| White | 16 | 20 | 80 |
| Non-White | 4 | 20 | 100 |
| Total | 20 | | |
| College | | | |
| LAS (Liberal Arts and Sciences) | 6 | 30 | 30 |
| AHS (Applied Health Sciences) | 3 | 15 | 45 |
| ACES (Agricultural, Consumer, Environmental Sciences) | 9 | 45 | 90 |
| College of Engineering | 2 | 10 | 100 |
| Total | 20 | | |

APPENDIX E: DISABILITY RELATED QUESTIONS

| Question | Description | Pre-test Mean | Post-Test Mean | Significance |
|----------|---|---------------|----------------|--------------|
| 1 | Knowledge about service dogs | 3.20 | 4.60 | <0.001*** |
| 7 | Experience with dogs | 4.45 | 4.70 | 0.056 |
| 8 | Severity of a person's disability impacts QOL ^a | 2.75 | 3.25 | 0.096 |
| 14 | Service dogs provide independence | 4.55 | 4.80 | 0.096 |
| 19 | A person's disability greatly limits their ADL ^a | 3.20 | 3.45 | 0.449 |
| Sum | | 3.63 | 4.16 | 0.139 |

^a= Questions were originally written to indicate that a lower score meant a higher understand. The scores were inversely coded in order to accurately reflect the true mean scores.

* $p \leq 0.05$

** $p \leq 0.01$

*** $p \leq 0.001$

APPENDIX F: AWARENESS RELATED QUESTIONS

| Question | Description | Pre-test Mean | Post-Test Mean | Significance |
|----------|--|---------------|----------------|--------------|
| 2 | Familiarity with disability | 3.30 | 4.15 | <0.001*** |
| 3 | Terms associated with disability | 2.55 | 3.80 | <0.001*** |
| 15 | Appropriate for service dog vest on a pet ^a | 4.20 | 5.00 | 0.017* |
| Sum | | 3.35 | 4.32 | 0.005** |

^a = Questions were originally written to indicate that a lower score meant a higher understand. The score was inversely coded in order to accurately reflect the true mean scores.

* $p \leq 0.05$

** $p \leq 0.01$

*** $p \leq 0.001$

APPENDIX G: ADVOCACY RELATED QUESTIONS

| Question | Description | Pre-test Mean | Post-Test Mean | Significance |
|----------|--|---------------|----------------|--------------|
| 4 | Knowledge about disability laws | 2.42 | 3.84 | <0.001*** |
| 5 | Knowledge about service dog laws | 2.65 | 4.05 | <0.001*** |
| 16 | Good advocate for people with disabilities | 2.75 | 3.25 | 0.096 |
| Sum | | 2.87 | 4.11 | <0.001*** |

* $p \leq 0.05$

** $p \leq 0.01$

*** $p \leq 0.001$

APPENDIX H: ACCESSIBILITY RELATED QUESTIONS

Table 5. *Accessibility Related Questions*

| Question | Description | Pre-test Mean | Post-Test Mean | Significance |
|----------|--|---------------|----------------|--------------|
| 6 | UIUC is accessible | 4.05 | 4.40 | 0.090 |
| 9 | Service dogs in public places | 4.95 | 5.00 | 0.330 |
| 10 | Service dogs in professional environments | 4.85 | 5.00 | 0.083 |
| 11 | Service dogs in class | 4.80 | 5.00 | 0.104 |
| 12 | Service dogs in residence | 4.85 | 5.00 | 0.083 |
| 13 | Service dogs live with me | 4.70 | 4.80 | 0.330 |
| 17 | Disability accessibility is priority in US | 3.50 | 3.85 | 0.090 |
| 18 | Disability accessibility is a priority at UIUC | 3.50 | 3.85 | 0.090 |
| Sum | | 4.40 | 4.61 | 0.15 |

* $p \leq 0.05$

** $p \leq 0.01$

*** $p \leq 0.001$