A Phenomenological Study Exploring the Educational, Vocational and Social Experiences of College Educated Individuals Who are Visually Impaired

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Mary-Anne M. Joseph

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This dissertation titled
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Experiences of College Educated Individuals Who are Visually Impaired

by
MARY-ANNE M. JOSEPH

has been approved for
the Department of Counseling and Higher Education
and the College of Education by

__________________________________________
Mona Robinson
Assistant Professor of Counseling and Higher Education

__________________________________________
Renée A. Middleton
Dean, College of Education
ABSTRACT

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Students who are visually impaired have significantly lower educational and vocational success rates than their nondisabled peers (Hasazi, Johnson, Hasazi, Gordon, & Hull, 1989; Nagle, 2001). A qualitative phenomenological study was conducted to explore the educational, vocational and social experiences of college educated individuals who were visually impaired in order to determine how these experiences impacted them educationally, vocationally and socially. The participants of the study were 16 individuals who were visually impaired, nine were college students and seven were college graduates. The findings of this study fell under three primary themes: 1) Self Advocacy and Acquiring Accommodation, 2) Work Related Experiences and 3) Reactions to Visual Impairment.

Five findings were related to Self Advocacy and Acquiring Accommodations, they included: 1) The reasonable accommodations that were received by college students who were visually impaired. 2) The positive and negative role of college and university Disability Support Service offices. 3) The inaccessibility of technology on college campuses, 4) Self advocacy and 5) Transportation. Six findings were related to Work Related Experience, they included: 1) The employer's lack of knowledge about visual
impairment. 2) Self advocacy. 3) A lack of work experience. 4) Working in companies with a primarily blind population. 5) Inaccessible software and 6) Transportation. Six findings were found to be related to Reactions to Visual Impairment, they include: 1) People’s reaction to visual impairment. 2) The participant’s reaction to their own visual impairment. 3) Involvement in organizations for the blind and visually impaired, 4) Transportation and 5) Use of a White Cane. Recommendations were made for college and university disability personnel, rehabilitation professionals and individuals who are visually impaired.

Approved: _____________________________________________________________

Mona Robinson

Assistant Professor of Counseling and Higher Education
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“Together we aspire, together we achieve”. 
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CHAPTER 1: INTRODUCTION

It is my lived experience as a student with a visual impairment that the attainment of a college degree for a student who is visually impaired is not a simple process. There have been many obstacles and barriers to overcome in the higher education system. It has also been my experience that the psychosocial adjustment to visual impairment is a lifelong process that can affect individuals with both congenital and adventitious visual disabilities. Every transition that a person with a visual disability makes (high school to college, college to work, etc) can have a significant impact on one’s life and such impact should not be overlooked.

Living in the 21st century has not guaranteed me the receipt of effective services from higher education professional or rehabilitation professionals. The lack of knowledge and willingness to accommodate that I have encountered in my interaction with some higher education professionals has often left me dismayed and discouraged. Constantly falling into the category of having a “mild” or “moderate” disability limited my access to services provided by rehabilitation agencies such as job placement and the provision of assistive technology such as accessible computer software. The access to accommodative services through Disability Support Service personnel at the college/university level has also proven to be lack luster in my experience. This was not always due to a lack of effort on the part of Disability Support Service personnel. Rather it was often linked to the lack of resources they had to serve students with visual disabilities. I often found myself wondering about the purposes of such struggles.
The educational and vocational successes of visually impaired persons are linked to psychosocial experiences. According to Kirchner, Schmeidler, and Todorov (1999) the employment rate of individuals who are legally blind is approximately 30%; while those adults who are considered not-visually disabled is at 80%. Investigating this information within educational and vocational experiences reveals that less than 16% of those who enroll for college/university facilities have a diagnosed visual impairment (Hasazi, Johnson, Hasazi, Gordon, & Hull, 1989; Nagle, 2001). To present the most effective methods for improving the educational and vocational success of those who are visually impaired, an exploration of personal educational, vocational and social experiences can add to the existing literature on higher education and employment, thus, prompting discussions and initiatives which will address issues relating to this segment of individuals who are visually impaired.

There is a great need for the improvement of vocational success among individuals who are visually impaired. Legislative acts such as the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973 were designed to assist in improving the employment of all individuals with disabilities, including individuals who are visually impaired. Higher education has been identified as a factor in the improvement of employment among individuals who are visually impaired (Collins, 2000; Frank, Karst & Boles, 1989; Roy, Dimingan & Taylor, 1998). The attainment of higher education provides an opportunity for individuals who are visually impaired to train for a variety of vocational fields thus making them more marketable to employers (Capella-McDonall, 2005). Improved marketability to employers is vital to the vocational
success of individuals who are visually impaired as they face significant barriers to employment (Shaw, Gold & Wolfe, 2007; Crudden & McBroom, 1999; O’Day, 1999).

Combating vocational barriers can be accomplished through the implementation of disability awareness campaigns and workshops (Beach & Robinet, 1995). These methods can be used to educate and train college/university faculty, administration and students. It is essential that college/university faculty and administration be equipped to work with students with disabilities such as visual impairment in an effort to ensure that these students have equal opportunity to higher education (Papalia-Berardi, Hughes & Papalia, 2002) as stipulated by the ADA. The following sections provide a further background to the study with a brief discussion of visual impairment, psychosocial adjustment, counseling and rehabilitation legislation.

**Background of the Study**

There are approximately 10 million Americans who have been diagnosed with some type of visual impairment (Kirchner, Schmeidler, & Todorov, 1999) such as macular degeneration, aphakia, cataracts, retinal diseases, optic atrophy, retinitis pigmentosa, etc. Visual impairment is one of the top ten causes of disability in the United States (Dreer, Elliot, Fletcher & Swanson, 2005). Individuals who are visually impaired, face significant difficulties in the areas of education (Beaty, 1994; Marinez & Sewell, 2000a; Marinez & Sewell, 2000b; Roy & McCay, 2002; Alison & Sanspree, 2009), and vocation development (Cruden & McBroom, 1999; O’Day, 1999; Shaw, Gold, & Wolfe, 2007).
The United States of America is an individualistic nation, which places emphasis on individual achievement and success (Smart, 2001). This idea of individualism is compounded by issues related to disability such as employment and education (Panek, 2002). Research has demonstrated that while approximately 80% of working-age adults without disabilities are employed, only 30% of individuals with disabilities share this privilege (Kirchner, Schmeidler, & Todorov, 1999). Many individuals with disabilities are victim to negative stigma from members of society due to their low levels of employment (Panek, 2002).

A lack of education can hinder the vocational development of any person. Individuals who are visually impaired will be better equipped to enter the workforce if they are able to receive higher education degrees (Collins, 2000; Roy, Dimigen, & Taylor, 1998). Post-secondary education may be a way for individuals with visual impairment to expand their vocational skills and abilities. Capella-McDonall (2005) determined that higher education of individuals who are visually impaired is one of the variables that lead to successful employment.

The significant impact of educational achievement on employment success is not universal (Kirchner & Smith, 2005; Preece, 1995). Preece (1995) stated that education alone is insufficient to ensure the successful employment of individuals with disabilities. Kircher and Smith’s findings showed that educational attainment does not impact vocational achievement. However, Kirchner and Smith also stated that a significant limitation of their study is its’ focus on individuals with adventitious disabilities. Adventitious disabilities are those that arise later in life after the age of three (Smart,
Through the identification and application of confounding factors that hamper the educational and vocational success of individuals who are visually impaired it may be possible to improve the educational and vocational attainment and retention among members of this population.

**Visual Impairment.**

Panek (2002) describes blindness and visual impairment as complex. The sense of sight interacts with other senses and has an impact on the physical and psychological aspects of a person’s development. Panek stated that “a well functioning person uses all the senses and body functions as an integrated whole when interacting with the environment” (p. 157).

Visual impairment is defined in terms of visual acuity and residual field of vision (Panek, 2002). In the United States individuals who are visually impaired are often considered to be legally blind which is defined as a visual acuity of 20/200 or a residual field of 20 degrees or less in the better eye. Blindness and visual impairment do not share the same definition. Visual acuity measures an individual’s ability to see objects clearly and visual field measures how wide of a range a person can see (Center for Disease Control and Prevention (CDC), 2008).

Blindness is defined as “the total loss of sight” (Panek, 2002, p. 157). However, for the purposes of this study visual impairment will be used in reference to all individuals who are considered to be legally blind and not those who are considered to be totally blind. There are two primary sources of visual impairment and blindness; congenital and acquired. Congenital disabilities are “those that are present at birth or
shortly thereafter” (Smart, 2001; p. 46). While adventitious disabilities are those disabilities that arise later in life after the age of three. The above sections have provided a brief overview of the educational and vocational considerations related to individuals who are visually impaired. The current section has provided a clear description of visual impairment. The next section discusses the psychosocial aspect of disability.

**Psychosocial Adjustment to Disability.**

Personal adjustment is considered to be the organization of one’s self, and behavior that is associated with the individual’s personality (Lifshitz, Hen, & Weisse, 2007). Personal adjustment is closely related to social adjustment. Social adjustment is thought to be the structure and relationship between an individual and his or her social environment. The comprehension of psychosocial factors that relate to the adjustment to disability is vital due to the fact that the severity of disability is not a good measure or predictor of the problems a person with a disability may encounter (Davis & Lovie-Kitchin, 1995).

Depending on the severity of a visual disability it can often present as an invisible disability (Conrod & Overbury, 1998) which cannot be easily identified by others. This concept of invisibility is compounded by the fact that the adjustment to disability is a lifelong process (Kef, 2002). Smart (2001) states that there are six stages of adjustment to adventitious disability, these stages are as follows: 1) shock or initial impact, 2) defensive retreat or denial, 3) depression or mourning, 4) regression, 5) personal questioning or anger, and 6) integration and growth. These stages are not commonly experienced in a
linear fashion. They can be interchangeable and repetitive, meaning that a person with a 
disability can experience depression prior to denial or any of the stages can be 
experienced multiple times during the person’s adjustment to their disability.

Due to the complex nature of the psychosocial adjustment to disability 
anticipation of possible outcomes should be considered (Livneh, 2001). This is intended 
to prepare the individual for possible barriers to the adjustment to the disability that may 
arise. Anticipated outcomes are viewed as indicators of quality of life. Outcomes can be 
anticipated based on functional and contextual domains, and specific sources of outcome 
measures

There are several aspects of an individual’s life that impact their adjustment to 
their disability, these include; social support (Kef, 2002), ability to function 
independently (Black, 2004) self-concept and self-esteem (Beach & Robinet, 1998) and 
extent of dependence on others (Conrod & Overbury, 1998). Adjustment to disability is 
compounded by multiple aspects of an individual’s life therefore it has a significant 
impact on one’s quality of life (Bishop, 2005). If the vocational, educational and social 
components of an individual’s life are approached in a holistic manner then the chances 
of improving a consumer’s overall quality of life can be significantly increased.

When discussing the concept of adjustment to disability the impact of quality of 
life should be considered (Bishop, 2005). Disability can disrupt one’s life and may be 
conceptualized in regard to its’ impact on the person’s well being or quality of life. Life 
disruptions that are disability related compromise psychosocial wellbeing by reducing 
“…positively reinforcing outcomes of participating in meaningful and valued activities
and feelings of personal control, by limiting the ability to obtain positive outcomes or avoid negative ones” (p. 223) Bishop defines quality of life as “…the subjective sense of overall well-being that results from an individual's evaluation of satisfaction with an aggregate of personally or clinically important domains” (p. 221).

There are ten life domains associated with the quality of life that can be impacted by disability related disruptions (Bishop, 2005). These domains include; physical health, mental health, work, leisure activities, financial situation, relationship with spouse, family relations, other social relations, autonomy, and Spiritual expressions. Individuals place particular emphasis on varying domain areas. Emphasis placed on a domain area is often linked to the person’s values and beliefs.

People who are visually impaired often experience feelings of inferiority, hopelessness and depression (Dodds & Ferguson, 1994). Visual impairment is often also accompanied by fear and a reduced sense of personal competence, as well as, anxiety (Conrod & Overbury, 1998). These factors often interfere with an individual’s rehabilitation potential and achievement. A reduced sense of self competence can lead to isolation and social withdrawal. Particularly individuals with low vision have what can be considered to be an invisible disability. These individuals tend to conceal their visual impairment by making excuses to explain away their sometimes awkward and incompetent behavior. The feelings that may be experienced by individuals who are visually impaired can be treated by rehabilitation counselors (Brabham, Mandeville, & Koch, 1998) in group counseling (Johnson, 1989; Johnson & Johnson, 1991).
Counseling.

Individuals who are visually impaired are at a major risk of experiencing depression, social isolation, and emotional distress, due to the stress they encounter throughout their lives (Owsley, et.al. 2006). Group counseling is one of the primary methods of treatment that is utilized in combating psychosocial problems encountered by persons who are visually impaired (Johnson, 1989; Johnson & Johnson, 1991). In the article presented by Johnson (1989) the author critically examined 35 years of literature on group counseling and people who are visually impaired. Group counseling has been utilized to assist consumers with visual impairment and blindness to improve self-concept, personal adjustment to disability, and interactional skills (Johnson, 1989; Johnson & Johnson, 1991).

Rehabilitation Legislation.

There are several legislative acts that are related to rehabilitation counseling and individuals with disabilities (Jenkins, Patterson & Szymanski, 1998). These legislative acts include the Smith Hughes Act of 1917, the Smith Fess Act of 1924, the Security Act of 1935, the Vocational Rehabilitation Act of 1954, the Rehabilitation Act of 1973, and the Workforce Investment Act of 1998. These legislative acts provide a description of the development and growth of the field of rehabilitation counseling.

In addition to these legislative acts that describe the growth and development of rehabilitation counseling there are also a few other legislative acts that specifically relate to individuals with visual disabilities (Jenkins, Patterson & Szymanski, 1998). These include; the Bardon Lafollette Act of 1943, the Wagner O’Day Act of 1935, the
Randolph Sheppard Act of 1936, the Americans with disabilities Act, Title V of the Rehabilitation Act of 1973 and the Individuals with Disability Education Act. These legislative acts have positively impacted the educational and vocational areas of life for individuals who are visually impaired.

All of the areas discussed previously, employment of individuals who are visually impaired, the definition of visual impairment, psychosocial adjustment to disability, counseling and rehabilitation legislation are all related to the central focus of this study. The central focus of this study was the educational and vocational experiences of individuals who are visually impaired. The next section describes the importance of this issue.

Statement of the Problem

College students who are visually impaired have a lower-level of higher education degree attainment than their nondisabled peers. Less than 16% of students with disabilities attend college in contrast to more than 50% of students without disabilities (Hasazi, Johnson, Hasazi, Gordon & Hull, 1989, Nagle, 2001). Low rates of college attendance by students with disabilities also presents a clear picture of the even lower rates of higher education degree attainment among students with disabilities such as visual impairment. Horn and Berkfold (1999) reported that 6% of 21,000 college undergraduates reported having a disability, of this 6%, 16% reported having a visual disability.

For the purposes of this study low levels of employment are levels that are more than two thirds of the employment rate of the general public. Individuals who are visually
impaired experience lower levels of vocational success compared to their non-disabled peers. Kirchner, Schmeidler, and Todorov (1999) reported that approximately 30% of working age adults who are legally blind are employed as compared to 80 percent of working age adults without disabilities. Low levels of employment are directly affected by the first problem, low education rates (Collins, 2000; Roy, Dimingan & Taylor, 1998; Frank, Karst & Boles, 1989). Low levels of employment among individuals who are visually impaired affect their ability to be productive and independent members of society (Smart, 2001). Furthermore, college students who are visually impaired face significant barriers to educational and vocational achievement (Crudden & McBroom, 1999; O’Day, 1999; Shaw, Gold & Wolfe, 2007). Barriers to employment and education can further hamper one’s ability to lead an independent life.

College students who are visually impaired also face psychosocial issues related to disability which can hamper their educational and vocational success (Crudden & McBroom, 1999; O’Day, 1999; Shaw, Gold & Wolfe, 2007). Psychosocial issues includes such things as social support (Kef, 2002), independence (Black, 2004), dependence (Conrod & Overbury, 1995), and self-concept (Beach & Robinet, 1995). Social support is the ability to receive support and assistance from those in the community in many instances this includes friends and family. Independence refers to an individual’s level of autonomy and ability to live an independent life. Dependence refers to the extent to which an individual relies on others to accomplish their daily living activities. Self-concept refers to the individual’s view of themselves in relation to the world around them.
Psychosocial issues are most prominent during a person’s adjustment to disability (Kef, 2002). The psychosocial adjustment to disability has a significant effect on a person’s ability to live independently. If individuals with disabilities such as visual impairment are unable to overcome psychosocial barriers they may be unable to live autonomously.

**Research Questions**

This research sought to build upon this literature by addressing the following questions:

1. What are the educational experiences of college educated individuals who are visually impaired?
2. What are the vocational experiences of college educated individuals who are visually impaired?
3. What are the social experiences of college educated individuals who are visually impaired?
4. How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?

**Significance**

This study was conducted to explore the experiences of college educated individuals with visual disabilities. Bowman and Marzock (1992) argued that “the importance of education in American society cannot be overemphasized. It is the key to being able to support oneself” (p. 521). This may be of crucial importance in the case of individuals with disabilities (Carrol & Bown, 1996). The education of students who are
visually impaired is an important factor that can increase their employability. Services provided by college/university Disability Support Service personnel and state vocational rehabilitation agencies can also improve the employability of individuals who are visually impaired.

Additionally, the improvement of psychosocial skills and support can improve the vocational and educational success of students who are visually impaired (Kef, 2002). As stated by Nagle (2001) there is a critical need for more research to be conducted on the experiences of college students who are visually impaired. The author stated that it is vital for information regarding the graduation rates, college experience, accommodations as well as the amount and usefulness of career counseling that students who are visually impaired receive from college and universities and rehabilitation agencies. This study did not focus on all of these issues, however, it did explore the higher educational, vocational and social experiences of college students and college graduates who are visually impaired and services that these students received from college and universities and rehabilitation agencies.

This study hoped to identify and present recommendations for resolving the educational, vocational and social issues faced by college educated individuals with visual disabilities. Such recommendations as identified in the literature included things such as, psycho-educational support groups to address negative social supports (Boerner & Cimarolli, 2005), potentially examine the procedures of the college or university office of Disability Support Services and the assistance they provide to students with disabilities (Thomas, 2000) such as visual impairment, as well as minimizing barriers to employment
(Crudden & McBroom, 1999; O’Day, 1999; Shaw, Gold, & Wolfe, 2007) that may stem from, negative public attitudes, work incentives and public policies.

It is significant that this study focused on college educated individuals who are visually impaired as opposed to individuals who are completely blind or both individuals who are completely blind and individuals who are legally blind or have low vision. Many studies that discussed the employment of individuals with visual disabilities tended to place all individuals with visual disabilities under the same category (Crudden & McBroom; 1999; O’Day, 1999: Capella-McDonnell, 2005; Shaw, Golub, 2006; Gold & Wolfe, 2007). The participants of the studies presented by the aforementioned authors were considered in terms of legal blindness or low vision and total blindness.

Similarly, studies that examined the education of individuals who are visually impaired followed the same means of broad categorization (Beaty, 1994; Klinkosz, Sekowski & Brambring, 2006). Other studies that examined the education focused on individuals with physical disabilities (Fichten, Ansel, Bourdon & Creti, 1985; Stebnicki, Sibrava & Rice-Mason, 1998) or disabilities in general (Hazasi, et.al, 1989; Papalia-Berardi, Hughes, & Papalia, 2002) not visual impairment specifically.

The findings of the studies conducted by the authors listed above are vital to the improvement of the educational, vocational and social experiences of individuals who are visually impaired. While these identified authors have examined the education (Beaty, 1994; Klinkosz, Sekowski & Brambring, 2006; Fichten, Ansel, Bourdon & Creti, 1985; Stebnicki, Sibrava & Rice-Mason, 1998; Hazasi, et.al, 1989; Papalia-Berardi, Hughes, & Papalia, 2002) and employment (Crudden & McBroom; 1999; O’Day, 1999: Capella-
McDonnall, 2005; Shaw, Golub, 2006; Gold & Wolfe, 2007) of individuals with visual disabilities, they have not focused specifically on individuals with visual impairment (i.e., those who have low vision). Perhaps it is time that the educational and vocational experiences of individuals who are visually impaired be examined independently of individuals who are completely blind.

**Purpose for the Study**

The purpose of the study was to understand the experiences of college students and college graduates who are visually impaired. The research questions for this study were three fold and they are as follows: 1) what are the educational experiences of college educated individuals who are visually impaired? 2) What are the vocational experiences of college educated individuals who are visually impaired? 3) What are the social experiences of college educated individuals who are visually impaired? The desired result of this study hoped to advance the research in the area of visual impairment, thereby, enhance the knowledge of higher education professionals, college and university Disability Support Service personnel, and rehabilitation counselors in the areas of education and employment of individuals who are visually impaired.

**Methodological Approach**

For the purposes of this study a qualitative research methodology was employed. This research approach was chosen due to the researcher’s focus on the participants’ experiences as understood by the participants. The research embraced and utilized the personal voices of the participants. The categories of the research were determined during the research process and patterns and theories were developed after the researcher
developed an understanding of the research data. Thus allowing the researcher to embrace the personal experiences of the participants while conveying their experiences in their own voices and finally utilizing this data in the development of categories and themes (Creswell, 1994).

A phenomenology research design was specifically chosen for this study because it allowed the researcher to explore the meaning, structure and the essence of the lived experience of individuals who are visually impaired. This research design allowed the researcher the opportunity to explore and learn about an individual’s world experiences from their perspective (Green, 1997, Holloway, 1997; Maypole & Davies, 2001; Robinson & Reed, 1998). In-depth interviews provide potential access to an individual’s world experiences. With this in mind, phenomenology can be effectively applied to this study as the aim of the research was to learn about the lived experiences of individuals who are visually impaired. From a phenomenological approach, after interviews were completed the researcher utilized the data that had been obtained to identify the essence of the participants’ experiences. Phenomenology seeks out commonalities among individuals in addition to what is unique about each individual. All of these components make phenomenology the best approach to answer the research question of the current study.

Angelocci (2007) conducted a phenomenological study aimed at understanding the life experiences of college students who are visually impaired. Angelocci interviewed six college students who were visually impaired and were approaching the completion of their college degrees. The family, school and community influences were explored and
risk and resilience was used as a theoretical framework to further understand these areas of influence. Angelocci explored the life experiences of college students in order to determine what makes them successful, it differs from this research because it focused on both blind and visually impaired students.

The findings of Angelocci (2007) included risk and protective factors in relation to family, school and community. Factors related to risk as identified by the participants included: ongoing anger and resentment for being blind, impatience with oneself, an inability to cope with a lack of control, and placing hard expectations on oneself. The factors identified by Angelocci that were related to protection included: personal qualities, beliefs, and skills. Personal qualities included: discipline, flexibility, creativity, decisiveness, humor, being outgoing, patience, confidence, stubbornness/determination, and a willingness to take risks.

Williams (2008) conducted a phenomenological study in which she investigated how college students with physical disabilities perceive their disabilities and the impact that their disability had on their ability to obtain employment upon their graduation from college. Williams interviewed eight participants who were enrolled in a private four year university. The data analysis process was conducted with the use of a phenomenological hermeneutic lens and the review of four models of disability. While this study examined the impact of disability on college students’ ability to become employed after college it focused on students with physical disability as opposed to students with visual impairments as specified in the current study.
The findings of Williams (2008) study came out of seven core themes. These seven themes are as follows: 1) Advanced Education Attainment, 2) Accessibility, 3) Reasonable Accommodations, 4) Barriers/Hindrances, 5) Disability and Impairment, 6) Discrimination, and 7) Career Services. Three findings emerged out of the data 1) transition from college to work was not a feasible option or priority after the baccalaureate degree or graduation; 2) continued higher education beyond undergraduate education is a priority; and 3) viewpoints about and experiences with disability and impairment are not monolithic.

In an effort to explore the educational, vocational and social experiences of college educated individuals the researcher interviewed 16 participants who were current college students and college graduates were interviewed through the use of semi-structured interviews.

**Limitations of the Study**

Four limitations of this study were identified. The first limitation of the study was that this study only focused on college students and college graduates therefore the results may not be applicable to individuals who have not had a higher education experience. The second was the use of participants who are visually impaired. Since individuals who are completely blind were excluded from this study, the finding of this study may not be applicable to the entire visually impaired population. The third limitation of this study was the requirements for study participants to have a visual disability and no co-morbid disorders. Co-morbid disorders can introduce additional barriers to education and employment that were not being addressed by this study.
Therefore, participants with co-morbid disorders may essentially be misrepresented by the findings of this study as this population was not connected to the purpose of this study. The fourth and final limitation of this study was the fact that participant interviews were conducted via telephone. This form of interview was utilized due to the transportation limitations of both the researcher and the participants due to the fact that they are visually impaired. Telephone interviews also limited the researcher’s ability to interact with the participants face to face.

**Definition of Terms**

The following terms have been utilized in this study and warrant clarification so that they appropriately represent the nature of this study.

Assistive Technology – materials that are used to enhance an individual’s daily living skills. Assistive technology for individuals who are visually impaired include mobility aids such as canes, visual aids such as magnifiers and computer software such as readers (i.e. Job Access with Speech for Windows Software (JAWS)) etc.

Blindness – is described as the total loss of sight (Panek, 2002).

Disability Support Services – Offices established on college and university campuses to serve students with disabilities.

Education Success – an individual’s ability to graduate from college and obtain a college/university degree.

Legal Blindness/Legally Blind – a visual acuity of 20/200 or less in the better eye with correction. The criteria for legal blindness are utilized to determine eligibility for disability benefits provided by the US government.
Low Levels of Employment – for the purposes of this study low levels of employment are levels that are more than two thirds of the employment rate of the general public.

Low Vision – is a visual acuity of 20/200 or less in the better eye, or a residual field of 20 degrees or less in the better eye (Panek, 2002).

Psychosocial Adjustment to Disability – the course and outcome of an individual’s response to their disability (Smart, 2001). Generally this involve the several stages which could include 1) shock or initial impact, 2) defensive retreat or denial, 3) depression or mourning, 4) regression, 5) personal questioning or anger, and 6) integration and growth.

Quality of Life - “… successful efforts to reestablish the psychosocial homeostasis disrupted by the advent of disability and attainment of person-environment congruence, where the person with the disability is said to demonstrate better psychosocial adaptation or adjustment” (Livneh, 2001, p. 153).

Visual Impairment – is a permanent visual disability that is not correctable with spectacles, contact lenses or surgical interventions. Such a visual disability interferes with normal everyday functioning or daily living skills (Scott, Smiddy, Schiffman, Feuer, & Pappas, 1999). Visual impairment may be caused by a loss of visual acuity or visual field (CDC, 2009).

Vocational Success- is an individual’s ability to obtain employment that can satisfy all of their financial needs.

Summary

This chapter has provided an overview of the research study. This overview has included a discussion of the employment and education statistics descriptive of
individuals who are visually impaired. A brief description of legislative acts such as the ADA and the Rehabilitation Act of 1973 that support the efforts to improve educational and vocational success of individuals with disabilities such as visual impairment were provided.

The background of the study is presented with an inclusion of a brief discussion of visual impairment, psychosocial adjustment to disability, counseling, rehabilitation legislation and methodological approach. Additionally the statement of the problem (the low levels of vocational and educational success), the significance of the study, delimitations and limitations of the study as well as definition of terms has been presented. Information related to the background of this study will be discussed in greater detail in the upcoming literature review in chapter two. Further discussion of the methodological approach will be found in chapter three.

The results of this study will be presented in chapters four, five and six. Chapter four provided a description of the results of this study that were identified under the theme of accommodation acquisition. This primary theme was divided into five subsections: acquiring accommodations, assistance of disability services, self advocacy, professor’s reluctance to comply with accommodations and inaccessible technology. The participants of this study provided a discussion of their experiences in these areas.

In regards to acquiring accommodations participants shared their experiences in several different areas. They spoke of the types of accommodations that were provided to them in college. Participants shared how the accommodations they received were provided by different education professionals such as professors and the disability service
They discussed the methods by which they disclosed their disability to education professionals in an effort to obtain accommodations and their use of adaptive equipment.

Participants had discussions specific to the assistance they received from disability services. These discussions covered the participants’ descriptions of their negative and positive experiences in working with disability service personnel as well as specific services they received through this office. Participants also discussed self advocacy in regards to the importance and benefits of developing and implementing these skills. Participants also discussed how self advocacy skills can be transferred from an educational setting to a vocational setting. This chapter provides the participants’ discussion of their experiences with professors who were reluctant to provide them with reasonable accommodations and the alternative methods they used to obtain course materials. Participants also discussed their inability to access Blackboard and their college or university’s website and how it impacted their higher educational pursuits.

Chapter five provided a discussion of the second primary theme which evolved around the participants’ work related experiences. These experiences encompassed employers’ knowledge of what people who are visually impaired can do, working a visually impaired population, inaccessible technology, a lack of work experience and transportation. A thorough discussion of the subsections follows. Participants provided a varied description about their experiences under each one of these headings.

The participants discussion of employers’ knowledge about what people who are visually impaired can do included employers’ lack of experience working with individuals who are visually impaired and their lack of knowledge about adaptive
Participants also described how they demonstrated their vocational potential to employers by taking on tasks their employers were reluctant to assign them due to their visual disability. One of the participants called for the implementation of sensitivity training in an effort to increase knowledge and understanding about visual disabilities.

Participants who contributed to the discussion of working with a visually impaired population described the difficulties they experienced while attempting to obtain employment and how this ended in their employment in industries for the blind. Participants also discussed their lack of work experience and inability to access software programs and how this impacted their ability to obtain employment. Two participants also provided a description of how they believe their visual impairment has hampered their ability to be promoted in the workplace. The final discussion under this theme involved transportation and how it has impacted one participant’s choice of vocational position.

Chapter six provided a discussion of the third primary theme, attitudes toward visual impairment. The participants’ experiences in this chapter related to four subcategories which included other people’s reaction to visual impairment, the participants’ reaction to their own disability, transportation, involvement in organizations for the blind and the use of a white cane. The participants’ experiences of other people’s reactions to their visual impairment, centered on, people’s reactions based on a limited amount of knowledge and the negative connotations about visual impairments. Participants also provided descriptive examples of their dating experiences and the impact they have had on their lives.
Participants’ description of their own experiences in regards to their own acceptance of their visual impairment centered on eliminating feelings of shame and denial about their disability. They also shared the impact of trying to fit into the sighted world as a result of their denial. The participants described their transportation related experiences and how it has impacted their social involvement, their reluctance to ask others for assistance with transportation and their reliance on public transportation.

Participants also provided a discussion of their involvement in organizations for the blind as well as the benefits of being involved in such organizations. The experience of using a white cane was described by one participant. The last section of this section provided a description of one participant’s cultural experience and its impact on his experience as an individual who is visually impaired.

Chapter seven provided a discussion of the aforementioned results of this study. This chapter provides recommendations for college and university disability support service personnel, college and university faculty, rehabilitation professionals and individuals who are visually impaired. Further recommendations made in chapter seven were related to future research. Let us now turn to the review of the literature.
CHAPTER 2: REVIEW OF THE LITERATURE

Chapter two provides an overview of the literature on 1) the history of blindness, 2) visual impairment and legislation, 3) employment and disability, 4) higher education and disability, 5) assistive technology, 6) psychosocial adjustment to disability, 7) counseling services related to individuals with disabilities such as visual impairments and 8) rehabilitation and legislation. A review of the literature in conjunction with findings from the research study will be used to identify methods for improving the educational, vocational and social experiences of college educated individuals who are visually impaired. The discussion of the literature will begin with a brief overview of the history of blindness and a discussion of legislation related to visual disabilities.

The History of Blindness

Koesler (1976) provided a colorful description of how individuals who were blind were viewed for centuries. He stated:

“They were feared, shunned, pitied, and ignored. Some were thought to be blessed with magical powers, others to be accursed for their sins. Some were killed as infants, others were tolerated in youth but abandoned to die by the roadside or even buried alive when they grew old and infirm. There were those who roamed the countryside in gipsy bands living by their wits, communicating in a secret jargon. There were others who never in their lives ventured from home and hearthside. Some came under the special protection of the church or the crown, and some were thrown into madhouses, pesthouses, almshouses, where they could be kept out of public view”. p. 1
The ancient Greeks believed that blindness was punishment from the gods for displeasing them (Koesler, 1976). The Romans and the Athenians abandoned their blind children as they were seen as defective and meant to be destroyed. In some societies blind children were seen as financial burdens and where therefore used to make a profit. Their parents would sell them into slavery or prostitution. Prussians would dispose of children who were blind squinting or deformed by sworn, drowning or burning. Conversely the ancient Egyptians sought many remedies for different forms of blindness. The Chinese, Japanese and Indians did what they could to help people who were blind to find constructive roles in society. These societies were far ahead of the western societies who continued to kill and mistreat people who were blind for centuries.

Some interpreted findings in the Bible to interpret blindness as evil (Koesler, 1976). These inferences were primarily routed in the statement “And God saw the light, that it was good” which was interpreted to mean those who saw darkness was bad or evil. Blindness was also associated with death. The Hebrews believed people who were blind to be the living dead. There were also positive beliefs about individuals who were blind. For instance “the belief that bounteous nature compensates blind people in a number of ways through desirable traits of character (spirituality, patience, cheerfulness); through virtuosity of accomplishment (musical talent, prophetic gifts, razor-sharp memory) or over superhuman command of the non-visual senses” (p. 3).

During the Middle Ages the first Asylum for the blind was developed and it was established in Paris by Louis the IX (Koesler, 1976). It is believed that the asylum was developed to house 300 crusaders who were intentionally blinded during war between the
French and the Turkish. During World War I a relief fund was developed to assist soldiers who were blinded during the war. It was establish in 1915 and called the American, British, French and Belgian Permanent Blind Relief Fund. Approximately 450 Americans were blinded during World War I and by 1918 approximately $31 million dollars was being spent to assist those who were blind.

During the early 1900s it was considered that perhaps children who were blind could remain at home with their parents and attend public school. Braille was adopted as the American standard for the writing words (Koesler, 1976). However, only a small minority of individuals who were blind knew how to read Braille. Thoughts about the employment of people who were blind began to evolve. “Could not many be trained to move out of the narrow confines of the traditional blind trades – broom making, basket weaving, small handicrafts?” (p. 9). Soon the consideration of providing those who were blind and elderly with a financial measure so they did not have to choose between starvation and begging began to evolve. These changes began to simultaneously impact negative attitudes about people who were blind leading to the road of the emancipation of people who were blind. These considerations began to evolve into legislation that assisted in bringing about educational, vocational and social change for individuals who were blind and those with other disabilities.

**Visual Impairment & Legislation**

This section provides an overview of legislation that is specifically related to individuals who are visually impaired (Jenkins, Patterson, Szymanski, 1998). The specific legislations that are related to the education and employment of individuals who
are visually impaired include; the Bardon Lafollette Act of 1943, the Wagner O’Day Act of 1935, the Randolph Sheppard Act of 1936, the Americans with disabilities Act, Title V of the Rehabilitation Act of 1973 and the Individuals with Disability Education Act.

The historic court case Brown v. Board of Education set a precedent for the elimination of discrimination in public schools (Jenkins, Patterson & Szymanski, 1998). However, this precedent was not established to include students with disabilities. It was not until 1975 that the passage of the Education of All Handicapped Children Act mandated provisions for the education of children with disabilities. This legislation was later renamed in 1990 to the Individuals with Disabilities Education Act. The Individuals with Disabilities Education Act made four primary provisions. Firstly is the provision of a free education through the age of 21 or high school completion. Secondly is that the education of students with disabilities must be provided in the least restrictive environment possible. Least restrictive environment refers to a setting in which students with disabilities are educated with the nondisabled peers, whether or not they are in a public or private institution. Least restrictive environment also allows for the provision of separate classrooms for students with severe disabilities in which the use of supplementary aids in a regular classroom would not prove to be beneficial to the educational success of the student. Thirdly, special education and related services are to be provided as stipulated in the Individualized Education Program, and fourthly, the right to due process for students with disabilities and their families.

As previously mentioned section 501 and 503 of the rehabilitation Act of 1973 has mandated non-discrimination of individuals with disabilities (Jenkins, Patterson &
Szymanski, 1998). Section 501 limits the discrimination of individuals with disabilities in federal employment. Section 503 limits the discrimination of individuals with disabilities from private employers receiving federal funds. The Rehabilitation Act of 1973 and its subsequent amendments have played a vital role in the expansion of employment opportunities for individuals who are visually impaired.

Three additional legislative acts that have played a significant role in the expansion of employment opportunities for individuals who are visually impaired are the Bardon Lafollette Act of 1943, the Randolph Sheppard Act of 1936 and the Wagner O’Day Act of 1935 (Jenkins, Patterson & Szymanski, 1998). The Randolph Sheppard Act authorized individuals who are blind to operate vending stands on federal property, while the Wagner O’Day Act required the federal government to purchase certain products from workshops for the Blind. Both of these legislative acts were intended to expand the vocational opportunity for individuals with visual disabilities.

The Bardon LaFollette Act of 1943 also made provisions for individuals with visual disabilities (Jenkins, Patterson & Szymanski, 1998). The act expanded eligibility for vocational rehabilitation services to individuals with mental retardation and psychiatric disabilities and the types of restoration that could be provided to individuals with disabilities. It also expanded vocational rehabilitation services to individuals with visual disabilities through the development of separate vocational rehabilitation agencies to serve individuals with visual disabilities.

The Americans with Disabilities Act of 1990 (ADA) it provided the definition of disability and was identified as the equivalent of the Civil Rights Act of 1964 to
individuals with disabilities (Jenkins, Patterson & Szymanski, 1998). The Civil Rights Act gave rights to minorities and women while the ADA gave rights to people with disabilities. The ADA consists of five titles that address the needs of individuals with disabilities; Title I employment, Title II Transportation, Title III Public Accommodation and Services, Title IV Telecommunications and Title V Miscellaneous. Title I of the ADA specifies that no employer with fifteen or more employees shall discriminate against a ‘qualified’ individual with a disability in regards to terms, conditions and the privilege of employment (Jenkins, Patterson & Szymanski, 1998). A qualified person with a disability is anyone who can perform the essential duties of the job with or without reasonable accommodations. Reasonable accommodations may include: job restructuring, modified work acquisition, modifications of equipment or devices and the provision of readers or interpreters. Reasonable accommodations for individuals who are visually impaired often include: adaptations in illumination, color and/or contrast, space arrangement, optical devices such as magnifiers, non-optical devices such as Closed Circuit Televisions and/or personal computers with large print, optical scanning and/or speech output (Panek, 2002). Reasonable accommodations for employees with disabilities should not cause an undue hardship on the employer.

Title II of the ADA states that public entities operating fixed-route system should ensure that their vehicles are accessible to individuals with disabilities (Jenkins, Patterson & Szymanski, 1998). When such vehicles are not accessible the public entity must ensure that there is an alternate transportation option for individuals with disabilities such as para-transit or other special transportation services. Visual impairment often hampers an
individual’s ability to travel independently (Montarzino, Robertson, Aspinal, Ambrecht, Findlay, Hine, & Dhillon, 2007). The article presented by Montarzino, et al., (2007) was based on a study conducted by the Edinburgh Visual Impairment Research Group with outpatients of the Princess Alexandra Eye Pavilion in Edinburgh, Scotland. The purpose of this study was to identify personal, environmental and transportation factors that impact the mobility and independence of individuals who are visually impaired. The participants of the study were 66 patients attending the low vision clinic in Edinburgh. The findings of the study indicated that the onset of visual impairment does not limit an individual’s mobility.

Individuals with acquired disabilities often report losing their freedom because they have lost their ability to drive (Montarzino, et al., 2007). Individuals with congenital visual disabilities on the other hand are often not privy to the privilege of driving at all. Therefore, it could be assumed that they are never presented with this particular opportunity for freedom. In urbanized societies such as the United States, cars are the primary method of transportation. The provision of Title II of the ADA allows for some individuals who are visually impaired to access services such as para-transit which they can use to get to and from places such as their place of employment. Title III Public Accommodations and Services states that “no individual shall be discriminated against on the basis of disability in the full and equal enjoyment of the goods, services, privilege, advantages, or accommodations of any place of public accommodation by any person who owns, leases, or operates a place of public accommodation (Panek, 2002, p. 19).”
Public entities according to this legislative act include such things as hotels restaurants, theatres, banks, professional offices, libraries, recreational facilities, etc.

Title III of the ADA (1990) speaks to public accommodations and services (Jenkins, Patterson & Szymanski, 1998). This title states that no individual should be discriminated against base on disability in the enjoyment of goods, services, privileges, advantages or accommodations by any person who owns, leases or operates a place of public accommodations. Places of public accommodations include but are not limited to hotels, restaurants, banks, libraries, parks, zoos, etc. Entities such as private clubs and religious organizations are exempt from the stipulations of the ADA.

Title IV of the ADA provides telecommunication access to individuals with speech and hearing disabilities (Jenkins, Patterson & Szymanski, 1998). One such provision of this title is the inclusion of closed captions in public service announcements. The fifth and final title of the ADA is titled Miscellaneous. This title includes the issuance of guidelines to historical sites and wilderness areas to make such areas accessible to individuals with disabilities.

This section has provided us with an overview of the legislation such as the Bardon Lafollette Act of 1943, the Wagner O’Day Act of 1935, the Randolph Sheppard Act of 1936, the Americans with disabilities Act, Title V of the Rehabilitation Act of 1973 and the Individuals with Disability Education Act, all of which are related to the education and employment of individuals who are visually impaired (Jenkins, Patterson, Szymanski, 1998). Legislative acts such as the ones previously listed have had a significant impact on the lives of individuals who are visually impaired. The following
section provides a discussion of the education of individuals with disabilities such as individuals who are visually impaired.

**Employment**

The literature related to the employment of individuals with visual disabilities discuss characteristics that lead to successful employment (Capella-McDonnal, 2005; Golub, 2006), barriers to employment (Crudden & McBroom, 1999), federal policies and programs (O’Day, 1999), domains of life that include vocational, social and leisure, academic, and activities of daily living (Shaw, Gold & Wolfe, 2007). Other studies related to the impact of disclosure (Dalgin & Belini, 2008), attitudes towards disability (Hannah, 1988; Evans & Asadi, 2007). This discussion related to the employment of individuals with visual disabilities will begin with a discussion of characteristics that lead to successful employment as presented by Capella-McDonnal and Golub.

Golub (2006) conducted a study that explored the factors that employers believed contributed to the successful vocational experience of individuals who are visually impaired. Twenty-two participants were recruited from eleven states. Participants were recruited from a group of individuals who participated in the Career Connect Mentorship program through the American Foundation for the Blind. The Career Connect Mentorship program paired job seekers who are visually impaired with successfully employed people with visual impairments who worked in their fields of interest.

Golub (2006) discussed the “model for employees” which describes the seven steps that employers believe employees who are visually impaired must take to enhance their own vocational success. These seven steps include: 1) your comfort is contagious,
2) blindness competencies, 3) be an ambassador for blindness, 4) positive attitude, 5) work etiquette, 6) insist on being held to the same standard and 7) mutual accommodation. The author identified one limitation of this study which was its small sample size of 22 participants.

Students who are visually impaired can work on these areas while they are in college/university. Golub discussed the responses given by a variety of employers of working-age adults who were visually impaired in terms of what has contributed to their successful employment. The employers’ responses included: the employee’s (a) confidence (b) willingness to self-disclose (c) demonstrated knowledge of their disability and individual needs (d) integrity (e) trust (f) respect (g) good etiquette (h) positive attitude and (i) competency. In regards to vocational success Cappella-McDonnall (2005) posited that the education of individuals who are visually impaired is one variable that can lead to successful employment.

Capella-McDonnall (2005) conducted a study aimed at determining consumer characteristics that are related to successful vocational outcomes. The author utilized public-use data which she obtained from Cornell University’s web site for the Longitudinal Study of the Vocational Rehabilitation Services Program (LSVRSP). The sample consisted of 165 consumers of vocational rehabilitation services who were blind or visually impaired under the age of sixty-five.

Capella-McDonnall’s (2005) study found that when consumers have worked from the onset of their disability they are more likely to have a successful employment outcome. Capella-McDonnall also found that the attainment of a college education
resulted in the acquisition of a certificate or degree appeared to have a significant impact on successful employment for consumers who are visually impaired. The author emphasized that educational training did not appear to have a significant impact on vocational success if the consumer did not attain a certificate or degree after attending college. The final finding of the study indicated that a positive relationship between the consumer and the rehabilitation counselor increased the consumer’s potential for vocational success.

Capella-McDonall (2005) identified three limitations of this study. The first was the limited amount of information about the rated quality of the relationship between counselors and consumers. The second was the small sample of individuals who are visually impaired that were available for the study. Due to the small sample the author recommended taking caution when interpreting the results of the study. A final limitation of the study was the inability to include all the variables that affect vocational success. The author utilized 11 variables which included: gender, age, level of vision loss, the presence of a secondary disability, the receipt of financial assistance, race, and educational level. The author did not identify the variables that were excluded from her study.

Capella-McDonall (2005) posited that higher education is a method by which individuals who are visually impaired can identify and train for the type of vocational pursuits that best suits them. As with most, if not all disabilities, the nature of the visual impairment can be limiting in terms of vocational task fulfillment on the part of individuals who are visually impaired (Panek, 2002). For instance, some individuals who
are visually impaired may not become a tailor due to the intricate detail of sewing and the limitations of their vision. Others would not be bus drivers or chefs depending upon the limitations of their visual abilities. A college and university education allows people who are visually impaired the opportunity to increase their knowledge, skill level, and vocational networks. Higher education can also expand the types of employment in which the individual can participate by offering more diverse course offerings. For instance, an individual who cannot be a chef could be a food critic for a local magazine or newspaper. In this instance, a college or university degree in communication or journalism could help the individual obtain employment.

A college education improves the potential for employment (Capella-McDonnall). However, college graduates with disabilities such as individuals who are visually impaired often do not attain professional employment upon the completion of higher education degrees because of a lack of access to transportation, disincentives to work and the tight job market. (Hutto & Thompson, 1995). These are in line with some of the barriers to employment that have been presented by varying authors (Crudden & McBroom, 1999; O’Day, 1999; Shaw, Gold, & Wolfe, 2007). Barriers to employment for individuals with visual impairments include a lack of training, deficits in skills or education, lack of access to print and adaptive equipment, employers’ attitudes, lack of accommodation provisions by employers, lack of ability to meet job requirements, lack of transportation, and personal issues such as family support and continual disability-related adjustment (Crudden & McBroom, 1999; O’Day, 1999; Shaw, Gold, & Wolfe, 2007).
Crudden and McBroom (1999) conducted a mail survey of 176 employed individuals who were blind and visually impaired between the ages of 25 and 83. The authors sought to identify the barriers to employment for individuals who were visually impaired and blind. For the purposes of this study the authors developed a survey from the existing literature, previous rehabilitation research training center (RRTC) questionnaires and consultation with RRTC National Advisory Council and the Constituent Research and Dissemination advisor. The researchers’ findings indicated that barriers to employment included: attitudes of employers and the general public; transportation problems; and lack of access to print, adaptive equipment, and accommodations.

Limitations to Crudden and McBroom’s (1999) study were due to the participants being invited to participate in the study on a voluntary basis. The sample that was obtained also did not fully represent the entire population of individuals who are visually impaired and blind and there was an overrepresentation of individuals of Caucasian descent (90% Caucasian, 6% African American and 6% Hispanic). With the overrepresentation of Caucasians in mind the authors emphasized that this group of participants “… were more highly educated, were employed in more professional occupations and for longer periods, earned higher salaries, and were less likely to have secondary health problems than the general population of persons who are visually impaired and employed” (p. 348).

O’Day (1999) conducted a qualitative research study to explore policies of federal income maintenance, health care, and rehabilitation programs. The study consisted of 20
participants between the ages of 25 and 45 who had been diagnosed as legally blind at or near birth. The term legally blind in this study refers to individuals with both low vision and total blindness. The participants were “unemployed, but expressed the desire to work; and received Supplemental Security Income (SSI) or Social Security Disability Insurance (SSDI)” (p. 627). O’Day found that participants who were legally blind experienced personal, societal, and programmatic barriers to employment.

Shaw, Gold and Wolfe (2007) stated that their study “…was part of a larger project that explored the daily lives of youths within four domains of life: vocational, social and leisure, academic, and activities of daily living” (p. 9). This article primarily focused on the employment status of youth, job search preparation and the job search process of Canadian youth. The study was conducted in Canada and utilized 328 participants between the ages of 15 and 30 who were blind and had low vision. Participants were selected from the Canadian National Institute for the Blind (CNIB) and the W. Ross MacDonald School for the Blind.

Shaw, Gold, and Wolfe (2007) had four primary findings that were discussed in this article. The first was the determination that 29% of the participants were employed. The second was that the education rate of the participants (21% had a college degree) appeared to be similar to that of the general Canadian population (25% have a college degree). The authors found that individuals who had low vision were more likely to be employed than those who were completely blind. The third finding discussed by the authors was that 37% of the participants who were not currently employed reported that they were actively seeking employment. However, it was found that these individuals
participated in very few job seeking activities such as submitting resumes and applications for employment. The fourth finding was the identification of employment barriers as encountered by the participants. These barriers included restricted resources (adaptive material, equipment, and information), employers' or potential employers' attitudes, others' tolerance of them and public awareness, transportation, personal problems, and job requirements. These barriers to employment have been identified by researchers such as Crudden and McBroom (1999) and O’Day (1999) as previously mentioned.

Some recommendations for young people with visual impairments who are seeking employment include being motivated to work, developing appropriate work skills, and developing a strong sense of self-efficacy and self-esteem (Shaw et al. 2007). When individuals who are visually impaired possess these characteristics, they may be better able to overcome disappointment and rejection. Furthermore, Shaw et al. stated that while many participants in their study were unemployed, they remained optimistic and intended to continue to pursue their vocational goals.

Shaw, Gold and Wolfe (2007) identified three limitations to their study. First the researchers reported that it may have been beneficial to have sighted comparison groups from previous studies to which they could compare their findings. Secondly, the researcher stated that the findings of the study may not be generalizable as most of the participants were clients of CNIB. Finally the authors reported that the participants were primarily from urban areas and therefore the findings of the study may not have been applicable to individuals from rural areas.
Attitudinal Barriers.

Dalgin and Belini (2008) conducted a study that explored the impact of the disclosure of invisible physical and psychiatric disabilities during the employment interview process. The researchers found that upon disclosure employers viewed physical disabilities more favorably than psychiatric disabilities. The type of disability, extent of disclosure and the interaction of the disability were factors that influenced the hiring decision. “An experimental, analogue research design was used where real employers were shown a videotaped interview of a potential candidate for a hypothetical position and then asked to complete two brief questionnaires to assess his or her hiring preferences and perceptions of the applicant’s employability” (p. 8). The participants of the study were 60 employers from the northeastern states of the United States from large, midsize and small companies.

This study conducted by Dalgin and Belini (2008) presented four limitations. First, the sample of employers all came from the same demographic region therefore the findings of the study may not be culturally appropriate for employers in other areas of the country. Secondly, the employer sample was small as the researchers found it difficult to obtain real employers. Thirdly, the fact that the study was an analogy study may have had an impact on the employers’ responses as they were not actually hiring the individuals.

According to Dalgin and Belini (2008) people with disabilities face three specific forms of barriers to employment. The first, are those things that hinder the person from participating in the employment process. This includes such things as transportation and job retention issues. The second employment barrier is those things that hamper the
hiring process. This encompasses things such as skill deficits, disability stigma and the cost of accommodations. The third barrier faced by people with disabilities in the pursuit of employment is employer prejudice and discrimination (Dalgin & Belini, 2008). The impacts of all the aforementioned barriers to employment are often compounded by attitudes towards disability (Crudden & McBroom, 1999; Shaw, Gold & Wolfe, 2007). It is vital to have a more specific understanding of architectural and attitudinal barriers.

Attitudinal barriers to disabilities differ from architectural barriers. Attitudinal barriers stem from the negative beliefs that people without disabilities have towards individuals with disabilities (Cook, 2000). The impact of the negative attitudes of individuals without disabilities toward individuals with disabilities often forces them into a position of social inferiority. Architectural barriers are physical things that hamper the ability of individuals with disabilities to access things such as public buildings and public transportation. Overcoming architectural barriers requires the physical adaptation of an individual’s surroundings. Conversely, attitudinal barriers cannot be removed quite so easily. The removal of attitudinal barriers towards individuals with disabilities is a complex issue that has been present in society for centuries. The best method for combating attitudinal barriers is the continued education of members of society by rehabilitation professionals, disability advocates and individuals with disabilities. Evans and Assadi (2005) state:

While disability is usually considered an individual characteristic, social justice advocates as well as others who come from a constructivist perspective, argue that it is society not the individuals that creates disability by imposing standards of
normalcy that exclude those who are different physically, emotionally or cognitively (p. 67).

Educational settings can be used as a starting place for practicing interaction and self-advocacy for students who are visually impaired (Golub, 2006). The majority of college students, faculty and staff had limited interaction with individuals with disabilities such as visual impairment until the passage of Section 504 of the Rehabilitation Act of 1973 and the ADA of 1990 (Evans & Assadi, 2005). This was primarily due to the limited amount of individuals with disabilities that were able to attend college prior to the enactment of these two legislative acts. A lack of exposure to individuals with disabilities is linked to one of the factors that contribute to the development of attitudes towards individuals with disabilities.

Three primary factors that influence attitudes towards individuals with disabilities include: indirect experience, direct experiences, and the attitudes of one’s primary group. Indirect experiences derive out of the manner in which people with disabilities are portrayed in movies, books and other media. Direct experiences are just that, first hand interaction that people without disabilities have with people with disabilities. The attitudes of social groups that impact attitudes towards individuals with disabilities stem from family members and peers. Additional influential factors on attitudes toward individuals with disabilities include contact, information and communication.

Positive attitudes towards individuals with disabilities have been found to stem from positive interaction with individuals with disabilities and negative attitudes stem from unpleasant interactions with people with disabilities (Hannah, 1988). The
acquisition of information or knowledge has been found to have a positive effect on the attainment of a positive attitude towards individuals with disabilities (Kowalski & Rizzo, 1996). Knowledge can increase an individual’s competence in interaction with individuals with disabilities. Increasing knowledge about people with disabilities among individuals without disabilities can also minimize the amount of stereotypes directed towards individuals with disabilities (Kelly, Sedlacek, & Scale, 1994).

Accordingly communication can also have a significant impact on attitudes towards individuals with disabilities (Evans & Assadi, 2005). It is essential that individuals without disabilities effectively communicate with individuals with disabilities. Enhanced communication has the potential to minimize misunderstandings. “For example the perfectly good intention of a person who is not disabled could be perceived as negative (degrading) by the person with the disability, thus causing the person to respond negatively” (p. 72). When we consider barriers to employment perhaps we should also consider means of minimizing such barriers. Beach and Robinet provide a brief discussion of means of minimizing barriers to employment.

Public awareness campaigns and workshops can be used to minimize barriers to employment (Beach, & Robinet, 1995). These campaigns can be used to highlight the abilities of individuals who are visually impaired. Such campaigns can also provide information about disability legislation, resources and services that can assist employers of individuals who are visually impaired. Similarly, workshops can be utilized in both employment and community settings to assist in the removal of attitudinal barriers towards visual disabilities. The education of individuals with disabilities such as visual
impairments is another means of minimizing barriers to employment (Golub, 2006). We will now turn to a discussion of the literature on education disability.

**Education**

The literature related to the education of individuals with visual impairments centered on the relationship between psychological factors and the successful transition from high school to college and successful college experiences (Beaty, 1994; Martinez & Sewell, 2000a; Martinez & Sewell, 2000b; Roy & McCay, 2002). Other researchers have discussed the educational and vocational outcomes (Kirchner & Smith, 2005) and higher education rates (Hasazi, Johnson, Hasazi, Gordon, & Hull, 1989; Nagle, 2001) of individuals who are visually impaired as well as academic achievement (Preece, 1995; Papalia-Berardi, Hughes, & Papalia, 2002; Klinkosz, Sekowski & Brambring, 2006) and professors’ interaction with college students with physical disabilities (Fichten, Ansel, Bourdon & Creti, 1985) and have been addressed in regards to students with disabilities. There has also been some discussion about Disability Support Services office (Stebnicki, Sibrava & Rice-Mason, 1998), role of Disability Support Service personnel (McCarthy, 2007), reasonable accommodations (Thomas, 2000), the provisions of Disability Support Services (Collins, 2000), and access to text books (Gilson, Dymond, Chadsey & Fang Hsu, 2007).

The discussion of education and disability begins with a brief overview of special education, the accommodations provided to students who are visually impaired by their teachers, the impact of visual impairment on a child’s life and the role of the Individuals with Disabilities Education Act on the education of students with disabilities. Special
education services are services provided to students with disabilities within an educational setting aimed at improving their opportunity for success (Allison & Sanspree, 2009). In order to be eligible for special education services the student must go through a formal evaluation process. “A functional vision evaluation and a learning media assessment” (p. 465) should be conducted as a primary part of this formal evaluation.

The purpose of the evaluation is to determine if the students’ disability has an adverse affect on his or her educational progress and it provides guidelines for instructional planning. Evaluations of students who are visually impaired include: basic academic skills, verbal and non-verbal communication skills, social interaction skills, visual efficiency skills, orientation and mobility skills, independent living skills, and career and vocational skills. The information gathered from the evaluation will be used to develop an Individualized Plan for Education (IEP) for the student. The success of the IEP depends on the appropriate implementation of educational tactics and aids to ensure the student’s educational success. The provisions of the IEP of a student who is visually impaired will be dependent on several aspects of the student’s vision such as acuity, color blindness, age of onset, visual field restrictions, etc.

Corn (2007) reported that all too often teachers of students who are visually impaired overlook or ignore their educational needs. This often occurs when teachers at the secondary level of education believe that the students’ needs cannot or will not be met due to financial restrictions of the local educational agency. The author further argues that educators and administrators often believe that large print materials such as text books are appropriate accommodations to meet the needs of students who are visually impaired.
impaired. While large print materials can be beneficial, students who are visually impaired may require additional educational accommodations to ensure that they have the opportunity to be successful in their educational pursuits. For example, materials that are covered on the board in a classroom may be inaccessible to students who are visually impaired; educators need to ensure that these materials are provided to students in a timely manner so they will be able to keep up with the progress of the class. Teachers may provide students who are visually impaired with a hard copy of the lesson prior to instructing the class. This would potentially enable the student to follow what the teacher is doing on the board by following the lesson that was provided to them.

Visual impairment has an impact on the daily lives of children who are visually impaired. Allison & Sanspree (2009) posits that an ability to maintain “eye contact during speech, smiling at someone in a friendly manner, and reaching out to touch someone nearby” (p. 459) can affect a child’s ability to socially interact with others. This affect on social interaction can lead to loneliness, isolation and low self-esteem. Optical, mobility and technological devices can be used to enhance reading, writing and mobility however it may not be able to enhance the child’s ability to visually receive social cues which limits their opportunity for social interaction.

Children who are visually impaired should begin vocational training at an early age (Allison & Sanspree, 2009). They begin by learning daily living skills related to dressing, eating, cooking, time management and orientation and mobility. These things are seen as having a secondary impact on ones’ ability to work and live an independent
life. The attainment of independence begins at a young age and when it is not obtained, the lack of independence can affect ones’ quality of life.

The IDEA (1997) stipulates that the IEP should include preparation for higher education or vocational training. Such preparation as with all aspects of the IEP should involve the students’ family. When a child is born with a visual impairment the family of the child must consider the implications of the disability. The family is also faced with identifying and addressing the educational needs of the child. The family primarily plays the role of advocate for the child. Advocacy is a primary method by which students who are visually impaired obtain educational accommodations.

The need for reasonable and appropriate accommodations is further supported by Tuncer and Altunay (2006) who state that the acquisition of educational material is essential to the success of all students. Therefore it is vital that students who are visually impaired receive the same degree of access to educational material as their peers in and out of the classroom. The IDEA (1997) “requires that children with disabilities be educated with their peers without disabilities to the maximum extent possible” (p. 118). According to George and Duquette (2006) the majority of children who are visually impaired in the United States and Canada are educated in public classrooms amongst their peers who do not have visual impairments. George and Duquette (2006) came to this conclusion after a review of the literature and a case study on the psychosocial experience of a student with low vision. The study explored the students’ social succeed in his school and community. The authors also presented readers with a model for social inclusion of individuals who are visually impaired. This further emphasizes the need for
the improvement in services college students with visual impairments receive in terms of accessing higher education. The discussion under the post secondary heading begins with a discussion of the transition of students with disabilities from high school to college.

**Post Secondary Education.**

Several researchers have examined the transition of students with disabilities from high school to college and successful college experiences (Beaty, 1994; Marinez & Sewell, 2000a; Martinez & Sewell, 2000b; Roy & McCay, 2002). A qualitative study examining the self-concept of 38 college students (19 visually impaired and 19 sighted) was conducted by Martinez and Sewell (1996). The authors’ assumption stated that students who were visually impaired had lower levels of self-concept.

The findings of this study demonstrated that individuals who were visually impaired did have lower self-concept levels than their sighted peers. According to the Tennessee Self-concept Scale individuals who are visually impaired had a mean of 334.32 on the total positive scale and individuals who were sighted had a mean score of 341.32. On the Physical Self Scale individuals who were visually impaired had a mean score of 62.95 and their sighted peers had a mean score of 65.26. On the Moral/Ethical Self Scale individuals who were visually impaired had a mean score of 70.367 and their sighted peers had a mean score of 71.79. On the Personal Self Scale participants who were visually impaired had a mean score of 64.95 and their sighted peers had a mean score of 66.63. On the Family Self Scale individuals who are visually impaired had a mean score of 69.42 and their sighted peers had a mean score of 69.11. On the Social Self Scale individuals who were visually impaired had a mean score of 36.21 and their sighted
peers had a mean score of 35.58. On the Critical Self Scale individuals who are visually impaired had a mean score of 35.47 and their sighted peers had a mean score of 35.58. According to Martinez and Sewell there are two potential reasons for these findings: only individuals who are visually impaired have high levels of self-concept attend college and the students’ level of maturity minimizes their concerns about the opinions of others.

Beaty (1994) conducted a study in which he examined the influence of personal characteristics and their impact on college success among college students with and without disabilities. The findings of the study conducted by Beaty indicated that there was no difference in psychosocial adjustment and social provisions among students with and without visual disabilities. Students with visual disabilities were found to have higher scores on self-esteem and GPA.

Roy and Mackay (2002) conducted a study examining self perception and locus of control among 16 college students with visual disabilities. The participants were considered to be successfully transitioning from high school to college. Roy and Mackay sought to determine how the students’ perception on the effects of visual impairment affected the manner in which they viewed themselves.

The findings of the study conducted by Roy and MacKay (2002) indicated that participants generally referred to themselves positively. The authors posited that this finding points to high self-esteem and feelings of well being among participants of the study. Another finding of the study indicated that participants who were experiencing deteriorating vision made were found to make negative self references. More specifically
the authors stated that six of the eight participants with deteriorating vision made
negative self references as compared to two of the eight participants with stable vision.

Martinez & Sewell (2000a) conducted a study in which they examined predictors
of college performance among students with disabilities such as visual impairments. The
study contained 38 disabled and nondisabled college students. The results of the study
indicated that there is a negative correlation between pessimism and GPA, meaning, as
pessimism increases GPA decreases. Pessimism was also found to be negatively
correlated with goal efficacy.

Kirchner and Smith (2005) wrote an article based on the findings of the 1994-
1995 National Health Interview Survey-Disability Supplement (NHIS-D) and the
National Longitudinal Transition Study (NLTS, n.d.). The NLTS n.d. focused on the
educational and vocational outcomes of individuals who are visually impaired. The study
found a high disparity rate among the higher education of students who were visually
impaired compared to those with different disabilities and those students without
disabilities. The NHIS-D which explored the employment issues of people with
disabilities showed that individuals who were visually impaired had higher levels of
employment with higher levels of education.

Kirchner and Smith (2005) stated that although the National Health Interview
Survey Disability Supplement (NHIS-D) statistics are reliable and valid, they do not
necessarily represent the achievement of individuals with congenital visual disabilities.
This study reported that the level of education that individuals who are visually impaired
receive is comparable to the level of employment they are able to reach. One
imperfection of this report as identified by Kirchner and Smith is the focus on individuals who had acquired visual impairments prior to receiving formal education and vocational experience. Hasazi et al (1989) and Nagle (2001) discussed the higher education attainment levels of individuals who are visually impaired.

Hazasi, et.al, (1989) conducted a study to explore the employment status, employment training and history, social service utilization, residential status, educational history, age, and community demographics. The purpose of the study was to compare the post high school vocational experience of youth with and without disabilities in an attempt to identify the factors associated with the vocational experiences of students with disabilities after high school. The authors utilized a sample of 133 students from eleven Vermont school districts. Sixty seven of the student participants had a disability and sixty-six of the participants did not have a disability. The students fell into one of the following categories: 1) graduated, 2) left school prior to the age of eighteen without graduating, 3) left school after the age of eighteen without graduating. The first limitations of the study stemmed from the fact that the study was only conducted in one state. Therefore, the results of the study may not be generalizable to the rest of the United States population. The second limitation is rooted in the fact that the study did not examine socioeconomic status and its impact on vocational outcome.

According to Hasazi, et al. (1989) and Nagle (2001), while more than 50% of nondisabled students participate in higher education, less than 15% of students with disabilities attend college. Low levels of higher education among individuals who are visually impaired are not unique to the United States. As stated previously, less than 16%
of those who enroll for college/university facilities have a diagnosed visual impairment (Hasazi, Johnson, Hasazi, Gordon, & Hull, 1989; Nagle, 2001). Preece (1995) compiled research in Britain and Klinkosz, Sekowski and Brambring (2006) conducted their study in Poland. Accordingly the National Center for Education statistics in a study conducted by Horn and Berkfold (1999) found that 6% of students reported having a disability, 16% of these students reported having a visual disability.

Enrollment of students with disabilities into colleges and universities has continually increased over the past two decades (Conyers, Enright & Strauser, 1998; Thomas, 2000). A variety of researchers have explored the factors that contribute to the success of college students who are visually impaired. Monahan, et al, (1978) conducted a longitudinal study over a period ten years which focused on prospective college students who were visually impaired at Florida State University. Two hundred students were evaluated on personal characteristics and skills such as motivation, anxiety, social interaction and others. Upon the analysis of this data Monahan determined that 78% of the students had academic potential to succeed in college. After a ten year period he conducted a follow up survey using 97 of the original students. Upon analysis of the follow up data Monahan found that 25% of the students graduated from college, while 32% dropped out of college. The findings of Monahan’s study were similar to the general statistics presented today for college student who are visually impaired (Statistics and Sources for Professional – American Foundation for the Blind, 2008).

With this understanding of the levels of high education attainment in mind let us now turn to academic achievement among individuals with disabilities which has been
explored by several authors (Preece, 1995; McBroom, 1997; Klinkosz, Sekowski & Brambring, 2006). McBroom (1997) conducted a study with 102 visually impaired college students in an effort to determine the skills knowledge and steps needed for students who are visually impaired to attend college and complete course requirements. The participants of this study identified steps that could be employed by students with visual disabilities that enhance their potential for success in college. Among these recommendations were: the early ordering of textbooks, early campus mobility training, attending college orientation and preparation programs, the identification of appropriate housing, a working relationship with Disability Support Service personnel, and preregistration as well as the communication of the students’ needs to his or her professors. The final result of the study conducted by McBroom (1997) stated that the participants of the study were full time students, maintained a B+ average, had work experience, and engaged in extracurricular activities on a regular basis. McBroom did not discuss any limitations to her study.

Klinkosz, Sekowski and Brambring (2006) conducted a study that compared the academic achievement of Polish college students with and without disabilities. The study also analyzed the difference between certain personality traits and its impact on the students’ academic achievement, 105 students with visual impairments were recruited to participate in the study, 37 of the students were completely blind and 68 of them had low vision. The findings of the study indicated that academic achievement did not prove to be higher among students who were visually impaired. The findings of the study also
indicated that personality traits openness to experience was found to be a good predictor of vocational interest and educational success.

The results of the study demonstrated that individuals who attain a disability early in life are less likely to achieve professional and higher qualifications as an adult (Preece, 1995). The author found both attitudinal barriers and practical access issues affected the course attendance of individuals with disabilities. The author also explored integration, self-worth, empowerment and consultation in regards to educational attainment and found that the participants expressed both negative and positive experiences. One limitation of the study as identified by the author is the small sample size; this limited the generalizability of the findings of the study. The author also noted that the study did not include adults from minority ethnic backgrounds, thereby further hampering the generalizability of the findings across cultures.

Klinkosz, Sekowski and Brambring (2006) identified four limitations of the study. The first is centered on the possibility that the students who participated in the study may have had good academic grades and sufficient self confidence to participate in the study. The second limitation is centered on the low level of variance among the students’ grades which limited the authors’ ability to interpret any group differences. The third limitation of the study is also linked to the low level of variance in the students’ grades, which also limited that authors' ability to analyze the student differences more closely in terms of the cause of their visual disability. The fourth and final limitation of the study presented by Klinkosz, Sekowski and Brambring was the fact that the assessment of personality traits...
was not standardized, meaning the assessment had not previously been used to assess the personality traits of individuals with visual disabilities.

Preece (1995) conducted a study aimed at highlighting the educational disadvantages experienced by adults with disabilities. To do so she interviewed 44 adults with physical disabilities in North West of England. The author’s intent was to obtain their opinions of education, their reasons for and against participating in education and their recommendations for the possible improvements. Conducted a study aimed at highlighting the educational disadvantages experienced by adults with disabilities.

Preece’s (1995) findings indicated that some adults “were still struggling both with existing provisions and the experience of their early education” (p. 99). Preece also identified attitudinal issues related to disability awareness and she stated that these needed to be addressed at both the institutional and individual levels through the implementation of policy. She emphasized this point by stating that different levels of educational institution faculty and staff should be educated about the needs of individuals with disabilities. The educational achievement of individuals with disabilities can also be impacted by the interaction with their professors (Fichten, Ansel, Bourdon & Creti, 1985).

Fichten, Ansel, Bourdon and Creti (1985) conducted a study that integrated the nature of interaction behaviors between college and university professors and students with physical disabilities. The study had a total of 128 participants; 37 of which were college and university students with disabilities. 74 were college and university professors who previously taught students with disabilities, and 17 were college and university professors who had not taught students with disabilities.
The results of the study presented by Fichten, Ansel, Bourdon and Creti (1985) indicated three primary findings. The first finding indicated that 75 percent of college and university professors in Montreal previously had the experience of teaching students with disabilities. The second finding indicated that professors were more comfortable working with students without disabilities as opposed to students with disabilities. The third and final finding of the study indicated that professors who had previous experience teaching students with disabilities were more interested in teaching these students.

The potential for educational success can be hampered by faculty members who are not sufficiently equipped to work with students with disabilities, such as visual impairment (Fichten, Amsel, Bourdon, & Creti, 1988). Furthermore, relationships between students with visual impairment and their instructors can further be impacted by “professors’ negative attitudes towards people with disabilities, apathy, and the fear of dealing with unfamiliar problems” (Fichten, et al. p13). Such difficulties were evident in the late 1980s when Fichten, Amsel, Bourdon and Creti conducted their study.

Disability-related legislation since then has significantly impacted the education and training of educators. Instead of being reluctant to work with a student with a disability, many professors are becoming more open-minded towards their students’ needs. A result of such legislation has been the improvement of services and accommodations provided to students with disabilities by colleges and universities (Hutto & Thompson, 1995). The provision of educational accommodations has improved the enrollment levels of students who are visually impaired.
The paper presented by Papalia-Berardi, Hughes, & Papalia (2002) examine factors that affect the participation and achievement of students with disabilities in teacher preparation programs. The paper examined three key concepts related to students’ participation and achievement in teacher education programs. The first was a discussion of federal rights legislation and its impact on student’s involvement in higher education. The second was a discussion on the implementation of legislation and its specific impact on teacher education programs. The third discussion on legal mandates and issues affecting admission, performance of essential teaching functions, the provision of accommodations, and the accessibility of students with disabilities to teacher education programs. In addition to achievement and faculty roles, another component that has been found to have an impact on the experience of students with disabilities in college is the state rehabilitation agencies and Disability Support Service offices.

**Disability Support Services Office**

When students decide to pursue higher education, they may be provided with financial support from a state rehabilitation agency (Bagnato, 2004). The rehabilitation agency’s responsibility is to provide orientation and mobility training if it is deemed necessary. They may also provide funding for the students’ education if they meet the financial requirements of the organization. The rehabilitation agency may also provide additional services such as readers, note takers and other technological accommodations if these services are not provided by the college/university. Under section I & II of the ADA (1990) colleges/universities are obligated to provide students with disabilities with reasonable accommodations that is needed for the individual to have equal access to
education. Examples of reasonable accommodations include; 1) extended time on exams, 2) substitution of degree requirements, 3) course instruction adaptations, 4) audio recordings of classes, 5) note takers, 6) readers, 7) audio textbooks and 8) Braille materials (Papalia-Berardi, Hughes, & Papalia, 2002).

At the college or university level, students with visual impairments are solely responsible for seeking accommodations from their college or university. The provision of accommodations at the college and university level for students with disabilities is supported by Section 504 of the Rehabilitation Act. This legislative act states that “no other qualified…individual [with a disability] in the United States, shall solely by reason of their disability, be excluded from participation in, be denied the benefit of, or be objected to discrimination under any program receiving federal financial assistance” (The Rehabilitation Act, 1973 Section 504).

During elementary and secondary education students with disabilities are made to depend on parents, teachers, doctors and others who are responsible for arranging the students’ accommodations (McCarthy, 2007). This practice tends to limit the student’s ability to advocate for him or herself independently. It should also be noted that students with disabilities are required to advocate for themselves at the college/university level.

Thomas (2000) reviewed Section 504 of the rehabilitation Act and the Americans with Disabilities Act. The author identified and discussed the criteria for determining if a student is disabled and qualified for reasonable accommodations through the college or university office of Disability Support Services. The author presented discussion about the areas of admission, accommodation and dismissal and reviewed the guidelines for
professors and administrators working with students with disabilities to ensure that they received nondiscriminatory access to higher education.

Thomas (2000) reported that college enrollment of students with disabilities increased from 2.6% in 1978 to 9% in 1998. The AFB (2008) reported that approximately 24% of individuals who are visually impaired attend college, and more importantly, only 16% of that 24% obtain a college degree. Enrollment and matriculation of students who are visually impaired should be a major concern for college and university administration and faculty because they are the gatekeepers and providers of higher education. Without the support and cooperation of college/university faculty and administration, students who are visually impaired may find their academic pursuits unobtainable. Additionally, including students with disabilities in college and university settings promotes diversity and it complies with legislative requirements for equal opportunity of education.

Much of the existing literature on Disability Support Services on college and university campuses has been directly related to students with learning disabilities (Barnett, 1993; Gregory, 1993; Mellard & Byrne, 1993; Turchi, 1994; Bigaj & Shaw, 1995; Yocom, & Coll, 1995; Foot, 1998; Bourke, Strehorn, & Silver, 2000; McCleary-Jones, 2008; Murray, Flannery & Wren, 2008). While these studies focus on students with learning disabilities many of their findings can also be used to benefit students with visual disabilities. It may also be feasible for some of their studies to be replicated with a specific focus on students with visual disabilities. An example of one such study that could potentially be replicated with a focus on students with visual disabilities is the study presented by Bigaj and Shaw (1995).
Bigaj and Shaw (1995) conducted a study with the purpose of gaining an overall understanding of services provided by two and four year postsecondary institutions to students with learning disabilities. A survey of examining the learning disabilities services practices was sent out to 694 postsecondary learning disabilities service providers at varying institutions. The mailing of the surveys yielded a 72% response rate for a total of 503 returned surveys. The survey examined respondent demographics which included: 1) years of experience working with students with learning disabilities at the postsecondary level, 2) educational degree, and 3) primary educational background. The survey also examined institutional demographics which included: 1) type of service offered, 2) the number of students with learning disabilities served in a program and 3) the size of postsecondary institution.

The findings of the study conducted by Bigaj and Shaw (1995) indicated that 66% of two year institutions and 67% of four year institutions identified their type of learning disability services offered at their institution are centrally coordinated. Centrally coordinated services are those with a full time learning disability coordinator. Many of the two and four year coordinators had master’s degrees in varying fields such as special education, counseling, rehabilitation, psychology, higher education, elementary or secondary education, etc. A second finding indicated that more students were found to be in learning disability programs at two year college. A third finding indicated that the service delivery practices between two and four year practices were found to be similar. The fourth and final finding of the study presented by Bigaj and Shaw learning disability
services at two and four year institutions provided remediation and content tutoring services to students in an effort to assist students in being successful in their courses. One limitation of the study identified by Bigaj and Shaw (1995) was the generalizability of the study. The majority of participants in the study were from professional organization (the Association on Higher Education and Disability); while an attempt was made to include participants who were not part of this organizations. Their representation was not significant. A second limitation was the authors concern about the reliability of the respondents’ subjectivity in responding to the items on the survey. A third and final limitation of the study was associated with the lack of agreement of the definition of terms on the part of the responded. In an effort to address this limitation the authors provided definitions in the survey. For instance, the authors provided the definition of self advocacy skills.

Additional literature related to Disability Support Services provided to college students expanded in to several areas. Areas of discussion included: the most beneficial accommodations provided to students with disabilities (Graham-Smith & Lafayette, 2004), the rates at which students with disabilities seek assistance (Trammell & Hathaway, 2007), students’ perception of the accommodation process (Kurth & Mellard, 2006), Criteria for students with disabilities to receive accommodations through the office of Disability Support Services (Thomas, 2000), the type, frequency and support of disability awareness activities that are available to college and university students, faculty and staff (Stebnicki, Sibrava & Rice-Mason, 1998), self advocacy in seeking accommodations (Papalia-Berardi, Hughes, & Papalia, 2002), and the role of faculty
(McCarthy, 2008). This portion of the discussion of Disability Support Services begins with the accommodations that students found to be the most beneficial.

Graham-Smith and Lafayette (2004) conducted a study with the purpose of determining the most beneficial accommodations according to the students receiving these accommodations. The participants of the study were 71 students with disabilities who were receiving services from the Office of Access and Learning Accommodations. There were … finding of this study. The first finding of the study conducted by Graham-Smith & Lafayette (2004) indicated that 14 respondents stated that they found counseling meetings to be most beneficial to them. Counseling meetings included such things as assessment in a variety of areas including cognitive, academic, communication, community life, social skills, employment, leisure, and adaptive behavior domains. The second finding of the study indicated that 23 students reported that caring people were important component to them. They reported that having caring people to listen and understand is a vital component for the academic success of students with disabilities.

The third finding of the study conducted by Graham-Smith & Lafayette (2004) indicated that 12 students believed that extra time on their tests was an essential accommodation that was vital to their academic success. The fourth finding indicated that 16 respondents stated that taking their test in an environment outside of the classroom was a beneficial accommodation to them. An alternate location for test can be a quiet room or alternate means of test administration that allows the students to answer questions in another manner other than writing. A fifth finding indicated that 19 students reported that the found time management mentoring to be beneficial.
The sixth finding identified by Graham-Smith & Lafayette (2004) indicated that 15 respondents study skills training and tutoring were key components to their academic success. A seventh and final finding of this study indicated that eight students reported that early registration was beneficial to them. This allows for the early ordering of alternative/accommodative materials that students with disabilities may need for their courses. The authors did not identify any limitation to their study.

Trammell and Hathaway (2007) conducted a study to determine if students with disabilities seek out assistance in higher rates than students without disabilities. The authors also sought to determine if there was a difference between males and females, if there is a difference among disciplines. The authors interviewed 21 full-time and part-time professors in varying disciplines at Randolph-Macon College, a private Liberal Arts college in the Mid Atlantic.

The findings of the study indicated that students without disabilities and students with disabilities visited their professors for assistance at an approximately equivalent rate. Students with disabilities visited the professor at an average rate of 2.11; while there nondisabled peers visited their professors for assistance at an average rating of 2.25 visits. The results of this study also indicated that freshman sought the most assistance (129 visits) from professors and sophomores sought the least help (77 visits) from their professors.

Limitations as identified by Trammell and Hathaway (2007) included the limited amount of students who sought assistance. The 185 students who were represented in the study only accounted for 16.1% of the student population at Randolph-Macon College.
Another limitation may have been in the assignment of students’ motives for seeking assistance, as the motives were selected by the professors they visited not the actual student seeking assistance. A final limitation of the study as identified by the authors in an increase in population among students with learning related disabilities.

Kurth and Mellard (2006) conducted a study to determine college students’ perceptions of the accommodation process and its effects on participation in higher education for students with disabilities. The participants of the study were 108 students with disabilities who were enrolled in community or technical college who were also receiving services from the office of student support services. The findings of the study were separated into two primary sections satisfaction with the process of accommodation and important factors in selecting accommodations.

The first finding of the study conducted by Kurth and Mellard (2006) indicated that confidentiality about disability was rated the highest at 4.34 out of 5 (likert scale where 1 was not at all satisfied and 5 was very satisfied) and the way in which the students’ disability was discuss with him or her was rated lowest at 4.04 out of five. The process used in selecting an accommodation for me (4.08), the accommodation provided for me (4.18) and the effectiveness of my accommodation (4.10) were also rated fairly high. In regards to the second area of findings that authors stated that there were 12 factors that students considered to be important in the selection of accommodations, they included: 1) effectiveness of accommodation, 2) availability of accommodations, 3) increased independence, 4) ease of use, 5) your disability, 6) appropriateness for different tasks, 7) cost of accommodation to you, 8) social acceptance, 9) your own previous use of
the accommodation, 10) amount of training required, 11) cost of your accommodation to your college, and 12) currently or previously used by a student. Effectiveness of accommodation was rated highest among these factors with a mean of 4.69, other factors such as cost to student or college, social acceptance and training were also rated highly.

The authors did not discuss any limitations to their study.

Collins (2000) presented an article that described barriers experienced by young adults with psychiatric disabilities in post secondary education and how they navigate these barriers. Students’ participation in Disability Support Services is a voluntary occurrence (Collins, 2000). Students are not required to disclose their disability to Disability Support Service personnel. However, if a student requires academic assistance or accommodations, the student will be required to disclose his or her disability in order to receive these services. Upon provision of appropriate documentation confirming the students’ disability, services will be provided. All the information concerning the students’ disability is kept confidential.

The Disability Support Services personnel may provide the student with letters to give to each of their instructors. “This letter often informs the instructor(s) that the student is registered with the office as a student with a disability and possible functional limitations that may impede efforts in the classroom or require an accommodation” (Collins, 2000, p. 37). However, the letter does not contain detailed information about the students’ visual impairment nor does it contain the effects or limitations of the students’ visual impairment. Therefore, it is up to the student to explain the complications of his or her visual impairment to instructors who are often unfamiliar with such issues.
Stebnicki, Sibrava and Rice-Mason (1998) conducted a survey of all program coordinators of college and university Disability Support Service offices across the United States which offered Rehabilitation Counseling programs at the graduate or undergraduate level. The purpose of the study was to obtain information related to the type, frequency and support of disability awareness activities that are available to college and university students, faculty and staff. Participants were recruited from a total of 93 colleges and universities. The study investigated the type of disability activities that took place among students, faculty and staff. The study also investigated the financial resources for such disability activities.

As a result of the study Stebniicki, Sibrava and Rice-Mason (1998) found that the most commonly occurring disability activities were panel discussion groups, seminars and outside guest presenters. It was also determined that faculty and administrators had very little knowledge about disability accommodation and there were very little financial resources being directed to disability awareness activities. The researchers also determined that disability awareness activities were being attended more frequently by students as opposed to faculty and staff. One limitation of the study as identified by the authors centers on the participants. While the research sample was selected from regions all over the country, the researchers only recruited participants from college and universities that had rehabilitation counseling programs.

In addition to faculty training and education Papalia-Berardi, Hughes and Papalia (2002) recommend that students with disabilities should also participate in training. Training should assist students with disabilities in developing self advocacy and
interpersonal skills, as well as providing disability and legislative education. Disability Support Service personnel can play a significant role in the education, vocational and social achievement of students who are visually impaired (McCarthy, 2007). Disability Support Service personnel are not just providers rather they are companions that are accompanying students with disabilities on their journey through college. They are people who can validate the students’ feelings of isolation and confusion while assisting them in overcoming the challenges they may encounter. It is essential for Disability Support Service personnel to view students with disabilities in a holistic manner because the challenges they face are not limited to academics and accessibility (Carrol & Bown, 1996). They also face social and cultural challenges (Wright, 2007). Carrol and Bown (1996) presented an article that discussed the ways in which the philosophy of rehabilitation counselor which could be utilized to assist the Disability Support Service offices to provide comprehensive services.

Disability Support Service personnel are also educators that provide students with information concerning identity development and self advocacy. In this role of educator, Disability Support Service personnel are not just teaching they are also participating in mutual learning (McCarthy, 2007). Mutual learning is beneficial to both the student and the disability personnel as each student is different and faces unique challenges and this allows them both to explore the students’ needs and experiences. Disability Support Service personnel can further the students’ self development by assisting the student in determining what is difficult as a result of a disability and what is difficult as a result of challenge is important in learning. When students make these realizations disability
personnel can also work with students to enhance their knowledge and self advocacy skills. A vital part of the disability personnel-student relationship is the recognition that it is essential for the Disability Support Service personnel to reinforce the notion of self advocacy throughout the student’s academic journey.

Students who are able to advocate for themselves are often more successful in obtaining accommodations independently. Students with well developed self advocacy skills are more likely to be proactive in seeking out services and accommodations (Papalia-Berardi, Hughes, & Papalia, 2002). These students are often well educated in terms of their legislative rights as put forth by Section 504 of the Rehabilitation Act and the ADA. They may also have a clear understanding of their disability and are able to clearly articulate their academic needs to their instructors and other education professionals. Conversely students who lack self advocacy skills often experience difficulty requesting and obtaining accommodations. Students lacking self advocacy skills are often less knowledgeable about their disability and are less familiar with legislative mandates on educational institutions. Self advocacy skills can also aid students in obtaining resources that can assist them in their educational pursuits. A discussion of resource availability and its impact on the education of students who are visually impaired now follows.

Resource availability and accessibility can also impact students’ ability to achieve academic success (Papalia-Berardi, Hughes, & Papalia, 2002). For example, textbook publishers are not mandated to provide accessible textbooks that would be used by students who are visually impaired (Gilson, Dymond, Chadsey, & Fang Hsu, 2007). The
Individuals with Disabilities Education Act does however mandate publishers to provide electronic textbooks for K-12 students. While this is beneficial for students with disabilities, it does not assist students with disabilities such as visual impairment at the college/university level. Several states have however passed textbook legislation for postsecondary institutions that requires the college or university to provide students with “print disabilities” with electronic versions of their textbooks. Students with “print disabilities” are those students who are unable to read print materials and require alternative materials such as books on tape and electronic documents in order to access print materials. States such as New York and Kentucky have passed the legislation to assist students with visual impairments. While this is beneficial to students with disabilities it is not yet mandated on a national level, therefore, its impact is limited.

Gilson, Dymond, Chadsey and Fang Hsu (2007) conducted a study with the purpose of exploring the experiences of students who are visually impaired in terms of their access to textbooks for college courses. The authors recruited 119 participants who were visually impaired through two national listservs linked to the National Alliance of the Blind and the National Association of Blind Students. The authors did not specify the parameters of visual impairment and it is difficult to speculate as the organizations referred to above served individuals who are both partially sighted and completely blind.

In the results of the study students expressed a need for the following; faster access to textbooks, different formatting for electronic versions of text books, changes to text book structure and improvement of text book services received from college and university Disability Support Service offices (Gilson, Dymond, Chadsey & Fang Hsu,
One limitation of this study was the fact that it was an online survey. Students who were not computer savvy may not have been able to participate in the study, additionally; students who were not subscribing to the National Alliance of the Blind and the National Association of Blind Students listservs may not have received the email recruiting participants for the study.

When accessible textbooks are not provided by publishers the responsibility of ensuring that students who are visually impaired have access to their textbooks is relegated to the office of Disability Support Services (Gilson, Dymond, Chadsey, & Fang Hsu, 2007). To fulfill this responsibility Disability Support Service personnel provide students with either audible or enlarged copies of the materials in their textbooks. As the influence of technology continues to impact the world of education Disability Support Service personnel have began to scan text materials for students who are visually impaired. All of the above mentioned methods of making textbooks accessible are considerably time consuming and are not always available to students in minimal time frames. When students are unable to receive reading materials for their courses in a timely manner, their ability to successfully complete their course work and actively participate in their classes is hampered.

In order to ensure the proper provision of appropriate accommodations Papalia-Berardi, Hughes and Papalia (2002) suggested faculty training to promote understanding of disabilities and their potential effects on students’ education. Such training can also assist faculty in understanding the role they play in the education of students with disabilities and the requirements of disability legislation. It is vital that university
administrators comprehend the ongoing challenges faced by students with disabilities (Stebnicki, Sibrava, & Rice-Mason, 1998). Training and awareness activities are investments that may promote the decrease of attitudinal barriers faced by students with disabilities while increasing the support of students with disabilities in the university community.

Szymanski, Hewitt, Watson and Swett (1999) conducted a study with the purpose of describing the importance of Disability Support Services as well as the expectations for students’ verification and communication. The participants of the study were 240 faculty and 119 instructional academic staff from a Midwestern research university. There were two primary findings of the study.

The first finding of the study conducted by Szymanski, Hewitt, Watson and Swett (1999) indicated that the office for Disability Support Services was found to be somewhat important on a scale of one to five. Three services provided through the Disability Support Services office were identified as the most important. These included: disability related services (provision of note takers), the office’s assistance with resolving accommodation related problems and the recommendation of appropriate accommodations. The least important service was testing services.

The second finding of the study was that students’ verification of their accommodation was most important to students with learning and psychiatric disabilities than to students with physical and sensory disabilities. The need for students to speak directly to their accommodation needs was found to be moderately important. The findings of this study provided a general concept of what university faculty and staff
found to be most important to students with disabilities in regards to the accommodations they receive.

Carrol and Bown (1996) called for the application of rehabilitation philosophy into Disability Support Services. Carrol and Bown believed that rehabilitation philosophy would aid Disability Support Service personnel in helping students increase their functionality in all areas of their lives. When working with students with disabilities such as visual impairment, Disability Support Service personnel should place a significant amount of emphasis on areas such as self advocacy, access to adaptive equipment, peer support and other factors that may impact the student’s psychosocial adjustment to their disability. As such assistive technology is a significant part of the education process for students who are visually impaired.

**Assistive Technology**

Assistive technology is a vital part of the lives of individuals with disabilities (Brodwin, Star & Cardoso, 2007). Assistive technology can play a role in the social, vocational, and educational aspects of a person’s life. Assistive technology presents individuals with disabilities with the opportunity to increase their self sufficiency, allows for greater independence, enhances employment opportunity and increases access to mainstream society, which in turn decreases functional limitations. The definition of Assistive Technology according to the Technology-Related Assistance of Individuals with Disabilities Act of 1988 is “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain or improve functional capabilities of individuals with disabilities”
Allison & Sanspree (2009) states that “technology has the potential to equalize opportunity and enhance functionality of students with visual impairments” (p. 477). Students should be allowed the opportunity to access material in the unique manner that works best for him or her. The provision of assistive technology to students who are visually impaired is a means of providing them with the opportunity to be as independent as their sighted peers. Types of Assistive Technology that is commonly used by individuals who are visually impaired include; Screen Magnifiers, Video Magnifiers, Synthetic Speech, Optical Character Recognition (OCR), Global Positioning Satellite (GPS) System, Braille Writer, Braille Embosser and Braille Translator (Garcuilo, 2009).

Screen Magnifiers are software that is used to enlarge text on a computer screen. Examples of Screen Magnifiers include ZOOMText and inLARGE (Allison & Sanspree, 2009). Video Magnifiers are hardware that projects an image into a video monitor, an example of a Video Magnifier is a Closed Circuit Television (CCTV). Synthetic Speech is software that translates text into speech. Examples of this software include JAWS and Window-Eyes. OCR allows users to scan printed materials and have it saved as a document or translated to synthesized speech. The Kurzweil Reader and Open Book are examples of OCRs.

GPS Systems are available in both hardware and software. An example of hardware GPS System is Trekker (Allison & Sanspree, 2009). Trekker “is an orientation tool that determines position such as intersections and allows one to plan routes by
communicating with satellites in Earth’s orbit” (p. 478). A Braille Note GPS system is software that allows the user to develop routes in their environment. All these different forms of assistive technology are used by individuals who are visually impaired to enhance their independence.

Consumer organizations such as the National Federation of the Blind (NFB) have continually sought for technological accessibility for individuals who are visually impaired and blind. In collaboration with the American Council of the Blind (ACB) NFB filed a lawsuit against Arizona State University (Kindle Lawsuit Settle, 2010). The suit was filed in 2009 after the university launched “a pilot program to distribute electronic textbooks to students via the Kindle DX. The Kindle DX was not found to be fully accessible to students who were visually impaired and blind. The suit was filed and settled in favor of the ACB and the NFB, with the university agreeing to refrain from utilizing the Kindle until it was fully accessible to students with disabilities.

In an effort to achieve technological accessibility the NFB also filed suit against Target in 2006 (Target.com Website Accessibility Law Suit Settled, 2008). The suit “claimed that Target.com was inaccessible to individuals with visual impairments, a violation of the Americans with Disabilities Act” (p. 661). The suit was settled in 2008. As part of the settlement Target agreed to make their website accessible to individuals with visual impairment and the NFB occasionally reviews the website to ensure that it is accessible.

Thus far we have discussed literature related to the employment, education and assistive technology as it related to individuals with disabilities. These discussions have
included 13 areas: 1) the characteristics that lead to successful employment, 2) barriers to employment, 3) federal policies and programs, 4) the impact of disclosure, 5) attitudes towards disability, 6) the successful transition from high school to college and successful college experiences, 7) educational and vocational outcomes, 8) post high school vocational experiences, 9) academic achievement professors interaction with college students, 10) the Disability Support Service office, 11) the role of Disability Support Service personnel, 12) reasonable accommodations, access to text books, and 13) assistive technology. The discussion of the literature now turns to the psychosocial adjustment to disability.

**Psychosocial Adjustment to Disability**

With the presentation of educational and vocational considerations as well as assistive technology completed it is not essential to address the psychosocial aspects of disabilities as they do play a role in educational and vocational attainment (Beaty, 1994; Marinez & Sewell, 2000). A discussion of the psychosocial aspects of and adjustment to visual impairment is presented by several researchers (Dodds & Ferguson, 1994; Beach & Robinet, 1995; Davis & Lovie-Kitchin, 1995; Conrod & Overbury, 1998; Kef, 2002). The discussion of the psychosocial aspects and adjustment to disabilities begins with the definition of adjustment (Lifshitz, Hen, & Weisse, 2007).

Personal adjustment is considered to be the organization of one’s self, and behavior that is associated with the individual’s personality (Lifshitz, Hen, & Weisse, 2007). Personal adjustment is closely related to social adjustment. Social adjustment is thought to be the structure and relationship between an individual and his or her social
environment. The relationship between personal adjustment and social adjustment is best emphasized through the entro-spective approach which states that self-concept derives from social interaction and society’s reaction to the individual. According to the entro-spective approach personal perception is rooted in an individual’s attributes, values and interpersonal relationships (Lifshitz, Hen, & Weisse, 2007).

The comprehension of psychosocial factors that relate to the adjustment to disability is vital due to the fact that the severity of disability is not a good measure or predictor of the problems a person with a disability may encounter (Davis & Lovie-Kitchin, 1995). Davis and Lovie-Kitchin conducted a study in which they examined the psychosocial adjustment to Age Related Macular Degeneration (ARMD). The researchers sought to confirm two hypotheses; the first” Low vision because of ARMD is associated with poorer psychosocial adjustment” (p.18) and the second hypothesis “Self-esteem, physical health, social support, and functional capacity each correlate positively with psychosocial adjustment, whereas duration of vision loss correlates negatively with psychosocial adjustment” (p. 18).

Davis and Lovie-Kitchin (1995) conducted a study with 30 elderly persons between the ages of 67 and 96. Twenty of which were women and ten of which were men, all of whom experienced vision loss due to ARMD. The authors reported eight findings of this study.

The first finding of the study determined that low vision related to ARMD was associated with poor life satisfaction and increased stress (Davis & Lovie-Kitchin, 1995). This finding implied that the participants’ social support were insufficient in regards to
minimizing stress. Secondly, the authors found participants with ARMD reported more daily hassles than the control group. Thirdly, self-esteem and reported hassles were found to be correlated. The authors posited that activities of daily living that induce stress may negatively impact a participants’ self-esteem. Fourthly, the researchers found that individuals with ARMD who lived alone were more independent. The authors posited that this may have been due to and increase need for self care.

A fifth finding of the study by Davis and Lovie-Kitchin (1995) indicated that individuals with ARMD were found to have more difficulties with mobility that did the control group. Mobility was found to have a negative correlation with daily hassles, meaning, as daily hassles increased, mobility decreased. The authors posited that decrease in mobility may be due to other factors outside of the onset on ARMD, such as, arthritis and back pain or other unknown factors. A sixth finding of the study indicated that individuals with ARMD reported participating in fewer daily activities. The seventh finding of the study indicated that 37% of individuals with ARMD were not familiar with the cause of their vision loss. The authors posited that this may have been due to a failure to absorb information relayed during the diagnosis due to shock and the possible complexity of the situation at the time of onset. The authors did not directly address any limitations of their study.

The eighth and final finding of the study presented by Davis and Lovie-Kitchin (1995) indicated that the majority (47.6) of participants with ARMD reported utilizing reading devices such as magnifiers frequently. It was also found that more than half of the participants with ARMD (28.6) were dissatisfied with their reading devices. In their
conclusion Davis and Lovie-Kitchin (1995) stated that the results of the study indicated that rehabilitation had not proven to be beneficial to individuals with long-standing ARMD. The authors further stated that more appropriate measures of psychosocial adjustment need to be developed for persons with age-related vision loss.

Dodds and Ferguson (1994) conducted a study which explored the loss of vision from a cognitive view point. The authors reported the relationship between psychological factors (anxiety, depression, self-efficacy, locus of control, acceptance of sight loss, attitude towards blind people, attributional style and self-esteem) that are apparent in consumers who were receiving assessment and rehabilitation. The study consisted of 469 clients of the Royal National Institute of the Blind’s Employment Rehabilitation Center in Torquay, England.

People who are visually impaired go through perceptual, behavioral, cognitive and emotional adjustments (Dodds & Ferguson, 1994). These forms of adjustment are linked to three models related to depression and adjustment to disability. The models are the Independent Effects Model, the Target Model and the Self-esteem Model (Dodds & Ferguson, 1994). The Independent Effect Models is linked to Cognitive Therapy and Rational Emotive Behavior Therapy. Aaron Beck, the developer of Cognitive Therapy posits that negative thoughts about self can lead to negative thoughts about the world, which in turn leads to negative thoughts about the future (Corey, 2008). These three forms of thought/perceptions are inextricably linked and they all affect depression. Depression, anxiety and low self-esteem are considered to be emotional states that are rooted in cognition.
The second model, the Target Model, centers on locus of control and self-efficacy (Dodds & Ferguson, 1994). Locus of control refers to a person’s sense of feeling that he or she is in control, and self-efficacy refers to a person’s belief about their ability to be successful in future tasks. Self-esteem, anxiety and depression are linked to ones’ concept of self-worth. The Target Model posits that the beliefs about control (locus of control and self-efficacy) will lead to the individual’s definition of self and anxiety, and depression and self-esteem will define self worth.

The third and final model, the Self-esteem Model, posits that cognitions produce an effect on self-esteem which in turn affects anxiety and depression (Dodds & Ferguson, 1994). “For example, if the individual construes him- or herself in terms of negative social stereotypes about blind people, then one might expect this to generate anxiety, if the belief is that blind people are constantly worried about the future, or depression, the belief is that blind people are useless” (p. 2). These adjustment models can often be long term and benefit from varying forms of interventions.

The goal of the study conducted by Conrod and Overbury (1998) was to establish interventions that could assist elderly individuals in their adjustment to their loss of vision. The authors focused on three specific conditions; Perceptual Training (PT), Individual Counseling (IC) and Group Counseling (GC). The participants were 49 adults with low vision with a mean age of 70 and 50 adults who were sighted with a mean age of 70. All of the participants were from the Montreal area. The results of the study demonstrated that “The IC group improved on perceptual and psychosocial measures, whereas the GC and PT groups … both improved in their particular domains of training”
The findings of the study suggest that a combination of factors from each of these interventions led to the improvement of IC participants.

People who are visually impaired often experience feelings of inferiority, hopelessness and depression (Dodds & Ferguson, 1994). Visual impairment is often also accompanied by fear and a reduced sense of personal competence, as well as, anxiety (Conrod & Overbury, 1998). These factors often interfere with an individual’s rehabilitation potential and achievement. A reduced sense of self competence can lead to isolation and social withdrawal. Particularly individuals with low vision have what can be considered to be an invisible disability. These individuals tend to conceal their visual impairment by making excuses to explain away their sometimes awkward and incompetent behavior.

Kef (2002) presents research from a national study conducted at the University of Amsterdam. The study examined the psychosocial adjustment and meaning of social support for Dutch adolescents who were visually impaired. The purpose of the study was to obtain information that could improve opportunities for students who were visually impaired and their parents. The participants consisted of 316, 166 male and 150 female between the ages of 14 and 24. In this study the term visual impairment encompassed both individuals who were completely blind and those with low vision. The results of the study indicated that the psychosocial development of students who were visually impaired were similar to that of students who were sighted. The results also indicated that students who were visually impaired did not have the same size personal networks as students who were sighted. The author posits that this may be explained by the limited
mobility of students who were visually impaired. Students who were visually impaired did however report having more parental social support than did students who were sighted.

The acceptance of a disability such as a visual impairment is a lifelong process that is comprised of a variety of phases (Kef, 2002). These phases range from shock to acceptance. During the adjustment to disability an individual with a disability is often attempting to prove to others and themselves that they are competent. Adjustment to disability is a process by which one can determine their own identity, independence, socialization and belonging. Adjusting is described as “… the process of responding to life’s demands with the added stress of visual impairment” (p. 22).

Beach and Robinet (1995) conducted a study investigating the relationship between self-esteem and independence among adults who were visually impaired. The participants of this study consisted of 36 adults who were visually impaired, 15 men and 21 women. The participants were recruited from the Canadian Institute for the Blind. The authors did not provide a clear definition of the term visual impairment and it cannot be speculated as to who was included in the use of the term visual impairment since the Canadian Institute for the Blind provides services to both individuals have low vision and those who are completely blind.

The results of the study conducted by Beach and Robinet (1995) indicated that self-esteem was related to dependence on others, difficulty and motivation to learn. The authors also identified a correlation between self-esteem and educational level. A limitation of the study that was identified by the authors was rooted in the use of the
measurement instrument. The authors stated that all items on the questionnaire were not relevant to all participants, an example of such an item were questions related to the use of Braille as all of the participants did not use Braille.

In this section the psychosocial aspects of and adjustment to visual impairment as discussed. Literature presented by authors such as Dodds and Ferguson (1994), Beach and Robinet (1995), Davis and Lovie-Kitchin (1995), Conrod and Overbury (1998) and Kef (2002) were discussed. The discussion of adjustment to disability with an additional focus on factors that contribute to the positive psychosocial adjustment to disability and the stage theory of the adjustment to disability are provided.

**Positive Adjustment & The Stage Theory.**

There are several things that contribute to the positive psychosocial adjustment to disability, these include social support (Kef, 2002), ability to function independently (Black, 2004), self-esteem and self-concept (Beach, & Robinet, 1995), and extent of dependence on others (Conrod & Overbury, 1998). Social support has a positive effect on the psychosocial adjustment to disability (Kef, 2002). Positive relationships with family friends and community members can improve the educational and vocation success of individuals who are visually impaired. Visual impairment may have a moderate to severe impact on an individual’s performance in social roles that relate to vocational, education, social activities, family life and friendships. These relationships also play a crucial role in the process of an individual’s management of a disability such as visual impairment.

Scaffolding (Larkin, 2001) and reframing (Gerber, Reiff, & Ginsberg, 1996) can be used to help students with disabilities become more independent. Scaffolding is the
simultaneous increase of independence and increase of support. Larkin (2001) described eight elements and guidelines to the process of scaffolding. Reframing was originally designed to be used with students who have learning disabilities. The process includes assisting students in making decisions that lead to a productive and positive view of their disability experience, which allows the student the opportunity to identify and build on their strengths, which can ultimately result in social, educational and vocational success.

This process of reframing encompasses the lifespan and could therefore be applied to students at the postsecondary level of education as well as to a variety of life domains such as vocational and educational development (Gerber, Reiff, & Ginsberg, 1996). Reframing is a four stage process: 1) Recognition, the individual’s ability to recognize their disability. 2) Understanding, the individual’s ability to understand their disability. 3) Acceptance, acceptance of the disability and its’ coinciding positive and negative aspects. 4) Action, developing a plan of action. The mastery of each stage of reframing can help students increase their self advocacy skills.

Self-esteem and self-concept is another component that is significantly linked to independence (Beach, & Robinet, 1995). Self-esteem is derived out of the basic concept of valuing one’s self and being valued by others. High self-esteem is “associated with self-respect, self-acceptance, pride, feelings of superiority, and self-love” (p. 531). Conversely, low self-esteem is related to “a lack of self-confidence, shyness, value conformity, over dependence on others, and less creativity” (p. 531). In the development of self-esteem it is vital that people who are visually impaired consider their own attitudes as well as the attitudes of others towards their disability.
Persons who are sighted are not always able to identify a person with a visual disability by simply looking at them and as a result unintended unreasonable expectations may be placed on individuals who are visually impaired (Beach, & Robinet, 1995). When individuals who are visually impaired find themselves unable to meet these expectation their self-esteem is often negatively impacted. This in turn, can lead to their withdrawal from social engagements where they may encounter expectations which place limitations on their ability to become active members of society.

Greater dependence on others is another psychosocial issue faced by individuals who are visually impaired (Beach, & Robinet, 1995). People who are visually impaired continue to depend on others in varying domains of their lives. Individuals who are visually impaired often ask for assistance more that sighted individuals especially in the areas of mobility. Such requests for assistance “… may be perceived as an admission of inferiority, which, in turn may lower their self-esteem” (p. 1). In many western cultures such as in the United States independence and self sufficiency are synonymous with maturity and self worth. Dependent people tend to display negative qualities such as “… reliance on others for approval, a lack of confidence and a craving for approval” (p. 1). Conversely, ‘independent people’ are considered to be self sufficient, with the ability to solve problems independently and assertively. Therefore it is considered essential in western cultures that individuals with disabilities are independent and not dependent on others.

Dependence can lead to conflict in the individual’s life and can negatively impact their relationship with family and friends (Beach & Robinet, 1995). Dependence is
closely related to social support. Social support from friends, family and professionals can assist individuals who are visually impaired in positively reframing their attitude and coping responses to their disability. Beach and Robinet (1995) demonstrated that higher levels of dependence are related to lower levels of education. In relation to the effectiveness of higher education the researchers also found that individuals who had higher levels of self-esteem reported having higher levels of formal education. In the same study higher levels of self-esteem did not appear to be related to employment levels. However, each person’s adjustment to disability is a unique process and may be reflective of varying levels of self-esteem.

When attempting to understand the course and process of an individual’s response to disability the stage theory of adjustment to disability can provide helpful guidelines (Smart, 2001). The stage model to adaptation/response to disability consists of six stages; 1) shock or initial impact, 2) defensive retreat or denial, 3) depression or mourning, 4) regression, 5) personal questioning or anger, and 6) integration and growth. During the first stage, shock or initial impact, the individuals with disabilities are often disorganized, confused and overwhelmed. The individual’s thinking is often disorganized and the consumer may experience feelings of being overwhelmed and confused. The abrupt manner in which a disability can impact a person’s life can be the root of shock, which may lead the individual to believe that their disability is more than they can handle. Smart states that many people experience shock during the diagnosis phase, shock often arises during the rehabilitation process as well.
In the second stage, defensive retreat or denial the individual with the disability may present with symptoms of denial which the individual may believe could assist them in maintaining their identity (Smart, 2001). During this stage most people with disabilities deny the implications of the disability and they demonstrate no motivation to develop skills for living with the disability. Smart presents three forms of denial: “(1) Denial of the presence of the disability, (2) denial of the implications of the disability, or (3) denial of the permanence of the disability” (p. 242). During the denial stage the individual with the disability is holding on to the concept that nothing has changed or that he or she is just like everyone else around them and the disability will soon disappear. It is essential that people with disabilities complete this stage. It can assist then in accepting the implications of their disability.

During the third stage of adjustment to disability, depression, the individual with the disability often presents as having a lack of energy and motivation (Smart, 2001). They may withdraw from others and experience trouble eating, sleeping and concentrating (Smart, 2001). Depression is often future oriented. The individual with the disability begins to consider their future with a disability and is unable to identify a means for success and achievement in any area of their life. The individual may also begin to view themselves as a burden on their friends and family.

During the fourth stage, regression, the individual with the disability may revert to an earlier stage in life that may have been more enjoyable than their current experience with their disability (Smart, 2001). A time in their life that may have been more
enjoyable. In the case of individuals with adventitious disabilities, this may have been a
time prior to the development of their disability.

The fifth stage of adjustment to disability is personal questioning and anger and
the individual may view the disability as unfair and question the purpose of their
existence (Smart, 2001). Their feelings of anger may comprise of helplessness,
frustration, fear, and irritability. The individual with the disability may ask questions in
an attempt to determine the reason for or the meaning behind their disability. The
individual may lose trust in the world and shy away from or turn their back on their value
system.

When an individual with a disability is considered to be in the sixth and final
stage of adjustment to disability, integration and growth, the individual is thought to have
made three key achievements (Smart, 2001): “(1) understands and accepts the reality and
implications of the disability, (2) establishes new values and goals that does not conflict
with the disability, and (3) explores and utilizes his or her strengths and abilities” (p.
245). In some instances in order to get to the point of integration and growth, adjustments
must be made in varying aspects of an individual’s life. For instance adjustments may
need to be made in the individual’s environment, role function, and the acquisition of
new responsibilities, especially those associated with the management of the individual’s
disability.

The process of adjustment to disability according to Livneh (2001) begins with a
triggering event which can have a catastrophic impact on the individual. Triggering
events can include both implicit and explicit causes of the disability. This traumatic event
is followed by a series of phases of adaptation to disability. The process of psychosocial adjustment to disability is complex and interactive. It is often focused on the trauma itself, loss and/or stress. The complexity of the adaptation process is impacted by medical, socio-demographic and environmental variables.

Due to the complex nature of the psychosocial adjustment to disability anticipation of possible outcomes should be considered (Livneh, 2001). This is intended to prepare the individual for possible barriers to the adjustment to the disability that may arise. Anticipated outcomes are viewed as indicators of quality of life. Outcomes can be anticipated based on functional and contextual domains, and specific sources of outcome measures. In his article titled “Psychosocial Adaptation to Chronic Illness and Disability: A Conceptual Framework” Livneh (2001) presents a synopsis on the perspectives on the psychosocial adjustment to chronic illness and disability. In doing so the author addressed the following concept areas; triggering events of the disability, the process of psychosocial adaptation, and the anticipated outcome of the adaptation process.

It is essential to keep in mind that the adjustment to disability is not predictable, orderly, sequential, linear, or hierarchical, despite the type or severity of the disability (Kendall & Buys, 1998; Parker, Schaller, & Hannsman, 2003). The article presented by Kendall and Buys (1998) had the sole purpose of presenting rehabilitation counselors with a comprehensive understanding of the psychosocial adjustment to disability by integrating existing knowledge and utilizing the recurrent model as a framework. In an attempt to improve the approach to the application of adjustment to disability Parker, Schalller and Hannsman (2003) reviewed exiting literature on the Chaos, Catastrophe and
Complexity theories and provided suggestions for applications in adjustment to chronic illness and disability. Kendall and Buys posit that an individual with a disability may interchangeably revert from stage to stage despite the proposed location of the stage. Regression is common and should be anticipated. Stages maybe repeated and experienced in random order.

In discussing the concept of adjustment to disability the impact of quality of life should be considered (Bishop, 2005). Disability can disrupt one’s life and may be conceptualized in regard to its’ impact on the person’s well being or quality of life. Life disruptions that are disability related compromise psychosocial wellbeing by reducing “…positively reinforcing outcomes of participating in meaningful and valued activities and feelings of personal control, by limiting the ability to obtain positive outcomes or avoid negative ones” (p. 223) Bishop defines quality of life as “…the subjective sense of overall well-being that results from an individual's evaluation of satisfaction with an aggregate of personally or clinically important domains” (p. 221). There are ten life domains associated with the quality of life that can be impacted by disability related disruptions (Bishop, 2005). These domains include; physical health, mental health, work, leisure activities, financial situation, relationship with spouse, family relations, other social relations, autonomy, and Spiritual expressions. Individuals place particular emphasis on varying domain areas. Emphasis placed on a domain area is often linked to the person’s values and beliefs.

The effects of the psychosocial impact of a disability can be minimized through the use of counseling (Johnson, 1989; Johnson & Johnson, 1991). This section provides a
brief discussion of the risks that individuals who are visually impaired may face. The literature also discussed the benefits of group counseling when employed by individuals who are visually impaired.

Counseling

Individuals who are visually impaired are at a major risk of experiencing depression, social isolation, and emotional distress, due to the stress they encounter throughout their lives (Owsley, et.al. 2006). The aim of the study conducted by Owsley, et al., was to characterize emotional issues faced by individuals with age-related macular degeneration. The participants of the study consisted of 53 participants who were separated into two focus groups. Through the data analysis process the researchers found there to be twice as many negative comments as opposed to positive comments in regards to emotional issues. Participants reported having feelings of frustration, fear, sadness, and inadequacy. Positive comments were centered on gratitude and hope.

Owsley, et al., (2006) identified five limitations of their study. The first limitation is associated with the specific questions that the participants were asked. The researchers were concerned that the specific questions asked by the researchers may have influenced the content of the comments made by the participants. The researchers attempted to minimize this limitation with the use of a very experienced facilitator. The second limitation was found during the focus groups when one or two participants tended to dominate the discussion. The facilitator attempted to minimize this limitation by probing other members of the group for additional responses and comments. The third limitation was rooted in the fact that the research did not address the progression of disease and
emotional change throughout this process. The fourth limitation that the researchers identified was the unsatisfactory sample size. Due to the limited sample size the researchers were not able to classify the participants in terms of gender, disease, income and support network. The fifth and final limitation of the study was that the findings of the study were not generalizable to individuals with different forms of chronic eye conditions such as glaucoma and diabetes retinopathy.

Group counseling is one of the primary methods of treatment that is utilized in combating psychosocial problems encountered by persons who are visually impaired (Johnson, 1989; Johnson & Johnson, 1991). In the article presented by Johnson (1989) the author critically examined 35 years of literature on group counseling and people who are visually impaired. Johnson and Johnson (1991) conducted a research study to examine the extent to which group counseling enhanced the self-concept of adolescents who were congenitally visually impaired. The participants of the study were fourteen adolescents who were congenitally visually impaired between the ages of 12 and 18. Ten of the participants were male and four were female. “The major research question was whether group counseling could be effective in producing favorable attitudinal changes among a group of congenitally visually impaired adolescents” (p. 167). The findings of the research were favorable in terms of the research question demonstrating that group counseling was an effective therapeutic agent for producing attitudinal changes among adolescent students who were visually impaired.

Johnson and Johnson (1991) identified five primary limitations to their study. The first limitation identified by the researchers was the small sample size. The second
limitation centered on the concept that the participants were exposed to different conditions during the pre and the post treatment intervals. The third limitation was linked to parental expectations that the group would have a beneficial impact on their child. The third limitation lies in the possibility that the participants may have figured out the research hypothesis and acted accordingly. The fifth and final limitations of the study were three threats to external validity. The first was the fact that all of the research participants were all congenitally visually impaired. The second is that the sample was not selected randomly and the third threat to external validity was the interaction of the treatment and the setting.

Group counseling has been utilized to assist consumers with visual impairment and blindness to improve self-concept, personal adjustment to disability, and interactional skills (Johnson, 1989; Johnson & Johnson, 1991). In the study conducted by Johnson and Johnson, group counseling provided an avenue for individuals with visual impairments to learn, develop and apply social skills, as well as; express their feelings, attitudes and needs in terms of their disability (Cimarolli, Goodman, & Sussman-Skalka, 2004). The study conducted by Cimarolli, Sussman-Skalka, and Goodman, 2004 had the purpose of evaluating support groups for partners of individual who were visually impaired. The authors’ intention was to alleviate stress and burdens of the sighted partners of the individuals who are visually impaired, as well as to enhancing their quality of communication. The participants of this study were 32 individuals between the ages of 46 and 86 who were living with a partner who had a visual impairment. The findings of the study indicated that the partners of individuals who were visually impaired became more
knowledgeable about the issues faced by their partners who are visually impaired and it
improved their quality of communication. Group participants often expressed having
fears associated with their adjustment difficulties in the areas of vocational, educational,
social, and personal achievement. These fears often bring about feelings of inadequacy,
guilt, and negative self evaluation.

Participants in the study conducted by Johnson (1989) were assessed and found to
primarily foster personality characteristics that included introverted passive, passive
dependence, reserved and detached, and poor self-concept. Group counseling that focuses
on assertion training can provide individuals with visual impairments the opportunity to
cope with feelings that are associated with inadequacy, frustration, conflict, guilt, shock,
grief, and the meaning of visual impairment. This form of counseling has been proven to
be successful with adolescents who are visually impaired (Johnson & Johnson, 1991) and
therefore it can be valuable to individuals who are visually impaired at the college level.
Although these individuals may be at an older age they still encounter significant barriers
to their educational and vocational success as the impact of visual impairment and
blindness is continual and not languishing.

In a study conducted by Johnson and Johnson (1991) participants reported
experiencing high levels of self-acceptance and strong viewpoints that visually impaired
individuals can be independent, industrious, and competitive in a sighted environment.
The preceding information demonstrates the level of success that can occur among
members of counseling groups for individuals who are visually impaired. Group
counseling will foster growth among group members and help them to: increase their
level of self awareness and empathy towards themselves and others, as well as, increase their ability to give and receive feedback in a straight forward, open, and sincere manner.

Individuals with visual impairment and blindness also face significant difficulties in dealing with individuals who are sighted or those who do not have a visual impairment (Johnson and Johnson, 1991). In the study conducted by Johnson and Johnson this topic was a significant area of focus in which the group members realized commonalities and found support that aided them in rising above and coping with their biases and frustrations in terms of the treatment they receive from individuals who are sighted. Furthermore, according to Cimarolli, Goodman, and Sussman-Skalka, (2004) support groups provide individuals with disabilities the opportunity to learn adaptation and coping skills from one another, learn that their situations are not unique and are shared by many others. The group process also provides group members with opportunities to share their experiences, open up to one another, and realize that there are other individuals dealing with more severe disabilities and concerns. In addition to these opportunities the group process also affords students who are visually impaired the opportunity to socialize with others, which allows them the opportunity to expand their support network.

The only area of difficulty that the authors addressed was the lack of participation in homework assignment by the group members (Johnson & Johnson, 1991). The group members were often given homework assignments that required them to apply the concepts they learned in group to their everyday lives. This will be an area that the group leaders will have to work especially hard to encourage participation, and to improve the group members’ experiences in the sighted world. Perhaps role playing can assist in this
area. If the group leaders are able to get the participants to practice the application of new techniques in the group, they will have a clear view of how to apply the techniques to their everyday lives.

Counseling services such as the ones previously mentioned could be provided by rehabilitation counselors. Rehabilitation counselors serve the needs of individuals who are visually impaired in rehabilitation agencies (Brabham, Mandeville, & Koch, 1998) across the US. Thus it appears essential to discuss the rehabilitation history.

**Rehabilitation History**

The history of rehabilitation counseling is deeply rooted in legislation (Jenkins, Patterson & Szymanski, 1998). Prior to federal mandates rehabilitative services were minimal and only provided by private agencies. These private agencies encouraged states to establish rehabilitation agencies. This initiative was supported with the passage of the Smith Hughes Act of 1917. The Smith Hughes Act provided funds to states for rehabilitation education and it led to the establishment of the Federal Board for Vocational Education. The Federal Board for vocational education later became the administrative source for the veterans and civilian vocational rehabilitation program.

The passage of the Smith Hughes Act was in direct response to the injured soldiers from World War I (Jenkins, Patterson & Szymanski, 1998). The passage of this legislative act was followed by the establishment of rehabilitation programs for veterans. The Smith Hughes Act was followed by the Smith Fess Act of 1920, which is also known as the Civilian Vocational Rehabilitation Act. As its name implies this legislation led to the establishment of the civilian rehabilitation program under the Federal Board of
Vocational Rehabilitation. At the time of its establishment the Smith Fess Act was not permanent; it required continued reauthorization by congress.

Vocational rehabilitation was transformed into a permanent federal program with the passage of the Social Security Act of 1935 (Jenkins, Patterson & Szymanski, 1998). Further, the passage of the Vocational Rehabilitation Act of 1954 and its amendment in 1965 led to the increase of federal funds for vocational rehabilitation programs (Jenkins, Patterson & Szymanski, 1998). The initial act also provided grants and funding for faculty development for the training of rehabilitation counselors in college and university settings. The amendment of the Vocational Rehabilitation Act expanded the period of time to establish eligibility requirements for vocational rehabilitation services. The amendment eliminated economic need requirements for services, unless services were needed for training or physical restoration. This amendment also led to provision of services to individuals with behavioral disabilities.

The Vocational Rehabilitation Act and its Amendment was followed by the passage of the Rehabilitation Act of 1973 (Jenkins, Patterson & Szymanski, 1998). The passage of the Rehabilitation Act led to the prioritized treatment of individuals with the most severe disabilities, the discontinuation of the treatment of individuals with Behavioral Disabilities, consumer involvement in the development of their rehabilitation plan, and placed an emphasis on program evaluation and rehabilitation research (Jenkins, Patterson & Szymanski, 1998). Title V of the Rehabilitation Act of 1973 played a significant role in the advancement of civil rights for individuals with disabilities.
Title V of the Rehabilitation Act contains four primary sections; section 501-504 (Jenkins, Patterson & Szymanski, 1998). Section 501 required the federal government to be nondiscriminatory in the hiring of individuals with disabilities. Section 502 led to the establishment of the Architectural and Transportation Barriers and Compliance Board, which was established to oversee the implementation of the Architectural Barriers Act of 1968. Section 503 prohibits discrimination of individuals with disabilities by federal contractors or subcontractors receiving $2,500 or more in federal funds. Finally section 504 of Title V of the Rehabilitation Act prohibits discrimination of individuals with disabilities in federally supported programs or activities such as hospitals and schools.

Since its’ inception the Rehabilitation Act has been amended on six separate occasions (Jenkins, Patterson & Szymanski, 1998). The amendments of 1974, 1976, and 1978 reemphasized and strengthened the need for provision of services to individuals with the most severe disabilities. The amendment of 1978 provided funding for separate independent living programs. The Rehabilitation Act of 1986 authorized vocational rehabilitation programs to provide supported employment services to individuals with severe disabilities who were unable to participate in competitive employment. This amendment also required the increased use of rehabilitation engineering and the client assistance program.

The Fifth Amendment to the Rehabilitation Act of 1992 led to the establishment of Rehabilitation Advisory Councils (Jenkins, Patterson & Szymanski, 1998). Rehabilitation Advisory Councils were established to involve consumers in the policy and procedure development of rehabilitation agencies. This legislation also mandated
rehabilitation agencies to establish an eligibility determination for services within 60 days of the acquisition of an application.

The Workforce Investment Act and the Rehabilitation Act Amendments of 1998 led to the provision of ‘one stop delivery systems’ which were intended to assist individuals with disabilities who were working towards securing employment (Jenkins, Patterson & Szymanski, 1998). This amendment also made it possible for individuals with disabilities to be served by multiple programs as opposed to them being dependent on one program for vocational assistance. This legislation also called for persons with disabilities to be served by qualified individuals.

Summary

Individuals who are visually impaired have been found to have low levels of vocational and higher educational attainment (AFB, 2008). While there are many barriers to employment (Cradden & McBroom, 1999; Dalgin & Belini, 2008; O’Day, 1999; Shaw, Gold & Wolfe, 2007), higher education has been found to be a factor that can improve the employability of individuals who are visually impaired (Golub, 2006). The provisions and accommodations that are made for students in secondary education vary from those that are provided to students in postsecondary education (Collins, 2000).

At the post secondary level of education students are responsible for requesting their own accommodations (Collins, 2000). Thus it is vital for students who are visually impaired to develop self advocacy skills. If students do not develop self advocacy skills at a young age, college/university Disability Support Service personnel can assist students in developing these skills (McCarthy, 2007). When collaborating with students
who are visually impaired it may also be beneficial for Disability Support Service personnel to collaborate with rehabilitation counselors. Rehabilitation professionals should also collaborate with individuals who are visually impaired and may be able to share beneficial resources with college/university Disability Support Service personnel (Carrol & Bowe, 1996).

Rehabilitation legislation such as the IDEA, ADA, and the Rehabilitation Act has improved access to education and employment for individuals who are visually impaired. Such legislations have also led to the improvement of the societal views and reactions to disabilities. Despite these improvements it is still vital that the psychosocial adjustment to disability be considered when working with individuals who are visually impaired. Psychosocial factors that should be considered by college/university personnel and rehabilitation professional include: social support (Kef, 2002), level of independence (Black, 2004), dependence on others (Conrod & Overbury, 1998) and self-esteem and self confidence (Beach & Robinet, 1995).
CHAPTER 3: METHODOLOGY

This research is intended to explore the educational, vocational and social experiences of college educated individuals who are visually impaired. The research was conducted with the use of qualitative methodology to obtain an understanding of the participants’ individual experiences in the areas of higher education, vocation and socialization. This chapter describes the methodology that was used in this study. This chapter contains subsections that discuss: 1) outcome studies, 2) research questions, 3) theoretical approach, 4) data collection, 5) data analysis, 6) limitations of the study, 7) self as researcher and 8) ethical and legal considerations.

In an effort to determine what educational experiences lead to vocational success I conducted a study of 16 college educated individuals who were visually impaired. Seven of the participants have obtained a college degree and nine of the participants are currently enrolled in college. This research sought to explore the educational, vocational and social experiences of college educated individuals who are visually impaired. The purpose of this study was to attempt to advance the research in the area of visual impairment, and to enhance the knowledge of higher education professionals, college and university Disability Support Service personnel, and rehabilitation professionals and individuals with visual impairments in the areas of education and employment of individuals who are visually impaired. The research was conducted with the use of qualitative methodology to obtain an understanding of the participants’ individual experiences in the areas of higher education, vocation and social experiences. A phenomenological approach was utilized in this study as it allowed the researcher to
explore the participants’ individualized lived experiences. The discussion of the methodology begins with the presentation of two outcome studies that speak to the appropriate use of phenomenology.

**Outcome Studies**

Studies conducted by Angelocci (2007) and Williams (2008) support the use of phenomenology when studying college educated individuals who with visual disabilities. Angelocci (2007) conducted a phenomenological study aimed at understanding the life experiences of college students who are visually impaired. Angelocci interviewed six college students who were visually impaired and were approaching the completion of their college degrees. The family, school and community influences were explored and risk and resilience was used as a theoretical framework to further understand these areas of influence.

The findings of Angelocci (2007) included risk and protective factors in relation to family, school and community. Factors related to risk as identified by the participants included: ongoing anger and resentment for being blind, impatience with oneself, an inability to cope with a lack of control, and placing hard expectations on oneself. The factors identified by Angelocci that were related to protection included: personal qualities, beliefs, and skills. Personal qualities included: discipline, flexibility, creativity, decisiveness, humor, being outgoing, patience, confidence, stubbornness/determination, and a willingness to take risks.

Angelocci (2007) identified three primary limitations of her study. The first was that the participants of the study did not represent a diverse population. The second was
that the existing literature did not corroborate many of the findings identified in her study. The third and final limitation identified by Angelocci was that the experiences shared by participants were based on memory which could have faded over time.

Williams (2008) conducted a phenomenological study in which she investigated how college students with physical disabilities perceived their disabilities and the impact that their disability had on their ability to obtain employment upon their graduation from college. Williams interviewed eight participants who were enrolled in a private four year university. The data analysis process was conducted with the use of a phenomenological hermeneutic lens and the review of four models of disability.

The findings of Williams (2008) study came out of seven core themes. These seven themes are as follows: 1) Advanced Education Attainment, 2) Accessibility, 3) Reasonable Accommodations, 4) Barriers/Hindrances, 5) Disability and Impairment, 6) Discrimination, and 7) Career Services. Three findings emerged out of the data 1) transition from college to work was not a feasible option or priority after the baccalaureate degree or graduation; 2) continued higher education beyond undergraduate education is a priority; and 3) viewpoints about and experiences with disability and impairment are not monolithic.

Williams (2008) identified three limitations of her study. The first was the challenges associated with access. Williams initially attempted to conduct her study in both a private and public university so she could compare the experience of both groups of students. She was denied access to the public university, therefore, her study only focused on the experiences of students at a private university.
The second limitation of the study as identified by Williams (2008) was also associated with access. Williams reported that the gatekeeper who granted her access also selected the participants of her study and in doing so a disproportional amount of participants were selected, two were seniors at the university and six were recent college graduates of the university. The third and final limitation identified by Williams was the lack of generalizability of the findings of the study due to the small sample of participants. The following section presents the research questions that were explored in this study.

**Research Questions**

There are four research questions in this study. These questions were as follows:

1. What are the educational experiences of college educated individuals who are visually impaired?
2. What are the vocational experiences of college educated individuals who are visually impaired?
3. What are the social experiences of college educated individuals who are visually impaired?
4. How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?

**Theoretical Approach**

Qualitative research methods, according to Glesne 2006, “are used to understand some social phenomena from the perspectives of those involved, to contextualize issues in their particular socio-cultural-political milieu, and sometimes to transform or change
social conditions” (p. 4). The process of conducting qualitative research can be complex and difficult. Due to the difficulty that researchers may encounter with qualitative research, novice researchers may need a guide to assist them in the undertaking of such research. This paper is intended to be an annotated bibliography/literature review of three books that discuss some aspect of qualitative research.

Creswell (1994) presented the differences between qualitative and quantitative research. In quantitative research reality is objective whereas in qualitative research it is subjective. In quantitative research, the researcher is independent from what is being studied whereas in qualitative research, the researcher interacts with that which is being studied. Additionally, qualitative research is routed in values while quantitative research is value free.

Quantitative research utilizes an impersonal voice and it is based on a specific set of definitions (Creswell, 1994). Qualitative research, on the other hand, utilizes a personal voice and evolves over time as opposed to being based on a specific set of definitions. Quantitative research is a deductive process and focuses on cause and effect. Qualitative research is an inductive process where factors are shaped simultaneously.

In quantitative research, categories are designed prior to the initiation of the study while qualitative research design is identified during the research process (Creswell, 1994). Generalizations in quantitative research lead to prediction, explanation and understanding. In qualitative research, patterns and theories develop out of understanding. Quantitative research is determined accurate and reliable through validity
and reliability while accuracy and reliability in qualitative research are determined through verification.

For the purposes of this study, qualitative research methodology was employed. This research approach was chosen due to the researcher’s focus on the participants’ experiences as understood by the participants. This research embraced and utilized the personal voices of the participants. The categories of the research were determined during the research process and patterns and theories were developed after the researcher developed an understanding of the research data. Thus allowing the researcher to embrace the personal experiences of the participants while conveying their experiences in their own voices and finally utilizing this data in the development of categories and themes as described by Creswell (1994). A phenomenological approach allowed the researcher to further explore the participants lived experiences.

**Phenomenology**

Phenomenology is described by Van Manen (1990) as “the study of lived experiences and the aim is to gain a deeper understanding of the meaning of everyday experiences” (p. 9). Researchers in the field of social science primarily seek to understand the way in which we view the world and attempt to explain these views and experiences in a descriptive manner. Phenomenology is utilized in research to determine how people think and feel (Bentz & Shapiro, 1998). This approach to research is concerned with the essence of the human experience while focusing on specific phenomena (Creswell, 2003; Moustakas, 1994; Van Manen, 1990).
Phenomenology is viewed as a philosophy that interprets human meaning through the use of participants experiences (Patton, 2002). The primary focus of phenomenology is to focus on how participants view things as a result of their experience. The goal of a phenomenological researcher is to inevitably collect data that is thick and rich (Finlay, 2002). This thick and rich data is routed in the description of lived experiences.

Phenomenology has two schools of thought; hermeneutics phenomenology and transcendental phenomenology (Creswell, 2003; Moustakas, 1994; Van Manen, 1990). Van Manen (1990) stated that hermeneutic phenomenology “is the theory and practice of interpretation” (p. 190). More plainly put, it is the illumination of details and trivial aspects of experiences with the intent to create meaning and a sense of understanding (Wilson & Hutchingson, 1991). Transcendent phenomenology, on the other hand, relies on meaning as a foundation for research. Through this methodological approach researchers interpret the meaning of the experiences using the participants’ understanding of their lived experience.

This study uses a hermeneutic phenomenological approach. This approach was used to interpret and explain the perceptions of college educated individuals who are visually impaired. This approach allowed me to understand and be reflective and interpretive of the true essence of participants’ experiences while discovering perceptions of the educational, vocational and social experiences of college educated individuals who are visually impaired.

Phenomenology can be used to explore the meaning, structure and the essence of the lived experience of college educated individuals who are visually impaired. This
research methodology allows the researcher the opportunity to explore and learn about an individual’s world experiences (Green, 1997; Holloway, 1997; Maypole & Davies, 2001; Robinson & Reed, 1998). In-depth interviews provide potential access to an individual’s world experiences. With this in mind, phenomenology can be effectively applied to this study as the aim of the research was to learn about the lived experiences of college educated individuals who are visually impaired. From a phenomenological approach, after interviews are completed, the researcher can utilize the data that has been obtained to identify the essence of the participants’ experiences. Phenomenology seeks out commonalities among individuals in addition to what is unique about each individual.

There are two primary challenges relate to phenomenology (Creswell, 2007). The first if the concept that participants must be carefully selected so the researcher can develop a common understanding of the phenomena. Therefore, it is vital that the participants have experienced the phenomena being studied. The second challenge related to phenomenology is the need for the researcher to be able to bracket their experience related to the phenomena as to avoid imposing his or her biases on the study participants. The researcher must decide how to introduce his or her personal understanding into the study. This concept of bracket will be discussed in further detail later in this chapter. The following section speaks to the methods that were utilized in this study.

**Data Collection**

The study was conducted over a 90 day period. One meeting was scheduled with each research participant at the beginning of the research process. This meeting or the “initial meeting” was used to gather information about the participant and their views on
the topic of focus for this research project through the use of a semi-structured interview. The interview lasted for approximately one hour in length. The second meeting was a “follow up” meeting that was used to clarify information shared by the research participant. A follow up meeting was not needed for any of the participants. This was dependent on the clarity of the information provided by the participant and the researcher’s comprehension of such information.

During the first 30 days of the study, each participant was interviewed individually for a period of approximately one hour. Each participant was asked a series of questions regarding their educational, vocational and social life experience. These questions were intended to encourage the participants to share their stories and experiences as it relates to their educational, vocational and social experiences.

The second thirty days of the research period was used to analyze participant responses and identify areas that may require further clarification and exploration. When areas that required follow up were identified, they were addressed at the follow up meeting with participants. The researcher then analyzed the responses provided by the participants and identified common themes that emerged from the data. The results, findings and recommendations of the study were written during the last 30 days of the research process. With this timeline in mind it is now appropriate to discuss how access was gained and the data sources for this research study included interviews and documents.
Gaining Access

Informational emails were sent to potential participants. Current college students and college graduates who are visually impaired were invited to participate in the study on a voluntary basis. Participants for this study were selected through the use of purposeful sampling (Patton, 2002; Glesne, 2006). “The purpose of purposeful sampling is to select information-rich cases whose study will illuminate the questions understudy” (Patton, 2002, p. 46). According to Patton (2002) there are 16 types of purposeful sampling: 1) extreme or deviant case sampling, 2) intensity sampling, 3) maximum variation sampling, 4) homogeneous sampling, 5) typical case sampling, 6) critical case sampling, 7) snowball sampling, 8) criterion sampling, 9) theory based sampling, 10) confirming and disconfirming cases, 11) stratified purposeful sampling, 12) opportunistic or emerging sampling, 13) purposeful random sampling, 14) sampling politically important cases, 15) convenience sampling, and 16) combination or mixed purposeful sampling. For the purposes of this study, snowball sampling was employed.

In snowball sampling, participants were asked to refer potential participants who may be both suitable for and willing to participate in the study. Research participant selection was limited to college educated individuals who have a visual disability. This clear classification of participants speaks to the nature of purposeful sampling. Participants were informed of the study and its’ purpose. Once informed, participants were invited to participate in the study on a voluntary basis. An individual with a visual disability was considered to be anyone who has a visual acuity of 20/200 or less or a residual field of 20 degrees or less in the better eye with correction (Panek, 2002) but is
not considered to be totally blind. To ensure that this requirement was met, the researcher asked potential participants whether or not they had been deemed legally blind by their optical physician.

For the purposes of this study, the researcher initially selected 19 participants for this study, however, three were deemed inappropriate for the study. The first two participants who were removed from the study fell in to the category of current college students. The first participant was removed from the study due to the fact that she was considered to be completely blind. The second participant that was removed from the study was removed because she had a co-morbid disorder which did not fit the parameters of this study. The third and final participant who was removed from the study was removed due to the fact that he was not a college graduate. While this participant attended college he did not complete his degree.

This led to a total sample size of 16. An illustration of the participants’ demographics can be found in table 3.1. Nine of the study participants were students who are currently enrolled in a college or university for the 2009-2010 academic school year. Seven of the research participants were adults who have a visual impairment and have obtained a college/university degree. The participants ranged from 19 to 55 years of age. There were eight males and eight females, eight were Caucasian American, seven were African American and one was Middle Eastern. Participants for this study were not required to be employed, both employed and unemployed participants were appropriate for the study. All participants were required to be 18 years or older.
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<td>Current College Student</td>
</tr>
<tr>
<td>Maureen</td>
<td>28</td>
<td>Female</td>
<td>African American</td>
<td>Current College Student</td>
</tr>
<tr>
<td>Nancy</td>
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<td>Female</td>
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<td>Peter</td>
<td>22</td>
<td>Male</td>
<td>African American</td>
<td>Current College Student</td>
</tr>
</tbody>
</table>
Once identified as potential appropriate participants for the research study, participants were informed of the research timeline to ensure their willingness to commit to participating in the study. Participants were also presented with a lay summary of the purpose of the study to ensure their understanding of the purpose of the study and to foster an informed decision by the study participants. This is linked to the concept of informed consent which calls for the participant to understand that participation in the study is voluntary (Glesne, 2006). Also, informed consent speaks to the need for clarification of aspects of the study that may affect the participant, as well as, the right of the participant to cease participation at anytime in the research process. The nature of the research project required participants to be interviewed once for a period no greater than one hour. Follow up interviews were based on the need of the researcher to verify and clarify information provided by the participants; follow up interview were not found to be necessary in this study.

In qualitative research, the use of purposeful sampling was employed (Maxwell, 1996). “This is a strategy in which particular persons, settings or events are selected deliberately in order to provide important information that can’t be gotten as well from other choices” (p. 70). There is no better way to get the truth than “straight from the horse’s mouth”. In this case, from the people who are visually impaired who were living the vocational, educational and social experience.

**Interviewing**

As previously mentioned, each research participant was interviewed. Participants were interviewed with the use of the Interview Guide Approach (Patton, 2002). The
questions asked of the participants centered on their personal education, vocational and social experiences as college educated individuals who are visually impaired. This was in line with the phenomenological approach which calls for questions to be directed at the participant’s experiences, beliefs, feelings and convictions about the central topic that is being studied (Welman & Kruger, 1999). In an effort to ensure her entrance into the participant’s life, the researcher bracketed her own preconceptions about the phenomena being studied (Bentz & Shapiron, 1998).

Interviewing is a question and answer process that occurs between two or more people (Glesne, 2006). An interview can include multiple interviewers or interviewees. When interviewers ask interviewees questions there is an underlying purpose behind the questioning. Interviewees’ responses are often related to their individual motives, values, concerns, and/or needs. Interviews can also be geared towards learning the opinions, perceptions and attitudes of others. According to Patton (2002), there are four types of interviews: 1) Informal Conversational Interviews, 2) the Interview Guide Approach, 3) Specialized Open-Ended Interviews and 4) Closed fixed response interviews. For the purposes of this study the interview guide approach was employed.

In qualitative research the interview guide approach allows the interviewer to obtain richer information from the interviewee (Patton, 2002). In the interview guide approach the interviewer has a list of questions that are intended to cover a specific topic. The list of questions is called an interview guide. The interviewee is generally provided a significant amount of leeway to respond to the interviewer’s questions. The questions presented in this study were open-ended. The use of open-ended questions minimized the
researcher’s imposition of predetermined responses while she gathered information from research participants (Patton, 202).

When utilizing the interview guide approach the interviewer may not present the questions in order as listed in the interview guide. Subsequently, additional questions not listed on the interview guide may arise. Interviewees may raise additional or complementary issues that may form integral components of the study. In essence, the interview guide approach is flexible. This flexibility allows the researcher the opportunity to learn about the interviewee’s interest and experiences which is at the root of the phenomenological approach to qualitative inquiry.

There are several strengths and weaknesses related to the use of the interview guide approach (Patton, 2002). Patton (2002) identified three strengths of the interview guide approach. The first is that the outline of the questions can make the data collection process comprehensive and systematic. The second strength is the ability to close gaps in the data as they arise. The third and final strength of the interview guide approach as identified by Patton is the opportunity for the interview process to remain relatively conversational.

Conversely, Patton (2002) identified two weaknesses associated with the use of the Interview Guide Approach. The first is the inadvertent potential for omitting salient topics that may be relevant to the study. The second weakness of the interview guide approach as identified by Patton is the potential limits of the flexibility of the interview process previously mentioned. Patton (2002) expressed a concern that the predetermined sequential interview questions “can result in substantially different responses from
different perspectives, thus reducing the comparability of responses” (p. 349) among participants.

Interviews for this study were conducted via telephone. This approach was convenient for both the research participants and the researcher as transportation posed a significant limitation to their ability to travel independently from one location to the next. The use of telephone interviews in qualitative research has become increasingly popular with the advances in technology (Kvale & Brinkmann, 2009). The advantage of telephone interviews is that it allows the researcher to interview participants who are geographically distant from them. The disadvantage of utilizing telephone interview is that it does not allow the researcher to have face to face interaction with the participants.

With the participants’ permission, all interviews were audio recorded (Arkley & Knight, 1999; Bailey, 1996). Audio recordings of the interviews were the researcher’s attempt to accurately record the participant’s experiences, feelings and beliefs. Field notes were taken during individual interviews to supplement the audio recordings. Participants were asked to provide a one page statement describing their visual disability. This information was used to assist the researcher in further understanding the participant’s disability. It also served as a document for analysis purposes.

**Documentation.**

Documents are considered to be supportive materials a researcher can use when he or she identifies a particular topic that he or she wants to research (Glesne, 2006). Documents can serve as additional support for their findings. Documents include things such as letters, pictures, videos and audio recordings, paintings, wills, birth certificates
and so forth. Also researchers can request the development of a document for the purpose of their research. This can be done by asking research participants to keep a journal or a diary throughout the research process.

Documents also include things that have been created over time prior to the researcher’s presence; such things could include murals and songs. Glesne (2006) calls this *measures of accretion*. Glesne also encourages researchers to look for *measures of erosion*. These are the things around us that we may often deem as unimportant such as a worn path in the grass. Documents can greatly enhance the information a researcher collects through interviews and observations.

Records, documents, artifacts and archives can serve as an important source of information about organizations, people and programs (Glesne, 2006). They can tell you about the history of a particular culture; from the clothes they wore, the type foods of they ate as well as social class and social concerns. Some documents may be more explanatory than others. While a birth certificate can lead you into exploring someone’s origin, their will can lead you to their spiritual and physical values.

Documents also lead to exploration (Patton, 2002). One document may lead to another or more information about a particular person, thing or place. A document may peak a researcher’s interest thereby leading him or her to alternate materials that may support, contradict or expanding the nature of their findings. For instance an archeologist may find one artifact in an area that does match other artifacts that have been found in this particular area. This may lead the archeologist to expand his research project in order to determine why that artifact was in an unusual location.
Patton (2002) identified two weaknesses and one strength related to the use of documents in qualitative research. The first weakness is that documents may be incomplete or inaccurate. Secondly, some documents may be kept in different manners resulting in the in-equivalent amount of information available in each. The primary strength of documents is that they allow the researcher to obtain a behind the scenes view of the phenomena being studied that may not be obtained if the research does not ask the right questions.

For the purposes of this study, two types of documents were utilized; the researcher’s field notes and participants’ voluntary description of their disability. The researcher’s field notes were used to document hesitations and such noticeable actions exhibited by research participants. Documentation such as the researcher’s field notes was utilized in order to develop a comprehensive view of the participants’ life stories. Finally, participants were asked to provide the researcher with their own written description of their disability on a voluntary basis as this information is considered confidential by the ADA and this researcher preferred for participants to provide such information at their own discretion for the sake of comfort on the part of the research participant and compliance to the ADA on the part of the researcher.

**Data Analysis**

The goal of phenomenological research is to determine the meaning of participants experiences as reported by the participants. The outcome of the data analysis process in phenomenological research is to provide thorough description of the participants’ experiences. The process of data analysis in phenomenological research
involves textural, structural and textural-structural narratives (Creswell, 1998; Moustakas, 1994). Textural narratives of the transcript are descriptions of experiences in the participants own words (Creswell, 1998; Moustakas, 1994). Structural narratives of the transcripts are accounts of the phenomena that are described in the researcher’s words (Creswell, 1998; Moustakas, 1994). Textural-structural statements are a constructed description of the meaning and the essence of the phenomena (Creswell, 1998). Consequently, a modified form of Creswell’s (1998) data collection and analysis was utilized in this study.

Data analysis consisted of six steps: 1) organizing and preparing data for analysis. 2) Reading and reviewing data thoroughly. 3) Writing notes in the margins. 4) Open coding of textural data using categories. 5) The clustering of similar topics and themes. And 6) telling the story with the use of textural-structural description (Creswell, 1998). The process of data coding was followed by interpretation. The codes were reviewed so they could give meaning to data and establish categories and themes for interpretation.

The data was cross referenced with the research questions and analyzed for identification of similarities and differences across the participants’ lived experiences related to their educational vocational and social experiences as college educated individuals who are visually impaired. I reflected on all textural data by rereading the transcripts and re-listening to the interview recordings several times to identify meaning, categories and themes within the data (Hycner, 1999).

Hycner (1999) discusses the data analysis process in terms of five phases. These phases were not directly applied to this research study, however, they were considered in
the data analysis process by the researcher because of their relevance to qualitative
research from a phenomenological approach. Also these phases coincide with the data
analysis process previously discussed. The five phases presented by Hycner (1999)
include: Phase one, bracketing, phase two, delineating units of meaning, phase three,
clustering of units of meaning to form themes, phase four, summarizing each interview,
validating it and where necessary modifying it and phase five, extracting general and
unique themes from all the interviews and making a composite summary.

Bracketing and phenomenological reduction entails the embracing of the
phenomena outside of the researcher’s presuppositions (Fouche 1993; Hycner, 1999). In
order to accomplish this, Holloway (1997) and Hycner (1999) recommended the repeated
review of audio recordings of the interviews by the researcher. This repetitive review
assists the researcher in becoming familiar with the information and thereby developing a
holistic sense of the data.

The four principles of hermeneutics as presented by Patton (2002) were in line
with the need for the researcher to bracket her own experiences. In relation to the first
principle of learning being similar to interpreting text required the researcher to put her
own life experiences aside when she was trying to get an understanding of the
interpretation of participants’ experiences. The second principle states that all
interpretation happens within tradition. The researcher was called to continually keep in
mind that she was interpreting data with the assistance of her participants with their
traditional sense of meaning in mind which is central to phenomenology.
The third principle of hermeneutics has to do with the researcher opening herself to a text and questioning it (Patton, 2002). The researcher had to once again put aside her biases and be open to different scenes and scenarios presented by or centered on by her participants. The fourth principle calls for the researcher to understand text in light of her own situation. This encouraged the researcher to interpret the findings in the context of the participants’ meaning of their own experiences while putting aside her own experiences.

During the delineating units of meaning phase, the researcher extracts or isolates statements that illuminate the phenomena being studied (Creswell, 1998; Holloway, 1997; Hycner, 1999). Such illuminating statements are scrutinized as the author seeks out repetition and eliminates units. During the third phase, clustering of units of meaning to form themes, the researcher attempts to understand the meaning of the units from a holistic standpoint. The researcher then groups the unit meanings into themes (Creswell, 1998; King, 1994; Moustakas, 1994). As the researcher explores these clusters of themes, a central theme emerges.

During the fourth phase of the data analysis process, summarize each interview, validate, and modify, the researcher summarizes the themes that have emerged out of the data into a holistic context (Goenewald, 2004). From a phenomenology perspective the researcher’s aim is to reconstruct the inner world or experience of the research participant. The best means of accomplishing this task is by summarizing and reanalyzing the data. During the fifth and final phase, general and unique themes for all the interviews and composite summaries, this occurs upon the completion of phases one through four.
During this final phase, the researcher searches for common themes among the interviews as well as variations in the interviews. Caution is recommended when grouping common themes. The researcher is warned not to cluster themes that differ significantly. Additionally, throughout all five phases the researcher is continually encouraged to put aside personal presuppositions about the phenomena being studied.

**Limitations of the Study**

Four limitations of this study were identified. The first limitation of the study was that this study only focused on college students and college graduates therefore the results may not be applicable to individuals who have not had a higher education experience. The second was the use of participants who are visually impaired. Since individuals who are completely blind were excluded from this study, the finding of this study may not be applicable to the entire visually impaired population. The third limitation of this study was the requirements for study participants to have a visual disability and no co-morbid disorders. Co-morbid disorders can introduce additional barriers to education and employment that were not being addressed by this study as this population was not connected to the purpose of this study. Therefore, participants with co-morbid disorders may essentially be misrepresented by the findings of this study. The fourth and final limitation of this study was the fact that participant interviews were conducted via telephone. This form of interview was utilized due to the transportation limitations of both the researcher and the participants due to the fact that they are visually impaired. Telephone interviews also limited the researcher’s ability to interact with the participants face to face.
Self as Researcher

I ventured into this research project because I was interested in the educational, vocational and social experiences of college educated individuals who are visually impaired. My goal was to understand the educational, vocational and social experiences of college educated individuals who were visually impaired and the impact these experiences had on their educational, vocation and social pursuits. As a rehabilitation counselor, I was concerned with the educational, vocational and social experiences of college educated individuals who are visually impaired. Through interviews with college educated individuals who are visually impaired, I learned factors that assisted them in being successful in their educational, vocational and social pursuits.

I have had the experience of being a student with a visual impairment. My visual impairment began at birth and continues to be a part of my educational, vocational and social experiences. I was born and raised in Trinidad & Tobago, a small twin island country in the Caribbean. While living in Trinidad, I attended public school. At the age of 11 when my family migrated to the US I also attended public school for the duration of my secondary education.

In reflecting on my own experience, I recalled as a young child that my family experienced some uncertainty as to where my success would lie. While in Trinidad, my teachers did what they could to accommodate my visual needs, but I primarily found myself to be the student most teachers were uncertain of how to teach. My family expected me to do my best while they were uncertain of just what that could or would be. I did not have access to adaptive technologies. While living in Trinidad as a child my
mother would tell my teachers “She cannot see the blackboard. She needs to sit in the front of the class and she may need help”. My mother would also have meetings with my teachers in which she would talk to my teachers about my progress and how they were providing me with class work. Student teachers would also work with me so I would learn the information being presented in class. My mother found most of my teachers to be understanding, when I encountered difficulties with my teachers my mother would request that I be placed in a classroom where the teacher was more willing to accommodate my educational needs.

When my family moved to the US, I entered the middle of the seventh grade and my mother took the same approach to informing my teachers. While my teachers understood my disability, the accommodations I received were minimal. Some teachers provided me with their notes for class, but this was the extent of the educational accommodations I received. Some teachers did not provide me with any accommodations and had a difficult time figuring out how to teach me. I often did poorly in my math and science classes because I was not able to grasp the visual concepts that were being presented to the class and I assume that my teachers did not have the necessary knowledge it took to assist me in these classes.

I also did not receive any outside sources of accommodative services such as those provided by the Bureau of Services for the Blind until I was approaching post secondary education at which point I had become uncertain of whether I could be successful in such an educational arena. This uncertainty continued into my post secondary educational pursuit. I began my higher education at a community college in
which I encountered much resistance from some of my professors. For instance, I encountered a Biology professor in 2001, and after I informed him of my disability and accommodations that I required to be successful in his course said he understood but later demonstrated the opposite. He stated that he understood my needs and was willing to work with me, but midway through the semester I was frustrated because I was never able to get notes he had on the blackboard or see the materials on the overhead. With these concerns in mind I decided to have another conversation with him about my needs. When I expressed the difficulties I was experiencing he simply said “that is not my problem.” I have had some professors ask “why don’t you just get glasses?” and others merely ignored me and my academic needs.

These experiences have made me resilient at best. As a college student, I have learned of many accommodative services and worked with Disability Support Services to work towards my educational success. Continued exposure to accommodative services through educators, Disability Support Service personnel and rehabilitation professionals have assisted me in achieving my educational goals and increased my potential for achieving my vocational goals.

In this role as researcher, I have had to bracket my experiences. Bracketing entails the embracing of the phenomenon outside of the researcher’s presuppositions (Fouche 1993; Hycner, 1999). This has required me to set aside my own personal experiences in an effort to embrace the experiences of my research participants.
Ethical & Legal Considerations

Ethical considerations that should be taken into consideration by the researcher included ten concepts (Patton, 2002): 1) the purpose of the research, 2) reciprocity, 3) risk assessment, 4) confidentiality, 5) informed consent, 6) data access and ownership, 7) interviewer mental health, 8) advice, 9) data collection boundaries and 10) ethical versus legal considerations. The purpose of the research guides the researcher’s inquiries and it also provides potential research participants with information related to the nature of the research project. The participants of this study were provided with information about their study which they were able to use to guide their decision of whether or not to participate in the study.

Reciprocity refers to what may be gained by the participant for participating in the study (Patton, 2002). The participants of this study were not provided with any form of compensation for participating in the study. The potential risk in this study that was presented to participants was the possibility that the discussion of personal experiences may be upsetting. The upsetting of participants did not occur during this study.

Confidentiality in this study was related to the need for the researcher to keep the identities of the participants from being revealed. Participants were informed that this confidentiality could be broken by the researcher if she identified that illegal activity such as child or elder abuse was occurring (Patton, 2002). The data collected from participants were stored in a locked cabinet to which only the researcher had access. During the transcription and analysis of the data pseudo names were utilized in an effort to protect
the true identity of the research participants. Data related to this study was stored until the completion of this study at which point it was destroyed.

Informed consent is related to the information that the participant needs to make an appropriate decision as to whether or not he or she would prefer to participate in the study (Patton, 2002). For the purposes of this study, information as to the purpose and process of the study was provided to potential participants via a recruitment flyer and the formal consent form. Data and ownership has to do with who will have access to the research data. During the process of this study the primary researcher was the only individual who had access to the raw data that contained participants’ identifying information.

The interviewers mental health is an important consideration as it can have a negative impact on the research process and participants (Patton, 2002). This has to do with whether or not the researcher could be affected by the research. The researcher’s mental health is in good standing. The research process did not have an impact on her well being. The ethical consideration of advice has to do with who the researcher seeks out for guidance in terms of ethical considerations for the research project. In the case of this study, the secondary researcher served as the source of support in terms of ethical considerations for this study.

Data collection boundaries are related to how hard the researcher pushed participants to respond to questions that bring them discomfort (Patton, 2002). The researcher did not aim to make participants of this study uncomfortable during the interview process. In regards to ethical and legal considerations, the research adhered to
the requirements of the Institutional Review Board, which ensured that her study was conducted in the most appropriate manner possible. The institutional review board is responsible for reviewing research conducted in an institution that receives funding from the US department of Health, Education and Welfare (Glesne, 2006). These funds do not have to be designated to the actual study.

In addition to the ten ethical areas of consideration presented by Patton (2002), it is essential at this point to discuss credibility and trustworthiness. Trustworthiness or research validity was assured in this research study through the utilization of four verification procedures that were presented by Glesne (2006). The first was the researcher’s use of peer review and briefing, in which the researcher received external reflection and input on her work from the secondary researcher. The second means of verification utilized by the researcher was clarification of research bias, during which the researcher reflected upon her own subjectivity and life experiences as a college educated women with a visual impairment and monitored its impact on the research. The third form of verification utilized by the research in an effort to maintain trustworthiness was rich, thick description. The researcher presented written representations of the data which allowed readers to enter the research. The fourth and final form of verification employed was the use of multiple data sources. This study employed both interviews and documentation as sources of data for this study. These four methods of verification assisted the researcher in ensuring that the findings of her study are both trustworthy and credible.
Summary

This chapter provided the critical components for conducting a qualitative phenomenological research study: 1) outcome studies, 2) research questions, 3) theoretical approach, 4) data collection, 5) data analysis, 6) limitations of the study, 7) self as researcher and 8) ethical and legal considerations. Data Analysis was done concurrently with data collection. I collected, analyzed and interpreted the data of college educated individuals who are visually impaired with the use of textural, structural and textural-structural narratives which resulted in thick and rich data description. The following chapters four, five and six provide a description of the results.
CHAPTER 4: SELF ADVOCACY ACQUIRING ACCOMMODATIONS

The purpose of this study was to understand the educational, vocational and social experiences of college students and college graduates who are visually impaired. Individuals’ experiences in the context of their educational, vocational and social experiences were explored. The research questions for the study were: 1) What are the educational experiences of college educated individuals who are visually impaired? 2) What are the vocational experiences of college educated individuals who are visually impaired? 3) What are the social experiences of college educated individuals who are visually impaired? 4) How do college educated individuals who are visually impaired understand their educational, vocational and social experiences? This research underscores the significance of how self advocacy played a role in the participants’ ability to acquire the necessary accommodations to obtain educational means. This chapter discusses one of the primary themes and its subthemes that emerged from the participants experiences: acquiring accommodations. Chapters four, five, six and seven report the experiences of the participants and results of the data analysis. It begins with a presentation of the participants profiles.

Participant Profiles

Sixteen college students and college graduates who are visually impaired were interviewed for this study. They represented a continuum of characteristics related to the research topic. However, they were purposefully chosen. Seven of the participants were college graduates and nine of the participants were current college students. Eight of the research participants were male and eight were female. The participants ranged in ages
from 19 to 55. Eight of the participants were employed and eight of them were unemployed. Eight of the participants were of Caucasian decent, seven participants were of African American descent and one was of Middle Eastern descent.

The participants reported having a wide range of visual disabilities which included: Congenital Macular Degeneration, Aphakia, Nystagmus, Retinal Detachment, Congenital Cataracts, Albinism, Retinopathy of Prematurity, Achromatopsia, Marfan Syndrome, Optic Atrophy, Chiari Malformation, Leber’s Congenital Amaurosis, Cordical Blindness, Stargardt’s Disease, Underdeveloped Optic Nerve and Retinitis Pigmentosa. Twelve of the sixteen participants were diagnosed with their visual impairment at birth. The other four participants were diagnosed at the ages of 18, 14, ten and nine.

Further description of the participants’ educational characteristics indicated that six participants were working towards earning their bachelor’s degree, three participants were working towards earning their master’s degree, one participant has earned two associate’s degrees, seven participants have earned a bachelor’s degree and two participants have earned a master’s degree. The varying types of employment positions held by the participants included: Director of Brighter Path, Console Operator, Supply Chain Analysis, Low Vision Technology, Title 16 Claims Representative, Tele-Service Representative, Network News Intern and Massage Therapist. Table 4.1 provides a thorough illustration of these demographics. The following are brief descriptions of each participant.

Andrew is a 45 year-old Caucasian male who has a diagnosis of Congenital Macular Degeneration. He has a Bachelor’s degree in Business Management. He is
currently employed as the Director of Brighter Path. Andrew currently resides in North Carolina.

      Brian is a 52 year-old African American male who was diagnosed with Aphakia, Nystagmus, and Congenital Cataracts at birth and Retinal Detachment at the age of 21. He is currently employed as a Console Operator and has earned a Bachelor’s degree in Communications. Brian currently resides in North Carolina.

      Cox is a 50 year-old African American male who was diagnosed with Albinism at birth. He has earned a Bachelor’s degree in Business Administration and is currently employed as a Supply Chain Analysis. Cox currently resides in North Carolina.

      Dominique is a 55 year-old Caucasian woman who was diagnosed with Retinopathy Prematurity at birth. She has earned a Bachelor’s degree in Speech Communication and is currently employed as a Low Vision Technician. Dominique currently resides in North Carolina.

      Evelyn is a 30 year-old Caucasian female who was diagnosed with Achromatosis at birth. She has earned a Bachelor’s degree in Health Administration, Public Policy and Sociology. She is currently unemployed and has been seeking employment for the past year. Evelyn currently resides in Maryland.

      Francine is a 46 year-old African American female and was diagnosed with Marfan’s Syndrome at birth. She has earned a Master’s degree in Public Administration and is currently employed as a SSI Title 16 Claims Representative. Francine currently resides in Ohio.
George is a 45 year-old African American male who was diagnosed with Optical Atrophy at birth. He has earned a Master’s degree in Special Education and is currently employed as a Tele-Service Representative. George currently resides in Ohio.

Harriett is a 25 year-old Caucasian female who was diagnosed with Retinopathy of Prematurity at birth. She is currently unemployed and working towards earning her Master’s in Psychology. Harriett currently resides in Ohio.

Isabel is a 20 year-old African American female who was diagnosed with Optic Atrophy at the age of 14. She is currently unemployed and working towards earning her Bachelor’s in Educational Psychology. Isabel currently resides in Mississippi.

James is a 21 year-old Caucasian male. He was diagnosed with Leber’s Congenital Amaurosis at birth. He is currently working as a Network News Intern and working towards earning his Bachelor’s in Political Communication in Economics. James currently resides in Washington, DC.

Kasha is a 25 year-old Caucasian female who was diagnosed with Cordical Blindness at the age of 18. She is currently unemployed and working towards earning her Bachelor’s in Psychology. Kasha currently resides in Alabama.

Larry is a 25 year-old male of Middle Eastern Descent. He is currently self employed as a Massage Therapist and is working towards earning his Bachelor’s degree in Kinesiology. Larry currently resides in California.

Maureen is a 28 year-old African American female who was diagnosed with Macular Degeneration at the age of ten. She is currently unemployed and working
towards earning her Bachelor’s degree in Theatre. Maureen currently resides in Washington, D.C.

Nancy is a 19 year-old Caucasian female who was diagnosed with Retinopathy of Prematurity at birth. She is currently unemployed and working towards earning her Bachelor’s degree in Special Education. Nancy currently resides in Ohio.

Oz is a 27 year-old Caucasian male who was diagnosed with Under-Developed Optic Nerve at birth and Retinal Detachment at the age of 21. He is currently unemployed and working towards earning his law degree. Oz currently resides in Minnesota.

Peter is a 22 year-old African American male who was diagnosed with Retinitis Pigmentosa at birth. He is currently unemployed and working towards earning a law degree. Peter Currently resides in Ohio.

The participants resided all across the country. A majority of the participants resided in Ohio (5), while North Carolina (4) was the second state with the most participants. Two participants lived in DC while the other states represented in the study, Minnesota, Mississippi, Maryland, California and Alabama, each had one participant. As noted in the above details, the participants varied in age, race, gender, education level, field of education and employment experiences. The experiences speak to a wide range of historical and contemporary changes related to how visual disability has been addressed in the larger societal context, and in educational contexts in particular.
Table 4.1

**Participant Demographic Information**

<table>
<thead>
<tr>
<th>Names</th>
<th>Age</th>
<th>Gen</th>
<th>Race</th>
<th>Type of Disability</th>
<th>Age of Onset</th>
<th>Edu Status</th>
<th>Employ Status</th>
<th>Location</th>
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</tr>
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<tbody>
<tr>
<td>Andrew</td>
<td>45</td>
<td>M</td>
<td>C</td>
<td>Congenital Macular Degeneration</td>
<td>Birth</td>
<td>BA in Business Management</td>
<td>Employed Director of Bridal Path</td>
<td>North Carolina</td>
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</tr>
<tr>
<td>Brian</td>
<td>52</td>
<td>M</td>
<td>A</td>
<td>Aphakia Nystagmus Retinal Detachment Congenital Cataracts Albinism</td>
<td>Birth</td>
<td>BA in Communications: Theatre</td>
<td>Employed Console Operator</td>
<td>North Carolina</td>
<td>None</td>
</tr>
<tr>
<td>Cox</td>
<td>50</td>
<td>M</td>
<td>A</td>
<td>Albinism</td>
<td>Birth</td>
<td>BA in Business Administration</td>
<td>Employed Supply Chain Analysis</td>
<td>North Carolina</td>
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</tr>
<tr>
<td>Dominique</td>
<td>55</td>
<td>F</td>
<td>C</td>
<td>Retinopathy of Prematurity</td>
<td>Birth</td>
<td>BS in Speech Communication</td>
<td>Employed Low Vision Technician</td>
<td>North Carolina</td>
<td>None</td>
</tr>
<tr>
<td>Evelyn</td>
<td>30</td>
<td>F</td>
<td>C</td>
<td>Achromatosis</td>
<td>Birth</td>
<td>BA Health Administration and Public Policy BS Sociology</td>
<td>Unemployed</td>
<td>Maryland</td>
<td>None</td>
</tr>
<tr>
<td>Francine</td>
<td>46</td>
<td>F</td>
<td>A</td>
<td>Marfan Syndrome</td>
<td>Birth</td>
<td>Master’s Public Administration</td>
<td>Employed SSI Title 16 Claims Representative</td>
<td>Ohio</td>
<td>None</td>
</tr>
<tr>
<td>George</td>
<td>45</td>
<td>M</td>
<td>A</td>
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<td>Edu Status</td>
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<td>Location</td>
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<td>C Amer</td>
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<td>M</td>
<td>Other (Middle Easter n)</td>
<td>Stargardt’s Disease (Macular Degeneration)</td>
<td>9 Prog</td>
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<td>28</td>
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<td>A Amer</td>
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<td>Underdeveloped Optic Nerve Detachment</td>
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<td>Retinitis Pigmentosa</td>
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<td>BS in Political Science Graduate Student Major: Law</td>
<td>Unemployed</td>
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This chart contains participants numbers (P #), age, gender (gen), race (C Amer = Caucasian American, and A Amer = African American), type of disability, age of onset (prog. = progressive), education status, Employment Status, and organizational involvement (NFB = National Federation of the Blind).
Three primary themes were inducted through data analysis three primary themes were identified; accommodation acquisition, work related experience and attitudes towards visual impairment. Each of these categories represented chapters five through seven. Within these three categories fifteen subcategories were identified and separated into themes as follows.

In this chapter, accommodation acquisitions, consists of the following subcategories: acquiring accommodations, assistance from Disability Support Services, self advocacy, professors’ reluctance to comply with accommodations, and inaccessible technology.

These subcategories were discussed within the particular theme which it applied to as discussed by the participants. Two sub categories were found to be applicable to more than one theme; therefore, it was discussed in each thematical section as deemed appropriate by the researcher. Themes that were applicable to more than one primary theme were inaccessible technology and transportation. Inaccessible technology was discussed within the acquisition of accommodation theme, in the current chapter, and the work related experience theme, which is presented in chapter five. Similarly, transportation was discussed with the work related experience theme, chapter five and the attitudes towards visual impairment theme chapter six.

The participants’ discussion of acquiring accommodations was primarily related to educational settings. This discussion of acquiring accommodations involved four sub categories: the acquiring of accommodations, assistance from Disability Support Services, professors’ reluctance to provide accommodations and inaccessible technology.
These subsections are discussed in detail with emphasis on the participants’ reports of their individual experiences.

**Acquiring Accommodations**

Twelve of the sixteen participants discussed the acquisition of accommodations in their higher education pursuits. Participants’ discussion of acquiring accommodations included but were not limited to the types of accommodations that were provided, how the accommodations were provided, the lack of accommodations, the method by which disability was disclosed in an effort to obtain accommodations, accommodative services provided through the Bureau of Services for the Blind, the use of adaptive equipment and the provision of accommodations through the college or university’s Disability Support Service office. Brian, our first participant, illuminated how his visual impairment impacted his educational experiences.

Brian attended college in the 1980s prior to the passage of the Americans with Disabilities Act (ADA). Brian was diagnosed with congenital cataracts at birth, he acquired Aphakia Nystagmus and Retinal Detachment later in life. He recalled the following about the university he attended and how he notified the professor of his visual accommodation needs;

They weren’t prepared in terms of large print books or visual aids or things like that. So basically it was walk into the classroom and say excuse me professor, doctor, I need a seat up front. And they get a glazed over look because it is not common for people to walk in and say I need a seat up front and you say look I
am legally blind I want a seat up front. And they say oh oh ok and that was pretty much it.

Brian described his experience in obtaining academic accommodations while in college. He described the lack of availability of accommodations such as large print and visual aids as well as the manner in which he independently sought accommodations from his professors by informing them of his disability. He asked for a seat in the front of the classroom so he could access the materials being presented throughout the course. Both Brian and Cox attended college prior to the passage of the ADA. Cox shared a similar experience to Brian in advocating for his own academic accommodations while in college.

Cox discussed the way in which he disclosed his visual impairment and acquired accommodations from his professors at his university in the 1980s.

I found it to be very challenging … one thing was getting information and when I say getting information that is not just stemming from information coming from my books. It was also information inside the classroom, and when I say information inside the classroom, I am speaking of when my professors would write on the chalk board or the overhead projector. Finding somebody at the times to take those notes for me, on occasion I would find a friend to take those notes for me or an associate that might do it and that was good. Along my journey, I was never shy to let people know that I was visually impaired, and I can’t see this, so I need help. I had professors that when I told them that they said “well if you are visually impaired, why don’t you sit closer to the board?” I would tell them
“well that’s not going to help. That just doesn’t solve the problem. What I really need is someone to maybe take the notes for me”. Some of the professors did allow me to bring in a tape recorder. That was most convenient. I also had some professors who would actually print the notes of their lecture out for me before the class and I would have that printed copy. It was almost like an outline of what they were going to discuss that day. So with that in hand, it was easier for me to follow along with what was being discussed on their bulletin board or chalk board. Also another challenge was books. All books did not come in large print. Fortunately enough, I did have the resources to hire a reader that would come in and read for me and they were paid x amount of dollars per hour to read.

Cox, an albino, described his college experience as being difficult. He found it to be most difficult because it was often difficult for him to access materials being presented in the classroom because he was unable to see materials that were presented to the class on the blackboard and overhead. Cox tried to minimize this issue by hiring note takers who would help him record materials being presented on the blackboard or overhead. Unfortunately, Cox was not always able to obtain a note taker for all of his courses. He also reported utilizing a reader that was provided through the Bureau of Services for the Blind. Another participant, Dominique, diagnosed with retinopathy of prematurity at birth, specifically discussed the Bureau of Services for the Blind. She further discussed her college experiences and an individual with a visual impairment.
Dominique discussed the accommodative services she received from the Bureau of Services for the Blind when she attended college in the 1980s. Dominique also discussed the technological equipment she utilized during this time to accommodate her academic needs after struggling to pass her courses during her first semester of college. I ended up taking a semester off and taking a couple of night courses to get my grade point average up to where it needed to be, to maintain the funding from the Bureau of Blindness and Visual Services… After that I did pretty well, I had readers. At that time that I went to school we did not have computers… I used a large print type writer and I use to get very frustrated because I wouldn’t make mistakes at the top of the page. I made my mistakes at the bottom of the page and would have to do the whole thing again and erase it. When I first started college, we also had the big reel to reel recorders.

Again, Dominique attended college prior to the passage of the ADA. She articulated the actions she took to improve her grades in order to maintain funding for her college education that was provided by the Bureau of Blindness and Visual Services. This description emphasized the need for students who were visually impaired to maintain a certain level of academic achievement in order to obtain funding from state agencies for the blind. Furthermore, Dominique experiences captured the usefulness of the technology, large print type writers she utilized in college during the 1980s prior to the normalization of the use of computers. Unlike Brian, Cox and Dominique, Andrew, Evelyn, Harriett, Isabel, James, Kasha, Larry, Maureen and Oz attended college after the passage of the ADA.
Diagnosed at birth with congenital macular degeneration, Andrew who attended college in the late 1990s discussed what accommodations were provided to him by the university and how these accommodations were provided.

I graduated in 1996… the school had about 2,500 students and I was the only one who was visually impaired. They really didn’t have anything in place so it was kind of whatever I needed we would talk about it and then we would do. Then I just really needed large print so what they did was they pretty much just gave me the college copy card, so I just went ahead and did my own copying.

Andrew highlighted his experience of being the only student with a visual impairment at his college and how the college personnel accommodated his needs on an individual basis. Brian who attended college some ten years earlier received assistance from school personnel when he was provided with a copy card to make large print copies; however, he was responsible for making those copies himself. Isabel who again attended college after the passage of the ADA, shared a similar experience of advocating for academic accommodations in the classroom.

Isabel who was diagnosed with Chiari Malformation and Optic Athrophy at 14 years of age made a brief statement as to how she acquired accommodations and provided two examples of such accommodations.

I provide my instructors with a letter of accommodations... types of accommodations such as note takers and extended time on test.
The letter that Isabel speaks of is one that was provided by the office of Disability Support Services to students with disabilities to present to their instructors. Isabel also had a note taker for her classes. In addition to this Isabel was also provided with extra time on her examinations. James spoke of the office of Disability Support Services more directly.

James who was diagnosed with Leber’s Congenital Amaurosis at birth discussed how he developed his ability to obtain academic accommodations as well as how he has utilized these skills at his current university to obtain academic accommodations.

In high school I had some great teachers who taught me the way that they were working to make materials accessible. They were sort of teaching me how they were doing this so as the result when I came to college, it was a much smoother transition… So I think it all kind of came together very well in that when they (Disability Support Services) were swamped or when I needed something quick like a handout for class in an electronic form so I could read it, I was able to do that myself. But then when I needed an entire book done they had the resources to do that. And so I think both of those came together to make the transition a very smooth one and to make college go very well as well.

The experience shared by James highlighted the importance of learning to advocate for one’s academic needs at an early age. His experience also highlighted the benefits that can result when students are able to successfully collaborate with personnel in the office of Disability Support Services. Maureen spoke of how her professors and Disability Support Service personnel worked to provide her with academic accommodations.
Maureen, who was diagnosed with Macular Degeneration at the age of ten, briefly discussed accommodations provided to her by her professors and Disability Support Service personnel at the university in which she is currently enrolled.

And as far as communicating back and forth, I just use regular email with my teacher, and submit assignments through email instead of putting them up on the web through the school. I just send it directly to the teacher and when I take a test I take it orally or on the computer with disability support service office.

Maureen described how she communicated with her professors and utilized alternative means for submitting her assignments to her professors. She also described the role that Disability Support Services played in providing her with academic accommodations. Testing accommodation appears to be one of the common accommodations provided by the office of Disability Support Services to college students who are visually impaired; Oz also reported receiving this service.

Oz who was diagnosed with Under-Developed Optic Nerve at birth and Retinal Detachment at the age of 21, briefly discussed the reading and exam accommodations that currently assist him in his academic pursuits.

“The main thing is I do all my readings with Kurzweil and when I take my exams they have done awesome with it”.

Oz’s described the positive experience he had with the provision of services he received from the office of Disability Support Services. He also spoke of a technological accommodation that he utilized to complete the reading for his courses. Similarly,
Evelyn, Harriett, Kasha and Larry spoke of the accommodations they received in their courses.

Evelyn who was diagnosed with Achromatopsia at birth, discussed how she went about accommodating her academic needs. She discussed how she tried to obtain course materials in the classroom and through the school's website with the assistance of those around her.

I would tape record the classes with the professors’ permission and then I would take student to get copies of their notes. If they had handwritten them, they would either photocopy them or type their notes, which made it much easier to read and they would just email me a copy of their notes. That way I was able to get everything my own notes to the best of my ability. Then I would pair up with another and then I would partner with somebody in the class to get information off of Blackboard. They would email it to me or give me a call and let me know what was on Blackboard and what I needed to do, if class was cancelled or when we were having exams, or other assignments that were on listed up there.

In this statement Evelyn described how she accessed the materials presented in the classroom through the use of a tape recorder and the copying of notes provided to her by her classmates. This highlights the need for students who are visually impaired to sometimes depend on other students in order to access materials presented in the classroom and on Blackboard. More importantly, Evelyn’s descriptions demonstrate how students who are visually impaired are forced to depend on others to obtain educational materials. Classmates can prove to be helpful, however, there are times when they can be
unreliable and in these times students who are visually impaired and who are depending on them can end up in compromising situations. Also, Harriett who was diagnosed with Retinopathy of Prematurity at birth, discussed how she went about obtaining academic accommodations and how the acquisition of notes impacted her academic pursuits in certain classes.

In her descriptions, Harriett utilized her physics class for specific examples of how she went about obtaining academic accommodations while in college.

If I wasn’t able to access the power points online it made it more difficult. And then waiting on like something, if I needed something scanned and or waiting on the electronic copy of the book. When I took a Physics class I did tell them the first day that I would need a little extra outside assistance just because it was something they were doing on a blackboard and I wasn’t able to follow it during the class… I did have a note taker in there and as they would copy the notes they would pass it over to me. I sort of missed out on some of the explanation of what was going on. So then it took a little extra time to go back and fill in the holes of what I didn’t understand. And that was the same kind of situation for Math.

Harriett described how obtaining notes (power points) prior to class and having a note taker made obtaining materials presented in the classroom easier for her. Harriett’s description of the interaction between her and the note taker does, however, highlight how the continual need to interact with someone other than the instructor in a class that requires a significant amount of visual understanding can hamper the student’s ability to obtain and comprehend the materials being presented to the class. The fact that Harriett
highlighted that she has had a similar experience in her Math class speaks to the significance of the complex nature of accommodation provision for students who are visually impaired in classes such as mathematics and science that are very visual. On the other hand, Kasha who was diagnosed with Cordical Blindness at the age of 18, shared her experience in obtaining accommodations and related her experiences to one of mathematics courses as well.

Kasha, currently enrolled in a statistics course, discussed how she obtained academic accommodations.

I am in a statistics class right now and you know that’s mathematical but my professor he gives us a 15 minute break and if I am confused about anything he will stay in and help me. I’ve been to his office several times. He has worked through the problems with me and like he will ask me “do you get it now” and I will say “yes sir I do, thank you” so that’s like my math classes are the only classes I struggle with like that.

Kasha’s experience speaks to the benefits of teachers working directly with students who are visually impaired to meet their academic needs and ensure that they are obtaining and retaining the materials they present in the classroom. Similar to Harriett and Kasha, Larry who was diagnosed with Stargardt’s Disease at the age of nine, provided a discussion of his experience in a current biology class as well.

He collaborated on the extent of the accommodations he receives from educators at the university he attends.
...well I get double time for testing and I take my exams on computer and I use ZOOMText with speech so the program will read it for me. And with the laboratory right now with one of my classes for Biology I am starting to do my labs one on one with my lab instructor before lab, so I can actually know what’s going on and learn more about lab. When I do it with the other students I am really not able to understand what is happening in the lab, because there is four or five of us on one table running experiments. So the lab instructor runs her lab a day before the actual lab time for the students to make sure everything goes ok, so I am doing that with her right now, it has been helpful.

Larry’s experience further speaks to the benefits that can be gained from professors working directly with students who are visually impaired. The collective experiences of Harriett, Kasha and Larry speak to the difficulty that is often experience by students who are visually impaired in mathematics and science class. Their experiences also address the accommodations that can improve the success of students who are visually impaired in these classes.

Students who are visually impaired received accommodations from their college or university Disability Support Services Office, their professors, and the Bureau of Services for the blind. The Bureau for Services for the Blind supports students who are visually impaired financially. Financial support for students who are visually impaired leads to increased enrollment levels in colleges and universities. Increased enrollment in turn can lead to increased college and university graduation rates of students who are visually impaired. The Bureau for Service for the Blind often provides students who are
visually impaired with accommodative services, such as note takers and assistive technology if such provisions are not made by their college or university. These accommodations assist students in accessing educational materials presented to them in the classroom, as indicated by the participants in the study which enhances their ability to successfully navigate the educational terrain and their potential for educational success.

Participants discussed their acquisition of accommodations during their higher education pursuits because it was a vital component that contributed to their educational success. Without accommodations (large print materials, notes from professors, permission to tape record classes, additional assistance from professors outside the classroom, note takers, extra time on tests, electronic textbooks, and access to and the use of assistive technology (ZOOMText, Kurzweil)) students who are visually impaired are often unable to fulfill the requirements of their course.

Different forms of accommodations allow students who are visually impaired to access materials both in and outside of the classroom, which fosters their knowledge and prepares them for examinations and basic application of the knowledge that is presented in the classroom. Through the acquisition and application of knowledge novice students are developed into professionals, this can be seen as the overarching goal of higher education, to produce professionals. It is essential that this goal be achievable by all students, including students who are visually impaired. The Office of Disability Support Services on college and university campuses plays a vital role in the acquisition of accommodations among students who are visually impaired.
**Assistance from Disability Support Services**

Nine of the sixteen participants discussed their interaction with the university Disability Support Service office during their higher education pursuits. The participants’ discussion of academic assistance provided through the Disability Support Service office included but was not limited to testing accommodations, the limited amount of services available through the Disability Support Service office, negative and positive interactions with the Disability Support Service office, Disability Support Service office personnel assistance with resistant professors and the absence of a Disability Support Service office.

Evelyn discussed her experiences with the Disability Support Service office at the university she attended in great detail. She discussed the services and accommodations the Disability Support Service office personnel provided to her during her higher education pursuits.

Student Support Services, for some professors they would write a letter to give it to all of my professors… The letter basically state my name, stated that I was a student; I was legally… that they had documentation on file, medical documentation on file, stating that I had a disability. They didn’t specify what it was called, but that I was visually impaired and that under the ADA and the Rehabilitation Act 504 that I was entitled to reasonable accommodations and they would specify the accommodations I was allowed… extended time for test taking, textbook in accessible format, allowed to tape record the class if need be and any other accommodations depending upon what the class was I may require extra
accommodations. Support Services would also facilitate some of my exams. Professors would drop the exam off to them and I would go to their office and they would have someone either read the exam to me or sit in the room while I take the exam to monitor me, and you know, make sure I didn’t cheat … and then I would just get extended time. They did type up some of my notes for some of my classes if someone would take them and they were hand written they would type them up and get them to me. They were also responsible for ordering my textbooks for me from the publisher, because publishers now have a lot of textbooks on CD. It had to come from Student Services, the request, so I would give them copies of my books for the semester and they would take on the responsibility of contacting the publisher and getting the actual CD.

Evelyn spoke of the important role that the letter provided by the office of Disability Support Services to professors played in the acquisition of accommodations by students who are visually impaired. She also described the range of accommodations she received by the office of Disability Support Services such as testing accommodations and the acquisition of electronic books. Harriett also discussed the accommodations she received through the office of Disability Support Services.

Harriett commented on the primary service that she received during her interaction with the Disability Support Service office at the university where she received her undergraduate degree in the early 2000s was;

“a note taker”.
This accommodation as identified by Harriett was received by other college students who are visually impaired was also. Kasha provided a more detailed description of the accommodations she received and her process for obtaining them.

I go up there; well I meet with them before every semester. I sit down and they have a check list with the classes I have and what accommodations I need. I tell them whether I will need like a note taker… they test me up there, extended test taking, full time for my tests, tutoring if I need tutoring, a computer that is accessible, that’s pretty much all that I ask for.

Kasha described the process that is taken in order to determine which accommodations would best serve her educational needs. This is significant as it describes the process of the office of disability services and how they identify the academic needs of their students with visual impairments. Sometimes students who are visually impaired have negative experiences with the office of Disability Support Services; this was the case with George.

George was diagnosed with Optic Atrophy at birth. He discussed the minimal services that were provided through the office of Disability Support Services when he attended college in the late 1980s.

When I was going to college they didn’t have equipment. I think they had tape recorders but a lot of the stuff was real old and kind of broken down. And they had a disability service coordinator and she was an older lady so she wasn’t very familiar with different visual impairments and things like that. It wasn’t anything like it is now, I don’t think.
George’s experience speaks to the lack of effective accommodative services that were available to students with disabilities in the 1990s after the passage of the ADA. His experience also spoke to the lack of know of personnel that worked in the office for Disability Support Services during his time in college. Maureen reported having dual experiences in this regard.

Maureen discussed both her negative and positive experiences with the Disability Support Service offices at the different universities where she studied.

The director of the disability support services, I contacted her all summer long and she did not respond nor did she get my books on time. So the first week of school I still didn’t have any of my books read which already put me behind. The other bad experience I had was another director at another college trying to give me accommodations based on someone else visual impairment, so basically trying to categorize all of us into one lump thinking that we all need the same thing, which is preposterous. Colleges is now on this webct kick where everything is online, JAWS is not accessible with the college website I don’t know why that is… So disability services usually gets a student to take everything off the webct… and email it to me, so that I can retrieve all my notes. I use a note taker so I get all my notes typed and sent to me. My books are on CD, some are in a word document some are in a recording for the CD.

Maureen’s experiences speak to the inefficiencies that are still present in college and university offices of Disability Support Services despite the passage of the ADA. Her experience of being fitted with accommodations that do not suit her needs also speaks to
the need for the placement of capable and appropriate service personnel in these offices. Oz’s experience was similar to that of Maureen’s in that he had both positive and negative experiences.

Oz discussed the absence of a Disability Support Service office at the university where he obtained his Bachelor’s degree. He also discussed the services he received from the Disability Support Service office at the university he currently attends.

My college was a small liberal arts school and they didn’t even have a disability service office as far as I know only about 2,800 students. The university I currently attend has a very, very good disability service office… For a student who has print disabilities and are registered through the Disability Support Services office, the book store will give you copies. One of your copies will go to disability service office and they will cut the binding off and send it through a high speed scanner and send them copies of my syllabi and they will post copies of my readings to a website that I can just download them from. Now they have 250 students registered with them and they are a huge office.

The total absence of an office of Disability Support Services in the early 2000s was considered to be a negative experience by Oz. His alternative experience speaks to the benefits of attending a large university with a large budget for serving the academic needs of students with visual impairments. Conversely, James, Nancy and Peter reported having solely positive experiences with the office of Disability Support Services.

James briefly discussed his experiences with the Disability Support Service office at the university he is currently attending.
I think for me one of the great things was I had a very advanced disability support services offices who was, you know, they were finding the electronic books when they could. When they couldn’t they were scanning them and when I needed testing accommodations they were trying to work that out within terms of the computer and the space and the logistics.

James experience highlights the positive impact that the provision of appropriate services can have on students who are visually impaired. Nancy further emphasized this point with her experiences.

Nancy who was diagnosed with Retinopathy of Prematurity at birth, discussed how the Disability Support Service office personnel at the university she currently attends assists in working with professors who express reluctance toward providing her with academic accommodations.

I have had a few problems with teachers just not wanting to provide materials or not being very accommodating. I would just go to disability services and talk to them and we would work around it somehow. But as far as getting materials and stuff like that, the disability service office is really good and really helpful.

Nancy described the benefits that can result from when Disability Support Service personnel are able to do their jobs effectively and efficiently. There are times when students need members of the Disability Support Services office to step in and assist them in obtaining the accommodations they require and Nancy had a positive experience in this regard. Peter also reported having a positive experience when working with the office of Disability Support Services.
Peter who was diagnosed with Retinitis Pigmentosa, discussed the support services he has received from the Disability Support Service office at the university where he obtained his Bachelor’s degree in 2009.

One of the biggest was my test accommodations, they would read the test to me, I always took my exams in that office. This is something I am really grateful for, when I applied to law school the LSAT website where I had to apply to different law schools was totally inaccessible. So I used to go to that office everyday for about four or five hours to fill out my law school applications, they helped me with that all the time. They also provided me with just general counseling I loved it.

Peter’s experiences highlight the support and encouragement he received from personnel in the office of disability support services. His experiences speak to the positive manner in which members of this office can assist students in achieve academic success and assist them in furthering their educational attainment.

The college and university Disability Support Services Office has been developed to serve the academic needs of students with disabilities, such as students who are visually impaired. As demonstrated by the discussion put forth by the participants of this study, the service providers and the services provided in these offices has improved over the years. Personnel of the Disability Support Service Offices work with professors to educate them on the needs of students with disability at colleges and universities, as well as, the legislation that stipulate the requirements for the provision of academic accommodations for students with disabilities such as visual impairments. This
demonstrates both the need and requirement for the provision of academic accommodations to students who are visually impaired. It assists in encouraging those who may be unwilling to accommodate students with disabilities, to consider the educational and legal consequences of a failure to accommodate students with disabilities such as visual impairment.

Individuals who are visually impaired reported having varying experiences with their Disability Support Service Office. Some participants reported the absence of a Disability Support Services office at their college or university. While this may be expected among participants who attended college prior to the passage of the ADA, it is not unique these participants. Participants who attended college in the late 1990s and early 2000s have indeed reported the absence of a Disability Support Service Office.

The presence of the Disability Support Service Office can be inviting to students with disabilities who want to attend college. If this office is not present at colleges or universities, this can present significant barriers to the higher education of students with disabilities, such as visual impairment, that hampers their ability to successfully navigate through the higher education process. Students are visually impaired also reported having recent college experiences that were affected by the continued lack of service provision by their Disability Support Service Office personnel. There needs to be continued improvement in the provision of academic services to students who are visually impaired. Disability Support Services personnel must be well versed in the needs of students with disabilities. While no one can know everything about any particular disability, or all
disabilities, a basic knowledge is necessary to serve these students well in order to ensure their higher education success.

A war can be started by one, but it must be fought by many. This in essence speaks to the importance of having an effective Disability Support Service Office on college and university campuses. Students with disabilities can only do so much, cry so hard and push so far. If higher education professionals are not behind them providing the support they need, their battle for higher education may be lost. Support from Disability Support Services personnel can go hand in hand with self advocacy among individuals who are visually impaired.

**Self Advocacy**

Self advocacy is one of the identified areas of discussion that has been applied to two of the overarching themes identified in this research. Eight of the sixteen participants discussed the need for the development and or utilization of self advocacy skills as individuals who are visually impaired. Participants’ discussions of self advocacy included but were not limited to reluctance to advocate for vocational accommodations, the development of self advocacy skills, the benefits of self advocacy, the transferability of self advocacy skills from an academic setting into a vocational setting, and the combination of self advocacy and assertiveness to obtain academic accommodations. Seven participants discussed self advocacy in relation to accommodation acquisition and higher education.

Evelyn discussed how she learned about the important of advocating for herself in educational settings. She discussed her experience with professors’ preference to work
through Disability Support Services as opposed to communicating directly with her about her academic needs. Also, Evelyn expressed her preference of advocating for herself and how such self advocacy skills can be transferred into the workplace after college.

I was fortunate that growing up I had several vision teachers that were wonderful and that’s one of the things they taught me … being in a “normal classroom” or more regular classroom where I had 30 other kids in there who were all normally sighted. They taught me how to speak and ask for the things I needed and how important it was to tell them what I needed … because there was no way for them to know unless you tell them… some professors are a little hesitant about having a disabled student, they won’t do anything without Student Support Services being involved. They kind of want them to be the middle man and they would prefer to talk to them than talk to you… I am the type of person that I would rather advocate for myself, and try to eliminate the middle man and you and I work out everything.

Evelyn’s experiences speak to the importance of learning to self advocate at a young age. Moreover, Evelyn’s experience highlights her preference to communicate with her professors on a one on one basis so they could get to know her as opposed to the Disability Support Services personnel who represented her. Larry shared a preference for self advocacy with his professors.

…I mean they (disability services) can communicate with the professors but I do it myself so they can get to know me and my condition. They (disability services) offer to, but I prefer to do it myself. I find that to be the best way to do it…
They’ll get to know me and I can tell them exactly what I need rather than communicating that to someone else, instead of coming from me. It is necessary that I do it because it’s my responsibility, it’s my education and I feel responsible to take care of that myself.

Larry expressed that he preferred to discuss his disability and need for accommodations with his professors because he is better able to discuss his visual impairment than anyone else. He expressed that he believes it to be his responsibility to communicate his academic needs to his professors. Larry also believes that communicating directly with his professors allowed him the opportunity to develop a personal relationship with his professors. The preferences express by Evelyn and Larry are significant because they demonstrate that students who are visually impaired have a preference for how their needs are communicated to faculty members. It demonstrates a strong need for their involvement in the process of accommodation acquisition. Nancy appears to have a similar preference.

Nancy discussed the importance of self advocacy and related it to one of her personal experiences with a professor who was resistant to the idea of providing her with reasonable accommodations. She emphasized the importance of being assertive when being a self advocate.

You have to know how to ask for what you need and not really demand that you get it, but be assertive enough… “Ok I do need this I can’t really function without it.” Like with the teacher that did not want to work with me. You just kind of deal with it, ask for help, go to disability services. You have to be a good self
advocator and really know what you need and kind of, I guess, manipulate people
to get what you need without being too impolite or aggressive, without making
them kind of turn off to wanting to help you.

While Nancy speaks of the importance of being a self advocate she also speaks to the
importance of knowing when to ask for assistance. Students who are visually impaired
are not always able to acquire their accommodations independently. Harriett speaks to the
need for students who are visually impaired to let people know when they need
assistance.

Harriett stressed the importance of people who are visually impaired making their
needs know in an academic setting to avoid misunderstandings.

Let people know if you need something... the people that work in the disability
office, they’re not blind so they may not know exactly what you need, whereas, if
you just told them exactly what you need... there wouldn’t be any
misunderstanding or anything like that.

Harriett speaks to the limitation of the knowledge held by Disability Support Services
personnel. She also highlighted the benefits of students who are visually impaired being
able to describe their needs to Disability Support Services personnel. This point was
further highlighted by Maureen.

Maureen discussed the benefits of advocating for yourself and educating others in
an effort to improve employment potential and employers’ willingness to hire you.

They have to be determined and they have to realize that people just don’t know
and sometimes if you are just willing to educate people they might be willing to
give you that try. They may be willing to go that extra step to hire you. They may want to help you if you just let them know about what it is that you can do and what it is that you can’t do. A lot of people think that visual impairment means that you are helpless. If you just go in there with confidence and let them know there isn’t much that you can’t do if you have the right technology and a lot of people just don’t know about it. So education is definitely the key, and if you are willing to educate them I think a lot of people would go a lot further.

Maureen’s statement highlights the possible limited knowledge of the people that individuals who are visually impaired may encounter. She emphasized the need for individuals who are visually impaired to educate other individuals so they can better serve their needs. George highlights the fact that requesting assistance is not limited to students who are visually impaired.

George referred to influential people in his life who are visually impaired and how these individuals demonstrated self advocacy without reservation.

I know very successful people that are sight impaired or blind people, they are very proactive. They will let you know what they need, they have no problem acknowledging, I need this equipment, I need this, I need you to do this. They make their needs known; they are not ashamed of their impairment.

This statement demonstrated that the request for assistance continues into varying stages of life. It shows how individuals who are visually impaired can become role models for other individuals who are visually impaired. Peter briefly discussed communicating your abilities to others.
“You have to let them know that your blindness does not diminish your ability to work. You are capable of working you can do everything anyone who has sight can do”.

Peter’s statement is significant in that it emphasizes the need to demonstrate that while you may need assistance if you are visually impaired, this does not mean that you are incapable as a person.

When students are not able to obtain any or a significant amount of services through the Disability Support Services Office, professors, or the Bureau of Services for the Blind they must then turn inward to determine how to accommodate themselves. In some cases, students who were visually impaired make their own accommodation provisions. This is significant in that it demonstrates their drive for educational survival, when no one else is available to accommodate them. In these instances, individuals who are visually impaired must accommodate themselves and advocate for their needs.

The development of self advocacy skills is not always present when students enter college or university settings. Disability Support Service personnel can play a vital role in assisting student in developing self advocacy skills, by teaching them the best methods for communicating with their professors in order to assist them in understanding the students’ individual academic needs. Sometimes a part of self advocacy is simply knowing when and how to ask for assistance.

In the case of students who are visually impaired and all other students with disabilities, they are not accompanied by Disability Support Service personnel when they transition from one course to another. The letter that Disability Support Service personnel
provide to instructors does not discuss the intricate details of the impact of a students’ visual disability. Therefore, it is up to the student to advocate for his or her individual needs. The ability to self advocate for ones needs demonstrates to the individual and society, that despite their disability, they are resilient and self sufficient. This dispels myths about people who are visually impaired, that imply they are helpless and require constant care, assistance and supervision. Professors are often not familiar with the limitations and capabilities of students who are visually impaired and this in turn can lead to their reluctance to comply with accommodation requests.

Professors’ Reluctance to Comply with Accommodations

Six of the sixteen participants discussed experiencing reluctance to provide academic accommodations on the part of their professor(s). Participants discussion of professors’ reluctance to provide academic accommodations included but were not limited to professors’ lack of experience working with students who were visually impaired, professors’ unwillingness to provide reasonable accommodations to students, professors’ alternative to providing academic accommodations, and alternative methods used by students to obtain course materials professors refused to provide.

Evelyn discussed her experience of being one of the first visually impaired students that some of her professors encountered. She discussed a professor’s reluctance to provide her with reasonable accommodations followed by his recommendation for her to drop the course as he was not willing to work with her.

Many of the professors had never worked with someone who was blind or visually impaired and some of them quite frankly didn’t even want to be bothered
and told you that, you know, they were point blank honest with you. One professor I had, he told me point blank that he wasn’t going to accommodate me, so he didn’t know how I would make it through the class. So he suggested that I drop the class or find another professor because he did not have time to make copies for me or make exceptions, to you know, give me extended time for test and exams and he wasn’t sure how I was going to get anything off of blackboard because he didn’t have the time to send me a personal email.

Evelyn’s experiences illustrates the direct resistance to accommodate some students who are visually impaired have encountered from some professors. The professors’ refusal to accommodate the student and then recommending that she drop the class is a representation of the professor’s refusal to educate the student because she was visually impaired. Francine shared a similar experience.

Francine who was diagnosed with Marfan’s Syndrome at birth also shared her experience of encountering professors who had no previous experience working with students who were visually impaired. She also had the experience of receiving the recommendation to drop a course due to the professors’ uncertainty of how to best assist her.

Teachers were very open but were not familiar with teaching a person with a visual impairment such as in my logic class… that was a little difficult. Matter of fact, my philosophy teacher told me that he advised me to drop the class. With a particular teacher that just did not understand and just was not accommodating. I either had to just drop the class or work as hard as I could to pass the class.
Sometimes they just won’t budge and there is nothing you can do about it except for going to the dean, and I have gone to the dean before and the dean had talk to the professor.

Francine’s experience of being told to drop a class further highlighted the reluctance of some professors to educate students who are visually impaired. Kasha shared a similar experience in which her professor chose not to educate her.

Kasha discussed a specific incident in a pre-calculus course in which her professor was unwilling to accommodate her academic needs related to the course.

I was sitting in my precalc class one semester and my professor was doing work on the chalk board and so I stayed after class because I did not understand what she was doing because she was not talking through her steps. So, I was like “can you go over that with me? Because I cannot understand what you were doing” She said “it’s very visual go ask student disability” and was I like “you won’t sit down and take 5 minutes with me just to like show me, like a couple of steps, what you were doing” she was like “it’s too visual go ask student disabilities” and I said “ok thank you”. So she did not give me the time of day.

Kasha’s experience details to the frustration that can be experience by students who are visually impaired when they directly and clearly request assistance from their professor. This third example of professors’ reluctance to educate a student who is visually impaired made this experience very significant to students who are visually impaired. Similarly to Kasha, Maureen also found herself being referred to the office of Disability Support Service to be educated.
Maureen discussed her experience of professors' simply referring her to Disability Support Services when they were uncertain of how to assist her. She also discussed a specific experience of a professor giving her a passing grade for a course because she was uncertain of how to accommodate her, despite the student’s efforts to work with the professor.

I have had a couple of teachers who don’t really understand what they need to do and they are kind of standoffish and they say well you need to go talk to disability services. One of my teachers just passed me because she did not know what else to do with me. That was one experience; I did have a talk with the dean about that because I felt slighted… I felt like I wasn’t being given an opportunity to show that I could do the work as well as anybody else. When it came to in-class assignments I would ask her, because she would pass around something in class that we would have to read and answer the question. And I would let her know that I could take it with me and scan it and give her the questions later and she would say “oh don’t worry about it, you don’t have to do it” and other times, there would be times where we had a group project and each member of the group was responsible for one thing. And then when it came to my group she would be like “oh, don’t worry Maureen, I will give you something else to do” and that would never come.

When a professor decides to give a student a grade instead of allowing the student the opportunity to earn their grade it is a clear decision of refusal to educate the student. This is a clear description of what Maureen experienced. Even the refusal to provide students
with visual disabilities with class related notes can be interpreted as a refusal to educate the student, as Nancy experienced.

Nancy discussed her encounter with a professor who refused to provide her with a copy of his notes so she could follow along in the course when he was lecturing.

One of my professors last semester... had all of his notes up on power point and obviously I can’t see them and the other kids would be filling in notes by just writing them in on the power point. And he wouldn’t actually read out the power point. He would just ramble on and on and on and I wouldn’t know what information was actually relevant to what he was talking about because he got off topic so often. He was terrible, and he would not send me the power points to make sure I had the notes up until about three or four weeks close to the end of the semester. What I had to do was I had a friend take notes for me and then I went to disability services and they read me the filled in notes and I wrote them in. It took forever and it was a pain but it got things done.

Nancy’s experiences elucidates the negative impact that a lack of provision of course materials to students who are visually impaired can have on their ability to obtain and retain materials being presented in the classroom. The provision of Power Point materials to Nancy prior to the discussion and presentation of the materials to the class was not beneficial. The student may have been able to gain more from the material if she was able to follow along in the classroom. Another student had a more isolated experience of not being allowed accommodations to enhance their educational experience.
George discussed a specific incidence of not being able to access a document for a class project. In this experience he found his professor to be reluctant in regards to providing accommodations to assist him in this particular project.

I only had one professor that I did not get along with so far… he had this document that he wanted everyone to complete and the print was very small, and he was like well you’re going to have to complete this document”. So I was trying to use the CCTV to complete it and I asked him, “isn’t there another way? He said “no that is a legal document you have to do it”. So I don’t think he was very accommodating to my visual impairment. I think maybe he thought I was making excuses.

In this instance the professor’s reluctance to provide an accommodation for George to access the document he presented to the class was in essence him minimizing his efforts to educate George.

Professors play a significant role in the provision of academic accommodations to students who are visually impaired. It is these professionals who work directly with students who are visually impaired in the classroom. They are presented with the students’ limitations and needs; these educators are the ones who have first hand experience in assisting students who are visually impaired to access the educational materials they present in their classrooms. If these educators are not willing to accommodate students in the classroom, the students’ means of obtaining and retaining educational material becomes limited.
Professors are not always educated as to the basic needs of students are visually impaired. Some professors may have never had the opportunity to work with students who are visually impaired. Therefore, it is up to the student and the Disability Support Service personnel to educate these professors as to how they can serve students with visual impairments. Professors must keep in mind that they are first and foremost educators, and every student that enters their classroom must be granted the same opportunity to learn the material they present, regardless of the presence or absence of a disability. Judgment must not be passed and stereotypes must not be evoked when working with students with disabilities such as visual impairments.

It is understandable that professors may be reluctant to serve students they have not previously encountered. However, the very essence of being an educator is inextricably linked to the concept of being a continual learner. Therefore, these educators should embrace their students with disabilities as they embrace all of their students, assisting in every way possible to ensure their educational success. Professors’ behavior towards students with disabilities impacts the students’ reaction and interaction with the professor. If you exhibit behaviors of hostility towards your students, they will exhibit hostility towards you. As a professor, an environment of hostility is not conducive to learning.

Students who are visually impaired must be taught and molded like all other students without disabilities. Providing a student with a passing grade because you are unsure of how to educate them is unethical and unacceptable. When working with students who are visually impaired professors should embrace the students learning needs
and work collaboratively with the students to identify the adjustments and accommodations that can be made to ensure the students’ success in the classroom.

When professors are reluctant to serve students with disabilities such as visual impairments, the students are forced to seek educational assistance elsewhere. These students seek assistance from their peers, who are only learning themselves and are not required to educate these students. Students with disabilities may also seek assistance from Disability Support Service personnel. Disability Support Service Personnel can only do so much, they are not equipped to teach the students, this is the job of the professors. Professors should be open and consider the options for accommodating students who are visually impaired. One primary tool for accommodating students who are visually impaired is through the use of growing technology, but this too has proven to be an area of difficulty for individuals who are visually impaired.

**Inaccessible Technology**

Inaccessible technology is one of the areas of discussion that has been applied to two of the overarching themes identified in this study. Four of the sixteen participants discussed the inaccessibility of software. The ideas participants discussed included but were not limited to the inability to access Blackboard, the inaccessibility of the university’s website and inaccessible technology that limited the employment of individuals who are visually impaired. In this particular instance inaccessible software is discussed in regards to the attainment of higher education.
Evelyn discussed her inability to access Blackboard in the early 2000s when she was attending college. Blackboard is an instruction supplement utilized by educators to complement activities in the classroom.

Blackboard which at the time was not accessible with ZOOMText and JAWS and so getting assignments and class notes and things of that nature were quite difficult because I wasn’t able to access it, because it wasn’t accessible with zoom text. So trying to get notes from some professors was very difficult.

Evelyn’s experience emphasized the dependence on others that is forced upon students who are visually impaired when colleges and universities fail to make technological programs accessible to individuals who are visually impaired. Francine described a similar experience.

Francine described an experience in which she received a lowered grade in a course as a result of her inability to access online materials and submit online assignments due to the inaccessibility of the university’s website.

I had one teacher in a health class that wasn’t so accommodating and I didn’t drop the class. I probably should have but I didn’t drop the class so therefore I was a little angered by my grade in her class because she was not accommodating at all. They used the website to deposit materials in and the website was not accessible, and so she still took off points even though I didn’t have any way of getting on to the website.

Francine’s description of how the inaccessibility of the university website negatively impacted her grade speaks to the inconsistencies within some college and university in
regards to the provision of reasonable accommodation. The professor's failure to allow her to submit her assignment in an alternative format further highlights the need for faculty awareness of their responsibility to educate all students including those with visual impairments. Peter also shared an experience similar to Evelyn and Francine.

Peter discussed the difficulties he experienced in terms of accessing the university’s website. He discussed the measures he took in an attempt to improve the accessibility of the university’s website for individuals who are visually impaired.

I think the problems really came in the electronics. I had a lot of problems trying to get the university to make their website accessible. Like I was not able to do most of the, you know on the website there are a lot of features that were very helpful but I was not able to use them. Some features were how to search for other students. How to search for professors. Somehow that website didn’t work with JAWS… I had a meeting with the technology department. I showed them how to use JAWS and how JAWS works with different website. So they were able to see how I was not able to use the website so they assured me that they would try to fix it, but I graduated so I haven’t tried to use it ever since so I don’t know if it is working now.

Again the experiences of Evelyn, Francine and Peter demonstrates that there is a significant need for the improvement of the accessibility to college and university websites for students who are visually impaired. Universities could learn from visually impaired students how to construct websites and other technological features to support
the educational advancement of students with visual impairments thereby accommodating their academic needs.

In higher education settings the use of technology has become a norm. Course materials are presented in electronic form in an online forum through Blackboard. Study participants reported that they encountered many obstacles in accessing Blackboard. Those who utilized screen readers found themselves unable to access their course materials that were placed online. As a result they had to rely on their professors to provide them with such materials on an individual basis. While this served as a reasonable accommodation for some, it proved to be an area of difficulty for others. Students who had professors that considered it an inconvenience to take additional time to provide them with inaccessible materials found it difficult to meet all the requirements of their classes. Many of these students found themselves relying on the kindness of their classmates.

Blackboard has been continually improved over the years, however, other technological barriers still stand in the way of students who are visually impaired. Some students who are visually impaired who utilize screen readers also experienced difficulties in accessing their college and university website. These websites often serve as a source of information; announcements about the university, locating contact information for college and university faculty and staff, accessing email; some of the vital components of college and university websites. Students who are visually impaired are not able to function independently if they do not have basic access to information. Colleges and universities need to continue to make technological accessibility their
priority so students who are visually impaired can access their websites and obtain the
information that they need to function independently in higher education settings.
Another issue that can have an impact on the acquisition of information among
individuals who are visually impaired is a lack of transportation.

Transportation

Transportation is the only identified areas of discussion that has been applied to
all three of the overarching themes identified in this research. Six of the sixteen
participants discussed transportation. In their discussion of transportation participants
statements included but was not limited to the effects of transportation on vocation, a lack
of transportation as an obstacle to social activity involvement, attitudes towards asking
others for assistance with transportation and reliance on public transportation. In this
particular instance two participants discussed transportation and it’s relation to their
educational pursuits.

Evelyn discussed the difficulties of relying on public transportation. She
expressed the importance of developing a backup plan for transportation in an effort to
overcome the limitations of public transportation.

Relying on public transportation there are always time where there is a glitch.
You just always have to prepare yourself, and always, if possible try to have a
plan B because relying on public transportation, they can be late anytime, they
can be five minutes late or they may be an hour and a half late. So you always
have to try and have a plan B. there have been times that I have missed class
because of public transportation. There have been times where I have missed
exams because of public transportation and I just try to let the professors know up front when I was in school. That I do rely on public transportation it’s not the most reliable. Our para-transit system, and there may be a time where I am late, there may be a time when I don’t come at all and that happens.

Evelyn’s experience spoke to the complications that can result if transportation is not available or reliable for individuals who are visually impaired. In her case unreliable transportation often impacted her educational pursuits. Larry also discussed his use of disability transportation services that he used to get to and from school and the inconveniences he frequently encountered with this transportation service.

I take ACCESS which is like a share ride thing for people who can’t drive and you know I’ll spend two hours in the car each way sometimes. Sometimes they are like an hour late to pick me up and that is really frustrating as well, yes, so transportation is really major.

Larry’s experience is significant in that it parallels Evelyn’s experience. The inability to get to school in a certain amount of time can have a ripple effect on educational success.

A lack of transportation can have a significant impact on the lives of individuals who are visually impaired. The inability to obtain a driver's license can leave individuals who are visually impaired dependent of public transportation or the kindness of friends and family, both of which can be unreliable. In the experience of Larry and Evelyn the unreliability of disability related transportation can impact the educational pursuits of college students who are visually impaired. If a student is not able to make to class on time or misses a class entirely the ramifications can be significant. Ramifications for not
being in class could include a failure to obtain valuable information, missing assignments and exams, etc. The experiences of these two individuals highlight the continual need for improved transportation services for individuals who are visually impaired.

**Conclusion**

Chapter four has provided a description of the lived experiences of students with visual impaired subsequent subthemes was accommodation acquisition. This primary theme was divided into five subsections: acquiring accommodations, assistance of Disability Support Services, self advocacy, professor’s reluctance to comply with accommodations and inaccessible technology. The participants of this study provided a discussion of their experiences in these areas.

In regards to acquiring accommodations participants shared their experiences in several different areas. They spoke of the types of accommodations that were provided to them in college. Participants shared how the accommodations they received were provided by different education professionals such as professors and the Disability Support Service office. They discussed the methods by which they disclosed their disability to education professionals in an effort to obtain accommodations and their use of adaptive equipment.

Participants had discussions specific to the assistance they received from Disability Support Services. These discussions covered the participants’ descriptions of their negative and positive experiences in working with Disability Support Service personnel as well as specific services they received through this office. Participants also discussed self advocacy in regards to the importance and benefits of developing and
implementing these skills. Participants also discussed how self advocacy skills can be transferred from an educational setting to a vocational setting. This chapter provided the participants’ discussion of their experiences with professors who were reluctant to provide them with reasonable accommodations and the alternative methods they used to obtain course materials. Participants also discussed their inability to access Blackboard and their college or university’s website and how it impacted their higher educational pursuits.
CHAPTER 5: WORK RELATED EXPERIENCES

The participants had several discussions about their work related experience. These discussions of work related experiences included: employers’ knowledge of what people who are visually impaired can do, working with a visually impaired population, inaccessible technology, a lack of work experience, visual impairment hampers promotion potential and transportation. A thorough discussion of the subsections follows.

Employers’ Knowledge about Persons Who are Visually Impaired

Eight of the sixteen participants discussed employers’ knowledge about persons who are visually impaired. Participants’ discussion of employers’ knowledge about visual impairment included but were not limited to a lack of knowledge about adaptive equipment, a need for sensitivity training in an effort to increase knowledge and understanding about visual disabilities, demonstrating vocational potential through achievement, employers’ lack of experience working with individuals who are visually impaired, and the benefits of employers’ education about visual impairment.

Cox discussed his experience in a job interview in the 1980s where the employers proved to be unknowledgeable in the area of visual impairment and methods of accessibility for individuals who are visually impaired. He also expressed his preference for the need of improvements in the workforce. Cox also expressed his beliefs about trainings that could be used to improve the knowledge of workforce leaders by way of sensitivity training in an effort to improve the understanding of and sensitivity to the effects of visual impairment on an individual’s daily activities.
When I graduated and went on a particular interview for programming and I sat down in front of a computer and I had a piece of paper slapped in front of me and I was told to “type this and see how fast I could type it”. Well unfortunately I had to tell them that “I can’t see that from that distance, I would have to have visual aids in order to do that”. Well they said “how do you plan on working in this particular industry” and I graduated with this particular degree. Then they went on to ask me “well how did you manage to finish school with a visual impairment?” I said “well it is because I had the vision services for the blind which provided certain visual aids that would allow me to view certain print” and he said “what are you talking about?” I said “well there are such things as CC televisions, there are things that change the magnification of your computer screen” and they looked at me as if I guess this is the foreign age and I was just politely escorted out they said “thank you for coming”…

I think… the job enterprise need to be educated more. Although the technology is out there, they need to be educated more about our conditions. Even though they may be familiar with some of those technologies out there they really need to know that just because this person can see at this particular rate or power another person may not. Also I think that the sensitivity training wouldn’t hurt, and when I say sensitivity training, you know, get a group of them… not just perspective employers in the job market itself, you may go out there and just grab a group of CEOs. Give a sensitivity training, blind folded for an entire day and put them in a controlled environment so nothing happens, but let them see what blind
individuals actually have to go through on a daily basis... Try to give them that insight and you know that hands on demonstration helps out a lot more than just research or somebody telling you this is what it is.

Cox’s experience speaks to the lack of knowledge that employers had about visual impairment in the 1980s. His suggestion of sensitivity training supports the idea that individuals who are visually impaired often consider what can be done to improve their employment rates. Francine also discussed her employer’s disbelief that she could serve in a higher position at her place of employment.

Francine spoke of her diligence in obtaining the appropriate training for the position and demonstrating to her supervisor that it was possible for an individual who was visually impaired to serve in the particular position. She also spoke of employer’s lack of knowledge in the area of adaptive equipment prior to the 1990s and how that has hampered the employment of individuals who were visually impaired.

When I got promoted to the office where I am now the manager was not open to it, because he felt as though a visually impaired person could not do the particular job, so he was very negative about it. However, before I came to my office I worked in Michigan and they had people in the capacity that I am working now who were visually impaired and they were successful. So when I was there I received all of my training and worked there very well and when I came back he was more open to it, now he sees, it can be done. So I don’t think he will have a problem with hiring people who are visually impaired now… a lot of the
employers today, they don’t know about the equipment, about what’s out here. So they do turn people down…

Francine’s experience speaks to the experience of many individuals who are visually impaired who have to continually prove that they are capable employees to their supervisors. Francine’s experience at this company appears to have opened her employers' mind to the possibility of employing other individuals who are visually impaired; however, this experience describes the attitudinal barriers that are faced by individuals who are visually impaired in the workplace. George also shared his experience with employers in the workplace.

George discussed the stereotypes employers associate with disability and adaptive equipment and the cost both may have on the company. He also discussed his personal experience with employers’ reactions to his disability.

People have negative thoughts when they see disability or blind. When they see equipment the first thing to come out of their mouth is “well if we hire this person they’re slow, and if the equipment breaks down then we have to spend all this money to promote… training for them”. I think when people do hiring, they’re not suppose to think like that… but they do look at that, they do consider that, that’s unfortunate, but I think they do.

People don’t understand when they see my impairment or they see how big I blow the screen up. They think? How can he be productive or successful?” Some people they will know, but I think it is easier now with all of the computer technology and things like that. But I can see people still have barriers, “if he is
impaired how can he do this or how can he do that? And how will he get to work?” Stuff like that. I think people still have negative attitudes, they don’t really understand sight impairment they tend to react negatively to it.

George’s statement speaks to the fears that employers often have when they consider hiring individuals who are visually impaired. These fears often escalate into barriers to employment for individuals who are visually impaired. Harriett also discussed the lack of knowledge and experience her previous employer had in regard to working with people who were visually impaired.

My most recent job, I don’t think any of them ever met anyone with a disability. A lot of people didn’t understand, so they didn’t think that I could do things, so I had to meet with my boss and tell him I could do everything it just took a little explanation of what something said or something like that. It is just kind of the assumption that people who are blind can’t or just isn’t able to do something. I wanted them to understand that I could do any task that needed to be done.

Harriett’s experience further emphasizes the desire that individuals who are visually impaired have to educate employers about their disability in order to improve their employment rate. Maureen also discussed her employer’s lack of knowledge about her visual disability.

Maureen spoke of her employer’s reluctance to assign projects to her due to the employer’s uncertainty about the limits of her visual disability. Nancy also discussed her employers’ reluctance to hire her based on their concerns about liability issues and the provision of adaptive equipment.
When I use to do work-study at my college, there was a lot that my boss thought I could not do or was scared to ask me to do. She only hired me because I kept begging her and begging her and the director was like “why don’t you give her a chance?? And I had to like really prove myself, it was just a constant trying to prove myself to her, and she was just like “oh I didn’t know you could do this and I didn’t know you could do that”. It was like she was tip toeing around me, not asking me to do things because she didn’t know whether she was offending me. Some of them (employers) are like “ok she is confident let me give her a chance”. But most of them are really like “how is she going to do the work?” That is their first thought, and instead of trying me even on a probationary period, they just rather not deal with it all together. It could be because they don’t want to have to deal with purchasing any equipment or liability issues, it could be anything, but mainly they shy away from that.

Maureen’s experience continues to emphasize the significant impact that a lack of employers’ knowledge about visual impairment can have on the successful employment of individuals who are visually impaired. Her experience also speaks to the significance of the need for individuals who are visually impaired to prove to their employers that they are capable of performing a variety of work related tasks. Peter described his experience with employers in terms of reactions.

Peter discussed the two primary reactions he has experienced from employers when he has disclosed information about his visual disability in past employment settings.
I would say that they’ve always been one of two reactions. One being “alright that is fine, we will deal with it”, which of course is the positive reaction. Or they have been sort of too nice about it like “awe ok” kind of like accommodating but kind of in a condescending way, and then they would give me easier things to do than other people.

The response that Peter received upon disclosure of his disability speaks to the continual existence and application of stereotypes about people who are visually impaired. Evelyn also encountered an employer who was not knowledgeable about visual impairment except her experience was a bit different in the 2000s.

Evelyn discussed some of the questions her employers asked her in an effort to increase their understanding of the limitations of her visual impairment. She also discussed the continual existence of stereotypes about people with disabilities held by employers and her hopes for employers to change their approach to employing individuals who are visually impaired.

They (employers) had asked a lot of questions. One of the things they asked… and tried to understand my disability and what exactly I could see and couldn’t see, and what I could do and couldn’t do. They just weren’t sure of how independent I was, how I would be able to travel to meetings, or if I would be able to travel to meetings... How would I go about doing those sorts of things, like I said getting to and from events, getting to and from meetings, and giving presentations?
A lot of employers still have a huge stereotype when it comes to hiring people with disabilities. They feel as though it’s going to cost them more money, the person’s going to take off more sick time than a normal person, that they will always be late for work, that their work ethic won’t be as great. I just would love to see more employers embrace more individuals with disabilities, especially people who are blind and visually impaired, we have the highest unemployment rate of any race, ethnicity, gender…

Evelyn’s experience speaks to the inquisitive nature of employers. This is a perfect example of an employer being welcome to ask the questions that are typically not discussed in some interviews due to fear of prosecution and discrimination. James discussed the approach he employed when attempting to educate potential employers about his visual disability.

    James spoke of the benefits of openness and honesty and how it can assist both the person with the visual impairment and the employer.

    So I have taken a really bold approach which a lawyer would probably hate me for if it ever came down to it, but I end up telling employers “so I know there are lots of laws that are what you can and what you cannot ask me and how you have to phrase that question. Let’s forget that for a minute, let’s just put that aside you know. What questions do you have for me?” and over the years I get the question of, “how do you use a computer? To how are you going to find where your desk is? You know blindness can so obvious when you walk in with a cane or a dog that it’s kind of; I mean you can’t ignore the elephant in the room, to borrow the
expression. You just have to be open and honest, not just with yourself but with the employer too, about what those questions are that are going to be there whether you answer them or not. It is a lot easier to answer them than to have these sort of strange interactions with your boss tiptoeing around issues or tiptoeing around answering their questions that they haven’t actually asked.

The openness displayed by James has the potential to increase the education and comfort level of employers in regards to visual impairment. James’s approach is unconventional and may be considered as risky to many; however, discussing the elephant in the room can be better than trying to walk around it. Put more plainly if the employer can readily identify you as having a visual disability, failure to discuss the parameters of your visual impairment may be more detrimental that discussing the employers' potential concerns. If individuals who are visually impaired ignore their disability, employers are very likely to do the same.

Despite the passage of the ADA and several other disability related legislative acts many employers are still not knowledgeable about individuals who are visually impaired. Participants both in higher and lower levels of the age range reported that they encountered employers who had no knowledge about assistive technology and about providing reasonable accommodations to individuals who are visually impaired. Employers’ lack of knowledge about individuals who are visually impaired hampers their willingness to employ these individuals. A lack of knowledge leads to fear and resistance.

One participant called for the implementation of sensitivity training for employers. Sensitivity training would provide employers with a basic knowledge about
visual impairment and its’ limitations. Sensitivity training can provide employers with a firsthand experience of being visually impaired, which may grow their level of empathy and openness towards individuals who are visually impaired. When employers become more open and empathetic to individuals who are visually impaired employers are more likely to be open to hiring individuals who are visually impaired.

As with all employees, employers require employees to prove themselves; this is often done during the first 90 days of employment. Individuals who are visually impaired have reported having to prove themselves and their abilities, just to get through the door and have employers consider them for employment positions. Individuals who are visually impaired are the main source for information about their disability for their employers. Participants have reported letting their guard down and being completely open to the questions of their potential employers in an effort to make the employers comfortable enough to ask the questions they feared. When individuals who are visually impaired are open to questions from employers, they allow employers' to become more knowledgeable about their disabilities. As a result, employers are more open to hire and recommend other individuals who are visually impaired, thus improving the employment rate of individuals who are visually impaired.

Despite openness and effort, employment is not always achieved. When competitive employment proves to be too difficult to obtain or are unavailable, individuals who are visually impaired seek alternative means of employment. For instance, some individuals who are visually impaired seek employment in companies that are geared towards hiring primarily individuals who are visually impaired and blind.
Working with a Visually Impaired Population

Six of the sixteen participants discussed working at a company that primarily hired individuals who were visually impaired and blind. Participants’ discussion of working at companies for the blind and visually impaired included but was not limited to difficulty obtaining employment outside of companies geared towards employing individuals who are visually impaired and blind and self employment through a business enterprise program for individuals who are visually impaired and blind.

Francine discussed the difficulties individuals who were visually impaired faced in obtaining employment in the late 1980s. She also shared of knowledge other individuals that she communicates with who have continued to work at companies geared towards hiring individuals who are visually impaired and blind.

A lot of times we were not able to get jobs and we ended up working in sheltered workshops. I still have friends till this day that work in sheltered workshops because they feel as though they have been told no so many times by employers that they can’t do something and they have it in their head. And not only that, they have kids to raise now, you know, and they are too old now probably and think they can’t go back to school and be successful so they are still working in that sheltered workshop, you know, making minimum amount of money. And so it’s very, very alarming to know that they are still there and they had much more capable to do other things.

Francine’s experience in the 1980s speaks to the limited access to employment that was experienced by individuals who were visually impaired during that time. It also speaks to
the increased change in employment opportunities for individuals who are visually impaired that has occurred in the past three decades. George provided an example of this change in his discussion of how he obtained a position with a government agency after working for Enterprises for the Blind.

George reported being recruited by the government agency from a company that primarily employed individuals who were visually impaired and blind.

…they were recruiting I went to the Enterprises for the Blind. Where they worked with the IRS, we had different programs down there... They would periodically go down there like once a year and hire so many people with sight impairments. And once they brought you on board for promotions you had to compete with people with regular, non-disabled people.

George’s experience demonstrated one of the means by which individuals who are visually impaired obtained alternative forms of employment outside of agencies for individuals who were blind and visually impaired in the 1990s. Maureen shared her experience of working through a program that was designed for individuals who are blind and visually impaired.

Maureen stated that she was self-employed through the business enterprise for individuals who are blind and visual impaired.

I was in the business enterprise program so I owned two cafeterias and as that was specifically for blind individuals I can’t say that I had any type of bad experience there.
Peter stated that he has previously had the experience of being employed at a summer camp for individuals who are blind and visually impaired.

I worked at a summer camp for the past three years. It is a camp for blind people. The camp is connected to the sight center, and I was always going to the sight center for different programs and the camp director saw me one day and she suggested that I come and work at camp so I had an interview and I got the job.

Peter’s experience demonstrates how his involvement in an agency for individuals who are blind and visually impaired led to his employment in another agency that worked primarily with individuals who are visually impaired and blind. Andrew also worked for an agency for individuals who are blind and visually impaired.

Andrew made a basic statement in regards to his employment at a company geared towards employing individuals who were visually impaired and blind.

“The job now it is at a blind place so I have everything that I ever needed”. This simple statement speaks to the preference that some individuals who are visually impaired have in regards to working in agencies for the blind and visually impaired. It also speaks to the level of satisfaction with this form of employment that can be experienced by individuals who are visually impaired. Dominique provided a different perspective in her discussion of the manner in which individuals who are visually impaired are viewed in terms of attaining employment at a company geared towards hiring individuals who are visually impaired.

Dominique discussed her concerns that some of the beliefs and actions of individuals who are visually impaired in terms of obtaining employment in companies
geared towards hiring people who are visually impaired and blind may be linked to their educational attainment in schools for the blind.

I think that’s a really big thing when a partially sighted or even a totally blind person goes out into the work force. You’re kind of expected to maybe end up in an Industries for the Blind environment or a Goodwill kind of environment. I think maybe a lot of the schools for the blind at the time when a lot of the kids, pretty much all the kids even the partially sighted kids when to schools for the blind I think that attitude was developed in them from the school for the blind. I was talking to one of my co-workers… and I said to her, “I noticed a difference in blind people in the south versus blind people in the north”. I said “I noticed blind people in the south are more backward technology wise, they don’t seem to know a lot about what technology is available, fewer of them have computers, fewer of them seek computer training. There is so many people particularly at the industries that have done nothing else with their lives other than work at the industries” and she said “you know, you’re right it is a bad reflection on particularly the Governor Morehead School in Raleigh she said they focused on teaching people to be blind, not teaching people to live in a sighted world”. I think that the schools for the blind in the north gradually got away from that and mainstreamed their students a lot earlier than schools for the blind in the south. And I think the students from schools for the blind in the north were much more able to adapt and live in the sighted world, at least try to live in a sighted world than the ones from the south.
It is an attitude sighted people have its like “oh well you are in a place that you are supposed to be working with the blind”. I think that’s a really big thing when a partially sighted or even a totally blind person goes out into the work force that you’re kind of expected to maybe end up in an Industries for the Blind environment or a Goodwill kind of environment.

Dominique’s experience speaks to the continual existence of stereotypes related to the employment of individuals who are visually impaired. Her discussion of potential differences among individuals with visual disabilities based upon what part of the country they were educated in may speak to the stereotypes that are maintained by individuals in the Southeastern part of the United States.

Working with a blind and visually impaired population appeared to limit employment barriers for one participant. Such companies as Industries for the Blind have staff members that are knowledgeable about the necessary accommodations that can assist individuals who are visually impaired in being successful in these employment settings. This makes things simpler for individuals who are visually impaired because they don’t have to spend a significant amount time trying to prove that their disability does not limit their ability to work.

Employment in companies geared towards hiring individuals who are blind and visually impaired such as Industries for the blind are sometimes viewed as the only and best option for employment for individuals who are visually impaired. This is not always the case. Some individuals who are visually impaired may feel more comfortable being in these setting because they are surrounded by individuals who share different forms of
their disability. Others may resent the implication that this is their only option for employment. They may choose to seek competitive employment among individuals who may not be visually impaired. Seeking employment in such environments is one manner in which knowledge about visual impairment can be increased among members of society.

Prior to the passage of the ADA many individuals who were visually impaired only had one option for employment and this encompassed places such as Industries for the Blind. However, things are continuing to change, and individuals who are visually impaired are employed in a variety of fields, they are professors and lawyers, who embrace working among their non-disabled peers. Individuals who are visually impaired are no longer restricted, and there are many members of society who still need to learn this lesson. While a lack of knowledge still hampers the employment of individuals who are visually impaired, the wave of technology that has ensued over the years has also played a role in limiting the ability of individuals who are visually impaired to become and remain successfully employed.

**Inaccessible Technology**

Inaccessible technology is one of the areas of discussion that has been applied to two of the overarching themes identified in this study. Four of the sixteen participants discussed the inaccessibility of software. The ideas participants discussed include but were not limited to the inability to access Blackboard, the inaccessibility of the university’s website and inaccessible technology that limited the employment of
individuals who are visually impaired. In this particular instance Francine discussed inaccessible technology in regards to her attainment of employment.

I remember going to a couple of interviews and them telling us that the equipment that they had was not accessible. Well it probably was not back in the 70s and the 80s. I had applied to be work in customer service as ah, you know how you call the doctor’s office and the answering service would come on. So at the time they would see the name of the particular person they were answering for, it would come up on the screen. So they had no way to implement that for a person who was blind, to have it talk to you or you to know exactly what particular doctor was coming up on the screen.

When individuals who are visually impaired are unable to access technology that is utilized by employers, their opportunity for employment is further limited. Interfaces can be incorporated into software programs when they are being manufactured. If this were to be done prior to the use of the software it would limit the amount of jobs that are not available to individuals who are visually impaired due to accessibility issues.

As technology grows, so should we. While only one participant discussed the inaccessibility of technology in the workplace; it is an issue that is faced by individuals who are visually impaired and find themselves qualified for employment positions, but disqualified because they simply cannot access the software that used by the company in which they are seeking employment. Another compounding factor that impacts the employment of individuals who are visually impaired is a lack of work experience.
Lack of Work Experience

Three of the sixteen participants discussed a lack of employment. One participant discussed her previous inability to obtain employment as a young adult. The other two participants reported that they had never been employed. Francine discussed her inability to obtain work experience as a teenager and into her early adulthood years.

...being visually impaired and never worked before even as a teenager. Where teenagers worked in the summer time, you know, we didn’t get work in the summer time, nobody would want to hire us, so we didn’t have any experience and so they look at that and turned you down.

In this statement Francine speaks to the important role that work experience plays in the lives of individuals who are visually impaired. Francine speaks of how a lack of work experience can further hamper the employability of individuals who are visually impaired. Francine was not the only participant who did not have any work experience as a young woman.

Kasha stated that she has not had any work experience since she became visually impaired. When asked “do you have any work experience” she responded “not since I have been blind”. Nancy reported that she has never been employed. When asked “have you ever been employed” she responded “no, I will hopefully be getting a job in the summer”. The lack of work experience among these two young women emphasizes the need for work experience among individuals who are visually impaired as described by Francine.
A lack of work experience is a significant barrier to employment for individuals who are visually impaired. Employers are unable to identify your skills if you have no work experience. Individuals who are visually impaired should do their best to seek employment at a young age. This will improve their ability to become employed as adults. Even with a significant amount of work experience some individuals still found it difficult to be promoted within their employment setting.

**Visual Impairment Hampers Promotion Potential**

Two of the sixteen participants discussed the impact of visual impaired on their ability to obtain a vocational promotion. The first participant discussed an incident in which he was denied a position due to the fact that he did not have a driver’s license. The second participant expressed that it was his belief that he would have a better chance of being promoted with his current employment location if he did not have a visual impairment.

Brian provided a descriptive explanation of experience in which he was initially denied a promotion due to the fact that he did not have a driver’s license, when the position's description did not call for a candidate with a driver’s license.

“There was an issue, after I left broadcasting I went to work in telecommunications for Bell Atlantic mobile in the cellular industry… in the process of trying to go to technical support I interviewed twice. The position had been posted I interviewed for the job the first time and they brought me back for the second interview and then the person the hiring manager came back and said “I am sorry to tell you but you are not going to get the job”. And my question was...
“ok what was the problem was there a problem with my skill my qualifications?”
“No that was really good and you interviewed great” “so what was the problem”
“well you don’t drive” and I said “but it’s a desk job” and he said “yeah but we
kind of envisioned the person taking these job from there to being a cell site
manager” “so what if I don’t want to be a cell site manager? What if I am happy
doing that job” “well we kind of envisioned it that way and” and I kind of said
“ok so you are telling me the reason I am not going to get this job that I am
qualified for and good at an effectively doing it already” because there was no
body doing it there was no office yet for that position. It became kind of part of
what I did in the job I was in and so I said “you’re telling me that’s the only
reason?” “Well yeah” “I am sorry to hear that”. So I went to my manager who
went to HR and said you can’t do this, it was not in the job requisition that he
needed to have a drivers license and you can’t not give him the job because he
doesn’t. You didn’t tell him he needed to have one, you interviewed the man
twice. It actually happened to not just me. It happened to one of my teammates as
well. We were the two candidates that applied for it and neither one of us drove.
Now I did not know if he didn’t drive because of his vision, or he did not drive by
choice“.

Brian’s experience speaks to the significant role that the inability to obtain a driver’s
license plays in the employment of individuals who are visually impaired. In this case
promotion to a more prestigious position was limited due to the hiring manager’s belief
that Brian’s potential in the position would be limited due to the fact that he was unable
to operate a motor vehicle. George also discussed the factors that he believes limited the ability of individuals who are visually impaired to be promoted.

George expressed that he believed he would not receive a promotion in his current work setting due to the fact that he is visually impaired.

“…because I felt like I was different (visually impaired) and being different meant that you won’t be promoted. And that is true even now if it is noticeable sighted impairment or any visual impairment they are less likely to accept you or promote you.”

In this case George believed that the fact that he was visually impaired is the significant component that limited his ability to be promoted.

When individuals who are visually impaired are successful in obtaining and maintaining an employment position, they often seek growth. Meaning, at some point they may attempt to obtain a promotion within the company where they are employed. This may prove to be more difficult for some than others. While the employer may believe a person who is visually impaired is suitable for employment, they may believe that the person with the visual impairment is only suitable for a certain position. The employer may not believe that it is appropriate to place that person in a higher ranking position because he or she has a disability. So while there may have been a struggle to obtain employment, just because one is employed does not mean that the struggle is over. Many individuals, who are visually impaired, must continue to work hard to prove themselves to their employers, even when seeking promotions. Self advocacy is one way of improving the vocational success of individuals who are visually impaired.
Self Advocacy

Self advocacy is one of the identified areas of discussion that has been applied to two of the overarching themes identified in this research. Eight of the sixteen participants discussed the need for the development and or utilization of self advocacy skills as individuals who are visually impaired. Participants’ discussions of self advocacy included but were not limited to reluctance to advocate for vocational accommodations, the development of self advocacy skills, the benefits of self advocacy, the transferability of self advocacy skills from an academic setting into a vocational setting, and the combination of self advocacy and assertiveness to obtain academic accommodations.

Two participants discussed self advocacy in regards to employment.

Brian discussed his lack of willingness to advocate for reasonable accommodations in the workplace.

I was recently approached and asked if I had asked my employer for any reasonable accommodations, I said “no” “why not” “first of all this is a right to work state, if I sneeze wrong they can fire me, if I make too many waves and make them think they have to spend too much money to have me hired what do you think is going to happen? They don’t need me. So if they can have someone else in there and have their presence cost them less I will be gone…”.

Brian’s hesitancy to advocate for vocational accommodations speaks to the concerns that are held by many individuals who are visually impaired; a concern that a request for additional assistance may eventually result in their unemployment. It would be naive of
these individual to believe such actions are not still being put into effect. Evelyn discussed self advocacy from a different perspective.

Evelyn discussed the importance of self advocacy and how it can have a potential benefit in the workplace.

I just feel as though when you advocate for yourself, one, it makes you a more independent person and nobody knows what you need best than yourself. People may think “oh well she’s visually impaired and that every blind and visually impaired student uses the same accommodations” and that’s not true. Different people have different levels of how much they can see or can’t see and so everybody is different. So I feel when you can advocate for yourself you’re bound to do much better. And in the real world you’re not going to have somebody to speak up for you. When you get a job you’re going to need to be able to speak up and tell your employer well I am visually impaired but I can do this, this, this, and this. However, I may need ZOOMText on the computer to make the print larger so I am able to do this, this, this, and this. And you don’t always have someone to speak up for you so I believe it makes you a more independent person and you can be more self sufficient when you get into that real world.

Self advocacy has the potential to increase one's position in the workforce. If individuals who are visually impaired are able to advocate for themselves in work related settings, they can potentially increase their ability to become employed. Employers are often more open to individuals who are familiar with their disability and are able to clearly communicate their needs. In addition to the above mentioned compounding
factors to the employment of individuals who are visually impaired, transportation has been found to have an impact on the employment of individuals who are visually impaired.

**Transportation**

Transportation is the only identified areas of discussion that has been applied to all three of the overarching themes identified in this research. Six of the sixteen participants discussed transportation. In their discussion of transportation participants’ statements included but was not limited to the effects of transportation on vocation, a lack of transportation as an obstacle to social activity involvement, attitudes towards asking others for assistance with transportation and reliance on public transportation. In this particular instance transportation is discussed in regards to its impact on vocational pursuit.

Andrew discussed the impact his inability to drive had on his vocational pursuits. “Once I quit driving things was a little different… I couldn’t go to a job so I had to be a little bit more selective. The only barriers to employment would be if I wanted to get a job that I could not get to independently.”

Individuals who are visually impaired or legally blind are often non-drivers. Their inability to drive limits their employability. When seeking a position one has to consider the location and the available transportation that could be used to get to and from work. If there is no public transportation to this employment site, and there is no one they can rely on to transport them to and from work, the individual who is visually impaired must
consider alternative options for employment. Transportation continues to a barrier to employment for individuals who are visually impaired.

For those individuals who live in metropolitan cities, transportation issues are easier to resolve. For individuals who are visually impaired that live in smaller cities and towns transportation is not as readily accessible. It is not reasonable to believe that all individuals who are visually impaired should move to metropolitan cities. Therefore, other means of minimizing the transportation needs of individuals who are visually impaired must be developed.

**Conclusion**

Chapter five provided a discussion of the second primary theme which evolved around the participants’ work related experiences. These experiences encompassed employers’ knowledge of what people who are visually impaired can do, working a visually impaired population, inaccessible technology, a lack of work experience and transportation. A thorough discussion of the subsections follows. Participants provided a varied description about their experiences under each one of these headings.

The participants discussion of employers’ knowledge about what people who are visually impaired can do included employers’ lack of experience working with individuals who are visually impaired and their lack of knowledge about adaptive equipment. Participants also described how they demonstrated their vocational potential to employers by taking on tasks their employers were reluctant to assign them due to their visual disability. One of the participants called for the implementation of sensitivity training in an effort to increase knowledge and understanding about visual disabilities.
Participants who contributed to the discussion of working with a visually impaired population described the difficulties they experienced while attempting to obtain employment and how this ended in their employment in industries for the blind. Participants also discussed their lack of work experience and inability to access software programs and how this impacted their ability to obtain employment. Two participants also provided a description of how they believe their visual impairment has hampered their ability to be promoted in the workplace. The final discussion under this theme involved transportation and how it has impacted one participant’s choice of vocational position.
CHAPTER 6: REACTIONS TO VISUAL IMPAIRMENT

The participants engaged in several forms of discussion centered on attitudes towards visual impairment. These discussions comprised of several subsections which included: people’s reaction to visual impairment, the participants’ reaction to their own disability, transportation, involvement in organizations for the blind, and the use of a white cane. These subsections are now presented in greater detail with the use of the participants’ personal statements and experiences.

People’s Reaction to Visual Impairment

Nine of the sixteen participants discussed people’s reactions to their visual impairment. These reactions included but were not limited to people’s reactions based on a limited amount of knowledge about visual impairments, the link between negative connotations about visual impairment, sighted people’s reaction to the employment of individuals who are visually impaired, people’s reaction to the social implications of being seen with a person who is visually impaired, and people’s reaction to a person’s disability when dating a person with a visual impairment.

Brian discussed people’s reaction to his disability and how he responds to their lack of knowledge in this area.

Unfortunately there are still so many people in the world that are dim-witted when it comes to a person with a disability whether it is visual, physical or even mental. They’re still a bit dim-witted; you still have the person who thinks? Ok well you are deaf I’ll talk louder? You occasionally have people who say things and they don’t know any better and “oh, you ought to get some glasses” I say “why?” “well
you gotta get close” “so, am I getting the job done for you” “yeah” “ok, good enough it may not be pretty but It is effective”. A lot of folks suffer from, foot in mouth syndrome, and you just have to laugh out loud and hopefully they will learn from the mistake they made with you and move on and not make it again with the next person because they can’t help themselves.

Brian’s experiences highlight the fact that many people still have negative and sometimes inappropriate reactions to visual impairment. He also emphasized the importance of addressing such reactions in a positive manner in order to assist others in learning more about visual disabilities in an effort to improve their reactions to such disabilities in the future. Dominique also discussed her potential misinterpretation of people’s reaction to her disability.

Dominique discussed the way her classmates responded to her visual disability when her professor instructed them to assist her in class.

If the professor would ask them [other students] to help me with anything, there were some that were very cooperative and some who were made to feel very uneasy to be put in that situation… It took me a while to realize that if someone wasn’t sociable with me I’d think “it must be because I am partially sighted”, and then I thought “well that can’t always be it”, it might be 90 percent of the time, I can’t guess…know what the percentage would be, but it can’t always be it.

Dominique’s experience highlighted the need for individuals who are visually impaired to be open minded in regards to their perception of how others react to them. She makes a
significant statement to this effect which implies that all reactions may not be disability related. Evelyn also shared social experiences that were linked to her educational setting.

Evelyn discussed people’s reluctance to be around her so they would not be seen with a person that is visually impaired. She discussed the role that popularity in social settings may have played in this response to her visual disability.

I would talk to some students they would seem like that they were kind of shy to talk to me and that could just be their personality or when we would walk across campus at first it would seem like some of them didn’t want to be seen, you know some of the real popular ones, they kind of want to be seen or asked your friend is a blind girl… That came from the younger students just starting college, your freshman and sophomores… Then as you meet some of the student who were older who are at that age where they don’t care what other people think they’re just friends with everybody because they want to be friends with them.

Evelyn’s experience highlights the concerns for image that some people have when they decide whether or not they want to associate with individuals who are visually impaired. The fact that she identified such behavior to be more prominent among younger students is noteworthy due to the fact that these students may be going through their own process of self identification and development. These students may tend to shy away from people who they identify as being significantly different from themselves and others around them. George discussed people’s tendency to shy away from people with disabilities because they appear to be different from those without disabilities.
George expressed that people’s reactions to visual impairment can be linked to their understanding of the disability. He candidly expressed that people may not be comfortable around you as a person who is visually impaired until they offend you as this may lead to the opening of a discussion about your disability.

I think when people see people who are different it doesn’t have to be sight impairment it could be something else. You tend to shy away from them. Why is he doing that? Or why is she doing that? Everybody is not like that, but a lot of people are like that, so I tend to shy away from them. With sight impairment I think it is harder to understand, because they know a person who is blind and a person who can see, but people who are sight impaired are in the middle… Just people not understanding when they see my impairment… I think a lot of sighted people they don’t want to offend you, they try to hard not to offend you. When they get to know you they see you are a person just like everybody else and they care less whether they offend you or not. Then you’re on the right track, that what I say. You get people like that, like some of the people I work with, they joke with me like they do anybody else so that’s good.

George’s experiences spoke to the tendency of individuals without disabilities to limit their interaction with those who have disabilities such as individuals who are visually impaired. He also spoke to the caution that is employed by individuals without disabilities when they do decide to interact with a person with a visual disability.

Similarly, Isabel briefly described how people’s negative reactions to her visual disability impacted her.
Sort of like being shunned, like being alienated... I guess alienated is the best way to describe it, because it is like nobody knows what to say so they kind of just don’t say anything, so it is just like being there outside of the group.

This experience of being shunned or alienated can be one that is devastating to any person and it has the tendency to limit one’s interaction with others due to a fear of experiencing such feelings in a repetitive manner. Accordingly, Peter discussed the variety of reactions to his visual disability that he has encountered in social situations.

I get a lot of different reactions. Of course you get the people that don’t understand, and want to yell at you as if you can’t hear. I get some people who are very understanding. People who are just curious I guess, they wanted to know more about my condition and that was fine for the most part, but different reactions, you know. People who were just like, amazed, that I was a blind guy and getting around campus without a cane it was just, so amazing to them.

Peter’s experience along with the experiences of Brian, Dominique, Evelyn, George and Isabel speaks to the need for the continued and increased education of members of society about visual disabilities. It is disheartening to know that there are many people who believe that visual impairment is inextricably linked to deafness. James and Kasha also shared social experiences that speak to the need for the continued and improved education of members of society in regards to visual disabilities. The primary differences in their experiences were their relations to dating.

James described the impact of people’s reaction to visual impairment in regards to dating.
Social experience you know has been pretty much the same as sighted folks with the one difference being when dating. It’s a lot, you know, you end up seeing both sides of people when you are dating. So you either get the people who are kind of, they are just fine with you being a blind guy. They really don’t care; they look past that right away. Or, you get the folks that are sort of spooked by it and they’re not sure what to do, even though you try to answer all of their questions, they still sort of, have the mind-set of, well, I could never marry a blind guy or a disabled guy… it’s just painful when I finally comes up as an issues, you know. If you’re dating someone for a couple years and they say? You know I can’t really put aside this whole you are blind thing”, it certainly is frustrating because you say “but look at everything else we get along so well and all these other ways”.

The experiences described by James speak to the negative manner in which perceptions of visual impairment can affect intimate relationships. Kasha also spoke of the impact of people's reaction to her visual disability in terms of dating and social interactions.

I have that problem that you can’t tell that I am visually impaired until I tell you. Some people are really hesitant once they find out but then it’s just like they forget about it… A couple of people I have noticed, when I have told them like dating wise, once you tell them you are visually impaired they are like “ok” and they hit the road… I guess I sort of think of what they are thinking and they’re just like, that’s too much trouble, I’ll have to help her more.

These experiences highlight not only the discomfort that can be ensued from rejection in social settings, but also rejection in intimate settings. Such experiences can impact the
perceptions of individuals who are visually impaired in relation to their potential for building and expanding their families.

The general members of society are primarily unknowledgeable about disabilities such as visual impairments. They often say and do offensive things when they encounter people who are visually impaired. Some individuals who are visually impaired have invisible disabilities; meaning their visual impairment is not readily identifiable by everyone they encounter. Thus, when people realize that the person they have been interacting with cannot see well, they make comments such as “you need to get some glasses”, “why are you so close?” or “what are you? Blind?” These comments can be interpreted as offensive to individuals who are visually impaired, who may in turn respond negatively or shy away from interacting with others due to such negative statements about their vision. A lack of interaction with others can impact a person’s development of social skills which can have a ripple effect on other parts of their lives such as education and vocation.

Some individuals who are visually impaired prefer to educate others about their disability, rather than seclude themselves from those around them. They find that when you educate individuals who do not possess prior knowledge about visual disabilities they tend to adjust their reactions to visual impairment. Some responses to visual disabilities are positive and others are negative. Some individuals become inquisitive about the disability and the person with the disability. They ask questions and become accepting of the individual who is visually impaired, while taking note that some of their comments can be hurtful to the individuals. With this approach the person who is visually impaired
 educates those around them in an effort to have a more comfortable social experience as opposed to one that is awkward and discouraging.

Unfortunately, all reactions to visual impairment are not positive. Some people become uncomfortable around people with disabilities despite the kind and nature of the disability. They prefer to have limited or no interaction with individuals who are visually impaired. This in turn can make the person who is visually impaired experience feelings of isolation and rejection, which may cause them to refrain from interacting with others.

It can be difficult for individuals who are visually impaired to develop a strong social network for support when many of their peers prefer not to seen with them or to be associated with someone with a disability.

Such negative reactions to visual disabilities are often linked to a lack of education about the disability. A lack of knowledge can also lead to the passing of judgment upon individuals who are visually impaired. For instance some individuals may believe and express that all individuals who are visually impaired should work in settings such as Industries for the Blind. Some individuals with visual impairments who may hear these statements may come to believe that this is their only option for employment. The limitations set forth by others due to a lack of knowledge can have a significantly negative impact on the lives of individuals who are visually impaired. Social implications set forth by members of society trickle into the other parts of their lives. There are still many myths and stereotypes that need to be refuted in effort to improve the educational, vocational and social experiences of individuals who are visually impaired.
When dating, individuals with visual impairment also experience negative responses to their disability. Such response can be devastating to one’s self esteem. Some individuals lose hope of ever having a family of their own due to an overwhelming experience of rejection related to their disability. Due to such rejection, individuals who are visually impaired may begin to doubt their worth and believe they will not find the happiness they seek. These fears lead to individuals who are visually impaired attempting to hide their disability from people they encounter in hopes that people will see them and not their disability. The need to hide one’s disability is inextricably linked to the individuals’ acceptance of their own visual impairment.

Participants’ Acceptance of their Disability

Five of the sixteen participants discussed their own acceptance of their visual disabilities. The participants’ discussion of their acceptance of their disability included but was not limited to being in denial about their disability, the eliminations of shame in regards to one’s visual disability, fitting into the sighted world and social embarrassment as a result of denial. Brian discussed the process by which he accepted himself as a person with a visual disability.

I mean in a lot of cases I have done more that they have done. Socially, eh more socially as a child and a teenager and it began to wane as I got ah started developing my own persona if you will and waned even more when I shook off the persona and got comfortable in my own skin and then it completely waned. Andrew’s experience speaks to the benefits that can come along with the acceptance of one’s visual disability. George emphasized this concept when he discussed the need for
individuals who are visually impaired to eliminate any shame they may feel in regards to their disability.

George discussed the attempt that many individuals who are visually impaired make to fit into the sighted world.

You should always try to use your vision but don’t be ashamed if you need to ask for help, like larger print or even learning Braille, using thick glasses, or even using a cane or what not. That will help you be more successful… I didn’t really use let people know that I had a visual impairment I tried to hide it from them. I just tried to deal with it the best that I could and that probably wasn’t best decision but that’s what I did… People try to fit in, I know some people who are sighted impaired that don’t. I know one guy who needs to use a cane but he won’t use it, needs glasses but he won’t, he’ll ask someone to read it for him. But him he fits in you would know he couldn’t see. I am not sure if that is good.

George’s statement speaks to the resistance of many individuals who are visually impaired to request and utilize materials that can be used to easily identify them as visually impaired. Such hesitation to employ these materials is often linked to an individual’s denial about or hesitancy to accept their visual disability. Andrew, Oz and Peter describe their own denial and resistance of their visual disabilities.

Andrew discussed his experience of gradually losing his vision and the impact it had on his social interactions. He stated that his perception of social involvement changed once he accepted the limitations of his disability.
Gradually losing sight and I had a night life but you know once you start to lose
sight and you go to bars, people want to start fights because they think you are
looking at them or you bump into them… Basically I hadn’t accepted really I
guess blindness. The main thing is I was probably in denial… Earlier years you
know you are kind of alone and not feel safe in your environment because you
can’t see you environment. I just go out and enjoy myself. If I run into somebody
I say excuse me. I have just accepted it, hey I can’t see as good as other people
but I am going to do what you can do.

Oz discussed the extensive efforts he went through to disassociate himself from the blind
culture. He stated that he attempted to function as a sighted individual but did not
experience much success in this area.

I was pretty much in denial of my blindness at the time, I knew I was visually
impaired but I hated the word blind and I did not really have any alternative skills
whatsoever, I just tried to function as a sighted person and that sometimes did not
work so well. I have always resisted the blindness stereo type, because my vision
of a blind person was sort of a helpless person with dark glasses and a white cane.
Just kind of stuck in a corner of a room lost and calling out for help or someone
who has to be led by the arm. And I look at that image and I said that did not fit
with who I was, that did not fit with my image of myself. So I always just resisted
that term and any type of additional training that might go along with it.

Peter discussed the loss of his vision and the denial that ensued as a result. He spoke of
how he secluded himself and became distrusting of others. Andrew also provided a
detailed example of how his lack of acceptance of his vision ultimately ended in social embarrassment.

…I started to just lose my vision around undergraduate time and so you know I really didn’t want to talk to anyone because I was going through that whole thing of denial and low self-esteem and you know I just didn’t want to talk to anyone at the time. I didn’t think people wanted to talk to me because I was a newly blind guy and I didn’t accept my condition at the time so I just didn’t talk to anyone and I didn’t want to. I did not trust people; I did not want to trust people because I was afraid they would try to take advantage of me.

I lost my vision and I was so in denial. People need to get over this denial thing now-a-days because some of the most embarrassing things can happen when you are in denial. This is the most embarrassing thing that ever happened to me. This was my sophomore year so I was either 19 or something and I was taking a summer class and I was late to class because I was being a good person. Someone did not know where a building was so I showed the person where the building was so I got to class late and I was probably three weeks into the semester so I had been sitting in the same seat for three weeks straight. So I got to the class room and the lights were off, and I have RP so I really couldn’t see anything at night or in the dark. So I said ok well I know where my seat is so walk into my seat and set my books down and sat down and I sat on someone’s lap. That was so embarrassing. So I say on that guys lap and I got up and went on seat behind him
and bam there is someone else. And so I said ok and I went another seat back and there is someone else. I was like gosh what is going on? You know it is so embarrassing because you know sometimes you just need to ask for help and stop being in denial. So that is my lesson I learned to ask for help.

The experiences of these three men who are visually impaired speak to the significance of the difficulty of the acceptance of one’s disability. While all three of these men were able to identify the limitations of their disability they all reported being reluctant to embrace and work around those limitations.

Individuals’ acceptance of their visual impairment can impact their social interaction. When and individual who is visually impaired is not comfortable with or accepting of their own disability they focus on the negative impact that disability can have on their lives. For those who have invisible disabilities, they do their best to hide their disability from those around. However, when the lights are out and you cannot see in the dark, the only person who cannot see you, is you. It is vital that people who are visually impaired accept their disabilities.

Denial can lead to embarrassment, misinformation, danger and many more undesirable consequences for individuals who are visually impaired. If the people around individuals with visual impairments are aware of the limits of their vision, they can prove to be helpful. However, a release of information can also prove to be dangerous for the person who is visually impaired. Not all people are generous, and many look for opportunities to take advantage of individuals who are visually impaired. So individuals who are visually impaired must be careful of whom they trust, but learn to accept their
disability and refrain from allowing denial to limit their interaction with the world around them. Some individuals who are visually impaired also limit their interactions with others due to a lack of transportation.

**Transportation**

Transportation is the only identified areas of discussion that has been applied to all three of the overarching themes identified in this research. Six of the sixteen participants discussed transportation. In their discussion of transportation participants statements included but was not limited to the effects of transportation on vocation, a lack of transportation as an obstacle to social activity involvement, attitudes towards asking others for assistance with transportation and reliance on public transportation. In this particular instance two participants discussed transportation in regards to its impact on social interaction and involvement.

**Brian discussed the impact a lack of transportation can have on one’s social involvement.**

I mean the biggest social obstacle I face here is a lack of mobility. That is the largest most daunting social obstacle, and that hopefully will change in the near future because obviously it has too. You need to be able to live, you need to be able to have a life outside of home. Social activity you have personal upkeep and maintenance and you need to be mobile to the point that you can get back and forth to the places that you want to go and need to go.
Brian’s struggle with transportation is significant in that it impacted his ability to attend and become involved in a variety of social activities. This experience is significant as transportation was also identified as a barrier to social involvement by Dominique.

Dominique discussed the impact that an inability to self transport had on her social life as a person who is visually impaired. She further discussed her own attitude towards requesting transportation assistance from sighted individuals who drive.

I think the fact that you have to arrange transportation ahead of time either with a friend, with a family member, with transaid, unless you have the money to take taxis everywhere you go you can’t be spontaneous. Say you hear about a concert or an exhibit that you hear about at the last minute. Unless you make transportation arrangements you can’t just pick up and go and do that like a sighted person would be able to do. But my problem is I have a difficulty asking for help with transportation. I would feel much better if I know someone wants to be my friend and I want to be their friend, not because I just want to use them for transportation. That attitude has probably inhibited me socially because most people aren’t going to call you and say "hey! Would you like to go here with me or would you like to go there with me?" I think in a way I need to get over the attitude of not liking to ask for help with transportation so I could do more things.

Transportation for individuals who are visually impaired can limit their ability to partake in social activities. When they are not able to transport themselves to social events, individuals who are visually impaired are often forced to depend on the kindness of others and public transportation, both of which can prove to be unreliable. Some
individuals who are visually impaired choose not to partake in social activities if they do not take place in a convenient location that they can get to independently.

For individuals who live in smaller cities public transportation is not available 24/7. Therefore, they often have to rely on friends and family to attend late night and weekend social events. Individuals who are visually impaired can sometimes begin to feel as if they are a burden on others and as a result they limit their requests for assistance. Some individuals who are visually impaired refrain from asking others for assistance unless it is related to important matters rather than social events.

As with all individuals, individuals who are visually impaired enjoy partaking in social events. When they are not able to partake in such events their level of acculturation can be diminished. In an effort to improve some aspects of their lives, such as their social interaction, individuals who are visually impaired become involved in organizations for people who are blind and visually impaired.

**Involvement in Organizations for the Blind**

Three of the sixteen participants discussed involvement in organizations for the blind and visually impaired. The participants discussed the benefits of being a member of an organization for individual who are visually impaired, the variety of such organizations and the regret of not being involved in such an organization earlier in life.

Evelyn discussed her involvement in an organization for people who are blind and visually impaired and the beneficial aspects of her involvement in this organization.

I think if you can meet up with an organization. … I think again because I was the only person in my entire family that had a vision problem my parents weren’t sure
what to do, or what I needed or how to get services. They got involved in an organization when I was like five and so I was able to meet other people who were blind and visually impaired. And do activities with them and see that they were able to do things and what they were able to do. And … you tend to do things, and they were lawyers, computer engineers and they had these powerful positions. And so whatever I wanted to do when I got older, it was at my disposal to figure out what that was.

Evelyn’s experience spoke to the benefits that can derive from involvement in an organization for people who are visually impaired and blind. This experience was beneficial in that it helped Evelyn to see that there were people with visual disabilities similar to her that were vocationally, educationally and socially successful which provided here with hope for a successful future. Conversely, George was not involved in an organization for the visually impaired and blind as a child.

George expressed his regrets that he was not associated with an organization for individuals who are visually impaired and blind in his younger years. He believes that such and experience would have enhanced his experience as a person who is visually impaired.

I didn’t know nothing about the NFB when I was growing up. The only thing I really wish that I would have known about the NFB when I was in college it would have made a big difference I think. Because I would have had people I could network with. It would have because I didn’t know anything about it until I came to Cleveland.
Both Evelyn and George’s experiences highlight the importance of becoming involved in an organization for the blind and visually impaired. Francine further emphasized this point by discussing the importance of individuals who are visually impaired coming involved with organizations for individuals who are visually impaired and blind that advocates for the needs of individuals who are visually impaired and blind.

…get in touch with any type of organization that advocates. I mean we have a lot of them, we have the NFB, ACB, we have disability agencies, there are a lot of different things that you can latch on to in order to become familiar and have a so to speak sorority to help you out and you be able to call on in times of need.

Some individuals who are visually impaired find organizations for people who are visually impaired and blind, such as the National Federation of the Blind, to be a good source of support. Such organizations are places where people who are visually impaired can meet other individuals who share their experiences and may be able to assist them in overcoming the barriers they may encounter in various aspects of their lives. Participants of this study found the National Federation of the Blind to be a vital source of information that assisted them in improving their way of living and their acceptance of their visual disabilities. Furthermore, individuals who are visually impaired find that the use of a white cane helps them to function more independently.

**Use of a White Cane**

One of the sixteen participants discussed their use of a white cane. Andrew stated that prior to the decrease in his visual acuity he did not utilize a white cane during most
of his activities. He states enthusiastically that his use of a white cane has increased as his vision has decreased.

Now I go out a lot more, I have a lot more social experiences now. I just go ahead I use a cane all the time now and say the hell with it and go on with it… And back then when I had eye problems, sometimes I would tell people, sometimes I wouldn’t, but now it is pretty obvious, you know. I have the cane at all times, when I am away from the agency I always have the cane.

The use of a white can assist in improving the independence of individuals who are visually impaired. More specifically, the use of a cane increases independence in the area of mobility. Some individuals who are visually impaired carry a white cane so those around them will know that they are visually impaired and act accordingly to assist them.

Conclusion

Chapter six provides a discussion of the third primary theme, attitudes toward visual impairment. The participants’ experiences in this chapter related to four subcategories which included other people’s reaction to visual impairment, the participants’ reaction to their own disability, transportation, involvement in organizations for the blind and cultural influence. Participants’ experiences of other people’s reactions to their visual impairment centered on peoples’ reactions based on a limited amount of knowledge and the negative connotations about visual impairments. Participants also provided descriptive examples of their dating experiences and the impact they have had on their lives.
Participants’ description of their own experiences in regards to their own acceptance of their visual impairment centered on eliminating feelings of shame and denial about their disability. They also shared the impact of trying to fit into the sighted world as a result of their denial. The participants described their transportation related experiences and how it has impacted their social involvement, their reluctance to ask others for assistance with transportation and their reliance on public transportation. Participants also provided a discussion of their involvement in organizations for the blind as well as the benefits of being involved in such organizations. The experience of using a white cane was described by one participant.
CHAPTER 7: DISCUSSION, IMPLICATIONS & RECOMMENDATIONS

The previous three chapters provided the results of the study. As previously stated the aim of the study was to determine what educational, vocational and social experiences led to the educational and vocational success of college educated individuals who are visually impaired. This chapter provides a discussion about the results of the study as well as recommendations for future research.

Purpose of the Study

The purpose of the study was to understand the experiences of college students and college graduates who are visually impaired. The research questions for this study were: 1) What are the educational experiences of college educated individuals who are visually impaired? 2) What are the vocational experiences of college educated individuals who are visually impaired? 3) What are the social experiences of college educated individuals who are visually impaired? 4) How do college educated individuals who are visually impaired understand their educational, vocational and social experiences? Semi-structured phone interviews were conducted with sixteen individuals who were visually impaired who were currently enrolled in college or had already obtained a college degree. The data were analyzed for common themes and meaning through the use of a phenomenological lens. The results can advance the research in the area of visual impairment, and enhance the knowledge of higher education professionals, college and university Disability Support Service personnel, and rehabilitation counselors in the areas of education and employment of individuals who are visually impaired.
Summary of Results

The findings of this study evolved into three primary themes related to the educational, vocational and social experiences of college educated individuals who are visually impaired. These themes were accommodation acquisitions, work related experiences and attitudes towards visual impairment. Each of these three themes were related to each one of the research questions. Overall, there were sixteen emergent findings that were found to have an impact on either the educational, vocational and social experience of college educated individuals who are visually impaired that represented the meaning associated with their experiences from their own perspectives.

Accommodation acquisition was related to the first research question: *What are the educational experiences of college educated individuals who are visually impaired?* Five findings emerged from the data related to this research question. These findings were as follows: 1) The reasonable accommodations that were received by college students who were visually impaired. 2) The positive and negative role of college and university Disability Support Service offices. 3) The inaccessibility of technology on college campuses. 4) The reluctance of professors to comply with accommodation requests from students who are visually impaired. 5) Self advocacy. 6) Transportation. All six of these findings impacted the educational experience of college educated individuals who were visually impaired.
The six findings related to work related experiences of college educated individuals who were visually impaired addressed the second research question of this study: *What are the vocational experiences of college educated individuals who are visually impaired?* These findings were as follows: 1) The employer's lack of knowledge about visual impairment. 2) Self advocacy. 3) A lack of work experience. 4) Working in companies with a primarily blind population. 5) Inaccessible technology. 6) Transportation.

The third research question was: *What are the social experiences of college educated individuals who are visually impaired?* This research question was addressed by the participants’ experiences that related to attitudes towards visual impairment. The area of attitudes toward visual impairments was the source of five findings: 1) People’s reaction to visual impairment. 2) The participant’s acceptance of their own visual impairment. 3) Involvement in organizations for the blind and visually impaired. 4) Transportation. 5) The use of a white cane.

The fourth and final research question was: *How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?* This research question was addressed within each finding under all three overarching themes. The participant's understanding of their educational, vocational and social experiences varied; while some participants viewed their experiences as positive, others viewed it negatively. As a whole all of the participants viewed their experiences as beneficial to their growth and development in achieving educational and vocational success.
Discussion

Acquiring Accommodations.

In regards to accommodation acquisition and the first research question (*What are the educational experiences of college educated individuals who are visually impaired?*) six findings were identified. These findings were as follows: 1) The reasonable accommodations that were received by college students who were visually impaired. 2) The positive and negative role of college and university Disability Support Service offices. 3) The reluctance of professors to comply with the accommodation requests of students who are visually impaired. 4) The inaccessibility of technology. 5) Self advocacy. 6) Transportation. All six of these findings were found to impact the educational experience of college educated individuals who are visually impaired.

*Accommodations.*

The first finding of this study encompasses the types of reasonable accommodations that were received by college students who were visually impaired. These included large print materials, copies of professors’ notes, recording class sessions, copy notes from classmates, note takers, extended time on tests, electronic versions of text books, assistive technology, one-on-one sessions with instructors. Cox and Maureen provided a description of the accommodations they received while attending college. Cox attended college in the 1980s and Maureen is currently enrolled in college.

*Cox: Some of the professors did allow me to bring in a tape recorder. That was most convenient. I also had some professors who would actually print the notes of their lecture out for me before the class and I would have that printed copy. It was
almost like an outline of what they were going to discuss that day. So with that in hand, it was easier for me to follow along with what was being discussed on their bulletin board or chalk board. Also another challenge was books. All books did not come in large print. Fortunately enough, I did have the resources to hire a reader that would come in and read for me and they were paid x amount of dollars per hour to read.

Maureen: “I use a note taker so I get all my notes typed and sent to me. My books are on CD, some are in a word document some are in a recording for the CD.”

Participants discussed their acquisition of accommodations during their higher education pursuits because it was a vital component that contributed to their educational success. Without accommodations such as the ones described by Cox, Maureen other participants of this study (large print materials, notes from professors, permission to tape record classes, additional assistance from professors outside the classroom, note takers, extra time on tests, electronic textbooks, and access to and the use of assistive technology (ZOOMText, Kurzweil)) students who are visually impaired are often unable to fulfill the requirements of their course work.

Different forms of accommodations allow students who are visually impaired to access materials both in and outside of the classroom, which fosters their knowledge and prepares them for examinations and basic application of the knowledge that is presented in the classroom. Through the acquisition and application of knowledge novice students are developed into professionals, this can be seen as the overarching goal of higher
education, to produce professionals. It is essential that this goal be achievable by all students, including students who are visually impaired.

In regards to the fourth research question (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?) when discussing acquiring accommodations participants viewed their experiences as positive. All of the participants reported receiving accommodations of some sort. The accommodations were not always sufficient to reduce all of the barriers the participants encountered in the classroom, however, they were found to be beneficial to the participants. The Office of Disability Support Services on college and university campuses plays a vital role in the acquisition of accommodations among students who are visually impaired.

Roles of College and University Disability Support Service Office

The second finding was the positive and negative role of college and university Disability Support Service offices. A lack of accommodations is not a thing of the past. Between the year 2000 and the present Oz attended two different higher education institutions. When describing his higher educational experiences Oz reported a lack of available accommodative services and the absence of an office at his undergraduate institution which he described as a small liberal arts college.

Oz: My College was a small liberal arts school and they didn’t even have a disability service office… only about 2,800 students. The university I currently attend has a very, very good disability services office… For student who have print disabilities and are register through the disability services office, the book
store will give you copies. One of your copies will go to disability service office and they will cut the binding off and send it through a high speed scanner and send them copies of my syllabi and they will post copies of my readings to a website that I can just download them from. Now they have 250 students register with them and they are a huge office.

Whether a higher educational institution is large or small individuals who are visually impaired who received services from a Disability Support Service office has reported the specific procedures for obtaining reasonable accommodations. This was the third finding of this research study; specific procedures used by the respondents for obtaining reasonable accommodations. Evelyn described the letter she received from Disability Support Services to provide to her professor.

Evelyn: Student Support Services, for some professors they would write a letter to give it to all of my professors… The letter basically state my name, stated that I was a student, I was legally… that they had documentation on file, medical documentation on file, stating that I had a disability. They didn’t specify what it was called, but that I was visually impaired and that under the ADA and the Rehabilitation Act 504 that I was entitled to reasonable accommodations and they would specify the accommodations I was allowed… extended time for test taking, textbook in accessible format, allowed to tape record the class if need be and any other accommodations depending upon what the class was I may require extra accommodations. Support Services would also facilitate some of my exams.
Participants of this study who attended college prior to the passage of the ADA in 1990 did not experience similar procedures, as described by Evelyn, for acquiring reasonable accommodations. These individuals primarily described communicating directly with their professors. Brian and Cox provided a description of how they communicated their disability and accommodative needs to their professors in the early 1980s.

Brian: So basically it was walk into the class room and say excuse me professor, doctor, I need a seat up front” and they get a glazed over look because it is not common for people to walk in and say I need a seat up front and you say “look I am legally blind I want a seat up front” and they say “oh, ok” and that was pretty much it.

Cox: Along my journey, I was never shy to let people know that I was visually impaired, and I can’t see this, so I need help. I had professors that when I told them that they said “well if you are visually impaired, why don’t you sit closer to the board?” I would tell them “well that’s not going to help. That just doesn’t solve the problem. What I really need is someone to maybe take the notes for me.

Some individuals who are visually impaired reported that their experiences with Disability Support Services were positive. They discuss the student’s academic needs and adjust or provide suitable accommodations in an effort to ensure the student's educational success. Nancy described how Disability Support Services assisted her when she was not able to get her professors to provide her with reasonable accommodations.
Nancy: I have had a few problems with teachers just not wanting to provide materials or not being very accommodating. I would just go to disability services and talk to them and we would work around it somehow. But as far as getting materials and stuff like that, the disability service office is really good and really helpful.

Others reported a reverse experience with Disability Support Service personnel. One student in particular, Maureen, reported the attempt of Disability Support Service personnel to accommodate her higher education needs based on someone else’s visual disability. Due to a lack of funding and up to date equipment George also reported that his needs were not necessarily served through the office of Disability Support Services.

Maureen: The director of the disability services, I contacted her all summer long and she did not respond nor did she get my books on time. So the first week of school I still didn’t have any of my books read which already put me behind. The other bad experience I had was another director at another college trying to give me accommodations based on someone else visual impairment, so basically trying to categorize all of us into one lump thinking that we all need the same thing, which is preposterous.

George: When I was going to college they didn’t have equipment. I think they had tape recorders but a lot of the stuff was real old and kind of broken down. And they had a disability service coordinator and she was an older lady so she wasn’t very familiar with different visual impairments and things like that. It wasn’t anything like it is now, I don’t think.
The college and university Disability Support Services Office has been developed to serve the academic needs of students with disabilities, such as students who are visually impaired. As demonstrated by the discussion put forth by the participants of this study, the service providers and the services provided in these offices has improved over the years. Personnel of the Disability Support Service Offices work with professors to educate them on the needs of students with disability at colleges and universities, as well as, the legislation that stipulates the requirements for the provision of academic accommodations for students with disabilities such as visual impairments. This demonstrates both the need and requirement for the provision of academic accommodations to students who are visually impaired. It assists in encouraging those who may be unwilling to accommodate students with disabilities, to consider the educational and legal consequences of a failure to accommodate students with disabilities such as visual impairment.

Individuals who are visually impaired reported having varying experiences with their Disability Support Service Office. Some participants reported the absence of a Disability Support Services office at their college or university. While this may be expected among participants who attended college prior to the passage of the ADA, it is not unique to just those participants. Participants who attended college in the late 1990s and early 2000s reported the absence of a Disability Support Service Office as well.

The presence of the Disability Support Service Office can be inviting to students with disabilities who want to attend college. If this office is not present at colleges or universities, this can present significant barriers to the higher education of students with
disabilities, such as visual impairment, that hampers their ability to successfully navigate through the higher education process. Also, visually impaired students reported having recent college experiences that were affected by the continued lack of service provision by their Disability Support Service Office personnel. There needs to be continued improvement in the provision of academic services to students who are visually impaired. Disability Support Services personnel must be well versed in the needs of students with disabilities. While no one can know everything about any particular disability, or all disabilities, a basic knowledge is necessary to serve visually impaired students well to ensure their higher educational success.

A war can be started by one, but it must be fought by many. This in essence speaks to the importance of having an effective Disability Support Service Office on college and university campuses. Students with disabilities can only do so much, cry so hard and push so far. If higher education professionals are not behind them providing the support they need, their battle for higher education may be lost.

In regards to the fourth research question, *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)* the participants discussed the role that the college and university office of Disability Support Services played in their educational experiences. Their experiences were mixed experiences. Some participants had positive experiences while others had a negative experience; there were also some participants who had both positive and negative experiences with the office of Disability Support Services. Of the nine participants who shared their experiences related to this office; six recalled having
positive experiences, one shared having negative experiences and two participants reported having both positive and negative experiences when working with the office of Disability Support Services. Also, assistance from Disability Support Services personnel helped students with disabilities in working with their professors to acquire reasonable accommodations to enhance their opportunity for education success.

**Professors’ Reluctance to Comply with Accommodations**

As students with disabilities have matriculated into the higher education environment over the decades, professors have had an increased interaction with these students. The passage of the ADA has improved the provision of accommodations to students with disabilities such as visual impairments by professors; however, these students continue to encounter resistance from their educators as explicated by some of the participants in this study. Evelyn and Francine encounter professors who had not yet worked with students who were visually impaired.

Evelyn: Many of the professors had never worked with someone who was blind or visually impaired and some of them quite frankly didn’t even want to be bothered and told you that, you know, they were point blank honest with you. One professor I had, he told me point blank that he wasn’t going to accommodate me, so he didn’t know how I would make it through the class. So he suggested that I drop the class or find another professor because he did not have time to make copies for me or make exceptions, to you know, give me extended time for test and exams and he wasn’t sure how I was going to get anything off of blackboard because he didn’t have the time to send me a personal email.
Francine: Teachers were very open but were not familiar with teaching a person with a visual impairment such as in my logic class… that was a little difficult. Matter of fact, my philosophy teacher told me that he advised me to drop the class. With a particular teacher that just did not understand and just was not accommodating. I either had to just drop the class or work as hard as I could to pass the class. Sometimes they just won’t budge and there is nothing you can do about it except for going to the dean, and I have gone to the dean before and the dean had talk to the professor.

The experience of these two women highlighted the resistance to the provision of academic accommodations often encountered by college students who are visually impaired. One may question whether their experiences were because of their gender. Similarly, Kasha and Nancy were not provided with academic accommodations by their professors. They both encountered the added reluctance of their professors to educate them.

Kasha: I was sitting in my precalc class one semester and my professor was doing work on the chalk board and so I stayed after class because I did not understand what she was doing because she was not talking through her steps. So, I was like “can you go over that with me? Because I cannot understand what you were doing” She said “it’s very visual go ask student disability” and was I like “you won’t sit down and take 5 minutes with me just to like show me, like a couple of steps, what you were doing” she was like “it’s too visual go ask student disabilities” and I said “ok thank you”. So she did not give me the time of day.
Maureen: I have had a couple of teachers who don’t really understand what they need to do and they are kind of standoffish and they say well you need to go talk to disability services. One of my teachers just passed me because she did not know what else to do with me. That was one experience; I did have a talk with the dean about that because I felt slighted… I felt like I wasn’t being given an opportunity to show that I could do the work as well as anybody else. When it came to in-class assignments I would ask her, because she would pass around something in class that we would have to read and answer the question. And I would let her know that I could take it with me and scan it and give her the questions later and she would say “oh don’t worry about it, you don’t have to do it” and other times, there would be times where we had a group project and each member of the group was responsible for one thing. And then when it came to my group she would be like “oh, don’t worry Maureen, I will give you something else to do” and that would never come.

Professors play a significant role in the provision of academic accommodations to students who are visually impaired. It is these professionals who work directly with students who are visually impaired in the classroom. They are presented with the students’ limitations and needs; these educators are the ones who have firsthand experience in assisting students who are visually impaired to access the educational materials they present in their classrooms. If these educators are not willing to
accommodate visually impaired students in the classroom, the students’ means of obtaining and retaining educational material becomes severely limited.

Professors encountered in this study were not always educated regarding the basic needs of students were visually impaired. Some professors may have never had the opportunity to work with students who are visually impaired. Therefore, it is up to the student and the Disability Support Service personnel to educate these professors on how they can serve students with visual impairments. Professors must keep in mind that they are first and foremost educators, and every student that enters their classroom must be granted the same opportunity to learn the material they present, regardless of the presence or absence of a disability. Judgment must not be passed and stereotypes must not be evoked when working with students with visual disabilities.

It is understandable that professors may be reluctant to serve students they have not previously encountered. However, the very essence of being an educator is inextricably linked to the concept of being a continual learner. Therefore, these educators should embrace their students with disabilities as they embrace all of their students, assisting in every way possible to ensure their educational success. Professors’ behavior towards students with disabilities impacts the students’ reaction and interaction with the professor.

Students who are visually impaired must be taught and molded like all other students without disabilities. Providing a student with a passing grade because you are unsure of how to educate them is unethical and unacceptable. When working with students who are visually impaired professors should embrace the students learning needs
and work collaboratively with the students and the office of Disability Support Services to identify the adjustments and accommodations that can be made to ensure the students’ success in the classroom.

When professors are reluctant to serve students with disabilities such as visual impairments, the students are forced to seek educational assistance elsewhere. These students seek assistance from their peers, who are only learning themselves and are not required to educate these students. Students with disabilities may also seek assistance from Disability Support Service personnel. Disability Support Service Personnel can only do so much, they are not equipped to teach the students. This is the responsibility of the professors. Professors should be open and consider the options for accommodating students who are visually impaired.

In regards to the fourth research question, (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?), when discussing their professors’ reluctance to comply with accommodation requests, six of the participants reported that their experiences were negative. When professors’ refused to accommodate the students’ academic needs the students found themselves frustrated. One primary tool for accommodating students who are visually impaired is through the use of growing technology, but this too has proven to be an area of difficulty for individuals who are visually impaired.

**Inaccessible Technology**

In the 1980s and 1990s, reasonable accommodations such as the ones listed at the beginning of this section, were not as readily available as they are today. This was often
due to a lack of technological advancements. Technological advancements and adaptive equipment, however, have changed the lives of individuals who are visually impaired for the better. Students reported utilizing technological aid such as computers, closed circuit televisions, ZOOM Text, JAWS and the Kurzweil Reader to assist them in accessing educational materials during their higher education pursuits. Larry and Oz recalled how they utilized different types of adaptive software to access course related materials.

Larry: “I take my exams on computer and I use ZOOMText with speech so the program will read it for me.”

Oz: “The main thing is I do all my readings with Kurzwell and when I take my exams they have done awesome with it.”

While technology has been identified as one of the things that can be used to improve the educational experiences of students who are visually impaired this is not always the case. The fourth finding of this study was the inaccessibility of technology on college campuses. Students found technology to be an area of great difficulty at times. Students who were enrolled in college in the 1990s and early 2000s reported that they often encountered difficulty accessing a commonly used course component called Blackboard. Also, Several students reported that the website was not accessible with their screen reader software particularly JAWS. Furthermore, students also encountered difficulty accessing their college or university's website. Evelyn, Maureen and Francine described their difficulties accessing Blackboard, while Peter provided a description of the difficulties he experienced in attempting to utilize the university’s website as well how he worked towards addressing the issue.
Evelyn: I would partner with somebody in the class to get information off of Blackboard. They would email it to me or give me a call and let me know what was on Blackboard and what I needed to do.

Maureen: Colleges are now on this WebCT kick where everything is online, JAWS is not accessible with the college website I don’t know why that is… So disability services usually gets a student to take everything off the WebCT… and email it to me, so that I can retrieve all my notes.

Francine: I had one teacher in a health class that wasn’t so accommodating and I didn’t drop the class. I probably should have but I didn’t drop the class so therefore I was a little angered by my grade in her class because she was not accommodating at all. They used the website to deposit materials in and the website was not accessible, and so she still took off points even though I didn’t have any way of getting on to the website.

Peter: I think the problems really came in the electronics. I had a lot of problems trying to get the university to make their website accessible. Like I was not able to do most of the, you know on the website there are a lot of features that were very helpful but I was not able to use them. Some features were how to search for other students. How to search for professors. Some how that website didn’t work with JAWS… I had a meeting with the technology department. I showed them how to use JAWS and how JAWS works with different website. So they were able to see how I was not able to use the website so they assured me that they
would try to fix it, but I graduated so I haven’t tried to use it ever since so I don’t know if it is working now.

In higher education settings the use of technology has become the norm. Course materials are presented in electronic form in an online forum through Blackboard. As indicated above study participants reported they encountered many obstacles in accessing Blackboard. Those who utilized screen readers (Evelyn, Maureen and Peter) found themselves unable to access their course materials that were placed online. As a result they had to rely on their professors to provide them with such materials on an individual basis. While this served as a reasonable accommodation for some, it proved to be an area of difficulty for others. Students who had professors that considered it an inconvenience to take additional time to provide them with accessible materials found it difficult to meet all the requirements of their classes. Many of these students found themselves relying on the kindness of their classmates.

Blackboard has been continually improved over the years; however, other technological barriers still stand in the way of students who are visually impaired. Furthermore, some students who are visually impaired who utilized screen readers also experienced difficulties in accessing their college and university's website. These websites often serve as a source of information; announcements about the university, locating contact information for college and university faculty and staff, accessing email, are some of the vital components of college and university websites. Students who are visually impaired are not able to function independently if they do not have access to
basic information. Colleges and universities need to continue to make technological accessibility their priority so students who are visually impaired can access their websites and obtain the information that they need to function independently in higher education settings.

In regards to the fourth research question, *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)*, when discussing their ability to access electronic materials through their university website, three of the participants reported negative experiences. These participants reported being unable to access their course materials that were posted online with the use of Blackboard by their professors. It is vital that students develop and apply self advocacy skills in order to foster change for themselves and other students who are visually impaired.

**Self Advocacy**

The fifth and final finding of this area of the study was self advocacy. Evelyn described how she learned to advocate for herself and how self advocacy can be beneficial. Also, Harriett, Larry and Nancy talked about the benefits of advocating for one’s self.

Evelyn: I was fortunate that growing up I had several vision teachers that were wonderful and that’s one of the things they taught me … being in a “normal classroom” or more regular classroom where I had 30 other kids in there who were all normally sighted. They taught me how to speak and ask for the things I needed and how important it was too tell them what I needed … because there
was no way for them to know unless you tell them… some professors are a little hesitant about having a disabled student, they won’t do anything without Student Support Services being involved. They kind of want them to be the middle man and they would prefer to talk to them than talk to you… I am the type of person that I would rather advocate for myself, and try to eliminate the middle man and you and I work out everything.

Harriett: Let people know if you need something… the people that work in the disability office, they’re not blind so they may not know exactly what you need, whereas, if you just told them exactly what you need… there wouldn’t be any misunderstanding or anything like that.

Larry: …I mean they (disability services) can communicate with the professors but I do it myself so they can get to know me and my condition. They (disability services) offer to, but I prefer to do it myself. I find that to be the best way to do it… They’ll get to know me and I can tell the exactly what I need rather than communicating that to someone else, instead of coming from me. It is necessary that I do it because it’s my responsibility, it my education and I feel responsible to take care of that myself.

Nancy: You have to know how to ask for what you need and not really demand that you get it, but be assertive enough… “ok I do need this I can’t really function without it.” Like with the teacher that did not want to work with me. You just kind of deal with it, ask for help, go to disability services. You have to be a good
self advocate and really know what you need and kind of, I guess, manipulate people to get what you need without being too impolite or aggressive, without making them kind of turn off to wanting to help you.

When students are not able to obtain any or a significant amount of services through the Disability Support Services Office, professors, or the Bureau of Services for the Blind they must then turn inward to determine how to accommodate themselves. In some cases, students who were visually impaired made their own accommodation provisions. This is significant in that it demonstrates their drive for educational survival, when no one else is available to accommodate them. In these instances individuals who are visually impaired must accommodate themselves and advocate for their needs.

The development of self advocacy skills is not always present when students enter college or university settings. Disability Support Service personnel can play a vital role in assisting students who are visually impaired in developing self advocacy skills, by teaching them the best methods for communicating with their professors in order to assist them in understanding the student's individual academic needs. Sometimes a part of self advocacy is simply knowing when and how to ask for assistance.

In the case of students who are visually impaired they were not accompanied by Disability Support Service personnel when they transitioned from one course to another. The letter that Disability Support Service personnel provide to instructors does not discuss the intricate details of the impact of a students’ visual disability. Therefore, it is up to the student to advocate for his or her own individual needs. The ability to self advocate for one’s needs demonstrates to the individual and to society, that despite their
disability, they are resilient and self sufficient. This dispels myths about people who are visually impaired, that imply they are helpless and require constant care, assistance and supervision.

In regards to the fourth research question, *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)*, when discussing the implementation of self advocacy in educational settings seven of the participants reported having positive experiences. They all spoke to the importance of letting others know what you need as a person with a visual impairment so you can live a more independent life. An additional component that can assist individuals who are visually impaired in living an independent life is the availability of transportation.

*Transportation*

Individuals who are visually impaired often experience difficulties in the area of transportation because they are unable to obtain a driver’s license due to the limitations of their vision. In this study, interviews were conducted via telephone due to the researchers’ inability to access transportation services. Participants of this study spoke to their experiences related to transportation and the impact it had on their educational pursuits.

Relying on public transportation there are always time where there is a glitch. You just always have to prepare yourself, and always, if possible try to have a plan B because relying on public transportation, they can be late anytime, they can be five minutes late or they may be an hour and a half late. So you always
have to try and have a plan B. there have been times that I have missed class because of public transportation. There have been times where I have missed exams because of public transportation and I just try to let the professors know up front when I was in school. That I do rely on public transportation it’s not the most reliable. Our para-transit system, and there may be a time where I am late, there may be a time when I don’t come at all and that happens.

Evelyn’s experience highlights the complications that can result if transportation is not available or reliable for individuals who are visually impaired. In her case unreliable transportation often impacted her educational pursuits. Also, Larry discussed his use of disability transportation services used to get to and from school, and the inconveniences he frequently encountered with this transportation service.

I take ACCESS which is like a share ride thing for people who can’t drive and you know I’ll spend two hours in the car each way sometimes. Sometimes they are like an hour late to pick me up and that is really frustrating as well, yes, so transportation is really major.

Larry’s experience is significant in that it parallels Evelyn’s experience. The inability to get to school in a certain amount of time can have a ripple effect on obtaining educational success.

Hence, a lack of transportation can have a significant impact on the lives of individuals who are visually impaired. The inability to obtain a driver's license can leave individuals who are visually impaired dependent on public transportation or the kindness of friends and family, both of which can be unreliable. In the experience of Larry and
Evelyn the unreliability of disability related transportation impacted the educational pursuits of college students who are visually impaired. If a student is not able to make it to class on time or misses a class entirely, then the ramifications can be significant. Ramifications for not being in class could include a failure to obtain valuable information, missing assignments and exams, etc.

The experiences of these two participants highlighted the continual need for improved transportation services for individuals who are visually impaired. The impact that a lack of transportation had on the vocational pursuits of individuals who are visually impaired will be discussed in the next section on work related experiences. In regards to the fourth research question (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?), a lack of transportation and the undependable nature of some forms of public transportation were viewed negatively especially when it had a negative impact on the participants’ educational pursuits.

**Work Related Experiences**

Six findings emerged from the second research question (What are the vocational experiences of college educated individuals who are visually impaired?), and are discussed in this section. The first finding of the section is the employers’ lack of knowledge about visual impairment. The second finding of this section is self advocacy. Working in companies with primarily visually impaired populations is the third finding of the study in the area of work related experience. The fourth finding for the study in this area was a lack of work experience. The fifth finding was inaccessible technology and the
sixth and final findings of the area of work related experience was transportation. All of these findings highlight how people with visual impairment navigate the workplace. First the researcher details employers’ lack of understanding of individuals who are visually impaired.

**Employers’ Lack of Knowledge about Visual Impairment**

Employers’ lack of knowledge about visual impairment was significant. Individuals who are visually impaired who earned their college/university degrees in the 1980s and 1990s reported experiencing difficulties obtaining employment. Cox described his experience on a job interview in the 1980s where his potential employer proved to be unknowledgeable about visual impairments and methods of accessibility for people who were visually impaired. Cox found himself at the crossroads of disclosure and resistance when he had to request reasonable accommodations to perform a computerized test. In an effort to educate the potential employer, the participant explained to the potential employer what resources could be utilized for him to fulfill the duties of the particular position he was pursuing. Cox hoped his disclosure would provide an opportunity to continue the process of application for the position.

Cox: When I graduated and went on a particular interview for programming and I sat down in front of a computer and I had a piece of paper slapped in front of me and I was told to “type this and see how fast I could type it”. Well unfortunately I had to tell them that “I can’t see that from that distance, I would have to have visual aids in order to do that”. Well they said “how do you plan on working in this particular industry” and I graduated with this particular degree. Then they
went on to ask me “well how did you manage to finish school with a visual impairment?” I said “well it is because I had the vision services for the blind which provided certain visual aids that would allow me to view certain print” and he said “what are you talking about?” I said “well there are such things as CC televisions, there are things that change the magnification of your computer screen” and they looked at me as if I guess this is the foreign age and I was just politely escorted out they said “thank you for coming”…

On the other hand, Evelyn described the stereotypes she believed employers held about individuals who were visually impaired. And, Francine described what she had to do to prove to her supervisor that she was capable of fulfilling the duties of a higher position despite the limitations of her visual impairment. Harriet discussed her experience of being one of the first visually impaired persons with whom her boss had worked. Finally, Maureen described her experience in working with an employer who did not appear to have a working knowledge of visual impairment.

Evelyn: A lot of employers still have a huge stereotype when it comes to hiring people with disabilities. They feel as though it’s going to cost them more money, the person’s going to take off more sick time than a normal person, that they will always be late for work, that their work ethic won’t be as great. I just would love to see more employers embrace more individuals with disabilities, especially people who are blind and visually impaired, we have the highest unemployment rate of any race, ethnicity, gender…
Francine: When I got promoted to the office where I am now the manager was not open to it, because he felt as though a visually impaired person could not do the particular job, so he was very negative about it. However, before I came to my office I worked in Michigan and they had people in the capacity that I am working now who were visually impaired and they were successful. So when I was there I received all of my training and worked there very well and when I came back he was more open to it, now he sees, it can be done. So I don’t think he will have a problem with hiring people who are visually impaired now… a lot of the employers today, they don’t know about the equipment, about what’s out here. So they do turn people down…

Harriett: My most recent job, I don’t think any of them ever met anyone with a disability. A lot of people didn’t understand, so they didn’t think that I could do things, so I had to meet with my boss and tell him I could do everything it just took a little explanation of what something said or something like that. It is just kind of the assumption that people who are blind can’t or just isn’t able to do something. I wanted them to understand that I could do any task that needed to be done.

Maureen: When I used to do work-study at my college, there was a lot that my boss thought I could not do or was scared to ask me to do. She only hired me because I kept begging her and begging her and the director was like “why don’t you give her a chance? And I had to like really prove myself, it was just a constant trying to prove myself to her, and she was just like “oh I didn’t know you
could do this and I didn’t know you could do that”. it was like she was tip toeing around me, not asking me to do things because she didn’t know whether she was offending me.

Clearly, employers’ human resource offices should provide not only information to their employees, but provides educational seminars that highlight abilities of persons with visual impairments. James took a different approach in seeking employment. He approached a potential employer and invited them to ask any questions about his disability.

James: So I have taken a really bold approach which a lawyer would probably hate me for if it ever came down to it, but I end up telling employers “so I know there are lots of laws that are what you can and what you cannot ask me and how you have to phrase that question. Let’s forget that for a minute, let’s just put that aside you know. What questions do you have for me?” and over the years I get the question of, “how do you use a computer? to how are you going to find where your desk is? You know blindness can so obvious when you walk in with a cane or a dog that it’s kind of, I mean you can’t ignore the elephant in the room, to borrow the expression. You just have to be open and honest, not just with yourself but with the employer too, about what those questions are that are going to be there whether you answer them or not. It is a lot easier to answer them than to have these sort of strange interactions with your boss tiptoeing around issues or tiptoeing around answering their questions that they haven’t actually asked.”
Despite the passage of the ADA and several other disability related legislative acts many employers are still not knowledgeable about individuals who are visually impaired and the contributions they can make to the workforce. In this study participants, regardless of age encountered employers who had no knowledge about assistive technology and their ability to provide reasonable accommodations to individuals who were visually impaired. Employers’ lack of knowledge about individuals who are visually impaired hampers their willingness to employ these individuals. A lack of knowledge leads to fear and resistance.

One participant called for the implementation of sensitivity training for employers. Sensitivity training would provide employers with a basic knowledge about visual impairment and its’ limitations. Sensitivity training can provide employers with a firsthand experience of being visually impaired, which may develop their level of empathy and openness towards individuals who are visually impaired. When employers become more open and empathetic to individuals who are visually impaired then employers are more likely to be open to hiring individuals who are visually impaired.

As with all employees, employers require employees to prove themselves; this is often done during the first 90 days of employment. Individuals who are visually impaired have reported having to prove themselves and their abilities, just to get through the door and have employers consider them for employment positions. Individuals who are visually impaired are the main source for information about their disability for their employers. Participants have reported letting their guard down and being completely open to the questions of their potential employers in an effort to make the employers
comfortable enough to ask the questions they fear. When individuals who are visually impaired are open to questions from employers, the employers become more knowledgeable about our disabilities.

In regards to the fourth research question, *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)* the participants viewed their experiences as both positive and negative. These experiences were negative in the sense that employers were often very reluctant to work with individuals who were visually impaired and in some cases they remained reluctant even after they were educated about the individuals’ disability. Conversely, the improvement in knowledge among employers helped participants also view their experiences as positive. As a result employers are more open to hire and recommend other individuals who are visually impaired, thus improving the employment rate of individuals who are visually impaired. Informing employers about visual impairment is one form of self advocacy.

**Self Advocacy**

The second finding of this section is self advocacy. It was a salient finding across all of the findings. While the passage of the ADA (1990) was intended to eliminate discrimination against individuals with disability; persons with visual disabilities concerns about the loss of employment due to the request for reasonable accommodations are very real and warrant caution when disclosing a disability and requesting accommodations from an employer. Brian described his reluctance to request reasonable accommodations in the workplace because he is uncertain of the ramifications that may
result. He stated that the employer may very well remove him from his position and place someone else in that position who does not require accommodations, essentially putting him out of work.

Brian: I was recently approached and asked if I had asked my employer for any reasonable accommodations, I said “no” “why not” “first of all this is a right to work state, if I sneeze wrong they can fire me, if I make too many waves and make them think they have to spend too much money to have me hired what do you think is going to happen? They don’t need me. So if they can have someone else in there and have their presence cost them less I will be gone…”.

Evelyn further discussed the importance of self advocacy and how it can have a potential benefit in the workplace.

Evelyn: I just feel as though when you advocate for yourself, one, it makes you a more independent person and nobody knows what you need best than yourself. People may think “oh well she’s visually impaired and that every blind and visually impaired student uses the same accommodations” and that’s not true. Different people have different levels of how much they can see or can’t see and so everybody is different. So I feel when you can advocate for yourself you’re bound to do much better. And in the real world you’re not going to have somebody to speak up for you. When you get a job you’re going to need to be able to speak up and tell your employer well I am visually impaired but I can do this, this, this, and this. However, I may need ZOOMText on the computer to make the print larger so I am able to do this, this, this, and this. And you don’t
always have someone to speak up for you so I believe it makes you a more independent person and you can be more self sufficient when you get into that real world.

Self advocacy has the potential to increase one's position in the workforce. If individuals who are visually impaired are able to advocate for themselves in a work related settings, then their actions can potential increase their ability to obtain employment. As indicated by the respondents employers are often more open to individuals who are familiar with their disability and are able to clearly communicate their needs. If one is able to self advocate then it may improve their opportunity for employment even if they have a lack of work experience.

In addressing the fourth research question, (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?), self advocacy was discussed in its relation to work related experiences, two participants had contrasting experiences. One participant viewed self advocacy in a negative light as he considered its potential impact on his current employment status. He shared concern that if he requested accommodations then it may lead to his replacement by the company. The other participant viewed self advocacy in the workplace in a positive light. She believed that this was the best means by which to obtain more independence in the workplace. Self advocacy may at times play a role in the obtainment of employment when one has no prior work experience.
A Lack of Work Experience

A lack of work experience was the third finding of the study in the area of work related experience. Francine stated that it was difficult for her to get work even after completing college in the 1990s because she did not have any work experience. She explained that her lack of experience was linked to her disability. Current college students such as Kasha and Nancy expressed that many of them were unemployed and had limited or no work experience.

Francine: …being visually impaired and never worked before even as a teenager. Where teenagers worked in the summer time, you know, we didn’t get work in the summer time, nobody would want to hire us, so we didn’t have any experience and so they looked at that and turned you down.

A lack of work experience is a significant barrier to employment for individuals who are visually impaired. Employers are unable to identify your skills if you have no work experience. Individuals who are visually impaired should do their best to seek employment at a young age. This will improve their ability to become employed as adults. At a young age, individuals who are visually impaired can seek employment in companies that are geared towards hiring individuals who are visually impaired and blind.

In regards to the fourth research question (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?), one participant expressed that her experience with a lack of employment experience was a negative experience created negative outcomes for her. This experience
was negative because it hampered her ability to gain employment because she had no prior work experience and employers who probably did not understand her capabilities or her impairment, were not willing to hire her. Thus, some individuals who are visually impaired seek employment in agencies that are primarily geared towards employing individuals who were visually impaired and blind in order to gain work experience.

**Working in Companies with a Primarily Visually Impaired Population**

The fourth finding in regards to work related experiences had to do with the experience of working in companies with a population of employees who are primarily blind and visually impaired. Francine described what her experiences working for such a company in the early 1990s.

**Francine:** A lot of times we were not able to get jobs and we ended up working in sheltered workshops. I still have friends till this day that work in sheltered workshops because they feel as though they have been told no so many times by employers that they can’t do something and they have it in their head. And not only that, they have kids to raise now, you know, and they are too old now probably and think they can’t go back to school and be successful so they are still working in that sheltered workshop, you know, making minimum amount of money. And so it’s very, very alarming to know that they are still there and they had much more capable to do other things.

Also Andrew provided a brief description of his experience in his current position at a similar company. He indicated that the “job now it is at a blind place so I have everything that I ever needed.”
Working with a blind and visually impaired population appeared to limit employment barriers for one participant. Such companies as Industries for the Blind have staff members that are knowledgeable about the necessary accommodations that can assist individuals who are visually impaired in being successful in these employment settings. This makes things simpler for individuals who are visually impaired because they do not have to spend a significant amount of time trying to prove that their disability does not limit their ability to work.

Employment in companies geared towards hiring individuals who are blind and visually impaired such as Industries for the Blind are sometimes viewed as the only and best option for employment for individuals who are visually impaired. This is not always the case. Some individuals who are visually impaired may feel more comfortable being in these setting because they are surrounded by individuals who share different forms of their disability. Others may resent the implication that this is their only option for employment. They may choose to seek competitive employment among individuals who may not be visually impaired. Seeking employment in such environments is one manner in which knowledge about visual impairment can be increased among members of society.

Prior to the passage of the ADA, many individuals who were visually impaired only had one option for employment and this encompassed places such as Industries for the Blind. However, things are continuing to change, and individuals who are visually impaired are employed in a variety of fields as evidenced by the participants of this research study. Persons with visual disabilities are professors and lawyers, who embrace
working among their non-disabled peers. Individuals who are visually impaired are no longer restricted, and there are many members of society as evidenced in the words of the participants who still need to learn this lesson.

In regards to the fourth research question, *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)*, six participants discussed their experiences in working in facilities that were geared towards primarily hiring individuals who were visually impaired. Four of the participants reported their experiences as positive, while two participants reported their experience negatively. Positive experiences were linked to comfort in the setting and the provision of accommodations. Negative responses were related to stereotypes about individuals who were visually impaired and the concept that this environment was the most suited employment environment for individuals who are visually impaired. While a lack of knowledge about visual disabilities among members of society continues to hampers the employment of individuals who are visually impaired, the wave of technology that has ensued over the years has also played a role in limiting the ability of individuals who are visually impaired to become and remain successfully employed.

**Inaccessible Technology**

As with the acquisition of educational accommodations, inaccessible technology has also impacted the vocational experience of college educated individuals who are visually impaired. This was the fifth finding of this area of the study. Francine described applying for positions that required the use of computer software that was not compatible with screen readers such as JAWS.
I remember going to a couple of interviews and them telling us that the equipment that they had was not accessible. Well it probably was not back in the 80s and the 90s. I had applied to be work in customer service as ah, you know how you call the doctors office and the answering service would come on. So at the time they would see the name of the particular person they were answering for, it would come up on the screen. So they had no way to implement that for a person who was blind, to have it talk to you or you to know exactly what particular doctor was coming up on the screen.

When individuals who are visually impaired are unable to access technology that was utilized by employers, their opportunity for employment is further limited. Interfaces can be incorporated into software programs when they are being manufactured. If this were to be done prior to the use of the software, then it would limit the amount of jobs that are not available to individuals who are visually impaired due to accessibility issues.

As technology grows, so should we. While only one participant discussed the inaccessibility of technology in the workplace; it is an issue that is faced by individuals who are visually impaired and find themselves qualified for employment positions, but disqualified because they simply cannot access the software that used by the company in which they are seeking employment.

In regards to the fourth research question, *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)* the only participant who discussed inaccessible technology in the workplace discussed her experience from a negative stand point. She described how it
limited her ability to become employed. Another compounding factor that impacts the employment of individuals who are visually impaired is transportation. It too is a salient theme across the experiences of the participants.

**Transportation**

The sixth and final finding in regards to work related experiences is transportation. Transportation was discussed by Andrew in terms of how it limited his opportunity for employment as he was not able to drive. If he was unable to get to a particular position by foot or public transportation then he would not apply for the position.

Andrew: Once I quit driving things was a little different… I couldn’t go to a job so I had to be a little bit more selective. the only barriers to employment would be if I wanted to get a job that I could not get to independently.

Individuals who are visually impaired or legally blind are often non-drivers. Their inability to drive limits their employability. When seeking a position one has to consider the location and the available transportation that could be used to get to and from work. If there is no public transportation to this employment site, and there is no one they can rely on to transport them to and from work, the individual who is visually impaired must consider alternative options for employment. Transportation continues to be a barrier to employment for individuals who are visually impaired across the country as indicated in this study unless they reside in urban areas.

For those individuals who live in metropolitan cities, transportation issues are easier to resolve. For individuals who are visually impaired that live in smaller cities and
towns transportation is not as readily accessible. It is not feasible to believe that all individuals who are visually impaired should move to metropolitan cities. Therefore, other means of minimizing the transportation needs of individuals who are visually impaired must be developed. With the discussion of work related experiences in mind, let us now turn to the discussion of attitudes towards visual impairment.

In regards to the fourth research question, *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)*, the only participant that discussed transportation in relation to his employment experience did so in a positive manner. While transportation was identified as a barrier to employment, the participant resolved that the solution to his problem simply came down to choice. Put more plainly, as long as he chose the right place for employment he did not believe transportation was an issue. In some situations attitude is everything, it will determine if a situation is viewed positively or negatively from the perspective of the individual with the visual disability.

**Attitudes toward Visual Impairment**

There were four findings in relation to attitudes towards visual impairment, and the third research question *(What are the social experiences of college educated individuals who are visually impaired?)*. The first was people’s reaction to visual impairment. The second was the participants’ acceptance of their own disability. The third finding was the involvement in organizations for the blind and visually impaired. The fourth finding was transportation and the fifth finding was the use of a white cane.

To begin this discussion about attitudes toward visual impairment, I would like to provide
a description of what the experience of being partially sighted or visually impaired may be like to some individuals. This description was provided by John one of the research participants.

John: I think being a partial is almost harder for people… I am talking about totals right now. Totals aren’t given a choice or don’t struggle with certain things… They have to learn from ground zero and go and achieve success in a certain direction, a certain way. Where a partial has issues because… they’re not all blind so people think, you’re not all blind but to the blind people, the totals “oh he’s a partial” and to a sighted person “oh you are not all blind so you don’t qualify as that” you don’t qualify either way, you’re on an island and there are two groups of people on either side. So being a partial you kind of get stuck. So until you decide that, it easier to decide that you are blind and then use your residual vision the best you can or wisely I guess, safely. But it still doesn’t get you on the other side, you know, you’re still in the middle of the two. Some people stay sitting, on a fence.

John’s statement speaks to the social difficulty experienced by many individuals who are visually impaired. His statement delineates that people who are visually impaired are partially sighted and partially blind and this can be confusing and frustrating at times, especially in those time when others in society are uncertain of how it is to be partially sighted and partially blind, this may impact their reaction to visual impairment.

People’s Reaction Toward Visual Impairment
The first finding of this section had to do with people’s reaction towards visual impairment. There was discussion of people’s lack of knowledge, people’s basic reaction to the individual’s visual disability and dating in this area. Many people have a limited amount of knowledge about visual impairment especially if they have never been exposed to someone who is visually impaired. Brian described how this leads to “foot in mouth syndrome”, where people say and do things they would not ordinarily do after they find out that you are visually impaired.

Brian: Unfortunately there are still so many people in the world that are dim-witted when it comes to a person with a disability whether it is visual, physical or even mental. They’re still a bit dim-witted, you still have the person who thinks “ok well you are deaf I’ll talk louder?” You occasionally have people who say things and they don’t know any better and “oh, you ought to get some glasses” I say “why?” “well you gotta get close” “so, am I getting the job done for you” “yeah” “ok, good enough it may not be pretty but it is effective”. A lot of folks suffer from, foot in mouth syndrome, and you just have to laugh out loud and hopefully they will learn from the mistake they made with you and move on and not make it again with the next person because they can’t help themselves.

Dominique described her experience with her classmates. Many of which were made to be very uncomfortable around her when the professor asked them to assist her during the class. Also, Evelyn, George, Isabel and Peter recalled similar experiences in regards to people’s reactions to their visual disabilities.
Dominique: If the professor would ask them (other students) to help me with anything, there were some that were very cooperative and some who were made to feel very uneasy to be put in that situation… It took me a while to realize that if someone wasn’t sociable with me I’d think “it must be because I am partially sighted”, and then I thought “well that can’t always be it”, it might be 90 percent of the time, I can’t guess know what the percentage would be, but it can’t always be it.

Evelyn: I would talk to some students they would seem like that they were kind of shy to talk to me and that could just be their personality or when we would walk across campus at first it would seem like some of them didn’t want to be seen, you know some of the real popular ones, they kind of want to be seen or asked your friend is a blind girl… That came from the younger students, just starting college, your freshman and sophomores… Then as you meet some of the student who were older who are at that age where they don’t care what other people think they’re just friends with everybody because they want to be friends with them. George: I think when people see people who are different it doesn’t have to be sight impairment it could be something else. You tend to shy away from them. Why is he doing that? Or why is she doing that? Everybody is not like that, but a lot of people are like that, so I tend to shy away from them. With sight impairment I think it is harder to understand, because they know a person who is blind and a person who can see, but people who are sight impaired are in the middle… Just
people not understanding when they see my impairment… I think a lot of sighted people they don’t want to offend you, they try to hard not to offend you. When they get to know you they see you are a person just like everybody else and they careless whether they offend you or not. Then you’re on the right track, that what I say. You get people like that, like some of the people I work with, they joke with me like they do anybody else so that’s good”.

Isabel: “Sort of like being shunned, like being alienated… I guess alienated is the best way to describe it, because it is like nobody knows what to say so they kind of just don’t say anything, so it is just like being there outside of the group.

Peter: I get a lot of different reactions. Of course you get the people that don’t understand, and want to yell at you as if you can’t hear. I get some people who are very understanding. People who are just curious I guess, they wanted to know more about my condition and that was fine for the most part, but different reactions, you know. People who were just like, amazed, that I was a blind guy and getting around campus without a cane it was just, so amazing to them.

James and Kasha illuminated their social experiences related to dating. Kasha stated that people she dated found out about her visual disability and “hit the road”. James discussed the impact of being in the later stages of dating and having the experience of having their partner expressed uncertainty about continuing a relationship with or marrying a “blind guy”. These experiences have been found to be painful at best.
James: Social experience you know has been pretty much the same as sighted folks with the one difference being when dating. It’s a lot, you know, you end up seeing both sides of people when you are dating. So you either get the people who are kind of, they are just fine with you being a blind guy. They really don’t care, they look past that right away. Or, you get the folks that are sort of spooked by it and they’re not sure what to do, even though you try to answer all of their questions, they still sort of, have the mind-set of, well, I could never marry a blind guy or a disabled guy… it’s just painful when I finally comes up as an issue, you know. If you’re dating someone for a couple years and they say “you know I can’t really put aside this whole you are blind thing”, it certainly is frustrating because you say “but look at everything else we get along so well and all these other ways”.

Kasha: Social experience you know has been pretty much the same as sighted folks with the one difference being when dating. It’s a lot, you know, you end up seeing both sides of people when you are dating. So you either get the people who are kind of, they are just fine with you being a blind guy. They really don’t care, they look past that right away. Or, you get the folks that are sort of spooked by it and they’re not sure what to do, even though you try to answer all of their questions, they still sort of, have the mind-set of, well, I could never marry a blind guy or a disabled guy… it’s just painful when I finally comes up as an issue, you know. If you’re dating someone for a couple years and they say? you know I can’t
really put aside this whole you are blind thing”, it certainly is frustrating because you say “but look at everything else we get along so well and all these other ways”.

The general members of society are primarily unknowledgeable about disabilities and the range of experiences of people who have a plethora of causes as well as visual acuity related to their visual impairments. They often say and do offensive things when they encounter people who are visually impaired. Some individuals who are visually impaired have invisible disabilities; meaning their visual impairment is not readily identifiable by everyone they encounter. Thus, when people realize that the person they have been interacting with cannot see well, they make comments such as “you need to get some glasses”, “why are you so close?” “What are you? Blind?” These comments can be interpreted as offensive to individuals who are visually impaired, who may in turn respond negatively or shy away from interacting with others due to such negative statements about their vision. A lack of interaction with others can impact a person’s development of social skills which can have a ripple effect on other parts of their lives such as education and vocation.

Some individuals who are visually impaired prefer to educate others about their disability, rather than seclude themselves from those around them. They find that when you educate individuals who do not possess prior knowledge about visual disabilities they tend to adjust their reactions to visual impairment. Some responses to visual disabilities are positive and others are negative. Some individuals become inquisitive about the disability and the person with the disability. They ask questions and become accepting of
the individual who is visually impaired, while taking note that some of their comments can be hurtful to the individuals. With this approach, the person who is visually impaired educates those around them in an effort to have a more comfortable social experience as opposed to one that is awkward and discouraging. Many participants in this study took this approach.

Unfortunately, all reactions to visual impairment are not positive. Some people become uncomfortable around people with disabilities despite the kind and nature of the disability. They prefer to have limited or no interaction with individuals who are visually impaired. This in turn can make the person who is visually impaired experience feelings of isolation and rejection, which may cause them to refrain from interacting with others. As evidenced by the participants in this study, it can be difficult for individuals who are visually impaired to develop a strong social network for support when many of their peers prefer not to be seen with them or to be associated with someone with a disability.

Such negative reaction to visual disabilities is often linked to a lack of education about the disability by the public in general. A lack of knowledge can also lead the passing of judgment upon individuals who are visually impaired in all environments including the workplace and in higher education settings. For instance some individuals may believe and express that all individuals who are visually impaired should work in settings such as Industries for the Blind. Some individuals with visual impairments who may hear these statements may come to believe that this is their only option for employment. The limitations set forth by others due to a lack of knowledge can have a significantly negative impact on the lives of individuals who are visually impaired.
implications set forth by members of society trickle into the other parts of our lives. There are still many myths and stereotypes that need to be refuted in effort to improve the educational, vocational and social experiences of individuals who are visually impaired.

When dating, individuals with visual impairment also experienced negative responses to their disability. Such response can be devastating to one’s self esteem. Some individuals lose hope of ever having a family of their own due to an overwhelming experience of rejection related to their disability. Due to such rejection, individuals who are visually impaired may begin to doubt their worth and believe they will not find the happiness they seek. These fears lead to individuals who are visually impaired attempting to hide their disability from people they encounter in hopes that people will see them and not their disability. Again some participants in this study shared their understanding of how their visual disabilities impacted their social efficacy.

A total of nine participants shared their social experiences. In regards to the fourth research question, *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)*, the only participants’ discussions displayed a mixed view of their social experiences. Some individuals had positive experiences when they encountered other individuals who were accepting of their disability and willing to interact with them. Other participants had negative experiences which were associated with a lack of knowledge about visual impairment among others. In both casual and dating situations, participants found people shying away from them because of an unwillingness to be associated with an individual who was visually impaired, and displayed discomfort with visual impairment. The need to hide
one’s disability is inextricably linked to the individuals’ acceptance of their own visual 
impairment.

**Participants’ Acceptance of Their Own Visual Impairment**

In some cases individuals who are visually impaired avoid the acceptance of their own 
disability due to the stereotypes they have been presented with about individuals who are visually impaired. This is the second finding of this section, the participants’ acceptance of their disability. Oz reported that while his visual impairment was congenital he spent much of his life trying to “function as a sighted person”. He reported having a dislike for the word “blind” as well as the stereotypes of helplessness that came along with it. Like this participant others reported that they often did not inform others that they were visually impaired. They preferred to attempt to blend in with the sighted world. Andrew and George discussed some of the benefits that followed and Peter provided a candid description of the embarrassment he experienced when he was still in denial of his visual impairment.

Oz: I was pretty much in denial of my blindness at the time, I knew I was visually impaired but I hated the word blind and I did not really have any alternative skills whatsoever, I just tried to function as a sighted person and that sometimes did not work so well. I have always resisted the blindness stereo type, because my vision of a blind person was sort of a helpless person with dark glasses and a white cane. Just kind of stuck in a corner of a room lost and calling out for help or someone who has to be led by the arm. And I look at that image and I said that did not fit
with who I was, that did not fit with my image of myself. So I always just resisted
that term and any type of additional training that might go along with it.
Andrew: Gradually losing sight and I had a night life but you know once you start
to lose sight and you go to bars, people want to start fights because they think you
are looking at them or you bump into them… Basically I hadn’t accepted really I
guess blindness. The main thing is I was probably in denial… Earlier years you
know you are kind of alone and not feel safe in your environment because you
can’t see you environment. I just go out and enjoy myself. If I run into somebody
I say excuse me. I have just accepted it, hey I can’t see as good as other people
but I am going to do what you can do.
George: You should always try to use your vision but don’t be ashamed if you
need to ask for help, like larger print or even learning Braille, using thick glasses,
or even using a cane or what not. That will help you be more successful… I didn’t
really use let people know that I had a visual impairment I tried to hide it from
them. I just tried to deal with it the best that I could and that probably wasn’t best
decision but that’s what I did… People try to fit in, I know some people who are
sighted impaired that don’t. I know one guy who needs to use a cane but he won’t
use it, needs glasses but he won’t, he’ll ask someone to read it for him. But him he
fits in you would know he couldn’t see. I am not sure if that is good.
Peter: I lost my vision and I was so in denial. People need to get over this denial
thing now-a-days because some of the most embarrassing things can happen
when you are in denial. This is the most embarrassing thing that ever happen to
me. This was my sophomore year so I was either 19 or something and I was taking a summer class and I was late to class because I was being a good person. Someone did not know where a building was so I showed the person where the building was so I got to class late and I was probably three weeks into the semester so I had been sitting in the same seat for three weeks straight. So I got to the classroom and the lights were off, and I have RP so I really couldn’t see anything at night or in the dark. So I said ok well I know where my seat is so walk into my seat and set my books down and sat down and I sat on someone’s lap. That was so embarrassing. So I say on that guys lap and I got up and went on seat behind him and bam there is some one else. And so I said ok and I went another seat back and there is someone else. I was like gosh what is going on? You know it is so embarrassing because you know sometimes you just need to ask for help and stop being in denial. So that is my lesson I learned to ask for help.

Individuals’ acceptance of their visual impairment can impact their social interaction. When an individual who is visually impaired is not comfortable with or accepting of their own disability they focus on the negative impact that disability can have on their lives. For those who have invisible disabilities, they do their best to hide their disability from those around them. However, when the lights are out and you can’t see in the dark, the only person who cannot see you, is you. It is vital that people who are visually impaired as experienced by the participants in this research study accept their disabilities.
Denial can lead to embarrassment, misinformation, danger and many more undesirable consequences for individuals who are visually impaired. If the people around individuals with visual impairments are aware of the limits of their vision, they can prove to be helpful. However, a release of information can also prove to be dangerous for the person who is visually impaired. Not all people are generous, and many look for opportunities to take advantage of individuals who are visually impaired. So individuals who are visually impaired contend they must be careful of whom they trust, but learn to accept their disability and refrain from allowing denial to limit their interaction with the world around them.

Five participants discussed their acceptance of their visual impairment. In regards to the fourth research question, (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?), each of these five participant reported that the acceptance of their visual impairment was a positive resolve. Their experiences while they were in denial about their disability were viewed as negative, however, once their level of acceptance of their disability changed, their view of their experiences changed. In an effort to improve some aspects of their lives, such as their social interaction, individuals who are visually impaired became involved in organizations for people who are blind and visually impaired.

**Involvement in Organizations for the Blind and Visually Impaired**

The third finding of this study related to attitudes toward visual impairment had to do with the participants’ involvement in organizations for the blind and visually impaired. Some participants expressed that their involvement in organizations for the
blind and visually impaired helped them to become more accepting of their disability. Evelyn and Francine discussed the potential benefits of being involved in an organization for the blind and visually impaired. George expressed regret that he was not affiliated with any organization for the blind and visually impaired earlier in his life.

Evelyn: I think if you can meet up with an organization. … I think again because I was the only person in my entire family that had a vision problem my parents weren’t sure what to do, or what I needed or how to get services. They got involved in an organization when I was like five and so I was able to meet other people who were blind and visually impaired. And do activities with them and see that they were able to do things and what they were able to do. And … you tend to do things, and they were lawyers, computer engineers and they had these powerful positions. And so whatever I wanted to do when I got older, it was at my disposal to figure out what that was.

Francine: …get in touch with any type of organization that advocates. I mean we have a lot of them, we have the NFB, ACB, we have disability agencies, there are a lot of different things that you can latch on to in order to become familiar and have a so to speak sorority to help you out and you be able to call on in times of need.

George: I didn’t know nothing about the NFB when I was growing up. The only thing I really wish that I would have known about the NFB when I was in college it would have made a big difference I think. Because I would have had people I
could network with. It would have because I didn’t know anything about it until I came to Cleveland.

Some individuals who are visually impaired find organizations for people who are visually impaired and blind, such as the National Federation of the Blind, to be a good source of support. Such organizations are places where people who are visually impaired can meet other individuals who share their experiences and may be able to assist them in overcoming the barriers they may encounter in various aspects of their lives. Participants of this study found the National Federation of the Blind to be a vital source of information that assisted them in improving their way of living and their acceptance of their visual disabilities.

In regards to the fourth research question, (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?), the two participants who discussed the impact a lack of transportation viewed the impact that a lack of transportation had on their social interactions as negative. The respondents found it frustrating to continually rely on others and desired a sense of spontaneity, which is not an option when you have to schedule transportation to attend events. Involvement in such organizations can also provide transportation resources.

**Transportation**

The fourth finding was the impact of transportation on the social experience of college educated individuals who are visually impaired. Brian and Dominique described the impact that transportation has had on their social experiences.
Brian: I mean the biggest social obstacle I face here is a lack of mobility. That is the largest most daunting social obstacle, and that hopefully will change in the near future because obviously it has too. You need to be able to live you need to be able to have a life outside of home. Social activity you have personal upkeep and maintenance and you need to be mobile to the point that you can get back and forth to the places that you want to go and need to go.

Dominique: I think the fact that you have to arrange transportation ahead of time either with a friend, with a family member, with TransAid, unless you have the money to take taxis everywhere you go you can’t be spontaneous. Say you hear about a concert or an exhibit that you hear about at the last minute. Unless you make transportation arrangements you can’t just pick up and go and do that like a sighted person would be able to do. But my problem is I have a difficulty asking for help with transportation. I would feel much better if I know someone wants to be my friend and I want to be their friend, not because I just want to use them for transportation. That attitude has probably inhibited me socially because most people aren’t going to call you and say hey would you like to go here with me or would you like to go there with me. I think in a way I need to get over the attitude of not liking to ask for help with transportation so I could do more things.

Again, transportation for individuals who are visually impaired can limit their ability to partake in social activities. When they are not able to transport themselves to social events, individuals who are visually impaired are often forced to depend on the kindness of others and public transportation, both of which can prove to be unreliable.
Some individuals who are visually impaired choose not to participate in social activities if they do not take place in a convenient location that they can get to independently.

For individuals who live in smaller cities public transportation is not available 24/7. Therefore, they often have to rely on friends and family to attend late night and weekend social events. Individuals who are visually impaired can sometimes begin to feel as if they are a burden on others and as a result they limit their request for assistance. Some individuals who are visually impaired refrain from asking others for assistance unless it is related to important matters rather than social events.

Three participants spoke to the benefits of individuals who are visually impaired involving themselves in organizations for people who are blind and visually impaired. In regards to the fourth research question, (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?), each respondent expressed a positive view of participation in organizations for individuals who are visually impaired and blind because they believed such organizations to be valuable sources of support, information, networks and more.

Use of a White Cane

Some individuals who are visually impaired do not utilize a white cane, either because they have a sufficient amount of vision to function without one or because they choose not to use a white cane for stigma related reasons. Other individuals who are visually impaired utilize a cane to enhance their mobility and independence.

Andrew: Now I go out a lot more, I have a lot more social experiences now. I just go ahead I use a cane all the time now and say the hell with it and go on with it…
And back then when I had eye problems, sometimes I would tell people, sometimes I wouldn’t, but now it is pretty obvious, you know. I have the cane at all times, when I am away from the agency I always have the cane.

The use of a white cane can assist in improving the independence of individuals who are visually impaired. More specifically, the use of a cane increases independence in the area of mobility. Some individuals who are visually impaired carry a white cane so those around them will know that they are visually impaired and act accordingly to assist them. In regards to the fourth research question, *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)* the use of a white cane to improve social interaction was viewed in a positive manner. The participant who discussed this concept believed that the use of a white cane enhanced his ability to improve his mobility and function more independently in different settings.

The findings discussed in this section can be found in table 7.1. These findings fell under three primary themes: 1) Self Advocacy Acquiring Accommodations: (a) The reasonable accommodations that were received by college students who were visually impaired, (b) The positive and negative role of college and university Disability Support Service offices, (c) The inaccessibility of technology on college campuses, (d) the reluctance of professors to comply with accommodation requests from students who are visually impaired, and (e) Self advocacy); 2) Work Related Experiences: (a) the employer's lack of knowledge about visual impairment, (b) Self advocacy, (c) A lack of work experience, (d) Working in companies with a primarily blind population, (e)
Inaccessible technology and (f) Transportation; and 3) Reactions Toward Visual Impairment: (a) People’s reaction to visual impairment, (b) The participant’s acceptance of their own visual impairment, (c) Involvement in organizations for the blind and visually impaired, (d) Transportation and (e) The use of a white cane. Let us now discuss the implications of these findings and their relationship to the existing literature.
Table 7.1

Summary of the Findings

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<th>Primary Themes</th>
<th>Findings</th>
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<td>Self Advocacy Acquiring Accommodations</td>
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<td>3. The inaccessibility of technology on college campuses</td>
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<td>4. The reluctance of professors to comply with accommodation requests from students who are visually impaired</td>
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<td>Work Related Experiences</td>
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<td>5. Inaccessible technology</td>
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<td>6. Transportation</td>
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<td>Reactions to Visual Impairment</td>
<td>1. People's reaction to visual impairment</td>
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<td>2. The participant's acceptance of their own visual impairment</td>
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<td>3. Involvement in organizations for the blind and visually impaired</td>
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<td>4. Transportation</td>
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<td>5. The use of a white cane</td>
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This chart provides a summary of the findings of this study.

Implications

The following implications are based on the findings of this study. As discussed in the previous section, the findings of this study evolved out of three primary themes are related to the three research questions of this study. These themes and their associated research questions are as follows: accommodation acquisitions (What are the educational experiences of college educated individuals who are visually impaired?), work related experiences (What are the vocational experiences of college educated individuals who are visually impaired?) and attitudes towards visual impairment (What are the social experiences of college educated individuals who are visually impaired?). Overall, there
were sixteen findings that were found to have an impact on either the educational or vocational experience of individuals who are visually impaired from their perspective. The implications of each of these findings will be discussed under its primary theme heading.

**Accommodation Acquisition**

The types of reasonable accommodations have been identified in this study as a finding that assists students who are visually impaired in improving their educational experiences. A list of these accommodations as provided by the participants of this study included large print materials, copies of professors’ notes, recording class sessions, copy notes from classmates, note takers, extended time on tests, electronic versions of textbooks, assistive technology, one-on-one sessions with instructors. Papalia-Berardi, Hughes and Papalia (2002) provided a list of such accommodations provided by college and universities to students who are visually impaired. This list included: extended time on tests, substitution of degree requirements, course instruction adaptations, and audio recordings of class, note takers, readers, audio textbooks and Braille materials. Several of which were identified in this study.

The finding of accommodations that prove to be a beneficial educational experience to individuals who are visually impaired was not unique to this study. Corn (2007) discussed the benefits of reasonable accommodations while expressing the need for continued improvement in this area stating that the sole use of large print materials are not sufficient to meet all the needs of students who are visually impaired. Tuncer and Altunay (2006) discussed the impact that the acquisition of reasonable accommodations
on the educational experience of students who are visually impaired. They stated that the acquisition of educational materials is essential to the success of students. Therefore, it is vital that students who are visually impaired receive access to educational material through the implications of some or all of the above listed reasonable accommodations. Equal opportunity to educational materials is the best means for students who are visually impaired to be successful educationally.

The second finding of this study is the positive and negative roles of college and university Disability Support Service offices. The positive and negative experience that students who are visually impaired experience with the office of Disability support services is unique to this study. Thomas (2000) reviews Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. The author identified and discussed the criteria for determining if a student is disabled and qualified for reasonable accommodations through the college or university office of Disability Support Services. While Thomas's article was related to students with disabilities, it was not specifically directed towards students who were visually impaired. McCarthy (2007) addressed the importance of the office of Disability Support Services and the important role they play in the higher education of students with disabilities. McCarthy’s study did not focus solely on individuals who were visually impaired it primarily spoke of all college students with disabilities. Consequently, this study highlights the needs for these offices to specifically improve their services for students with visual impairment and not just those with learning disabilities.
Collins (2000) provided a description of the process that students who are visually impaired must go through in order to acquire reasonable accommodations from their college or university. This description involved the student providing their instructors with a letter. “This letter often informed the instructor(s) that the student is registered with the office as a student with a disability and possible functional limitations that may impede efforts in the classroom or require an accommodation” (Collins, 2000, p. 37). However, the letter does not contain detailed information about the students’ visual impairment nor does it contain the effects or limitations of the students’ visual impairment. Therefore, it is up to the student to explain the complications of his or her visual impairment to instructors who are often unfamiliar with such issues. This alludes to the importance of the development of self advocacy skills by students who are visually impaired which will be discussed further, later in this section.

Another compounding issue related to Disability Support Services that has impacted the educational experience of individuals who are visually impaired is the delay of provision of accessible course materials such as textbooks. When accessible textbooks are not provided by publishers the responsibility of ensuring that students who are visually impaired have access to their textbooks is relegated to the office of Disability Support Services (Gilson, Dymond, Chadsey, & Fang Hsu, 2007). To fulfill this responsibility Disability Support Service personnel provide students with either audible or enlarged copies of the materials in their textbooks. As the influence of technology continues to impact the world of education Disability Support Service personnel have began to scan text materials for students who are visually impaired. All of the above
mentioned methods of making textbooks accessible are considerably time consuming and are not always available to students in minimal time frames. When students are unable to receive reading materials for their courses in a timely manner, their ability to successfully complete their course work and actively participate in their classes is hampered.

Technological aids that were utilized by students in this study included computers, closed circuit televisions, ZOOM Text, JAWS and the Kurzweil reader. Alison and Sanspree (2009) supported the use of assistive technology to enhance the education experience of students who are visually impaired. The authors stated that “technology has the potential to equalize opportunity and enhance functionality of students with visual impairment” (p. 477). The availability of assistive technology can enhance the potential for students who are visually impaired to succeed in their higher education pursuits if they are able to access such equipment.

While technology has been proven to be a positive experience among individuals who are visually impaired in their academic pursuits, it has also proven to be a negative experience. This is the third finding of this study, the inaccessibility of technology on college campuses. The inaccessibility of technology, specifically websites on college and university campuses, was unique to this study. Technological advances continue to impact the lives of individuals who are visually impaired. When college and university websites are not accessible to these students they are being denied access to valuable information and materials related to their school and their courses. Sapp (2009) emphasized the impact of inaccessible technology by stating “For students with disabilities, using the online educational media employed in most general education
classrooms may be challenging, since much mainstream programming is not accessible” (p. 1).

Sapp (2009) discussed the need for universal designing. She emphasized that “when products are created using universal design, the needs of people with physical and sensory disabilities are taken into account and accessibility features and options are built into the product” (p. 497). Universal accessibility to technology would not just benefit students who are visually impaired, but it would also benefit students with other physical and sensory disabilities. This is a necessary change that should be implemented at all colleges and universities and perhaps the college or university should not wait until they have a student who is visually impaired to make the changes. Such adjustments can further improve the independence of students who are visually impaired as it would remove their reliance on others to access the website for them.

It has been indicated that the development of self advocacy skills can prove to be beneficial to students who are visually impaired. This is the fourth finding of this study. This finding is only unique to this study in that it relates specifically to individuals who are visually impaired. The importance of self advocacy was also identified by Papalia-Berardi, Hughes and Papalia (2002) who stated that the development of self advocacy skills plays a significant role in the educational, vocational and social achievements of students who are visually impaired. It is essential for students to know how to work with Disability Support Service personnel. This enables them to be able to communicate their academic needs effectively so Disability Support Service personnel are able to assist them appropriately. As represented by the participants of this study it is essential for
students to be familiar with their disability and the accommodations that work best for them, as this will lead to a more effective communication of needs between the student and the Disability Support Service personnel. In an article that investigated what was needed for students who were visually impaired to attend college and complete course requirements McBroom (1997) stated that developing a working relationship with Disability Support Service personnel was one thing that was identified as beneficial by students.

McCarthy (2007) discussed the importance of students with disabilities developing self advocacy skills. He stated that this is an area that Disability Support Service personnel can assist students in improving so they are better able to be more self sufficient as students. Papalia-Berardi, Hughes and Papalia (2002) stated that students with well developed self advocacy skills are more likely to be proactive in seeking out services and accommodations. Conversely, the authors stated that students who lack self advocacy skills often experience difficulty requesting and obtaining accommodations.

The fifth finding of this study is the negative impact that a lack of transportation can have on the higher education pursuits of college students who are visually impaired. This finding is unique to this study. Crudden and McBroom (1999) identified a lack of transportation as a barrier to employment; however, there is no identified research that speaks of the impact that a lack of transportation has on the education of individuals who are visually impaired. The five findings under accommodation acquisition were also addressed the fourth research question of this study.
The fourth research question of this study was *(How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?)*. In regards to the findings under accommodation acquisition; the accommodations that were received and the implementation of self advocacy skills, by participants of this study were viewed positively. Participants’ experiences with the office of Disability Support Services were both positive and negative. In relation to professors' reluctance to comply with accommodation request six of the participants who discussed this issue reported that they had negative experiences. Similarly, two participants viewed the impact of a lack of transportation on their education negatively. The discussion of the fourth research question brings us to the end of this section. The following section will provide a discussion of the findings of this study that were significant to work related experiences.

**Work Related Experiences**

Despite the passage of the ADA and the increased employment rates of individuals who are visually impaired, over the decades many employers continue to have a lack of knowledge in regards to working with individuals who are visually impaired. This speaks to the first finding of the study in regards to work related experiences, employers’ lack of knowledge about visual impairment. This finding is unique to this study in that it refers specifically to visual impairment and not all disabilities in a collective manner. The acquisition of information or knowledge has been found to have a positive effect on the attainment of a positive attitude towards individuals with disabilities (Kowalski & Rizzo, 1996).
Knowledge can increase an individual’s competence in interaction with individuals with disabilities. Increasing knowledge about people with disabilities among individuals without disabilities can also minimize the amount of stereotypes directed towards individuals with disabilities (Kelly, Sedlacek, & Scale, 1994). Accordingly communication can also have a significant impact on attitudes towards individuals with disabilities (Evans & Assadi, 2005). It is essential that individuals without disabilities effectively communicate with individuals with disabilities. Enhanced communication has the potential to minimize misunderstandings.

It is up to individuals who are visually impaired, to educate employers about visual impairment so they will feel better equipped to work with the visually impaired in the workplace. This is in line with the second finding in this section, self advocacy. They must be familiar with their visual disabilities and be prepared to discuss their needs. Koch (2000) stated that it is critical for individuals with disabilities to develop self advocacy skills which can assist them in collaborating with employers to implement reasonable accommodations.

Individuals without disabilities often begin their employment experiences at a young age (Hayde, 1998). Some jobs filled by individuals without disabilities at a young age as stated by Hayde included mowing lawns, baby sitting and shoveling snow and they gradually moved into jobs in the fast food and retail industry as they enter their high school years. Hayde stated that “this experience allows them to build up a body of internalized knowledge about work… It also affords direct contact and experience with a variety of settings and occupations that help build decision-making capacity” (p. 844).
Such work experiences were found to be absent from the experience of young adults who were visually impaired in this study.

A lack of work experience, the third finding, continues to be a theme among younger college students who are visually impaired in this study. This finding is not unique to this study as per the discussion above. The minimal amount of vocational experiences of individuals who are visually impaired appears to be blinding them to harsh realities of the work world. This generation appears to be embracing of the enhancements that have been presented to them due to the struggle of those before them while continuing the trend of unemployment and a lack of experience that will essentially hamper their ability to become employed after college. While none of these students have identified this as an area of serious concern it should be considered that research has shown that employment experience is another component that can improve the vocational success of individuals with disabilities. Therefore, there is potential for currently students who are visually impaired to encounter some difficulty in obtaining employment after they earn their college degree due to their lack of vocational experience.

Hutto and Thompson (1995) provided a list of barriers to employment which included: a lack of training, deficit in skill and education, lack of access to print and adaptive equipment, employers’ attitudes, a lack of accommodation provision by employers, a lack of ability to meet job requirements, a lack of transportation and personal issues such as family support and continual disability adjustment. Perhaps a lack of work experience should be added to this list as it is a component that has have a significant impact on the vocational pursuits of individuals in this study. One
participant’s experience elaborates an essential point that education is often not sufficient in and of itself. It is often vital to compliment educational achievements with vocational achievements. This will better enable an individual who is visually impaired to be successful in his or her vocational pursuits.

Working in industries for the blind is the fourth finding of this section. Participants of this study who worked in industries for the blind reported having a positive vocational experience. These findings are not unique to this study as they aligned with the findings of Crudden & Moore (1996) who conducted a survey 1994 to determine the job satisfaction of individuals employed by affiliate companies of the National Industries for the Blind. Crudden and Moore's study determined that 61% of the employees who were surveyed reported that they were satisfied with their jobs. In his discussion of benefits that could be gained from being employed at the industries for the blind, Miller (1993) lists three populations that benefit from working in industries for the blind. These included individuals with severe visual disabilities, teenagers with visual disabilities and older persons with visual disabilities. Miller also stated that industries for the blind can serve as a transition into competitive employment for individuals who are visually impaired.

The fifth finding is inaccessible technology. This finding is unique to this study due to the fact that other studies discuss the benefits of technology to individuals who are visually impaired they do not speak to the limitations technology places on employment for individuals who are visually impaired. It continues to be a hindrance to the successful employment of individuals who are visually impaired. Companies that utilize intranet
systems and software that is inaccessible to individuals who are visually impaired are limiting their opportunities for employment. As a participant shared, it is frustrating to find out that while you are fully qualified for a position you are unable to obtain the position because the company’s website or software is not accessible.

Assistive technology can play a positive role in the lives of individuals who are visually impaired. Assistive technology presents individuals who are visually impaired with the opportunity to increase their self sufficiency, allows for greater independence, enhances employment opportunity and increases access to mainstream society (Brodwin, Star & Cardoso, 2007). However, when employers are utilizing inaccessible software programs or intranets they are only helping individuals who are visually impaired to become dependent, limiting their ability to be self sufficient and their opportunities for employment, while minimizing their access to mainstream society which is truly counterproductive. Such inaccessible technology continues to hamper the opportunity for vocational success among individuals who are visually impaired.

Transportation was one of the barriers to employment described by Hutto and Thompson (1998) and it continues to be a component that impacts the vocational pursuits of individuals who are visually impaired. Transportation is the sixth finding that continues to influence the successful employment of individuals who are visually impaired and it is not unique to this study. Reliance on para-transit services can often prove to be less than beneficial if the service providers are not organized and continually late. Whether para-transit service is being utilized by individuals who are visually impaired for educational or vocational pursuits, timeliness is essential. It is inappropriate
for an individual to continually arrive late to class or work. So when these service providers are disorganized and late it has a negative impact on the lives of individuals who are visually impaired who are utilizing this service.

Title II of the ADA discusses transportation and requires public entities operating fixed route systems to ensure that their vehicles are accessible to individuals with disabilities. The provision of Title II of the ADA allows for some individuals who are visually impaired to access services such as para-transit which they can use to get to and from places such as their place of employment. A service such as para-transit proves to be beneficial to those that qualify for it, this is not always the case for some individuals who are visually impaired and often thought to be high functioning. Therefore, they are not privy to para-transit services. One participant expressed that he has often used para-transit but has found it to be an unreliable as the service providers are often behind schedule, which resulted in his late arrival to his destinations. These six findings under the area of work related experiences were also found to be related to the fourth research question of this study.

The fourth research question of this study was (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?). In regards to employers’ knowledge about visual impairment, self advocacy, and working in facilities that were geared towards primarily hiring individuals who were visually impaired, participants who discussed these issues viewed their experiences as both negative and positive. The issue of inaccessible technology was discussed by one participant and viewed negatively. Conversely, the issue of a lack of
transportation was also discussed by a single participant who viewed his experience in a positive manner. The discussion of the fourth research question brings us to the end of this theme. The next section provides a discussion of the findings related to the attitudes towards visual impairment.

**Reactions to Visual Impairment**

Disabilities such as visual impairment are still an area of discomfort for many individuals without disabilities. People’s reaction to visual impairment is the first finding related to attitudes towards visual impairment. This finding is unique to this study because it specifically refers to individuals who are visually impaired. The best individuals who are visually impaired can do is to continually educate those we encounter about our disabilities and our capabilities. It is often difficult to deal with those who tend to constantly embrace the “foot in mouth syndrome”, however, we must remember that if we do not educate those who do not know about visual impairment no one else may do so.

In Erik Erikson’s discussion of the stages of develop he presented the sixth stage of young adulthood (18 to 35). This stage is called intimacy and solidarity versus isolation. During this stage Erikson posits that we begin to seek one or more companions and love. We attempt to develop mutually satisfying relationships primarily through marriage and friendship. This is the stage at which many of us begin to start a family. These unique occurrences during this stage provide an insight into the social experiences of individuals who are visually impaired which is linked to the purpose of phenomenology of understanding lived experiences.
The dating experiences shared by several participants in who would conceivably fall into this stage of development reflected this desire for relationship, love and family. Several of them have however, had some negative experiences in that aspect. When one faces rejection due to their disability when another person decides they may not be able to cope with marrying a person who is “blind” can be discouraging. When people seem to “hit the road” when they find out you are visually impaired it can sometimes be difficult to make the decision to date. Such experiences can have a negative impact on individuals who are visually impaired, leading them to refrain from dating or giving up on the prospect of having a family. Conversely, others have expressed positive experiences, where others were open and accepting of their disability. This has required some work on the behalf of both individuals as in any relationship. But it primarily calls for the person who is visually impaired to be open and honest about their disability, accepting it for what it is and demonstrating to their potential spouse that they can still live an independent and fulfilling life.

Dominique described her experience with her classmates. Many of whom were made to be very uncomfortable around her when the professor would ask them to assist her during the class. Such reactions to disability can hamper social and personal adjustment to disability as well as their acceptance of their own disability which is the second finding of this section. This finding is unique to this study only because it refers specifically to individuals with visual impairments. Personal adjustment is considered to be the organization of one’s self and behavior that is associated with the individual’s personality (Lifshitz, Hen, & Weisse, 2007). Personal adjustment is closely related to
social adjustment. Social adjustment is thought to be the structure and relationship between an individual and his or her social environment. Self-concept derives from social interaction and society’s reaction to the individuals.

People who are visually impaired often experience feelings of inferiority, hopelessness and depression (Dodds & Ferguson, 1994). Visual impairment is often also accompanied by fear and a reduced sense of personal competence as well as anxiety (Conrod & Overbury, 1998). These factors often interfere with an individual’s rehabilitation potential and achievement in education or vocation. A reduced sense of self competence can lead to isolation and social withdrawal.

Individuals who are visually impaired can find relief, support, empathy and education in organizations for people who are blind and visually impaired; the third finding in this area. This finding is not unique to this study. Such organizations are rich with members who may have similar experiences and resources they may be willing to share with another person that is in a similar situation. These organizations can serve as a source of encouragement and education through role modeling and networking.

The fourth finding is this section is transportation and the impact it has had on the social experience of individuals who are visually impaired. This finding is unique to this study. This is the case due to the fact that the majority of literature that discusses transportation and visual impairment is related to employment, for instance Thompson (1995) discussed how a lack of transportation impacts the employment of individuals who are visually impaired. Transportation as a barrier to employment was also identified
by Crudden and McBroom (1999), Shaw, Gold and Wolfe (2007) and Dalgin and Belini (2008).

The fifth and final finding of this study that is related to attitudes towards visual impairment is the use of a white cane. This finding is not unique to this study. In a study conducted by Gitlin and Mount (1997) the authors found that the participants (individuals who were visually impaired and blind between the ages of 27-68) believed that the use of a white cane enhanced their ability to travel independently. Such independence allowed them the ability to participate in both work and leisure activities. The five findings under attitudes towards visual impairment also address the fourth research question of this study.

The fourth research question of this study was (How do college educated individuals who are visually impaired understand their educational, vocational and social experiences?). Participants of the study had a mixed view of their social experiences in regards to people’s reactions to their visual impairment, expressing both positive and negative experience. Participants of the study viewed the acceptance of their visual impairment, participation in organizations for individuals who are visually impaired and blind and the use of a white cane in a positive manner. Conversely, the impact that transportation had on the social interaction of participants was viewed negatively. The following section provides a brief discussion of the limitations of this study followed by the recommendation of the study.
Limitations of the Study

Four limitations of this study were identified. The first limitation of the study was that this study only focused on college students and college graduates therefore the results may not be applicable to individuals who have not had a higher education experience. The second was the use of participants who are visually impaired. Since individuals who are completely blind were excluded from this study, the finding of this study may not be applicable to the entire visually impaired population. The third limitation of this study was the requirements for study participants to have a visual disability and no co-morbid disorders. Co-morbid disorders can introduce additional barriers to education and employment that were not be addressed by this study. Therefore, participants with co-morbid disorders may essentially be misrepresented by the findings of this study as this population was not connected to the purpose of this study. The fourth and final limitation of this study was the fact that participant interviews were conducted via telephone. This form of interview was utilized due to the transportation limitations of both the researcher and the participants due to the fact that they are visually impaired. Telephone interviews also limited the researcher’s ability to interact with the participants face to face.

Recommendations

The implications listed in the previous section led to several recommendations for the potential improvement of the educational, vocational and social experiences of college educated individuals who are visually impaired. There were three sets of recommendations. Recommendations were made to college and university Disability
Support Service office personnel, rehabilitation professionals and individuals who are visually impaired.

**Recommendations for Disability Support Service Personnel**

1. Continue to work towards improving the provision of reasonable accommodations that improve the potential for academic success among college and university students who are visually impaired. Reasonable and appropriate accommodations for students who are visually impaired have the potential to enhance their opportunity to complete their college education successfully (Tuncer & Altunay, 2006; Corn, 2007). Disability Support Service personnel should work with students in a collaborative effort to work towards servicing their academic needs in an effort to ensure their educational success (McCarthy, 2007).

2. Identify means of improving funding for Disability Support Service offices at smaller colleges and universities. Improved funding for the Disability Support Service office has the potential to enhance the services provided to students with disabilities such as visual impairment.

3. Provide educational opportunities for college and university faculty members to improve their knowledge about working with students who are visually impaired (Papalia-Berardi, Hughes & Papalia, 2002). Fichten, Ansel, Bourdon and Creti (1988) stated that “professors’ negative attitudes towards people with disabilities, apathy, and the fear of dealing with unfamiliar problems” (p. 13). Venturing into the unfamiliar is what educators asks their students to do
semester after semester during their education and it is essential for college and university faculty to continually embrace this concept of continual learning in order to best serve the educational interests of their students.

4. Work with the appropriate college and university staff to improve the access to technological resources utilized on the college or university campus. It may also prove to be beneficial to collaborate with students who are visually impaired to identify their specific technological needs.

5. Assist college students who are visually impaired in developing and improving self advocacy skills. According to McCarthy (2007) Disability Support Service personnel are not just providers they are also educators. As educators that can assist students in obtaining information to improve their skills. Some students may need help in different areas such as the development of self advocacy.

6. Encourage students who are visually impaired to seek out appropriate employment opportunities. Employment during college can be a beneficial compliment to a college degree when seeking employment. Work experience also improves the student's ability to obtain employment after college (Kirchner & Smith, 2005).

7. Work with other colleges and universities around the country to develop a unified association to guide college and university Disability Support Service office. This can potentially improve the provision of services to students who are visually impaired around the country.
Recommendations for College/University Faculty

1. Be open minded when working with students who are visually impaired, allow the student to guide you as they will have a better knowledge of their disability and the accommodations they need. It is also essential that faculty members be cognizant of the fact that the limitations of one person’s visual impairment may vary from that of another person’s visual impairment. As the study conducted by Crudden (1997) indicated communication between professors and students who are visually impaired is vital to the students’ educational success.

2. Value your students with visual impairments as you value your students who are not visually impaired. When students have to seek alternative assistance from Disability Support Services office because their professor(s) is unwilling to work with them they can become discouraged. It is vital that professors be open to establishing a working relationship with students who are visually impaired. Such a relationship has the potential to enhance the students’ learning potential and educational success. This can also enhance the professors’ knowledge and skills as an educator.

3. Faculty members should remain open to alternative options for assisting students who are visually impaired to enhance their potential for successfully completing their course work. It is also inappropriate and unethical for faculty members to administer grades to students when they did not earn the grade. Students who are visually impaired should be held to the same academic standards as their non-disabled peers and all students should be required to earn their grades.
Recommendations for Rehabilitation Professionals

1. Identify successful techniques used by rehabilitation professionals to educate employers about college educated individuals who are visually impaired and share such valuable resources with other rehabilitation professionals.

2. Examine and advocate for the continued improvement of transportation policies related to individuals who are visually impaired. Angelocci (2007) made a similar recommendation for the improvement of transportation policy. As a lack of transportation is a significant barrier to them employment of individuals who are visually impaired (Cruden & McBroom, 1999) it is essential that this barrier be minimized in an effort to maximize the employment potential of individuals who are visually impaired.

3. Advocate for the continual improvement of technological accessibility for individuals who are visually impaired in an effort to improve employment for college educated individuals who are visually impaired. This has the potential to improve their opportunity for employment (Brodwin, Star & Cardoso, 2007).

4. Encourage college educated individuals who are visually impaired to seek out appropriate employment opportunities. Kirchner and Smith (2005) stated that “education is not enough” (p. 499). Education after high school does improve the opportunity for employment for college educated individuals who are visually impaired. The same improved opportunity is seen when the individual has work experience.
Recommendations for Individuals Who are Visually Impaired

1. Continue to improve self advocacy skills. According to Papalia-Berardi, Hughes and Papalia students who have a well developed set of self advocacy skills are better able to seek out services and accommodations. The practice of seeking out services and accommodations can potentially improve their higher education experience and lead to the attainment of a college degree. Self advocacy skills can also be transferred into the workplace.

2. Involve yourself in organizations for individuals who are visually impaired or consumer organizations. This may enhance your opportunity to meet other individuals who are visually impaired who may have valuable resources that you may find beneficial in your educational and vocational pursuits. Networking has been identified as one of the most beneficial means of obtaining employment. Angelocci (2007) implied that involvement with consumer organizations could be a source of improving societal views of individuals who are visually impaired.

3. Collaborate with other college educated individuals who are visually impaired and organizations for people who are visually impaired to improve technological accessibility. The NFB has advocated for change through the use of the legal system (Kindle Lawsuit Settle, 2007).

4. Educate employers about visual impairment so they can continually improve their ability to work with individuals who are visually impaired. Golub (2006) stated that employers believed that employers who were visually impaired were able to be ambassadors for blindness as it enhanced their opportunity for vocational
success. Employers are able to learn from college educated individuals who are visually impaired when they themselves are comfortable and open with their visual disability.

5. Seek employment at an early age in an effort to be better prepared for employment after graduation from college. There are several barriers to employment for individuals who are visually impaired (Crudden & McBroom, 1999), therefore, it is essential that we present ourselves in the best light possible. Combining out educational and vocational achievements has the potential to minimize barriers to our (people who are visually impaired) employment.

6. Do not shy away from employment at facilities such as industries for the blind based on stereotypes. This company and others like it are a great source of employment for individuals who are visually impaired. They allow individuals with visual impairments the opportunity to expand their vocational experiences.

**Recommendations for Future Research**

Four recommendations for future research arose out of this study. Future research should be conducted in order to determine what Disability Support Service personnel or any other university officials can potentially do to increase the funding for their office. This in essence can result in the improved provision of services to students who are visually impaired at smaller colleges and universities.

Research should be conducted to further explore investigate the accessibility of college and university websites to students who are visually impaired. It should be determined if these websites can be accessed with the use of adaptive technology such as
JAWS. In the case that the website may not be accessible, perhaps cost effective solutions could be recommended to college and university IT personnel so that changes can be implemented in an effort to provide access to the websites to students who are visually impaired.

Another research recommendation requires the determination of whether employers are receiving any form of educational training in regards to working with individuals who are visually impaired. If such trainings are being provided to employers, are they proving to be beneficial? On the other hand if such trainings are not being provided, what cost effective methods can be used to ensure that they are receiving such trainings either at the educational or vocational level?

Additionally, research should be conducted in an effort to determine what changes can be implemented in order to minimize the inaccessibility of companies' intranet systems and software programs. The fifth and final recommendation for future research calls for further research to be conducted to explore the educational, vocational and social experiences of college educated individuals who are visually impaired but whose immediate families were not U.S. citizens. The uniqueness of these situations may prove to be beneficial additions to the literature from a different perspective as the reaction to disability can often prove to be varied among different cultures.
REFERENCES


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Title of Research: A Qualitative Exploration of the Vocational and Educational Experiences of individuals who are Visually Impaired

Researchers: Mary-Anne M. Joseph

You are being asked to participate in research. For you to be able to decide whether you want to participate in this project, you should understand what the project is about, as well as the possible risks and benefits in order to make an informed decision. This process is known as informed consent. This form describes the purpose, procedures, possible benefits, and risks. It also explains how your personal information will be used and protected. Once you have read this form and your questions about the study are answered, you will be asked to sign it. This will allow your participation in this study. You should receive a

Explanation of Study

This research is intended to explore the vocational and educational experiences of individuals who are visually impaired. The purpose of this study is to advance the research in the area of visual impairment, and to enhance the knowledge of higher education professionals, college and university Disability Support Service personnel, and rehabilitation counselors in the areas of education and employment of individuals who are visually impaired. The research will be conducted with the used of qualitative methods to obtain an understanding of the participants individual experiences in the areas of higher education and vocation.

Information will be obtained from individuals who are visually impaired who are currently enrolled in a college/university and individuals who have obtained a college/university degree. Participants will be asked to share information about their educational, vocational and psychosocial experiences. This study is aimed at addressing four primary problems.

The first, college students who are visually impaired have a low level of higher education degree attainment than their nondisabled peers. Secondly, individuals who are visually impaired experience lower levels of vocational success compared to their nondisabled peers. Thirdly, college students who are visually impaired face significant barriers to educational and vocational achievement. The fourth and final problem that will be addressed in this study is that college students who are visually impaired face psychosocial issues related to disability which can hamper their educational and vocational success.

The study will be conducted over a 90 day period. Four meetings will be scheduled with each research participant at the beginning of the research process. The first meeting will be the initial meeting which will be used to gather information about the consumer and their views on the topic of focus for this research project.
second meeting will be a follow up meeting that will be used to clarify information shared by the research participant. A follow up meeting may or may not be needed for each research participant. This will be dependent on the clarity of the information provided by the participant and the researcher’s comprehension of such information. The third and fourth meetings will be collective meetings of all participants, in the form of focus groups.

Risks and Discomforts
The discussion of personal experiences may be upsetting to participants.

Benefits
A potential benefit of this study include the advancement of research in the area of visual impairment. An additional potential benefit of this study is the enhancement of the knowledge of higher education professionals, college and university Disability Support Service personnel, and rehabilitation counselors in the areas of education and employment of individuals who are visually impaired.

Confidentiality and Records
All identifiable participant information gathered during the course of this study will be kept confidential and will not be released to any unauthorized person. The researcher will keep all confidential information in a locked cabinet so it cannot be easily accessed by unauthorized personnel.

Additionally, while every effort will be made to keep your study-related information confidential, there may be circumstances where this information must be shared with:
* Federal agencies, for example the Office of Human Research Protections, whose responsibility is to protect human subjects in research;
* Representatives of Ohio University (OU), including the Institutional Review Board, a committee that oversees the research at OU;

Compensation
There will be no form on compensation for participation in this study. Participants will be asked to participate on a voluntary basis.

Contact Information
If you have any questions regarding this study, please contact Mary-Anne M. Joseph via email mj210407@ohio.edu or via telephone (740)249-4214.

If you have any questions regarding your rights as a research participant, please contact Jo Ellen Sherow, Director of Research Compliance, Ohio University, (740)593-0664.

By signing below, you are agreeing that:
* you have read this consent form (or it has been read to you) and have been
given the opportunity to ask questions
• known risks to you have been explained to your satisfaction.
• you understand Ohio University has no policy or plan to pay for any protocol
• you are 18 years of age or older
• your participation in this research is given voluntarily
• you may change your mind and stop participation at any time without penalty or loss of any benefits to which you may otherwise be entitled.

Signature_________________________________________________ Date __________

Printed Name_______________________________________________
APPENDIX B: RECRUITMENT FLYER

Research Title:  A Qualitative Exploration of the Educational and Vocational Experiences of individuals who are Visually Impaired

Researcher: Mary-Anne M. Joseph  
  mj210407@ohio.edu  
  (740) 249-4214

Purpose: This research is intended to explore the vocational and educational experiences of individuals who are visually impaired. The purpose of this study is to advance the research in the area of visual impairment, and to enhance the knowledge of higher education professionals, college and university Disability Support Service personnel, and rehabilitation counselors in the areas of education and employment of individuals who are visually impaired. Participants will be asked to share information about their educational, vocational and psychosocial experiences. This study is aimed at addressing four primary problems. This research project is being conducted as part of the fulfillment of the researcher’s doctoral degree requirements.

Who can participate? College students who are visually impaired.  
  Any person between 18 years or older that is visually impaired that had a college degree

How can I participate? Simply email or call the researcher and let her know you are interested.

How long will the interview be?  1 hour

YOUR PARTICIPATION WOULD BE GREATLY APPRECIATED!!!
APPENDIX C: INTERVIEW GUIDE

1. What is your name?

2. How old are you?

3. Are you currently enrolled in college?

4. If enrolled in college, what school do you attend?

5. If not enrolled in college do you have a college degree?

6. What level of college are you currently in (freshman, sophomore, Junior, Senior, graduate student, etc.?)

7. What has been your education experience?

8. What has been your employment?

9. Are you currently employed?

10. If you are not currently employed, why do you believe you are unemployed?

11. What has been your social experience?

12. Are there any other related experiences you would like to share?