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Perceptions of Guide Dog Users on Their Dogs’ Impact on Their Lives

Mei Ling Wong
Pacific University

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Perceptions of Guide Dog Users on Their Dogs’ Impact on Their Lives

Abstract
Since 1929, dogs have been trained in the United States to guide the blind and visually impaired. While there are numerous testimonials and personal accounts on how dog guides change the individual lives of their blind handlers, there is a paucity of research on this topic. The intent of this study was to conduct a survey of dog guide users and specifically ask about their beliefs on how a dog guide has affected their life. The results of this survey provide quantitative data that support the conclusion that for the most part dog guide users believe that their dogs have positively changed their life. The two areas identified as problematic are the dog receiving attention while working and individuals being less likely to go somewhere if they are unable to take their dog.

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Committee Chair
Catherine Miller, PhD

Second Advisor
Daniel McKitrick, PhD

Third Advisor
Michel Hersen, PhD, ABPP

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PERCEPTIONS OF GUIDE DOG USERS ON THEIR DOGS’ IMPACT ON THEIR LIVES

A DISSERTATION
SUBMITTED TO THE FACULTY
OF THE
SCHOOL OF PROFESSIONAL PSYCHOLOGY
PACIFIC UNIVERSITY
FOREST GROVE, OREGON

BY
MEI LING WONG, M.S.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF
DOCTOR OF PSYCHOLOGY

APRIL 12, 2006

APPROVED: ____________________________
Catherine A. Miller, Ph.D.

__________________________
Daniel McKitrick, Ph.D.

PROFESSOR AND DEAN: ____________________________
Michel Hersen, Ph.D. ABPP
ABSTRACT

Since 1929, dogs have been trained in the United States to guide the blind and visually impaired. While there are numerous testimonials and personal accounts on how dog guides change the individual lives of their blind handlers, there is a paucity of research on this topic. The intent of this study was to conduct a survey of dog guide users and specifically ask about their beliefs on how a dog guide has affected their life. The results of this survey provide quantitative data that support the conclusion that for the most part dog guide users believe that their dogs have positively changed their life. The two areas identified as problematic are the dog receiving attention while working and individuals being less likely to go somewhere if they are unable to take their dog.

Dog guide; blindness; visually impaired; mobility; survey
ACKNOWLEDGEMENTS

Graduate school is a major challenge for anyone. When you have a visual impairment it requires the assistance, patience, creativity, and flexibility of many others. I have many people to thank and I am sure that there are many more who will not be mentioned here.

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Perceptions of Guide Dog Users on their Dogs’ Impact on their Lives

Introduction

The American Foundation for the Blind (AFB, 2004) has estimated that in the United States there are about 10 million individuals considered blind or visually impaired. This figure is based on several federal surveys conducted in the mid- to late 1990s (see AFB’s on-line resource at http://www.afb.org/section.asp?Documentid=1367 for further details). Of these 10 million, about 1.3 million are considered legally blind and about 109,000 report using the long white cane as a mobility aid (National Center for Health Statistics, 1994-95, as cited on the AFB Web site).

Eames, Eames, and Diament (2001) collected data on the number of dogs trained in 1993 and 1999 from 15 guide dog schools in the United States. They estimated that there were about 9,000 dog guide teams trained in 1999 with a 10% increase from 1993 to 1999. The term guide dog is used specifically to describe dogs that are trained to guide a person with impaired vision. The terms guide dogs and dog guides are synonymous and may be used interchangeably. Other terms, such as Seeing Eye Dog or Leader Dog are used to describe dogs that perform identical tasks for persons who are visually impaired; however, these terms are derived from the names of the specific training facilities, such as The Seeing Eye, Inc. in Morristown New Jersey. In 1929, The Seeing Eye, Inc. in Morristown, NJ was the first organization in the United States to begin training dogs to
guide the blind. In 1942, Guide Dogs for the Blind, Inc. opened as the first guide dog training facility on the West Coast (Harrington, 1990).

Testimonials and personal accounts from individuals abound on how having a guide dog has positively changed their lives (http://www.guidedogs.com/graduates.html; http://www.seeing-eye.org/AboutUs.aspx?sc=ge&2; Chevigny, 1947; Hickford, 1973; Hu, 2001; Kuusisto, 1998; Manning, 2004; Putnam, 1979; Sanders, 2000; Stewart, 2003; Sullivan, 2003; Sullivan & Gill, 1976; Warnath & Seyfarth, 1982). Yet, despite 75 years of training dogs in the United States as guides for the blind, there is a paucity of research studies documenting their impact on the lives of blind and visually impaired individuals choosing to use guide dogs as a mobility option. The majority of available research on blind persons and their guide dogs has been conducted in Europe (Clark-Carter, Heyes, & Howarth 1986; Jackson et al., 1994; Naderi, Miklosi, Doka, & Csanyi, 2001; Nicholson, Kemp-Wheeler, & Griffiths, 1995; Steffens & Bergler, 1998). In Germany, Steffens and Bergler (1998) interviewed 80 blind individuals, 40 who had guide dogs and 40 who did not. They used semi-structured interviews that lasted between two and three hours. Content analysis was used to examine results and percentages were calculated based upon participants’ responses. Some of the benefits listed by their respondents included: increased independence; social support, including giving and receiving affection, and companionship; decreased stress and nervous
strain when walking; and the ability to be more physically active and walk at a faster pace rather than evaluating each step.

Research in the United States on guide dogs includes Miner’s (2001) qualitative study and Sanders’ (2000) sociological ethnographic study. Miner’s (2001) qualitative study used a phenomenological method and an open-ended interview format with eight individuals with dog guides. She found four main themes from her interviews: increased confidence, increased independence, changed public interactions, and additional responsibilities or inconveniences. Sanders’ (2000) ethnographic study explored the impact of a guide dog on the various aspects of identity and was conducted via a nine-month time period of observational data collecting and semi-structured interviewing at a guide dog school.

The purpose of the current study is to conduct a survey of guide dog users in the United States and Canada to determine how guide dog users believe that using a dog for mobility impacts their life. Areas of inquiry include: activity level, and increased involvement in the community (volunteer work, education, or a career); how they feel their dog has impacted their self-confidence in general as well as to traveling longer distances, and in less familiar places; and how their dogs have altered their social interactions, such as increased contact with others, increased opportunities for assistance, etc.

Since using a guide dog is a personal choice, it was expected that the impact would be mostly positive; however, as with Miner’s 2001 study,
there was the possibility that a guide dog may also have some negative effects. For example, Hart, Zasloff, and Benfatto (1995) surveyed hearing dog owners. They found similar positive effects such as companionship, service or assistance, and independence. However, negative aspects were also reported; most commonly noted were behavior problems of the dog and dog care.
Studies on Animals and Mental Health

Throughout history, animals have served various roles and functions in the lives of humans. Serpell (2000) documented the history of the role of animals in various cultures throughout the world. While animals have been valued for companionship, he also noted their role in spirituality, healing, illness, and shamanism in Native American, Mayan, Egyptian, and Grecian cultures, specifically related to spiritual beliefs and rituals. Also, Serpell (2000) noted that in the mid- to late-1800s pets were frequently a part of institutions for the mentally ill; however, around the start of the 20th century, use of animals as intervention nearly vanished from the field of medicine and mental health for almost 50 years.

More recently, the field of animal-assisted activities (AAA) and animal-assisted therapy (AAT) has increased research on the therapeutic benefits of pets for a variety of patient populations. AAA involves bringing animals into facilities such as hospitals, rehabilitation centers, nursing homes, etc. to visit, socialize, or interact with residents. During AAA, the individual bringing in the animal may be a professional at some level in a health field or may be a volunteer. AAT, on the other hand, is performed by a specifically trained health professional, the animal is a direct part of the treatment plan, and progress on goals is documented. Both AAA and AAT may take place in either group or individual formats (Delta Society, 1996). Recent research findings include the following: AAT with dogs decreased loneliness in a nursing home population (Banks & Banks,
2002); dogs improved the social interactions of individuals with Alzheimer’s disease (Beyersdorfer & Birkenhauer, 1990; Kongable, Buckwalter, & Stolley, 1989); and the presence of birds increased attendance and participation in group therapy with psychiatric inpatients (Beck, Seraydarian, & Hunter, 1986). The literature review portion of this dissertation will include a brief discussion on the mental health and social benefits of pet ownership. This will be followed by an abbreviated review of the relevant literature on blindness and related mental health issues that may be effected by pet ownership. Additionally, the functional impairments or disabling effects of blindness will be included here, as well as the impact this has specifically on mobility and the ability to travel independently to work or social and recreational activities.

Mental Health and Social Benefits Related to Pet Ownership.

This section of the literature review includes studies that specifically look at pet ownership and various measures impacting quality of life, such as, depression, loneliness, stress, and social support or interactions.

Depression. While varying circumstances throughout life may lead to feelings of loneliness or symptoms of depression, Akiyama, Holtzman, and Betz (1986) chose to study pet ownership in relation to the death of a spouse. Participants in their study included 108 Caucasian women between the ages of 25 and 81. Of their participants, 51 were pet owners and 57 were non-owners. The pet owning participants reported owning dogs and/or cats, and one bird. Data were gathered using a modified
version of the Maddison’s Health Questionnaire (Maddison & Viola, 1968),
the Beck Depression Inventory (BDI; Beck, Rush, Shaw, & Emery, 1979),
and the 10-item Index of Attachment to Pets (Katcher, Friedmann,
Goodman, & Goodman, 1986). Additionally, information was collected
regarding substance use and altered work capacity. Overall results from
their study found that “Although differences in overall health status change
scores were not found to be statistically significant, nonowners showed
higher scores in regard to forty symptoms” (Akiyama et al., 1986, p. 190).
Some of the specific forty symptoms demonstrating statistically significant
differences in reporting between groups included difficulty swallowing,
headaches, persistent fears, and feelings of panic, with non-pet owners
reporting higher levels. BDI score differences were not statistically
significant; however, non-owners’ scores were slightly higher (8.01) than
owners (6.27). Non-owners also reported more drug and alcohol use than
pet owners.

Similarly, a study of elderly individuals who had lost a spouse within
the last year compared pet owners and non-owners. Those with pets
reported less depression compared to those without pets (Garrity,
Stallones, Marx, & Johnson 1989).

Folse, Minder, Aycock, and Santana (1994) identified depressed
college students based upon their scores on the BDI (Beck et al., 1979).
Their sample included 44 depressed undergraduate college-age students
divided into three groups: a control group, a group receiving AAT only, and
a group receiving group psychotherapy along with AAT. In their study, AAT alone was found to be most effective in decreasing depressive symptoms as measured by the BDI.

Brickel (1983, as cited in Brickel, 1984) used pet-facilitated psychotherapy (PFP) with depressed nursing home patients in a group setting. Pet-facilitated psychotherapy, not a term used by the Delta Society, in this study seems to be a combination of AAA and AAT, where members are allowed to interact with, touch, and talk to a dog during the group session. Pre- and post-intervention measures were taken on each individual; however, there were not specific treatment plans based upon each individual’s interaction with the dog. His subjects included fifteen individuals aged 58 to 83. Subjects in Brickel’s study were determined depressed based upon scores on the Zung Self-Rating Depression Scale (Zung, 1965) and were divided into three groups. Groups included a control or no treatment group, a traditional psychotherapy group, and a PFP group. Study duration was 4 weeks. Brickel found that, “The conventional and PFP groups displayed significant reductions of depression [post intervention]. Change for the PFP group was almost double that of the conventional group” (Brickel, 1984, p. 73). At the end of 4 weeks there was no change in the control group.

In summary, pets in a group therapy format were found to be effective interventions for depressive symptoms in both college students and in nursing home residents.
Loneliness. Zasloff and Kidd (1994) and Banks and Banks (2002) both used the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980; Russell, 1996) to measure the effect of pets on loneliness. Zasloff and Kidd (1994) conducted a study of college students with an age range of 21-53 years. Subjects were administered the Revised UCLA Loneliness Scale (Russell et al., 1980) and the Pet Relationship Scale (Lago, Kafer, Delaney, & Connell, 1988). Their study included 148 women (59 owned either a cat or dog and 89 had no pets in their household). Subjects were divided by either living with no other people or living with a family member or friend. Thus, the study was comprised of four categories: pet owners living with no people, pet owners living with other people, non-pet owners living alone, and non-pet owners living with other people. Results of the study found that dog owners living only with their dog were significantly more attached to their dog than those living with other people and their dog. Overall, there were no differences between owners and non-owners; however, women living entirely alone were significantly more lonely than women in the other three conditions. Mean loneliness scores of the groups were as follows: 38.9 living alone, 34.2 living with a pet, 35.7 living with people and no pets, and 34.3 living with both people and pets.

Banks and Banks (2002) used AAT with elderly individuals living in three long-term care facilities. Potential subjects had to meet a number of requirements and took the following three assessment measurements: Banks and Banks’ own Demographic and Pet History Questionnaire
(DPHQ), the UCLA Loneliness Scale (Russell, 1996), and the Mini Mental Status Exam (MMSE; Folstein, Folstein, & McHugh, 1975). To have the option of participating in the study, subjects needed to have an MMSE score greater than or equal to 24 and UCLA Loneliness score greater than or equal to 30. According to Banks and Banks a score of 30 or more indicated significant loneliness. The study duration was 6 weeks; residents were divided into three groups of fifteen. The three groups included no AAT, AAT once a week, and AAT three times a week. At the end of the 6 weeks, UCLA Loneliness Scale scores were almost 50 for the no treatment group, demonstrating no change in their loneliness scores, whereas the two treatment groups scores were almost 40, both demonstrating a statistically significant decrease in their level of loneliness (Banks & Banks, 2002). The authors noted that there was no significant difference between the two treatment groups. However, they speculated that if the duration of the treatment were lengthened perhaps there would be a difference between AAT once per week verses three times per week.

The differences between the findings of Banks and Banks (2002) and Zasloff and Kidd (1994) may be partially due to the fact that Banks and Banks’ (2002) subjects were self-selected (i.e., they volunteered for participation in a program of AAT). The DPHQ examines history of pet ownership, including types of pets, duration of ownership, and the ages of subjects at the time of ownership. The findings of the DPHQ are noteworthy for the following two reasons: more than 95% of their subjects
had pets at or before the age of eight; and all participants indicated a desire to currently own a pet if not for restrictions by the care facility. This suggests that AAT would likely be most successful with a population with a history of pet ownership and with individuals desiring animal contact. Also Banks and Banks’ subjects qualified for the study based upon a UCLA Loneliness Scale score greater than or equal to 30. Thus, after intervention the no treatment groups’ mean score was about 50, while the two treatment groups’ mean loneliness scores were around 40. By contrast, in the Zasloff and Kidd (1994) study the mean UCLA Loneliness Scale scores were as follows: 38.9 living alone, 34.2 living with a pet, 35.7 living with people and no pets, and 34.3 living with both people and pets. Thus the Zasloff and Kidd’s (1994) findings of no significant differences between pet owners and non-owners in loneliness and Banks and Banks’ (2002) findings of a reduction in loneliness may be due in part to the large differences in the UCLD Loneliness Scale scores between the two groups.

In summary, it appears from these two studies that the presence of pets is likely to decrease loneliness for individuals with a history of pets and with high levels of loneliness.

**Overall adjustment.** Allen and Blascovich (1996) conducted a study of individuals interested in receiving service dogs. Although the term service dog is sometimes used to include any type of dog that assists disabled persons, in this study a service dog refers to a dog specifically trained to assist a person whose disability is ambulatory or mobility
related. Their study involved 48 individuals matched by demographic characteristics and severity of disability and divided them into 24 pairs. Half the participants received service dogs one month after the study began; the other half received service dogs 13 months following the initiation of the study. The following assessment measures were given to all participants at the beginning of the study: the Spheres of Control Scale (to measure locus of control; Paulhus, 1983), the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the Affect Balance Scale (to measure psychological well-being; Bradburn, 1969), and the Community Integration Questionnaire (Willer, Ottenbacher, & Coad, 1994). The same measures were repeated four more times at 6, 12, 18, and 24 months. Their study found positive differences within and between groups on most variables: “Psychologically, all participants showed substantial improvements in self-esteem, internal locus of control, and psychological well-being within six months after receiving their service dogs” (Allen & Blascovich, 1996, p.1004). Additionally, subjects reported an increase in school attendance and/or part-time work and a decrease in the number of hours of either paid or unpaid assistance, such as with tasks of daily living.

Valentine, Kiddoo, and LaFleur (1993) surveyed individuals with mobility and hearing impairments with service dogs. In regards to how a service dog altered their life, subjects reported “feeling less lonely, less depressed, more capable, safer, more assertive, more content, and more independent; had more freedom to be capable; and reported an increase
in self-esteem” (p. 109). Camp (2001) found similar results in a qualitative study she conducted to examine the role of a service dog as an adaptive strategy for mobility-impaired individuals. Her participants included five individuals with various mobility impairments including paraplegia, quadriplegia, cerebral palsy, muscular dystrophy, and spina bifida. Subjects included three males and two females ranging in age from 32 to 52. The researcher reported using an ethnographic method of studying, combining interviews and observation. All interviews opened with “Tell me about owning a service dog” (p. 512). The interview also included the same four open-ended questions for each interview. All participants reported using their dog as an adaptive strategy; some reported tasks of the dogs included: retrieving dropped objects, retrieving medications, opening doors, getting help, bracing to get up from lying position, and moving clothes to the dryer. In terms of the benefits of the dog, respondents reported: the relationship to be closer than family, increased social acknowledgement, personal skill development, increased sense of independence, and adding fun and recreational opportunities. Drawbacks of having a service dog were similar to those reported in Hart et al.’s (1995) survey. These included extra responsibilities, picking up after the dog, veterinary care, an adjustment period, and the challenges of maintaining the dog’s training.

*Social Contact.* As well as decreasing loneliness and feelings of depression, animals also seem to facilitate contact between strangers.
Individuals walking in the park with their pet were found to be approached in the park and to be engaged in conversation more frequently than those without pets. Additionally, pets had a larger effect than small infants on stranger interaction (Messent, 1983). To test the effect of an animal on contact between strangers, Hunt, Hart, and Gomulkiewicz (1992) placed a woman confederate in a park under four different situations: with a rabbit, with a turtle, with a playing portable TV, and blowing bubbles with a wand. Each condition was tested six separate times. The goal of the study was to assess how many different times children or adults approached and engaged with the confederate and/or the stimulus. The confederate took notes on the interactions and carried a small tape recorder to record interactions that took place. Significantly more adults approached the confederate when accompanied by the rabbit (29 versus 12 with the bubbles). However, with children the bubbles were more popular with 30 approaches; the turtle and rabbit both received an equal number of 19 approaches.

A question raised by the research of Hart, Hart, and Bergin (1987) was to assess the role of animals in facilitating social interaction for visibly physically disabled individuals in wheelchairs. They conducted a study of 19 individuals with service dogs from Canine Companions for Independence (CCI) and nine individuals with comparable disabilities without service dogs. CCI trains dogs for physically impaired individuals whose disability is specifically mobility or ambulatory related. Such
disabling conditions may include but are not limited to cerebral palsy, muscular dystrophy, paraplegia, or other spinal cord injuries. Such service dogs may be trained to pull wheelchairs, retrieve dropped objects, push buttons or switches, pull doors open, assist with transferring and dressing and a variety of other daily tasks that may be impaired due to a physically disabling condition. CCI does not train guide dogs. The term guide dog is used specifically to describe dogs that are trained to guide a person with impaired vision. Although the subjects had various disabling conditions all subjects from both groups used wheelchairs. Subjects with service dogs were asked to estimate the number of approaches they received from adults and children when they were out in public accompanied with their dog and then without their dog. They were also asked to retrospectively estimate the number of approaches by adults and children on an outing before they attained a service dog. Both groups were asked about the number of times they went out independently at various times of the day. Again, the group with service dogs was asked to give their best estimate of independent outings prior to receiving the dog. The subjects with service dogs reported that when they went out without their service dog they were approached about one time by adult per outing compared to about eight times per outing with their dog. The number of estimated approaches before receiving a service dog was about one per outing. While this figure was retrospective, it coincides with the number of one approach per daytime outings of the non-service dog group as well. The
number of approaches by children was zero to one for the non-service dog users and was about the same as the estimates given by the service dog users before their dog and without their dog. However, with their dog, the number of child approaches increased to about five. In addition, the service dog users reported a significant increase in their evening outings after receiving their dog; however there was no difference between the two groups.

Similarly, work by Eddy, Hart, and Boltz (1988) found that their study of participants in wheelchairs with service dogs received more interaction from passersby, specifically smiles and conversations, than individuals in wheelchairs without service dogs. Specifically, they noted, “Clear episodes of gaze avoidance or path aversion occurred with nine of the participants without dogs, and with only three of the participants with dogs” (p. 42). Indeed, Steffens and Bergler’s (1998) study of guide dog users found subjects reported increased social contact with others due to their dog guide’s presence and “For nearly 80% of the sample, dogs are often the topic of conversation with others” (p. 156).

Individuals with visible or stigmatizing disabilities often report avoidance and/or increased discomfort in able-bodied persons as evidenced by less eye contact and or increased personal space (Edelman, 1984; Kleck et al., 1968; Thompson, 1982; Worthington, 1974). Therefore the increase in social contact for disabled persons reported in Eddy et al. (1988) and Hart et al. (1987) is significant and may provide an important
bridge for social engagement for individuals with stigmatizing conditions that would otherwise leave them prone to social isolation. However, three subjects from Hart et al. (1987) noted “that it was sometimes a nuisance having people approach, making it more difficult to control the dog” (p. 43). Subjects from Eddy et al. (1988) also noted that people could be a “social bother” in that they wanted to talk about dogs for an extended duration and/or they needed more time for their travels due to the increased attention the dog received.

Mental Health Concerns and Activity Restriction Related to Blindness

This section of the literature review will cover mental health problems and activity restriction common to blind persons that may be directly affected by pet ownership. Problems discussed here will include depression, loneliness or lack of social support, and activity impairment related to blindness. We begin this section with two cautionary notes regarding applying and interpreting research on blind and visually impaired persons. First, it is important to note that the majority of recent research on blind persons has been conducted on individuals considered advantageously blind. Advantageously blind refers to individuals who were not blind at birth, and, although their blindness may have been caused by a genetic condition that was present at birth, they had adequate vision for at least for some part of their life. Second, in research on visually impaired persons the majority of subjects have eye conditions related to aging, such as age-related macular degeneration and glaucoma; thus they are
likely to be 60 years of age or older. Although the actual physical
limitations of blindness are similar regardless of age of onset or eye
disease, the experience of living as a blind person in a sighted world will
be different depending on their level of adaptation and adjustment, the
amount of support received, and the cultural and familial meanings of
disability and blindness for the individual.

Research by Casten, Rovner, and Edmonds (2002), Evans (1983),
Rovner and Ganguli (1998), and Rovner, Zisselman, and Shmuely-Dulitzki
(1996) all found a relationship between visual impairment and depression.
The study by Casten et al. (2002) is of particular importance to the mental
health field, as it specifically analyzes the relationships between a number
of variables: visual acuity, visual functioning, chronic disease, physical
functioning not related to vision, and depression. Verbrugge and Jette
(1994, as cited in Casten et al., 2002) noted the relationship between
chronic disease, disability, and depression. Due to the disabling effects of
depression alone, it is difficult to determine the degree of disability related
to the chronic disease versus depression. Additionally, some chronic
diseases may have overlapping symptoms with depression. For these
reasons, Casten et al. (2002) believed it necessary to study a health
condition in which the symptoms were not overlapping in order to
determine the impact of depression on functioning. Age-related macular
degeneration was chosen; therefore all subjects were over 64 years of
age. The Center for Epidemiological Studies-Depression (CES-D) scale
(Radloff & Teri, 1986) was used to measure depression. The Functional Vision Screening Questionnaire (FVSQ; Horowitz, Teresi, & Cassell, 1991) was used to measure visual functioning and includes participation in tasks that specifically involve vision, such as reading and watching television. A chronic disease score was calculated for participants by having them identify a variety of health conditions diagnosed by their physicians within the last year; medications were also included in this score (Vonkorff, Wagner, & Sanders 1992). The Community Disability Scale (CDS; Folstein et al., 1985) was used to assess participation in activities of daily living. The scoring of the CDS is more sensitive to measuring impairment than other instruments, in that activity participation is measured as independently performed, performed with difficulty or help, or not able to be performed at all, rather than taking the all-or-nothing approach in measurement.

Results from the study by Casten et al. (2002) found that 43% of participants met the criteria for depression. This result is far above depression rates in the community even when age is accounted for. While degree of vision impairment was related to visual functioning for all participants, the depressed group in this study had poorer vision-specific function, increased disability in participation of ADL, and more depressive symptoms. Depressed and non-depressed groups did not differ in demographic variables, severity of visual impairment, physical
health, or specific health conditions. Upon further analysis of their data, Casten et al. (2002) found that “visual acuity is related to physical function for persons who report more severe depressive symptoms, but less so for those with less severe depressive symptoms” (p. 404). As the authors noted, persons with vision loss and depression seemed to globalize and generalize their disability and create greater limitations for themselves, whereas those without depressive symptoms seem to only have limitations in vision-specific functioning. These results are of particular salience when considering that participants were selected from a low vision clinic and a retina clinic and that there was no pre-screening or selection criteria for depression. Additionally, this study’s results bolster those of previous works by both Carabellese et al. (1993) and Rovner and Ganguli (1998). Carabellese et al. (1993) found a significant decrease of functioning in a variety of quality of life measures in their elderly participants with either a visual or hearing deficit.

Rovner and Ganguli (1998) also compared sighted and low vision elderly individuals (aged 65 and older) on a measure of depression, the Center for Epidemiological Studies-Depression (CES-D) scale (Radloff & Teri, 1986), and on activities of daily living. On their initial comparison, 29.7% of the visually impaired participants were considered depressed compared to 8.5% of their age peers. Overall Rovner and Ganguli (1998) found “that impaired vision was associated with older age, higher numbers of depressive symptoms, and IADL (instrumental activities of daily living)
impairment” (p. 618). Two years later, Rovner et al. (1996) attempted to conduct follow-up interviews with subjects. They received completed data from only 31 of their original 70 visually impaired participants. In the original study, 12 of the 31 were depressed and at follow-up 10 of the 12 were still considered depressed. Additionally, three previously non-depressed participants qualified as depressed. Rovner et al.’s (1996) follow-up results are significant in that they demonstrate that depression experienced by elderly visually impaired persons is not a transitional state but rather is enduring at least over a 2-year period.

Evans (1983) studied 112 adventitiously blinded veterans (mean age 61.9 years). They were administered the Wakefield Self-Rating Depression Scale (Snaith, Ahmed, Mehta, & Hamilton, 1971), the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980), and the Personal Assessment of Role Skills (Ellsworth, 1975). The Personal Assessment of Role Skills was administered to a significant other identified by the participant to assess level of activity in work, hobbies, pastimes, community activity, and socializing with family and friends before and after determination of legal blindness. Results of Evan’s (1983) study were presented based upon time duration since determination of legal blindness. Evans (1983) found that between 2.5 and 5 years, level of depression seemed to peak; this is consistent with Rovner et al.’s (1996) assessment of the presence of depression for 2 years following the initial administration of their assessments. In addition, Evans (1983) found that
after 5 years level of depressive symptoms decreased but that loneliness was “positively correlated with duration of blindness (r = .31) and negatively correlated with social activity (r = -.56)” (p. 606).

A smaller 6-year longitudinal study conducted in Germany (Heyl & Wahl, 2001) found similar results supporting decreases in activity level and participation in leisure activity over time in legally blind individuals. For this study, data were gathered at four measurement points: initial, 4 years, 5 years, and 6 years. Resulting data were based upon a legally blind group (n = 28) and a sighted group (n = 26). In addition to looking at ADL/IADL impairment, this study also considered the following: leisure activity, use of outdoor resources, general life satisfaction, and a measure of future orientation. It should be noted that for measures of both ADL/IADL and leisure activity, a subset of items rather than the entire inventory was administered. Use of outdoor resources was measured with a seven-item scale, life satisfaction was based upon four items from the Philadelphia Geriatric Center Morale Scale (Lawton, 1975), and future orientation was measured by interviewer’s rating from one to five, based upon the subjects’ thoughts and feelings about the future. Note that for the latter measurement interrater agreement was checked via audio taped interviews for 30% of interviews. Overall results yielded a statistically significant difference between the legally blind group and the sighted group of participation in ADL/IADLs, use of outside resources, and leisure activities. For the sighted group, participation and/or usage on the three
aforementioned measures remained relatively stable over time, with little fluctuation. However, for the legally blind group, reported levels of usage were significantly lower on all three. In addition, there also was a main effect of time between initial measurement and time for both use of outside resources and leisure activities, with a decline in both. On the two measures of emotional adaptation there also were statistically significant differences for group membership. Interestingly, measures of general life satisfaction for both groups remained relatively stable from time one to time two. There was a steady decrease from time two to time three and time three to time four for both groups. The legally blind group was again overall at lower levels throughout the 6 years. At the initial measurement all participants were rated similarly for future orientation. While the sighted group remained the same, the legally blind group demonstrated a decline with a main effect of both group membership and time of measurement. The investigators argued that their research, while limited, demonstrates some significant negative effects of vision loss associated with aging. They recommended “that it is crucial to provide psychosocial intervention and rehabilitation at the earliest possible time to prevent unnecessary dependence and the loss of autonomy at a later time” (p. 746). While this study focused on only two measures of psychosocial adjustment, other studies such as Davis, Lovie-Kitchin, and Thompson (1995) and Karlsson (1998) also demonstrated a decrease in life satisfaction as vision declines.
The study by Davis et al. (1995) demonstrated that those with age-related macular degeneration (ARMD) were less satisfied with their life compared to controls. This study included 30 individuals with ARMD and 30 controls subjects with visual acuity of 20/40 or better. Subjects were also matched for gender and age +/- 3 years. When demographic variables were analyzed no significant difference was found in marital status, living environment, number of health problems, number of medications, or income. Compared to controls, persons with ARMD were significantly less satisfied with their life and reported increased stress. Roughly 37% needed the assistance of a guide to travel outside of their homes and could only travel in familiar neighborhoods; 10% were confined to their homes. They also reported significantly fewer daily activities and less social support. Surprisingly, ratings of self-esteem were not different between the two groups. Results from this study are significant considering that all of the individuals have been through rehabilitation training. While some subjects continued to lose sight, the mean time since onset of vision loss was 9.5 years. These findings suggest that follow-up after rehabilitation services may be useful in order to provide continued assessment and training.

Decreased happiness, in general, among the visually impaired is similar to the findings of a study in Iceland (Karlsson, 1998) comparing the effects of both age and degree of visual impairment on self-reports of psychological distress. The study included 141 persons aged 18 to 69 and
77 persons aged 70 to 97, with subjects from both the low vision group and the legally blind group in each age cohort. Results of this study indicate that reports of psychological distress increase when vision decreases. For example, to the question “Do you think that your visual impairment [blindness] has decreased the happiness of your life?” 29% of those with low vision versus 48% of those who are considered legally blind said yes. In answer to the question “Did you go through a difficult period after a serious deterioration of your vision?” 60% of the younger group compared to 24% of the older group said yes. Further analysis revealed that 59% of the respondents were considered blind, whereas only 32% were in the low vision group. All of the above results were statistically significant. The difficult period referred to in the previous question lasted on average 19 months, with 19 (35 percent) of respondents reporting present and ongoing difficulties. A related question asked “Did you seek support during the difficult period?” Sixty-one percent of the younger group but only 38% of the older group said yes, and 64% of the legally blind group compared to 44% of the low vision group said yes, with almost 50% of those seeking support receiving professional services, such as from social workers and psychologists. Of the total sample, only 44 respondents said they felt depressed, but again more were in the younger group and in the legally blind group. Sixty-four percent of these participants related their depressive feelings to specific causes, mainly vision impairment, poor health, and winter darkness. Feelings of isolation were
more common among the legally blind group and also in those who considered themselves depressed. Those who felt they were depressed were more likely to rate their health as poor or very poor, and also considered their vision impairment to have a negative influence on their health. The legally blind group, compared to the low vision group, was also more likely to have intrusive thoughts related to vision impairment. In sum, this study found that for Icelanders aged 18 to 97, degree of visual impairment was related to increased psychological distress, increased rates of depression and crisis, and decreased happiness in general and related to their own life.

A study by Fitzgerald (1970) verified that newly blinded persons experience depression as well as signs of more severe distress, such as psychosis and suicidal ideation. Fitzgerald, Ebert, and Chambers (1987) were interested in examining what happened with depression over time and what factors might be predictors of depression. They conducted a 4-year longitudinal study in London in order to follow a group of newly blinded persons. This population was a good representation of those in the London area. The study included all those certified and registered blind, rather than just those who have contacted a rehabilitation agency or school. Individuals who have contacted rehabilitation agencies have on some level accepted their vision loss, as they are taking steps towards learning new skills and adjusting to their disability, thus creating a self-selected bias in the sample. Additionally, this group included persons with
a variety of visual conditions rather than just targeting a specific population, such as those with macular degeneration. Subjects in this study were 21 to 65 years of age; at the first measurement persons had been certified blind for 1.2 (median) years. The interviews were semi-structured, and while the amount of time between initial interview and follow up interview varied, on average, the time period was 48 months.

At follow-up, the mean age was 59 years. This study includes comparison measures. Therefore, it is important to note that the study lost 19 subjects between measurements; thus, follow-up measures were based upon 47 subjects. After 4 years, many of the subjects were experiencing considerable psychological distress. More than 50% reported still experiencing depression and anxiety; however, this was a decrease from the first measurements, which were over 80% and 70 percent, respectively. Also, at follow up more than 40% continued to report difficulties with insomnia; more than 30% with crying, anger, irritability, and weight change; and more than 20% with lowered self-esteem. It is, of course, possible that other confounding variables, beyond a decline in visual acuity, were contributing to their distress. However, major life change variables were assessed. For example, only one subject was separated from a partner, and none had lost a spouse to death since the initial interview. Only a small number of participants had taken up new skills that might mitigate effects of their blindness, such as using a white cane, reading Braille, or listening to talking books. Additionally, none of the
subjects chose to use a guide dog for mobility. Fitzgerald et al. (1987) noted “there was essentially no change in regard to mobility ... It seemed clear that this group was not coping well with their experiences of blindness” (p. 367). It should be noted that at follow-up, only 16% were employed, despite the fact that more than 50% were below the age of 60.

Those who coped better with blindness were individuals who had moved into acceptance, or experienced a turning point in their attitude toward blindness and adjustment, using a white cane, by the time of the first interview. Fitzgerald et al. (1987) stated “This is information that suggests efforts should be made to help with early acceptance and early moving into learning important blind skills” (p. 373). Better coping skills were also associated with a better pre-blindness work record. Increased likelihood of using skills learned due to blindness was related to higher social class. Health status, such as those individuals reporting a major surgery or illness during the 4-year period, were more likely to experience depression and distress. According to Fitzgerald et al., “These findings cannot be over-emphasized and are extremely important because 74% of the subjects had experienced significant health problems during the four-year period and 46% had a chronic illness by the time of the follow-up interview” (p. 375). This study produced a great amount of information as to what happens over time to those with acquired vision impairments. It is expected that most persons who lose their sight in adulthood will experience some psychological distress. Due to its use of predictive
relationships, it has provided rehabilitation and mental health workers valuable information in terms of identifying blind individuals who may have increased difficulties with acceptance and adjustment.

Evans (1983), Heyl and Wahl (2001), Casten et al. (2002), and Davis et al. (1995) all demonstrated that visual impairment affects the activity level of adventitiously blinded individuals. While many tasks of daily living impaired by vision loss, such as preparing meals or managing finances, would not be impacted by the presence of a guide dog, mobility and the ability to independently travel to work or recreational activities is also significantly impacted by visual impairment.

Marston and Golledge (2003) studied how the installation of Talking Signs Remote Infrared Audible Signage (RIAS) in the San Francisco area could impact the level of travel and activity participation of blind or visually impaired individuals. It is important to note that RIAS provides access to environmental information that a guide dog could not provide; examples include what bus stop they are at, which train track they are at, or where the restroom is. Thus, even with a guide dog, a visually impaired traveler may still have to ask for assistance. Marston and Golledge (2003) found that “participants expressed a desire to take an additional 99% more trips to recreational activities and 79% more trips to entertainment events” (p. 482). It is important to note here that they did not indicate in their study how many participants used guide dogs; rather, their study illustrated the high degree to which visual impairment may limit participation in
discretionary activities, that is, those not related to work or medical appointments.

Long, Boyette, and Griffin-Shirley (1996) surveyed 32 visually impaired older persons and compared their travel behavior patterns to 28 non-visually impaired older persons. Subjects were interviewed and basic demographic information (i.e., age, education, gender) was collected. Additionally, the following assessment instruments were used: Feinbloom Distance Test Chart for the Partially Sighted (Long et al., 1996) (introduced by Dr. William Feinbloom in 1935 and widely used since), the Information and Orientation subtests of the Wechsler Memory Scale (Wechsler, 1987) (to rule out any cognitive impairment that might otherwise impair travel or activity); Beck Depression Inventory short form (Gallagher, 1986); the Functional Assessment Inventory (FAI; Cairl, Pfeiffer, Keller, Burke, & Samis, 1983); and the Physical Exercise Profile (PEP; Boyette, Cannella, Archea, Sharon, & Del'Aune, 1995). The authors found that the visually impaired participants were significantly younger than the sighted participants (mean ages 70 and 75.3 years, respectively). Visually impaired participants also had a significantly higher level of formal education than the comparison group. There were no statistically significant differences between the two groups on reported numbers of other people living in the home, on duration at current residence, number of sidewalks in proximity to home, and reported fears of crime. Long et al. (1996) found that in the week prior to the interview only 1/3 of the visually
impaired participants reported traveling independently outside of their home compared to 2/3 of their sighted counterparts. Forty-four percent of the visually impaired participants reported no independent travel, compared to only 14% of the sighted participants. Only 42% of the visually impaired participants versus 79% of the sighted participants said they were very satisfied or somewhat satisfied with their ability to travel independently, and 86% of the sighted participants but only 50% of the visually impaired participants reported they were very satisfied or somewhat satisfied with the number of opportunities to leave home alone or unaccompanied. Overall, the two groups differed in terms of the amount of independent travel in which each person engaged; however, if independent and accompanied trips were combined the two groups did not differ significantly. While the travel habits of 70- year-old visually impaired individuals may seem irrelevant to a survey on guide dogs, it is important to note that a few of the guide dog training centers have noted the trend for age-related visual conditions as well. As a result, Southeastern Guide Dogs, Inc. (SEGDI) specializes in training individuals with multiple disabilities (as is also common in the aging population) and in serving the mobility needs of the elderly. For example, in their 2000-01 annual report they noted, “The senior population was accommodated, as 17 of our students were over 70 years old” (p. 1). In just one year SEGDI trained 24 special needs (multiply disabled) and 17 senior guide dog and handler teams.
One final study related to activity level, and specifically mobility of the blind, is Gitlin, Mount, Lucas, Weirich, and Gramberg’s (1997) study which looked at the physical, psychological, and social costs of mobility aids for the blind and visually impaired. Focus Groups were used as the method of study; each group met three times over a 6-week period. Participants for this research included 21 severely visually impaired or blind individuals divided into two groups. The age range of participants was 27 to 68 years. Twelve participants used a white cane and nine used a guide dog for mobility. All sessions were audio taped and all audio tapes were transcribed to ensure that the data was credible. The following three qualitative techniques were used: saturation, member checks, and multiple data coders. Gitlin et al. (1997) noted that initially members were only interested in discussing positive benefits of the cane and dog. They wanted to make clear that although these methods have drawbacks, they should not be overlooked since mobility is an essential part of social integration in the community. Participants noted that both types of travel afforded them the physical benefit of walking, the psychological benefit of safety, and the social benefit of working and living in the community. Dog guides were specifically noted for efficient fast travel and for providing an element of safety from harm. Canes were noted as effective travel aids for familiar situations and in areas with little environmental disturbances such as noise or snow. Dogs were noted to be more beneficial in unfamiliar areas, heavily trafficked areas, areas under construction, and in snowy
conditions where the tapping of the cane is muffled. As is consistent with the service dog literature and Hunt et al. (1992), “Participants mentioned that another major advantage a dog has over a cane is that it is effective in initiating conversation in social situations” (Gitlin et al., 1997, p. 351).

Costs of both travel aids were addressed; the most common complaint in regards to using a guide dog is the constant pull on one arm and side of the body or other soreness in the muscles as a result of the dog’s pull or walking speed.

One final area of activity restriction related to blindness that should be mentioned here is employment. Employment is another aspect of one’s life that is frequently affected when experiencing vision loss. Statistics from the American Foundation for the Blind’s website (2004) cites the National Center for Health Statistics 1994-95 data and notes that only 32% of working aged legally blind adults are employed. Additionally, the statistics indicate that employment decreases with age for the visually impaired. Only 50% of those aged 22 and 50 are employed, compared to less than 25% of those aged 50 to 59, and 10% of those over age 60. Loss of employment for adults already established in careers may be devastating to individuals and their families’ financial situation; however, to the individual, work may also serve as a source of self-esteem and a social outlet. Bird (1988) cited a 1985 Gallup survey, which found that for individuals over age 63, 87% work for job enjoyment and 72% work to feel useful. Loss of employment then may also be related to levels of
depressive symptoms, increased feelings of loneliness, and restriction in activity level. If, indeed, having a guide dog may be related to Miner’s (2001) findings of increased independence, increased confidence, and changed public interactions, how might this also impact the employment situation of the blind and visually impaired?

Golub’s (2003) pilot study interviewed two employed blind persons, two service providers working in the field of employment of the visually impaired, and eight employers who had visually impaired employees. This study found that, “The ability to be highly independent, including the ability to travel and work independently, emerged as a key factor in determining a successful work experience” (p. 776). Two other important factors related to successful employment in the visually impaired discussed in this study were the ability to make others feel comfortable and social skills. As mentioned earlier, Hunt et al. (1992) noted an animal-facilitated contact between strangers; Hart et al. (1987) and Eddy et al. (1988) both noted increased social interaction and smiles received by wheelchair users accompanied by service dogs. According to Steffens and Bergler (1998), guide dog users noted increased social interaction as a result of having their dog. Having a guide dog does not equate to social skills and will not make up for ignorance regarding work culture. However, a guide dog in the work place may facilitate social interactions, may serve as a source of common interest or connection, and may decrease the discomfort of other workers surrounding blindness.
Methodology

Participants

Subjects were recruited for the survey following approval from Pacific University’s Institutional Review Board (IRB). The survey was advertised in various blindness-related publications, Internet resources, and through cooperating guide dog schools (e.g., Guide Dogs for the Blind, Guiding Eyes for the Blind, The Seeing Eye, Eye Dog Foundation, Leader Dogs for the Blind). Interested respondents were asked to contact the principal investigator. Subjects had to be of 18 years of age or older to participate. Although a few visually impaired or blind teenagers obtain guide dogs, most schools will not place a working guide dog in a high school setting for a variety of reasons, such as lack of maturity of the handler, or lack of maturity or cooperation from classmates. By surveying individuals 18 years of age or older the majority of the population using guide dogs was included. All subjects were provided an informed consent form (see Appendix A) to participate in the research. The consent included the researchers’ contact information as well as a brief description of the study.

Demographics

One hundred and sixteen individuals requested and received the survey. Of these, 88 were returned. All 88 respondents answered the 22 survey items with the exception of 1 individual who omitted a response for item number 5 relating to exercise.
Seventy-six individuals responded to the question about current age. The mean age of these respondents was 44.62 with a range of 20 to 81. The age at which participants were determined legally blind ranged from 0 or birth to 67 and had a mean of 9.53. Forty-three percent reported they were determined legally blind at birth and 81% by the age of 18. The age at which participants received their first guide dog ranged from 14 to 76 with a mean of 29.71. Ten (12.8 percent) of the 78 individuals who responded to this item indicated that they received their first dog guide before the age of 18. Eighty-four individuals responded to the gender item, of these 65 (77.4 percent) were female and 19 (22.6 percent) were male. Of the 83 individuals who responded to the ethnicity question, 74 (89.2 percent) identified as Caucasian, 3 (3.6 percent) identified as African American, 2 (2.4 percent) identified as Latino, 1 (1.2 percent) identified as Native American, 1 (1.2 percent) identified as Asian American, and 2 (2.4 percent) identified as Other. Of the 83 individuals who answered the question about living situation, 28 (33.7 percent) stated that they lived alone, 47 (56.6 percent) stated that they lived with a spouse or partner, 4 (4.8 percent) stated that they lived with another family member, and 3 (3.6 percent) stated that they lived with a roommate. No survey respondents reported living in assisted living situations.

Of the 68 individuals who responded to the question on the primary working environment of the dog, 35 (42.7 percent) reported that their dogs worked in a city or urban environment, 14 (17.1 percent) reported that
their dogs worked in a town setting, 13 (15.9 percent) reported that their
dogs worked in a suburban environment, 4 (4.9 percent) reported working
their dogs in a semi-rural environment, and 2 (2.4 percent) reported that
their dog worked in rural environments. Participants reported working with
1 to 11 dogs, with a mean of 3.11. All 83 of the participants who chose to
respond to how their dog was trained, indicated that their dog was trained
by a guide dog school, as opposed to self-trained or privately trained.

*Survey*

The survey (see Appendix B) included optional questions about the
individual’s demographic information as well as his/her history of working
with guide dogs, such as how many guide dogs he/she has had.

Respondents were asked to rate these statements based upon a 1
to 7 Likert scale with responses corresponding with: 1 strongly disagree, 2
somewhat disagree, 3 slightly disagree, 4 neutral or no impact, 5 slightly
agree, 6 somewhat agree, and 7 strongly agree.

The survey was provided in a variety of formats, including 12-point
font print, 24-point font print, Grade II Braille, electronically as a Microsoft
Word file attachment, and on an audio cassette. Respondents were
assured that the results would be shared as tabulated responses to
statements rather than as individual responses and that no identifying
information would be released to related organizations, such as their guide
dog school.
Data Analyses

Data collected in this study included demographic information and a survey based upon single administration of a 1-7 Likert scale. Data were analyzed electronically with SPSS Student Version 11.0 for Windows. Due to the survey format, results were presented using descriptive statistics and responses were reported as percentages.

Hypotheses

The survey is made up of 22 statements about dog guide users’ perceptions about the effect they feel their dog has on their life. The survey items address aspects of working with a dog that may be considered both positive (e.g., companionship, safe travel, increased community involvement) and negative (e.g., dog behavior problems, family strain, injuries). Since having a dog guide is a personal choice, it was hypothesized that the effect reported by handlers would be primarily positive. It was hypothesized that items addressing potentially negative aspects would generate responses on the low end of the scale (1-3), while items addressing positive aspects would produce responses on the upper end of the scale (5-7). Ten survey items (3, 4, 7, 8, 9, 13, 15, 16, 19 and 21) were considered to address possible negative features of working with dog guides, and thus it was hypothesized that the above items would produce responses on the low end of the scale. Twelve survey items (1, 2, 5, 6, 10, 11, 12, 14, 17, 18, 20, and 22) identify what are thought to be positive factors in working with dog guides and it was hypothesized that
the aforementioned items would produce responses on the upper end of the scale.
Results

Individual survey questions, the range of responses to each item, and the mean response for each item are presented in Table 1 for all 22 survey items. Mean responses for the survey tended to be at either extreme of the scale. For example, the mean response for twelve of the survey items was above 6.00, while eight items on the low end of the scale were below 2.3. Only two items seemed to be quite controversial (items 15 and 19) with means falling in the middle of the scale at 4.76 and 4.84, respectively.

The survey items have been divided into three categories: (a) the individual factors involved in having a dog guide; (b) the social and relationship factors involved in having a dog guide; (c) and the practical and mobility factors of having a dog guide. The first category consists of factors related directly to the individual and costs or benefits related to working a dog guide and includes items 1, 2, 3, 18, 20, 21, and 22. Most notable were the responses to items 22, 2, and 1. On question 22 (“I believe having a dog guide has positively changed my life.”), responses ranged from 5 to 7, with a mean of 6.92. Eighty-three subjects (94.3 percent) selected 7, corresponding to strongly agree. On question two (“Using a dog guide is my preferred choice of mobility”), responses ranged from 4 to 7, with a mean of 6.85. Seventy-nine subjects (89.8 percent) selected 7 or strongly agree. On question 1 of the survey, (“I consider my dog guide a companion and friend”), responses ranged from 2 to 7, with a
Table 1: Range and Mean Responses for Survey Items

<table>
<thead>
<tr>
<th>Question</th>
<th>Range</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I consider my dog guide a companion and friend.</td>
<td>2-7</td>
<td>6.84</td>
</tr>
<tr>
<td>2. Using a dog guide is my preferred choice of mobility.</td>
<td>4-7</td>
<td>6.85</td>
</tr>
<tr>
<td>3. Using a dog guide has caused chronic physical pain or discomfort such as in my arms, shoulders, or other area of my body or has caused me to need a medical procedure such as a surgery.</td>
<td>1-7</td>
<td>2.27</td>
</tr>
<tr>
<td>4. With the advent of recent technology devices for mobility, such as talking GPS receiver or talking signs, a dog guide will soon be a mobility tool of the past.</td>
<td>1-7</td>
<td>1.28</td>
</tr>
<tr>
<td>5. I am more likely to go for a walk for exercise or leisure with my dog guide than with my cane.</td>
<td>3-7</td>
<td>6.67</td>
</tr>
<tr>
<td>6. I am more likely to walk longer distances with my dog guide than with a cane.</td>
<td>5-7</td>
<td>6.84</td>
</tr>
<tr>
<td>7. Even with my dog guide I cannot walk at my preferred walking speed.</td>
<td>1-7</td>
<td>1.92</td>
</tr>
<tr>
<td>8. My dog’s behavior problems (barking, relieving itself indoors, getting into the garbage) have limited my activity.</td>
<td>1-7</td>
<td>1.56</td>
</tr>
<tr>
<td>9. The routine financial costs of my dog guide (veterinary bills and food) have caused me financial hardship.</td>
<td>1-7</td>
<td>2.30</td>
</tr>
<tr>
<td>10. Having a dog guide has allowed me to be more involved in my community or to take part in recreational or social activities.</td>
<td>1-7</td>
<td>6.07</td>
</tr>
<tr>
<td>11. Having a dog guide has allowed me to take part in activities such as attending classes, volunteering, or working.</td>
<td>1-7</td>
<td>6.02</td>
</tr>
<tr>
<td>12. I have made friends and acquaintances through my dog guide.</td>
<td>3-7</td>
<td>6.58</td>
</tr>
<tr>
<td>13. My dog guide is more work (i.e. grooming, health care needs, behavior problems) than beneficial.</td>
<td>1-5</td>
<td>1.34</td>
</tr>
<tr>
<td>14. My dog guide has facilitated social interactions that have allowed me to get needed assistance, such as directions, help in a store, catching the correct bus, etc.</td>
<td>4-7</td>
<td>6.33</td>
</tr>
<tr>
<td>15. The attention my dog guide receives while working is a nuisance.</td>
<td>1-7</td>
<td>4.76</td>
</tr>
<tr>
<td>16. My dog guide has caused stress or strain in my family relationships.</td>
<td>1-7</td>
<td>2.19</td>
</tr>
<tr>
<td>17. I am more likely to take public transportation without another person present when traveling with a dog guide.</td>
<td>1-7</td>
<td>6.09</td>
</tr>
<tr>
<td>18. I feel more confident traveling with my dog guide than without him or her.</td>
<td>1-7</td>
<td>6.70</td>
</tr>
<tr>
<td>19. If I cannot take my dog guide with me (for whatever reason) I am less likely to go somewhere.</td>
<td>1-7</td>
<td>4.84</td>
</tr>
<tr>
<td>20. I feel safer traveling with my dog guide than without him or her.</td>
<td>3-7</td>
<td>6.72</td>
</tr>
<tr>
<td>21. The retirement, loss, or death of my current dog guide will be so painful that I will not get another dog guide.</td>
<td>1-5</td>
<td>1.55</td>
</tr>
<tr>
<td>22. I believe having a dog guide has positively changed my life.</td>
<td>5-7</td>
<td>6.92</td>
</tr>
</tbody>
</table>
mean of 6.84. Only one individual or 1.1% responded on the low end of the scale; most, (89.8 percent) selected 7 or strongly agree.

The second category encompasses some of the social and relationship factors involved in having a dog guide, and includes items 10, 11, 12, 14, 15, and 16. Specifically, items 12 and 14 yielded noteworthy results. On question 12 ("I have made friends and acquaintances through my dog guide"), responses ranged from 3 to 7, with a mean of 6.58. Eighty-seven subjects (98.9 percent) selected responses between 5 and 7, corresponding with slightly agree to strongly agree. On question 14 ("My dog guide has facilitated social interactions that have allowed me to get needed assistance, such as directions, help in a store, catching the correct bus, etc."), responses ranged from 4 to 7, with a mean of 6.33. Eighty-one subjects (92 percent) of participants chose responses 5 to 7, indicating slightly agree to strongly agree. Both of these questions directly involve day-to-day social contact with individuals that otherwise may not take place in the absence of a dog guide. Based upon responses to these questions, it seems that dog guide handlers benefit from the contact with others; however, question 15 ("The attention my dog guide receives while working is a nuisance"), addresses a slightly different issue of attention directed towards the dog while working. This item seemed more controversial with responses ranging the entire scale from 1 to 7, and a mean of 4.76. Seventeen individuals reported responses on the lower half of the scale (1 to 3), 12 reported 4 or neutral, and 59 reported responses
between 5 and 7; however, 5 or slightly agree was the mode with a response rate of 29.

The third category is made up of items related to the practical and mobility factors associated with working a dog guide. This category includes items 4, 5, 6, 7, 8, 9, 13, 17, and 19. The most notable items in this category are 4, 13, 6, and 19. On question 4 (“With the advent of recent technology devices for mobility, such as talking GPS receivers or talking signs, a dog guide will soon be a mobility tool of the past”), responses ranged from 1 to 7, with a mean of 1.28. Eighty-five subjects (96.6 percent) selected 1 or 2, corresponding with strongly disagree or somewhat disagree. On question 13 (“My dog guide is more work [i.e., grooming, health care needs, behavior problems] than beneficial”), responses ranged from 1 to 5, with a mean of 1.34. Eighty-four subjects (95 percent) selected responses between 1 and 3, or strongly disagree to slightly disagree. On question 6, (“I am more likely to walk longer distances with my dog guide than with a cane”) responses ranged from 5 to 7, with a mean of 6.84. Seventy-seven subjects (87.5 percent) selected 7, or strongly agree. On question 19 (“If I cannot take my dog guide with me [for whatever reason] I am less likely to go somewhere”), responses ranged from 1 to 7, with a mean of 4.84. Question 19 also appears to be of a more controversial nature as the responses ranged the entire scale with 21 responding to 1 to 3, 10 selected neutral, and 57 selected responses from 5 to 7.
Discussion

Implications of the Findings

Dog guides were originally trained for the purpose of providing safe mobility and increased independence for the blind. The purpose of this study was to examine dog guide users’ beliefs about the effect their dog has on their life. While the survey included statements that addressed the domains of travel and mobility, other areas such as companionship, social interaction, and inconvenience were also included. The results of this study coincide with the previously mentioned themes identified by Miner (2001), including increased confidence, increased independence, changed public interactions, and additional responsibilities and inconveniences. The current findings also support the notion that a dog guide can provide much more to a visually impaired person than just safe and efficient mobility. These findings suggest that having a dog guide increases the sense of confidence and safety when traveling, increases the opportunity for and amount of social contact, increases participation in activities and community, and provides a sense of companionship. However, the results also suggest that having a dog guide adds more responsibility and at times inconvenience (e.g., grooming, veterinary bills, the dog receiving unwanted attention). While added responsibilities and inconvenience were acknowledged, for the majority of the respondents, the positives of working with a dog guide tended to outweigh the negatives. All of the above factors addressed through the statements in this survey are points
of consideration for blind and visually impaired individuals who may be uninformed about dog guides, or who are feeling ambivalent in regards to choosing the option of working with a dog guide. Furthermore, for those who work as service providers for individuals who are experiencing recent vision loss, such as orientation and mobility specialists, rehabilitation counselors, and mental health providers, the findings of this study provide information to be shared with their clients. The results of this survey provide quantitative data that those considering dog guides may find valuable when deciding whether or not to work with a dog.

The findings of this study also educate those involved in the business of training dog guides. The training at most dog guide schools involves both hands-on work with the dog, as well as an educational and lecture component to educate the dog handlers on a variety of topics. While the dog trainers are the experts on training, the results of this survey provide feedback to share with prospective handlers during the interview process as well as in the lectures. For example, the results of this study can provide guidance for specific areas to target during lectures, such as relations with family. Additionally, as dog guide schools in the United States operate as non-profit charities and are funded through private donations, the data from this study provide support for the mission of these organizations, and may be utilized in their fund raising efforts. Although the dog guide schools vary in size, many of the larger organizations also invest funding into education and public relations. For
example, the results of this survey found that petting or interacting with dog guides while working continues to be problematic for dog handlers. Some of the dog guide training centers publish brochures and produce public service announcements regarding this topic. These results indicate that there is a continued need for these services. Additionally, many dog guide handlers as well as staff from dog guide training schools offer educational public speaking (e.g., pre-school, grade school classes, religious organizations, fund raising events). This survey indicates that it continues to be important to address the topic of petting and interacting with working dogs. Information that may be beneficial to present might include: when it may or may not be appropriate or safe to approach a dog guide team; how to approach asking about the dog and/or working relationship; and also educating the public by providing them with a rationale as to why it is not always appropriate to interact with the dog, as opposed to just stating a rule.

Limitations of the Study

When considering the results of this survey, one should be cautious as to the extent to which they can be generalized to the community of dog guide users at large. The majority of the study participants were recruited via the Internet. On the Internet, the survey was advertised and participants recruited through various e-mail list serves. Also, participants were encouraged to invite interested friends and acquaintances to contact the researcher to participate in the study. Word of mouth appeared to be a
strong recruitment tool, as many participants contacted the researcher indicating they had heard of the survey through friends etc. Staff members at a few guide dog schools, mainly Guide Dogs for the Blind, Inc., referred graduates to the researcher as well. Given that the majority of participants were recruited via the Internet, it is important to note that the sample of subjects includes those who are utilizing Internet list serves and may be excluding a subset of the dog guide using population who do not take part in Internet communities.

Although subjects in the current study were not asked to provide justification for their responses, some chose to add additional comments. Given that the study was presented only as a simple survey collecting demographic data and utilizing a Likert scale, no attempt was made to qualitatively examine these data. However, given the number of comments provided as explanations for responses, the current study would have benefited from a qualitative component. Some of the most notable comments related to responses are included in the following section as points of possible explanation, exploration, and as potential directions for future research.

**Directions for Future Research**

As demonstrated in the preceding literature review, little research has been conducted with the dog guide-using population. This survey provides quantitative data on dog guide users’ beliefs about the effect their dogs have on their lives. Many participants chose to provide comments on
various survey items. Some of the comments are provided here as potential areas for future research.

For question one, “I consider my dog guide a companion and friend,” only one individual selected a response on the low end of the scale. He indicated to the researcher that he is married with young children in the home and that both he and his wife are dog guide users. He reported feeling that his dogs seemed more like children than companions and friends. Beyond asking the living situation of participants, no data were gathered as to whether or not participants were currently acting as caregivers for small children while working with their dog guide. Some areas of inquiry in this regard may include comparing those who are active care givers of children to those who are not. For those who are not and/or are living alone, does a dog guide fulfill some of the needs that may otherwise be met when caring for children or others? If someone is simultaneously working a dog guide and raising children, how do the two experiences intertwine? Do they augment and/or detract from each other, and in what ways? Since parenting status was not included, data could not be compared to other responses such as on item 13 (“My dog guide is more work [i.e., grooming, health care needs, behavior problems] than beneficial”). It is possible that for those with parenting responsibilities the basic care needs of a dog may become more burdensome. For the above item, 95% of participants selected responses 1 to 3 on the rating scale,
and the remaining 5% indicated 4’s or 5’s. Is there a possible relationship between these responses and other responsibilities?

Similarly, item 16 dealing with family strain and a dog guide also could provide data in this regard. Exploring family status, being partnered, being the caregiver of children, aging parents, or other factors may affect the perceived level of work versus benefit someone experienced with their dog guide. A dog guide may in fact provoke deeper family issues in terms of how it may affect the persons’ role, identity, and level of independence. For example, family members may become jealous of the relationship and/or bond formed with the dog. Furthermore, if a relationship has a strong element of dependency due to the visual impairment, a partner may become afraid that the visually impaired person no longer needs him or her, as the dog provides increased independence and mobility. Other issues may arise, such as family members being concerned about dog hair or how the dog will behave or interact with already established pets, or how to handle holiday visits.

In response to item 2 (“Using a dog guide is my preferred choice of mobility.”), a few respondents who chose 4 or neutral wrote in that a car or being able to drive were their preferred choices of mobility. It is unknown what these individuals may have been suggesting by their responses; however, it is also possible that the question was not clear or that they misinterpreted it. The intent of the question was to compare preference of mobility aid, that is a dog guide compared to a white cane or depending on
another person to act as one’s eyes. The question did not intend to compare the preference of mobility aid to desired means of transportation nor to imply that traveling by car is any less of an option than traveling by bus with or without a dog guide. For those individuals it is possible that they misinterpreted the question. It is also possible that these individuals have recently experienced visual impairment. Although the grieving and emotional adjustment process to visual impairment can be ongoing and cyclical, as opposed to a linear adjustment with a final outcome, these people making the adjustment may currently be grappling with strong feelings of anger and injustice. They may have recently given up their independence and freedom of driving and thus are comparing the two experiences. One area for further study is how long after onset of legal blindness a person waits before making the decision to obtain a dog guide. Questions to ask may include: How long did they wait after diagnosis? How did they learn about a dog guide? Did a family member or friend influence their decision? Had they had contact with other dog guide users? Did they have any preconceived ideas regarding what a dog guide could do for them as well as what the limitations of a dog guide are? Additionally, had they had any orientation and mobility training, received services through a rehabilitation agency, participated in either individual or group therapy, been in a support group, or been involved in a mentoring program? All of these factors, while not specifically related to a dog guide, will affect their level of emotional adjustment to having a dog guide. How
does the level of emotional adjustment affect the success of the relationship with the dog? While the adjustment process is an individual experience that cannot necessarily be defined by a set time frame, what factors in the adjustment process may contribute to the success of the team? Is there a time or specific signs or symptoms that might suggest it is premature for a person to obtain a dog guide? On the other hand, are there aspects in the adjustment process, such as depression and social isolation, that may be mitigated by a dog guide?

Items in the second results category all involve social and or relational contact on an individual, family, and relational level, as well as on a larger societal level. Some of the items (10, 11, 14, and 15) produced comments with a similar theme that are discussed here. For item 10, a few individuals noted that at times a dog guide limits their participation in some recreational activities, (e.g., cross country skiing, downhill skiing, rowing, and bicycling). A dog guide in these instances is not only not useful, but also may not be conducive to participation in the activity. Frequently the dog user must not only locate a volunteer to be a visual interpreter for the activity, but must also find a second volunteer to stay with the dog. Being visually impaired poses limitations on the types of recreational and physical activities in which one can participate; research on how often the dog becomes more of a hindrance and how these challenges are navigated would be beneficial as well.
For item 11, involving work participation, one individual noted that the dog at times seemed to cause problems at work. This was explained as problems and harassment by other employees regarding dog allergies, dog hair, and dog odors in the work place. Having employment is a significant area of one's life and, as noted earlier, unemployment is still a large problem for the visually impaired. Researching the specifics that are involved with a dog guide in the work place would be useful to increase understanding of how the dog may facilitate participation versus increase barriers in this domain. Specified areas of research to target may include how the dog mitigates the daily hassles involved in navigating the environment to get to work as well as how the dog facilitates or hinders work relationships. While some co-workers may be unsure of how to relate to a blind colleague, the presence of the dog may provide a social buffer and serve as a source of common interest to initiate contact and begin interaction. Also, given that unemployment is an ongoing challenge for the visually impaired, it would be useful to survey those with dog guides in the workplace to determine whether any dog-related issues have been raised. For example, were concerns regarding dog hair, odor, or allergies raised and how were these problems solved? Did co-workers or managers raise concerns initially surrounding barking and/or the person possibly needing extra breaks to take his/her dog to relieve itself? Were these issues easily solved and/or were there continued concerns?
Item 14 ("My dog guide has facilitated social interactions that have allowed me to get needed assistance, such as directions, help in a store, catching the correct bus, etc.") is of particular salience. When a person has a visual impairment, obtaining information from the environment (e.g., location of bus stops, entrances to buildings, stairs, walk buttons at intersections) is at times challenging. While many visually impaired persons are accustomed to asking for sighted assistance, the situation can at times be further complicated by the problem of locating a person who can provide such information. However, if a person approaches the dog guide team simply to comment on the dog, the opportunity of contact is made and thus increases the likelihood of gaining needed environmental information. On the other hand, item 15 ("The attention my dog guide receives while working is a nuisance") addresses a slightly different aspect related to the presence of the dog. This item provides evidence that continued public education is needed on etiquette when interacting with a dog guide team.

For question 5 ("I am more likely to go for a walk for exercise or leisure with my dog guide than with my cane"), some subjects commented that they would not walk for exercise or leisure regardless of whether or not they had a dog. Two individuals indicated that they had additional mobility disabilities that prohibited them from walking more than short distances, regardless of whether or not they were accompanied by a dog guide. No questions were asked pertaining to the health status or
presence of other disabling conditions. One area of future study might include identifying individuals who have multiple disabilities or health conditions that may further significantly impair their daily functioning. For example, for deaf/blind individuals or those with cerebral palsey or other balance-related disabilities in addition to their visual impairment, does the addition of a dog guide mitigate or enhance the impairing consequence of such conditions? Also, for individuals who have health conditions where exercise can be beneficial in preventing further complications, such as diabetes or a heart condition, are they more physically active and or can they walk at an increased pace because of their dog?

Items 7, 8, and 9 all had overall mean responses on the low end of the scale at strongly disagree or somewhat disagree and produced comments that are worth noting. While the content of the three items on the surface seems somewhat unrelated, there appears to be an underlying theme that relates to the relationship or attachment to the dog. One factor of utilizing a dog for a mobility device is that, indeed, one is not only working with a dog on a daily basis, but also relying on for ones’ safety on an animal that is capable of eliciting feelings of attachment and bonding. The degree of attachment to one’s dog guide is certainly an individual factor that will likely vary greatly, but nonetheless, cannot be disregarded when considering working with or researching this population. It is highly likely that many individuals don’t mind, tolerate, or put up with various problematic behaviors or characteristics of their dog due to the overriding
influence of the emotional connection. For example, question 7 (“Even with my dog guide I cannot walk at my preferred walking speed”), addresses the pace of the dog and eight individuals indicated that their dogs had noticeably slowed in pace since their attainment of the dog. Three noted their dogs’ advanced age and felt that this may be contributing to a slower rate of travel; nevertheless, they were uninterested in retiring their dog for this reason. One individual noted that her dog was only five and had slowed tremendously in the last year; however, she would not retire her dog due to the relationship. She said, “My dog is perfect in every other way.” Therefore, though the pace of a middle aged or older dog may not be optimal for some individuals, the benefits of the current relationship were outweighing the cost of slower travel. While having to extend the time allotted for travel may seem counterintuitive to the principle behind having a dog guide, there are reasons why some individuals want to maintain their current relationship. Similarly, question 8 (“My dog’s behavior problems [barking, relieving indoors, getting into the garbage] have limited my activity”) speaks to a different aspect of working a dog, that none the less may stem from similar roots, the relationship with the dog. Four individuals indicated that although their current dog guide had specific nuisance characteristics they had either experienced worse problems in the past, or feared similar or worse problems in a future dog. One individual gave voice to a fear of acknowledging her dog’s behavior problems as she feared her dog guide
school would encourage her to retire her dog as opposed to working with her on solving the problem.

Question 9 in the survey (“The routine financial costs of my dog guide [veterinary bills and food] have caused me financial hardship”), did not produce any individual comments. While the majority of dog guide schools in the United States provide services at no charge to their graduates, and some even allot an annual veterinary stipend, the costs of a dog guide cannot be ignored. It would be beneficial to survey dog guide users on the costs of their dog guide and how they manage, for example, unexpected veterinarian bills. Additional questions in this regard may include whether they have had to borrow money from friends or family, take out loans, and/or neglect other expenses in order to meet the needs of their dog.

Although individuals were not surveyed on specific reasons that might relate to a hesitancy to bring up problems or concerns related to their dog guide, some hypotheses may include: a strong attachment to their current dog; not being ready to start over with a new dog; the inconvenience and time demand of having to train and bond with a new dog; and, possibly, fears about the subsequent dog having similar or worse problems. The theme seemed to be that individuals viewed their relationship with their dog as a partnership and felt that they could compromise on such issues as pace, because they were not emotionally ready to part with their current dog.
All participants in this study indicated obtaining their dog guide from a training facility such as The Seeing Eye, Inc., Guide Dogs for the Blind, Inc., Leader Dogs for the Blind, Inc., etc. Surveying individuals who chose alternative training methods, such as self-training a dog or working with private dog trainers may also shed light on some possible issues as to why they chose alternate training options. Hypotheses include: inability to leave home for 3 to 4 weeks; preferring to not reside in a group dormitory setting during training; additional health concerns; fear of the facility repossession the dog; and lack of ability of training facilities to provide breed preferences, etc.

All of the aforementioned are areas for future research. Additionally, research in this area could be furthered by dog guide training facilities conducting surveys of first time users’ pre- and post-training. Pertinent data collection points might include pre-training, during training, immediately following training, and then at 3- or 6-month intervals for the first year. Possible areas of inquiry might include overall activity level, amount and distance of travel, duration of travel time to same locations pre- and post-dog, use of public transit, and social contact. Social contact may be measured by having the same individual travel in the same location with a white cane and then with a dog at the same time of day and social contact could be measured by avoidance or acknowledgement, such as smiling, verbal comment, offering assistance, etc.
In summary, this survey provides basic quantitative data on how dog guide handlers perceive the effects of their dog on their life. The twelve items identifying positive aspects of working with a dog guide all yielded mean responses that were 6.0 or above, suggesting that for most participants they would somewhat or strongly agree with these benefits. Of the ten items in the survey that identified possible negative aspects of working with a dog guide, eight of ten yielded mean responses on the low end of the scale. This suggests that, despite the fact that these are potentially negative aspects of working with a dog, the participants for the most part, indicated that these were minimal, as responses primarily corresponded with strongly disagree to slightly disagree. The two items that were considered possible negative aspects of working with a dog that yielded means in the neutral range concerned the attention the dog receives while working and not going places if unable to bring their dog. These are two areas that need both further exploration through research as well as education to the public. It should be noted that for the last survey item, item 22 (“I believe having a dog guide has positively changed my life”), responses were only on the high end of the scale (5 to 7) and 83 (94.3 percent) selected 7 corresponding to strongly agree. Therefore, although some areas of increased responsibility and inconvenience have been identified, overall, the survey participants believe their dog has had a positive influence on their life.
References


Appendix A

PACIFIC UNIVERSITY
INFORMED CONSENT TO ACT AS A RESEARCH PARTICIPANT
A Survey on the Perceptions of Guide Dog Users on Their Dogs’ Impact on Their Lives

Investigator’s contact information
Mei Ling Wong, MS (student PsyD. Candidate)
4234 SE 112th Ave., Portland, OR 97266
H: (503) 760-8184
e-mail wonm7925@pacificu.edu

Catherine Miller, Ph.D. (faculty dissertation supervisor)
School of Professional Psychology
2004 Pacific Avenue, Forest Grove, OR 97116
O: (503) 352-2114
millerco@pacificu.edu

1. Introduction & Background information
You are invited to take a survey on how guide dog users believe their dog has impacted their life. You are receiving this survey packet because you have contacted the primary researcher Mei Ling Wong and have expressed interest in participating in this survey. Please read this form carefully and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Mei Ling Wong, M. S. of Pacific University’s School of Professional Psychology. The purpose of this survey is to find out from guide dog users how they perceive their dog’s impact on their life.

2. Procedures
If you agree to be in this study, you will be asked to complete two parts of a survey. The two parts of the survey should take no longer than 15 minutes to complete.

3. Risks & Benefits
There may be some risks and benefits to participating in this research. This survey asks questions about your perceptions of your relationship with your guide dog and how he/she may impact your life. You may find yourself evaluating or critiquing your guide dog during or after completing this survey. If you develop concerns about your dog’s performance after participation in this study please contact your dog’s trainer, the counselor at your guide dog school, or the GDUI empathizer’s list. Possible benefits include increased knowledge and research on the effect and impact of guide dogs on the lives of blind and visually impaired individuals.

4. Alternatives Advantageous to Participants
Not applicable

5. Compensation
You will not receive payment or compensation for your participation.

6. Promise of Privacy
The records of this study will be kept private. Survey results will be kept confidential. Participants will each be assigned a number by which their inventory is identified, and only the investigator will have access to the corresponding names and numbers. No names will be used to identify participants in the results of this study and no names of participants will be given to guide dog schools, trainers, or other organizations. If the results of this study are to be presented or published, we will not include any information that will make it possible to identify a participant.

7. Voluntary Nature of the Study
Your decision whether or not to participate will not affect your current or future relations with Pacific University. If you decide to participate, you are free to not answer any question or withdraw at any time without prejudice or negative consequences. If you choose to return an incomplete inventory the available data may be used in this study. You may also choose to not return the survey.

8. Compensation & Medical Care
   Not applicable

9. Contacts & questions
   The investigator, Mei Ling Wong, will be happy to answer any questions you may have at any time during the course of the study. The supervisor of the investigator of this study can also be reached, Catherine Miller, PhD., at the school of Professional Psychology, Pacific University at 503-352-2114.

Statement of Consent
   I have read and understood the above. All my questions have been answered. I am 18 years of age or older and give consent for my participation. I have been given a copy of this form to keep for my records.

Participant’s Signature ____________________________ Date __________

Mei Ling Wong, MS.
Investigator’s Signature ____________________________ Date __________

Mei Ling Wong, MS

Appendix B
Participant #

Survey

Please use the following Likert scale of 1 to 7 to rate your level of disagreement or agreement to each of the statements below.
Scale: 1 = strongly disagree; 2 = somewhat disagree; 3 = slightly disagree; 4 = neutral or no impact; 5 = slightly agree; 6 = somewhat agree; 7 = strongly agree.

1. I consider my dog guide a companion and friend. ________

2. Using a dog guide is my preferred choice of mobility. ________

3. Using a dog guide has caused chronic physical pain or discomfort such as in my arms, shoulders, or other area of my body or has caused me to need a medical procedure such as a surgery. __________

4. With the advent of recent technology devices for mobility, such as talking GPS receiver or talking signs, a dog guide will soon be a mobility tool of the past. ________

5. I am more likely to go for a walk for exercise or leisure with my dog guide than with my cane. __________

6. I am more likely to walk longer distances with my dog guide than with a cane. ________

7. Even with my dog guide I cannot walk at my preferred walking speed. ________

8. My dog’s behavior problems (barking, relieving indoors, getting into the garbage) have limited my activity. ________

9. The routine financial costs of my dog guide (veterinary bills and food) have caused me financial hardship. ________

10. Having a dog guide has allowed me to be more involved in my community or to take part in recreational or social activities. ________

11. Having a dog guide has allowed me to take part in activities such as attending classes, volunteering, or working. __________

12. I have made friends and acquaintances through my dog guide. __________

13. My dog guide is more work (i.e. grooming, health care needs, behavior problems) than beneficial. ________

14. My dog guide has facilitated social interactions that have allowed me to get needed assistance, such as directions, help in a store, catching the correct bus, etc. ________

15. The attention my dog guide receives while working is a nuisance. ________

16. My dog guide has caused stress or strain in my family relationships. ________

17. I am more likely to take public transportation without another person present when traveling with a dog guide. ________

18. I feel more confident traveling with my dog guide than without him or her. ________
19. If I cannot take my dog guide with me (for whatever reason) I am less likely to go somewhere. ________

20. I feel safer traveling with my dog guide than without him or her. ________

21. The retirement, loss, or death of my current dog guide will be so painful that I will not get another dog guide. ________

22. I believe having a dog guide has positively changed my life. ________

Background Questionnaire

The following questions are optional:

Age: ________

Gender: Female ________ Male ________

Ethnic Background: Caucasian ________ African American ________ Latino ________
Native American ________ Asian American/Pacific Islander ________ Other ________
Prefer to not answer ________

Type of living situation: Alone ________ With spouse or partner ________ With other family member ________ Roommate ________ Assisted Living ________ Other ________ Prefer to not answer ________

Primary environment you live in and work your dog in. (note if your living and work environments are different please select both that apply to you).
Rural ________ semi-rural ________ town ________ suburban ________
City or urban ________

Age when determined legally blind ________

Age when you received your first dog guide ________

How many dog guides have you had? ________
(note: please only include dogs you have graduated with and or worked for at least a three month period).

Where did you obtain your current dog guide?
Self-trained ________
Private trainer ________
School trained ________
Name of school is optional________________________________________