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WHAT THEY PERCEIVE AS CHALLENGES AND HOW
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COLLEGE STUDENTS WITH VISUAL IMPAIRMENTS: WHAT THEY PERCEIVE AS CHALLENGES AND HOW THEY CAN SUCCEED

By

Jo Anne Johnson Crain

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ABSTRACT

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By

Jo Anne Johnson Crain

In the past, students with disabilities have had limited access to postsecondary education. However, with the passage of the Rehabilitation Act of 1973 and the American's with Disabilities Act, the number of students with disabilities has increased. Among this group of students seeking degrees in higher education are students with visual impairments.

Nine visually impaired postsecondary students participated in this study. Data was collected through semi-structured interviews investigating: (1.) How postsecondary educational experiences of visually impaired students differ from those with normal vision, (2.) What challenges in postsecondary education are perceived by visually impaired students to be the most difficult to meet, and (3.) How visually impaired students in postsecondary education meet those challenges in order to achieve academic success.

The results of this study showed the following: First, visually impaired students feel different from their sighted peers based on academic challenges and obstacles encountered in the environment. Second, they feel marginalized because they require accommodations and assistive devices, unlike the mainstream culture. Despite these challenges, the respondents in this study are able to meet these challenges through their ability to adapt.

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Chapter 1

Introduction

A few years ago, I had the privilege of attending a state conference sponsored by the American Federation of the Blind. It was at this conference that I began to realize how different it is to be blind. For example, there were no signs welcoming conference attendees, no agenda, no handouts, no name tags. I observed individuals bumping into tables, doors, and walls. I was uncomfortable and wanted to offer assistance but was unsure if my offer to assist would be welcome.

This conference taught me about how vulnerable I would be if I were to lose my sight. Would I be able to trust strangers when I need help? How could I cope if I could not read a menu, find an empty chair, or check my appearance? More importantly, would I have chosen the same career path? Most likely not since I attended college 15 years before the passage of the Americans with Disabilities Act. Therefore, in this chapter I will begin with a historical overview of the legislation that significantly impacted access to higher education for the disabled. Legislation will be followed by a brief discussion on difference in postsecondary education, the purpose of the study, concluding with definitions of terms.

Disability Legislation

On July 26, 1990, on the lawn of the White House, President George Bush signed into law the first comprehensive civil rights legislation for disabled individuals in the United States (The ADA Handbook, 2003). Congress passed the Americans with Disabilities Act (ADA) of 1990 in an attempt to remedy what was regarded as the serious social problem of forty-three million disabled Americans. These physically and mentally impaired individuals were being discriminated by non-disabled Americans. Congress

concluded that "this discrete and insular minority had been faced with restrictions and limitations, subjected to a history of purposeful unequal treatment, and relegated to a position of political powerlessness in our society" (Abram, 2003, p. 1).

Historically, individuals who are "disabled have been overreacted to, ignored, and discriminated against by society" (ADA Handbook, 2003). During colonial times, when an individual was born with a disability or became disabled later in life, the family assumed responsibility for the care of the individual. Many disabled people were hidden or allowed to die due to the shame and lack of understanding (ADA Handbook, 2003). A system of 'farming out' those individuals whose families were unable or unwilling to support them to people who received public assistance to provide for their room, board, and care survived until the latter part of the 19th century. Public concern over abuses . . . including recorded cases in which care providers collected their fees and then locked people with disabilities in attics to starve or freeze to death - eventually led to a change in focus. (United States Commission on Civil Rights, 1983).

It was not until the 1820s that institutional care, also known as custodial treatment, replaced family responsibility for the care of the disabled in this country. This form of "warehousing" came about by the popular belief that disabled individuals were incompetent, defective, and in need of special care which isolated them from society (Dart, 1990).

However, with the return of injured veterans from World War I and an increase in industrial accidents, a recognized need for the rehabilitation of these individuals with disabilities emerged. From 1920 to 1960, alternatives to institutional care of the disabled marked the development of welfare and entitlement programs in the United States. Available rehabilitation programs increased as a result of medical technology improving the survival rate of World War II and Korean War veterans. Many of these programs became advocates for legislation and policy changes leading to the provision of services for disabled individuals (United States Commission on Civil Rights, 1983).

Funding for the newly recognized rehabilitation services began with the passage of the Social Security Act of 1935, the signing of the Vocational Rehabilitation Amendment of 1954, and additional social security and welfare previsions in the 1960s (Kress, 1996). Beginning in 1968 Congress passed a succession of laws with the intention of providing integration of the disabled through access and equal opportunity. The Rehabilitation Act of 1973 provides for the establishment of comprehensive programs of vocational rehabilitation and independent living. Additionally, in 1988, the Fair Housing Act of 1968 was amended to add protection for people with disabilities in this crucial area.

The Rehabilitation Act of 1973 also created a federal board to monitor access to public buildings and transportation, and prohibiting the discrimination in employment by federal agencies and contractors. It also included the national mandate prohibiting discrimination against people with disabilities by recipients of federal assistance (ADA Handbook, 2003). In other words, public institutions of higher education, under Section 504 of the Rehabilitation Act of 1973, were mandated from that date forward to provide equal access to disabled individuals. Section 504 also served as a framework for much of the language and provisions stated in the ADA (ADA Handbook, 2003).

Following the Rehabilitation Act of 1973, the Education of All Handicapped Children Act of 1974 was passed. This act mandated the end to separate and unequal educational opportunities. All children were now entitled to a free and appropriate public education. Equal and appropriate education provided many students the academic preparation, thus opportunity to seek a degree in higher education.

The Rehabilitation Act of 1973 was amended in 1984, 1986, and 1992. The last, known as the 1992 Reauthorization of the Rehabilitation Act, focuses on employment outcomes and vocational rehabilitation (Kress, 1996) that includes postsecondary education for many disabled individuals.

In 1986, the National Council on Disabilities submitted a report titled "Toward Independence". This report examined incentives and disincentives in federal laws surrounding the full integration of disabled individuals into society as well as issues of independence. "Among the disincentives to independence it identified were the existence of large remaining gaps in our nation's civil rights coverage for people with disabilities. A principal conclusion of the report was to recommend the adoption of comprehensive civil rights legislation which became the ADA" (ADA Handbook, 2003, p. 6).

The ADA, first introduced in the 100th Congress, prohibits discrimination in the domains of employment, public accommodation, transportation, telecommunications, and public services (ADA Handbook, 2003). Briefly, it is divided up into three sections. Title I addresses employment provisions and was finalized by the Equal Employment Opportunity Commission on July 26, 1991. On that same day, Titles II and III were finalized by the Department of Justice. Title III addresses public accommodations, where as, Title II addresses public services. It is Title II, Subpart E - Postsecondary Education, of the ADA that is most relevant to this study.

> Title II of the American's with Disability Act of 1990 prohibits discrimination based on disability in public entities . . . Examples of the types of discrimination prohibited include access to educational programs and facilities, denial of a free appropriate public education for elementary and secondary students, and academic adjustment in higher education (Office of Civil Rights, 2002, p. 1).

Subpart E of Title II details regulations concerning admission and recruitment, treatment of students, housing, financial and employment assistance to students, non-academic services, and academic adjustments. The section on academic adjustments is the most relevant to this dissertation and will therefore be detailed below.

The four sections under academic adjustments are: a.) Academic requirements, b.) Other rules, c.) Course examinations, and d.) Auxiliary aids.

(a) *Academic requirements.* A recipient [the institution] to which this subpart applies shall make such modifications to its academic requirements as are necessary to ensure that such requirements do not discriminate or have the effect of discriminating, on the basis of handicap, against a qualified handicapped applicant or student . . . Modifications may include changes in the length of time permitted for the completion of degree requirements, substitution of specific courses required for the completion of degree requirements, and adaptation of the manner in which specific courses are conducted.

(b) *Other rules.* A recipient to which this subpart applies may not impose upon handicapped students other rules, such as the prohibition of tape recorders in classrooms or of dog guides in campus buildings, that have the effect of limiting the participation of handicapped students in the recipient's education program or activity.

(c) *Course examinations.* In its course examinations or other procedures for evaluating student's academic achievement, a recipient to which this subpart applies shall provide such methods for evaluating the achievement of students who have a handicap that impairs sensory, manual, or speaking skills as will best ensure that the results of the evaluation represents the student's achievement in the course, rather than reflecting the student's impaired sensory, manual, or speaking skills (except where such skills are the factors that the test purports to measure).

(d) *Auxiliary aids.* (1) A recipient to which this subpart applies shall take such steps as are necessary to ensure that no handicapped student is denied the benefits of, excluded from participation in, or otherwise subjected to discrimination because of the absence of educational auxiliary aids for students with impaired sensory, manual, or speaking skills.

(2) Auxiliary aids may include taped texts, interpreters or other effective methods of making orally delivered materials available to students with hearing

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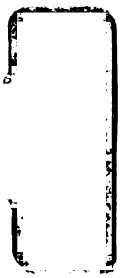
impairments, readers in libraries for students with visual impairments, classroom equipment adapted for use by students with manual impairments, and other similar services and actions. Recipients need not provide attendants, individually prescribed devices, readers for personal use or study, or other devices or services of a personal nature (Office for Civil Rights, 2003, p. 6).

The progression of legislation and government systems put into place over the past three decades have changed how students with disabilities are viewed by higher education (Spires, 1992; Kress, 1996). Both Rothstein (1991) and McBroom, (1997) accurately predicted that the ADA will continue to positively influence the number of students with disabilities entering higher education. Their rationale being that these students have received accommodations through the public school system and are fully aware of their legal rights to accommodation.

Henderson (1992) reports that since 1970, the number of reported disabilities among freshmen has tripled. It is estimated that college students with visual impairments make up approximately five percent of the total disabled student population (Cole & Cain, 1996; Spires, 1992; Rothstein, 1991). This growing number of reported disabilities are more likely to be what is known as the "invisible" disabilities such as, learning disabilities, visual impairment, hearing loss, and psychiatric disabilities, rather than the previously identified disabilities of deafness, blindness, and orthopedic impairments. This number is expected to increase with ongoing implementation of the ADA because this legislation prevents discrimination for enrollment in colleges as well as particular academic programs. For example, Cole and Cain (1996) state that schools of social work must identify essential functions of the educational program that "must be applied uniformly to all persons seeking admission and completing program and course requirements. Honoring the rights of disabled students and establishing nondiscriminatory criteria for all students is the ultimate goal" (p. 2). In other words, if sight is an essential function for a specific academic program and this function is



identified prior to admission, a blind student may be denied, under the law, admission to that particular program.

As a result of the passage of the ADA, students who are visually impaired have been pursuing higher education at a rate equal to that of non-disabled students and at a greater rate than students with other disabilities such as: learning disabilities, physical disabilities, and the hearing impaired (McBroom, 1997). The ADA requires colleges and universities to make reasonable accommodations to help disabled students overcome challenges that may restrict educational opportunities (Aristeiguieta, 1998). In this study, the focus will be to *discover and understand what challenges are perceived by visually impaired students and how they meet these challenges.*

The complex condition of visual impairment is defined by the American Academy of Ophthalmology as "mild or severe, but in each case visual performance does not meet the individual's needs" (Rehabilitation Research and Training Center on Blindness and Low Vision, 1998, p. 2). In other words, a visual impairment is vision that cannot be corrected by eye glasses, contact lenses, or intraocular implants.

Several of the respondents in this study were born blind, while others lost their vision (all or partial) over time. Vision loss can occur due to a genetic cause, illness, or injury (Spires, 1992). Some individuals, such as those in this study, experience visual field loss; some benefit from more light, others defused light. (Colenbrander & Fletcher, 1995). What will be shown in this study is that *visually impaired students face unique challenges (not often recognized by sighted individuals) and have developed alternative means (adaptations) to meet these challenges.*

According to Spires (1992) a student may be legally blind and still retain a great deal of vision. These students are often referred to as having low vision. Students with low vision and those who are blind, frequently face similar problems. These problems include locating large print materials, moving about in unfamiliar settings, accessing information, locating readers for library work, and research (Spires, 1992).

It is important to point out that although encountering physical obstacles in the environment is a challenge for the visually impaired, the respondents in this study indicated that it is often the verbal reactions, poor awareness, and lack of understanding from sighted individuals (peers, faculty, and staff) that present challenges not easily met.

Difference in Postsecondary Education

An increasingly pluralistic environment has emerged both within and outside the college campus over the past 20 years. Based on changing demographics, a global economy, and a growing recognition in cultural, racial, and gender differences, colleges and universities claim to embrace difference as well as reexamine how knowledge is constructed, defined and taught in higher education. "The emergence of diverse new perspectives, including interpretivism, feminism, multiculturalism, and critical theory, has offered competing epistemologies where truth is viewed as subjective and existing, at least in part, within the realm of an individual's personal and cultural experiences" (Haworth & Conrad, 1990, p. 6). Furthermore, incorporating difference into the curriculum enriches students with a wider context in which their own experiences can be placed and provides them with a base for future inquiries (Haworth & Conrad, 1990).

In many ways visually impaired students are the same as sighted students. They attend the same classes, participate in many of the same extracurricular activities, and utilize technology. However, visually impaired students experience unique social and academic challenges that have not been recognized by those in higher education that study difference. These challenges are identified in chapters four and five. In chapter four, feelings of difference are centered around the theme of marginalization. Although there are many marginalized groups on college campuses, the disabled, including the visually impaired, remain on the outer edge. In chapter five, adaptation is identified as a common theme describing the strategies used specifically by the respondents in this study to meet their perceived social and academic challenges.

The Purpose of the Study

The purpose of this study is to understand the perceived challenges within the constructs identified in the literature as: 1) mattering, marginalization and student involvement, and 2) accommodation, adaptation, and essential transition skills. There have been numerous studies conducted concerning how students perceive their connection (mattering) to the college, faculty, and staff (Tinto, 1993; Pascarella & Terenzini, 1979). However, it is not clear if students with disabilities were included in the cohort data because this marginalized group of students were not identified in the study results.

The literature currently available concerning college students with special needs is focused on students with learning disabilities (Butler, 1995; Dunn, 1995; May, 1994; Ruhl & Suritsky, 1995), with non-discriminatory admission practices (May, 1994; Bursuck, Rose, Cowen, & Yahaya,1989), and students' academic needs (West, Kregel, Getzel, Zhu, Ipsen, & Martin, 1993). However, according to Malakpa (1997) the majority of the research does "not include the views of students with disabilities [SWDs] the consumers of these services" (p. 14).

The phenomenon being investigated in this study is the college experience based on the perceptions of nine visually impaired students. The research questions are as follows:

1.) How does the postsecondary educational experience of visually impaired students differ from that of students with normal vision?

2.) What challenges in postsecondary education are perceived by visually impaired students to be the most difficult to meet?

3.) How do visually impaired students in postsecondary education overcome challenges in order to achieve academic success?

This study makes a contribution to the field of higher education by representing the first effort to listen to the voices of visually impaired students as they tell their stories

of the barriers and challenges they face in higher education. Further, this study will attempt to relate the perceptions of these nine subjects to theoretical concepts appearing in the literature pertaining to non-disabled students specifically the work of Schlossberg, Lynch, and Chickering on marginalization and adaptation as defined by Schkade, Schultz, and Kielhofner. Additionally, it will provide a foundation of knowledge for further research that can be broadened to include other disabled student populations.

The knowledge gained from this research has implications for practice, including the development of teaching strategies and other interventions to improve the quality and efficacy of postsecondary education for disabled students. For example, individuals with a higher degree of visual impairment may need to be provided with additional opportunities for success through the college's disability program than what is currently offered. Finally, this study will bring much-needed attention to ambiguous issues facing students with visual impairment in today's academic environment, thus adding to the emerging field of disabilities studies.

Significance of the study

A study of the perceptions of visually impaired college students is significant for the following four reasons. First, qualitative research on disabled college students, especially those with visual impairments, is sparse. A review of the literature indicates that the primary focus of study is related to compliance with the ADA (Hayward, 1991; Kornblau, 1995; May, 1994), career development of disabled students (Aune & Kroeger, 1997; Enright, 1996; Rabby & Croft, 1991), and faculty or staff attitudes toward the disabled (Kornblau, 1995; Gannon & MacLean, 1996).

Second, the literature available on understanding student involvement, marginalization and mattering does not identify and therefore appears to exclude students with disabilities. As more students with disabilities, including those with visual impairments enter higher education, it will be important to understand if their patterns of

involvement and perception of mattering differ from students without disabilities. By gaining an understanding of the academic and social challenges that are perceived by students with visual impairments, it may be beneficial for faculty, staff, and other college personnel to better assist these students in meeting challenges in college. Vancil (1997) affirms this in her statement "as a blind student, I was faced with challenges that sometimes felt like obstacles to success" (p. 219). She identifies these challenges as finding a reliable reader, orientation and mobility to new locations, organizing course materials for easy retrieval, and accommodation for test taking (Vancil, 1997).

Third, this study provides a venue for the voices of nine visually impaired students to express significant academic challenges based on their perceptions, as well as methods (adaptations) used to meet those challenges. Although Roy and Mackay (2000) come close in their recent study involving self-perception and locus of control in visually impaired college students, no attempt to link these constructs to the academic experience is made. Therefore, it is significant to attempt to understand how the attitudes and actions of peers, faculty, administrators, and other college personnel, as perceived by visually impaired students, influences their college experience.

Finally, this research has the potential to add to the larger field of study known as disabilities studies. Currently, disability is receiving attention world wide. It is estimated that there are approximately 500 million disabled people world wide. (Barnes, Oliver, & Barton, 2002). "Changes in epidemiology, improved health status, and medical care imply that every family in the world will likely be confronted with disability but not know how to respond to it" (Albrecht, Seelman, & Bury, 2001, p. 2). Living with serious chronic impairments resulting in disability has been made feasible by today's technological and life saving contributions.

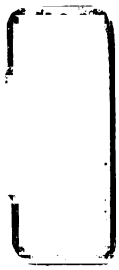
> Disability is both a private and public experience. For some, disability represents a personal catastrophe to be avoided if at all possible, a shameful condition to be denied or hidden . . . For others, disability is a source of pride and empowerment

> . . . Disability for many reasons is a redefining experience, adding value to individual lives and clarifying what it means to be human. Disability as difference enriches society and creates new sets of powerful social bonds, responsibilities, and opportunities for individuals, family, and society (Albrecht, Seelman, & Bury, 2001, p. 2).

The interdisciplinary field of disability that began as a grassroots movement as recently as 15 years ago, focuses on how physical and mental disabilities are analyzed in the context of society and culture. Prior to the 1980's, college courses involving disabilities were incorporated in the applied fields of psychology, rehabilitation, special education, and the health care professions. These courses focused on how to treat or teach an individual with a disability. According to Prager (1998) faculty and students interested in nonvocational courses on disabilities had to fashion individual programs.

However, in the 1960's and 1970's individuals with disabilities, inspired by the political and social issues of the times, "began to organize collectively in increasingly large numbers to protest against their incarceration in residential institutions, their poverty and the discrimination they encountered" (Barnes, Oliver, & Barton, 2002, p. 4). This political activism inspired the passage of various pieces of legislation such as the Rehabilitation Act of 1973 and later the ADA that in turn generated a controversial new approach to theory and practice known as the social model of disability (Barnes, Oliver, & Barton, 2002). The social model of disability according to Husler (1993) provided the "big idea" for the mobilization of disabled individuals in the 1980's. However, a more radical perspective has developed. Championed by a small group of predominantly disabled scholars, the demand for a more critical, interdisciplinary field of inquiry is growing (Barnes, Oliver, & Barton, 2002).

Barnes, Oliver, and Barton (2002) assert that this increased academic interest should come as no surprise recognizing that it raises important theoretical and empirical questions that are not easily answered. Disability is a global phenomenon, with far



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reaching economic, cultural, and political implications. These implications brought forward by disabled scholars provide

> increasingly common ground between academics and researchers in the disability studies field, and signify a growing interest in the social-political approach. . . all of which has stimulated lively debates about the best ways forward for the future development of the social model of disability and the relations between disability activists and academics (Barnes, Oliver, & Barton, 2002, p. 8).

It is the transition, demanded by disabled people, for a shift away from the individual and on to the cultural and structural forces that impact their lives that is the focus of this complex body of knowledge known as disabilities studies. Therefore, this study, that seeks to understand how nine visually impaired college students experience college, contributes to this larger body of knowledge.

Definitions of Terms

The following terms are anticipated to occur throughout data collection and data analysis, therefore they will be defined in this section.

Vision is described on a continuum from normal vision to blind (Tuttle, 1984).

Legally blind or legal blindness is defined by the American Academy of Ophthalmology as "when the best vision obtained in the better eye, is 20/200 or less, or when, despite the activity attained the field of vision of the better eye is 20 degrees or less" (Rehabilitation Research and Training Center on Blindness and Low Vision, 1998, p. 1).

Visual acuity is the clarity or sharpness of central vision (Rehabilitation Research and Training Center on Blindness and Low Vision, 1998; Panek, 1995). Visual acuity is measured utilizing the Snellen eye chart. "For example, 20/80 vision indicates the subject reads at 20 feet what a person with normal vision could read at 80 feet (Panek, 1995, p. 220).

Visual impairment according to Almon (2001) is simply defined as "those who are blind or have low vision" (p. 5).

Low vision is defined by the American Academy of Ophthalmology as a condition when acuity cannot be corrected by eye glasses, contact lenses or intraocular implants. However, an individual may also be described as having low vision when there is a decrease in peripheral vision, loss of color vision, or an inability to adjust to light or glare (Rehabilitation Research and Training Center on Blindness and Low Vision, 1998).

Reasonable accommodation according to the ADA is defined as "changes in the work environment, or in the way work is customarily performed that enables an individual with a disability to perform the essential functions of the job and enjoy equal employment opportunity" (Kornblau, 1995, p. 143). Accommodations also include making facilities accessible, acquisition or modification of equipment or devices; adjustment of examinations; providing qualified readers or interpreters (Kornblau, 1995).

Achromatopsia, also known as monochromatism, is a rare hereditary disorder. Individuals with achromatopsia do not have normal cone vision which means "the cone photoreceptors of the retina that are responsible for processing of fine detail, color vision and adaptation to brightly illuminated environments do not develop properly" (Scheiman, 1997, p. 293).

Cataract, "an abnormal progressive condition of the lens of the eye, characterized by loss of transparency" (Mosby's Medical, Nursing, & Allied Health Dictionary (6th ed.), 2002, p. 305).

Glaucoma, "an abnormal condition of elevated pressure within the eye caused by obstruction of the outflow of aqueous humor." (Mosby's Medical, Nursing, & Allied Health Dictionary (6th ed.), 2002, p. 743).

Chapter 2

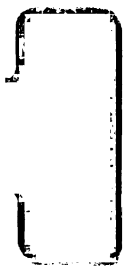
Review of the Literature

The literature review is divided into four sections. In the first section I have included relevant demographic information on disabled students, specifically the visually impaired. The second section discusses the constructs of mattering, marginalization, and involvement. Although disabled students were not included in this body of literature, these constructs provide a basis from which to frame this study. The third section reviews previous studies identifying transitional skills found to be unique to visually impaired students transitioning from high school to college.

Demography

Kirchner and Simon (1984) estimated that approximately 11,000 college students were blind or visually impaired. This was compared to the 105,400 other students with disclosed disabilities and the 9.4 million students without disabilities. Wagner (1993) reported that of all visually impaired or blind youths, 57 percent attended postsecondary schools as compared to 27 percent of youths with other disabilities and 62 percent of youths in the general population. In 1992, Marder and D'Amico observed that 68 percent of visually impaired students attended college within the first year of their high school graduation as compared to 56 percent of students without disabilities. Therefore indicating that visually impaired or blind students generally attend college at rates equal to nondisabled students and at a greater rate than students with other disabilities.

Butler-Nain, Marder, and Shaver (1989), on the basis of their own and others' research, concluded that students with disabilities (including visual impairments) have difficulty in high school and college. A study conducted at Florida State University in 1978 found that 32 percent of students with visual impairments dropped out of college.



(Monahan, Giddan, & Emener, 1978). A more recent study by Brown (1990) also noted that the dropout rate of disabled students was unacceptably high. These studies indicate the difficulties students with disabilities (including those with visual impairments) have in making the transition to college.

> Besides the knowledge obtained through attending college, becoming part of a college community is a natural way for all young people, including those with disabilities to make the transition from dependence to independence. Attending college is an opportunity to develop on one's own, engage in leisure activities, make career choices, and face disability issues (McBroom, 1995, p. 4).

The review of the literature also revealed an absence of the visually impaired student's perception of college life. It is from this gap in the literature that the context of this study evolved. However, surrounding this gap are important theoretical constructs that impact the success of the visually impaired student. These constructs identified in the literature are clustered in the following three categories: 1.) mattering, marginalization, and involvement and 2.) accommodation, adaptation, and 3.) transition skills.

Mattering, Marginalization, and Involvement

Prior to the 1960s, little attention was spent developing a theoretical grounding of student affairs practice, with the exception of borrowed theory from psychology and sociology. For example, B. F. Skinner, Erik Erikson, Jean Piaget, and Carl Rogers were among the most influential (Upcraft, 1993).

It was not until the early 1960s that social scientists began to develop specific theories about college students. Sandford's *American College* (1962) became a landmark publication that remains relevant today (Upcraft, 1993).

"Chickering (1969) expanded Sandford's (1962) and Erickson's (1950) concepts to include what he called seven vectors of development, which he considered vital to student

growth and development in the collegiate setting" (Upcraft, 1993, p. 262). In the 1980s, Chickering made adjustments to his original seven vectors (explained further in this chapter) in response to national and international conditions, as well as changing demographics of students (Upcraft & Moore, 1990; Thomas & Chickering, 1984).

According to Upcraft (1993) the two most influential bodies of research of the 1980s were that of student involvement, and mattering and marginality. "Austin (1985) proposed five basic postulates about that involvement and its relationship to personal and academic success. Schlossberg, Lynch, and Chickering (1989) formulated a theory of mattering and marginality that they believed helped to explain student success" (Upcraft, 1993, p. 263). In the late 1980s, Tinto (1987) explored first-year student development resulting in his conceptualization of student development in three phases: Separation, transition, and incorporation.

It is important to this study to reflect on student success in college based on the research of mattering/marginality theory (Schlossberg, Lynch, and Chickering, 1989; Tinto, 1987), first-year student development (Tinto, 1987; Tinto,1993), and student involvement theory (Austin, 1985). The purpose of this body of research was to develop a theoretical understanding of why students persist in or withdraw from college. However, these studies neglected to identify students with disabilities. In this body of literature, mattering and marginality are generalized to students with disabilities. Tinto (1993) makes this brief disclaimer:

> It is likely that somewhat similar conclusions would hold for any group of students who find themselves to be noticeably different from most students on campus. For rural Appalachian youth in the higher educational institutions of the South and Midwest, for foreign students in American universities, for students with disabilities, and quite possibly for

older adults generally, there may be similar problems of social integration and therefore quite similar hurdles to be overcome in attempting to complete college (p. 75-76).

Mattering, according to Schlossberg, Lynch, and Chickering (1989) is based on whether students believe they are important and that others (faculty, peers, staff) care about them. "They must feel appreciated for who they are and what they do if they are to grow, develop, and succeed in college" (Upcraft & Moore, 1990, p. 51). According to Tinto (1993) marginality refers to those on the periphery of the social and intellectual life of the college.

> The center or mainstream of institutional life is normally that which establishes the prevailing climate or ethos of the institution, that is, the characteristic and distinguishing attitudes, values, beliefs, and patterns of behavior of the institution. It is in fact made up of one or more communities of individuals or dominant subcultures whose orientations come to define the standards of judgment for all members of the institution. The periphery, in turn, comprises other communities or subordinate subcultures whose particular values, beliefs, and patterns of behavior may differ substantially from those of the center (p. 60).

Additionally, Tinto (1993) asserts that "college requires individuals to adjust, both socially and intellectually, to the new and sometimes quite strange world of the college" (p. 45). Social and intellectual demands of college are frequently more challenging than the student has experienced in the past which may result in a difficult transition and have an adverse effect on adjustment to college. According to Tinto (1993) "problems of separation and adjustment to college are frequently linked to differences in individual personality, coping skills and the character of past educational and social experiences" (p. 47).

As part of the campus environment, students must believe that peers, faculty, and staff care about them. In order to succeed in college, students must feel that they belong (Schlossberg, Lynch & Chickering, 1989). By the same token, when students feel ignored by the mainstream, or not accepted by the majority, they feel marginal and it is much less likely that they will be successful in college (Upcraft & Moore, 1990).

Schlossberg et al. (1989) assert that minority students are often most susceptible to these feeling of marginality. In this statement, they are referring to students of color at predominantly white institutions. Just as students of color feel marginalized in a predominantly white institution, I posit, based on the narratives of the nine participants of this study, that visually impaired students perceive themselves as marginalized in a predominantly sighted institution.

Tinto (1993) has devised three stages of freshman development and integration into college. These three stages are separation, transition, and incorporation.

1. *Separation.* Students disassociate from past group memberships such as communities, homes, and school. When freshmen enter college directly from high school, they must break ties from family and reach closure on relationships with high school friends. In other words, rejecting the past values of family and community and adopt new values thought to be appropriate to college (Upcraft & Moore, 1990).

2. *Transition.* This second stage bridges the gap between old and new norms. Students have not yet established the personal bonds required for full integration into the academic community. "Freshmen from different backgrounds will probably encounter more difficulties in learning new norms, values, and behaviors. For example, the transition can be expected to be more difficult for ethnic minorities, older adults, and those from very poor or rural backgrounds" (Upcraft & Moore, 1990, p. 52).

3. *Incorporation.* This final stage is negotiated successfully when both social and academic communities of college life are fully established (Upcraft & Moore, 1990). "Social interactions are the primary vehicle through which such integrative associations

occur" (Upcraft & Moore, 1990, p. 52). Students must establish social contact with other students as well as faculty. According to Tinto (1993) failure to do so can result in withdrawal from college. He suggests students attend and participate in orientation seminars, peer social activities, and establish at least one caring relationship with a staff member or faculty (Tinto, 1993).

The work of Chickering has been among the most broadly applied theories about student development. Based upon his substantial base of research, he has developed seven "vectors" of student development (Upcraft & Moore, 1990).

1. Developing competence. In order to succeed in college, students must develop intellectual competence, physical skills and social and interpersonal skills. Intellectual competencies include reflective thought, critical thinking and problem solving skills. Physical skills include manual dexterity, knowledge of nutrition, exercise, and wellness concepts. With respect to interpersonal competence, this would include active listening, giving and receiving feedback, and public speaking skills (Upcraft & Moore, 1990).
2. Managing emotions. Managing emotions is the ability to control key emotions such as aggression and sex as well as broaden their range of emotions. "Chickering sees an increasing urgency for managing emotion because of the increase in campus violence, substance abuse, date rape, and sexual harassment and because of an increase in prolonged depression, suicide gestures, and completed suicides among students" (Upcraft & Moore, 1990 p. 53).
3. Developing autonomy. The ability of students to become emotionally and instrumentally independent from parents and past peer groups as well as developing a sense of social responsibility (Upcraft & Moore, 1990).
4. Establishing identity. Developing a sense of self through the clarification of physical needs, characteristics, sexual identification, roles, and behaviors (Upcraft & Moore, 1990).

5. Freeing interpersonal relationships. These relationships are defined as the ability to develop tolerance of others, capacity for intimacy, and relationships based on trust (Upcraft & Moore, 1990).

6. Clarifying purposes. Clarifying purposes is the "students' ability to develop a sense of purpose in their lives leading to plans and priorities for careers, avocations and life-styles" (Upcraft & Moore, 1990, p. 53-54).

7. Developing integrity. This final vector involves the ability to develop a set of beliefs that have internal consistency and guide behavior. These beliefs include social and personal responsibilities (Upcraft & Moore, 1990).

Involvement, according to Austin (1985) is the psychological and physical energy that students apply to the academic experience. He postulates involvement in the following five ways:

1. Involvement refers to the investment of physical and psychological energy in various "objects". The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry exam).

2. Regardless of its object, involvement occurs along a continuum.

Different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times.

3. Involvement has both quantitative and qualitative features. The extent of a student's involvement in academic work can be measured quantitatively (how many hours the student spends studying) and qualitatively (does the student review and comprehend reading assignments, or does the student simply stare at the textbook and daydream?).

4. The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.

5. The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement (p. 135-136).

Accommodation and Adaptation

It is necessary when studying disabled students to discuss the legal obligations institutions of higher education have toward them. These obligations are driven by the American's with Disabilities Act of 1990 and the Rehabilitation Act of 1973. One focus of these two pieces of legislation require colleges and universities to use nondiscriminatory procedures when granting admission to students with disabilities (Kornblau, 1995; May, 1994). "This means that they [colleges and universities] cannot require different standards for applicants who have disabilities than they do for other applicants unless, as pointed out in the introduction of this study, such standards have been validated as predictors of success within the specific postsecondary programs" (May, 1994, p. 13).

According to Cole and Cain (1996) academic programs are "not required to change their academic requirements if the change would demonstrably require a substantial alteration in an essential element of the curriculum" (p. 340). However, the burden of proof to demonstrate that a course is essential is placed upon the school (Association of American Medical Colleges, 1993).

Students with disclosed disabilities are entitled to reasonable accommodations under the ADA. However, if a student does not identify himself or herself as disabled, "the institution is under no obligation to search out the disabled students to offer support. Under the law, students have rights and responsibilities" (Jarrow, 1991, p. 29). According to Scott (1991) accommodation is a right, not an obligation. The student with a disability is not obligated to accept an accommodation. It is the students responsibility to disclose a disability and request a specific accommodation.

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As a result of their survey of students with disabilities, Fichten, Goodrick, Tagalakis, Amsel, and Libman (1990) concluded that in general, students with disabilities felt that by requesting accommodations, they were not being treated as equal students. "Fichten et al. (1990) found that the students tended to underestimate the appropriateness of asking for accommodations and often requested less than they actually needed, or they presented their needs ineffectively" (Cole & Cain, 1996, p. 341). However, students with visual impairments revealed concerns about exams, reading assignments, text books, handouts, assignments, and audiovisual materials (Fichten et al. 1990). Fichten et al. (1990) also found that students with visual disabilities were more comfortable asking for accommodations than other students with disabilities.

Accommodations are defined as the removal of barriers to participation, changes in the environment, or the method work is performed. In other words, an accommodation allows a person with a disability the opportunity to perform essential job functions successfully (Cole & Cain, 1996; Kornblau, 1995; Unger, 1990-91). For a student, an accommodation provides the opportunity for academic success.

The type of accommodation needed by a student is often related specifically to the disability (Cole & Cain, 1996). "Those with visual impairments are likely to have concerns about exams, handouts, texts, readings, assignments, and audiovisual materials" (Cole & Cain, 1996, p. 342).

In recent years, advances in technology giving access to visual information have eclipsed the literature (Allan & Digan, 2000; Kapperman & Strichen, 2000). With the development of special software that provides for variation in font, contrast, color and brightness, computers are currently necessary tools for people with low vision, especially college students who require access to information (Corn & Koenig, 2002). Additional accommodations needed by blind and visually impaired students include enlarged printed materials, oral examinations, additional test taking time, human readers and note takers.

McBroom, Sikka, and Jones (1994) surveyed 66 college administrators and concluded that "97 percent of the colleges provided readers, 42 percent offered transportation . . . [and] with regard to accessible textbooks, 81 percent of the colleges offered recorded textbooks, 41 percent provided large-print books, and 33 percent provided braille books" (McBroom, 1997, p. 266). "Additional services offered by the colleges included tutors (97%); adapted computer equipment (94%); adaptive equipment (89%); audiocassette recorders (83%); note takers (83%); extra counseling services (77%); clubs, organizations, or support groups (70%); typewriters (67%); diagnostic testing for academic placements (60%); specialized resource rooms (57%); calculators (56%); peer or assistant counselors (54%); electronic note takers (21%)" (McBroom, 1997, p. 266-267).

Adaptation is presented here as a comprehensive theoretical model grounded in the discipline of Occupational Therapy. Occupational adaptation, according to Schkade and Schultz, (2003) is the foundation from which the discipline sets itself apart from other allied health professions. "Occupational adaptation is capitalized [in the literature of occupational therapy] to identify our theoretical perspective and its body of knowledge" (Schkade & Schultz, 2003, p. 183).

Kielhofner (2003) defines adaptation as the construction of a positive identity (role) and achieving competence in the context of one's environment. Based on Kielhofner's definition, the role of the participant in this study is that of a student with a visual impairment. Competence is defined as success in college, and the environment is the college campus and classroom. As one respondent explains, "when you're blind, you have to plan your route . . . sometimes you don't get to class when you plan on getting to class . . . and it's really embarrassing when you're a blind person and you get to class and it has already started."

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Another respondent stated that she purposefully chose her college because the campus was small and easy to navigate. "I felt comfortable, it wasn't a confusing and frightening situation when I came."

There are three basic assumptions to this theoretical model: adaptive capacity, relative mastery, and adaptation process (Schkade & Schultz, 2003). *Adaptive capacity* is the ability a person possesses to "perceive the need for change, modification or refinement in response to a challenge" (Schkade & Schultz, 2003, p. 185). "The strength of this capacity is the cumulative result of experience with responding adaptively and masterfully to challenges over the lifetime of the individual" (Schkade & Schultz, 2003, p. 185). A participant in this study who was totally blind stated at one point, "I tend to make myself adaptable to different situation because I've had to do it all my life."

Relative mastery occurs when an individual evaluates his or her adaptive responses. These responses are evaluated based on the following properties: 1) the efficient use of time, energy and resources, 2) the effectiveness to which the desired goal was achieved, and 3) the extent to which the person engaging in the adaptive behavior finds satisfaction personally and to the extent it is socially well regarded (Schkade & Schultz, 2003).

The *adaptive process* is a series of events and actions that evolve as a person is faced with a challenge to their identity, competence, or by the environment (or any combination of the three). The adaptation process enables the individual to meet the required expectations, produced either by the self (internal expectations) or the environment (external expectations) in order to achieve mastery (Schkade & Schultz, 2003).

Adaptation, according to Schkade and Schultz (2003) and Kielhofner (2003), consists of three elements: person, environment, and the interaction between the two. Each element is built on a constant that is invariably present as the person engages in occupation. These constants are the desire for mastery (person) the demand for mastery

(environment), and the press for mastery (the interaction between the person and the environment) (Schkade & Schultz, 2003, p. 185)

The desire for mastery is universal. Expected mastery is determined by the physical, social, and cultural features of a particular environment. "Failure to respond with sufficient mastery produces lack of reinforcement at best and punishment at worst" (Schkade & Schultz, 2003, p. 287).

Individual desire for mastery in combination with the environmental demand for success, produce the process of adaptation. The environment consists of complex external stimuli that call for a masterful response and are unique to the individual. The expectations for performance result from the physical, social, and cultural influences of the environment (Schkade & Schultz, 2003). Thus, college campus environments, work environments, and leisure environments all differ because of diversity in their influences.

The physical environment includes time, space, and materials. Time can be an important factor in the person's ability to respond masterfully (Schkade & Schultz, 2003). A graduate student from this study responded, "let's face it, because if you are blind, you have to put in more effort . . . I have to spend like one hour to read let's say 10 pages, and sighted kids spend less." All the participants in this study required additional time as an adaptation for test taking.

Space, involves lighting, temperature, color, texture, sound, condition (organization or disorganization), and size (Schkade & Schultz, 2003). As one respondent indicated, he requires the use of special filters on his glasses to reduce the glare of the sun. "I have a hard time filtering out color and light. Color is rough, sometimes it is had to drive. If it is a real sunny day, it is hard to see red lights from far away."

Materials and supplies according to Schkade and Schultz (2003) may include special equipment, furniture, tools, or technology. In this study, respondents revealed

several types of special equipment and technology utilized to enlarge printed materials as well as specific adaptive devices such as telescope lenses to increase distance sight.

The interaction between the person and the environment is specific to each setting. How the individual perceives him or herself in relation to the environment, influences the adaptive process. For example, Schkade and Schultz (2003) discuss the individual who is new to the group. In some situations "newcomers are welcome and included. In others, newcomers are viewed with suspicion and must 'pay their dues' before being invited to participate" (p. 188). In many instances, a person with a disability is considered the newcomer. They often perceive themselves as marginalized from their nondisabled peers.

The cultural system consists of values, ethics, morals, standards, rules and so forth, which guide the individual in performance expectations. Formal organizations such as places of employment and institutions of higher education, have written expectations in the form of policies, procedures, and codes of conduct. These cultural constructs guide individuals in obtaining desired mastery (Schkade & Schultz, 2003; Kielhofner, 2003).

In many cultures, according to Schkade and Schultz (2003), there are "keepers" of the culture (those who determine what constitutes a masterful response). At an institution of higher learning, the "keepers" of the culture are the students (peers), faculty, administrators, as well as the surrounding community. Peers often determine what behavior is acceptable. As one respondent explains "a graduate student (teaching assistant and music therapist) . . . annoyed me because, first of all he was very patronizing, and it amazed me that he was not very comfortable with disability [he stated] how are you going to be able to do that? You have to be able to see to do that". although this respondent was able to make adaptations allowing her to compensate for her vision loss, the "keeper" was attempting to control her ability to master the demands of her work.

Schkade and Schultz (2003) conclude by stating that individuals who wish to perform adaptively must understand and attend to the physical, social, and cultural demands of the environment. To reach mastery it is necessary to apply the process of adaptation to a variety of challenges.

The adaptation process occurs when an individual creates an adaptive response, evaluates its outcome, and integrates the experience to meet a perceived challenge. Additionally, the individual must recognize expectations, capabilities, and past experiences as contributors to successful performance. Finally, the individual assesses the expectations of the environment (physical, social, and cultural) to determine the adaptive response required (Schkade & Schultz, 2003). For example, one student stated that she must acclimate herself at the beginning of each new semester. "There is still a lot I don't know. Basically I take it in chunks . . . I'm only going to concentrate on those places or places that are prime, like the student union or the library."

In summary, adaptation creates or generates a response to a situation or task that would otherwise be perceived as unsuccessful or where the desired goal was unachieveable. The two major components of adaptation are: 1.) the individual's ability to choose an adaptive response based on the individual's desire for mastery combined with environmental demands, and 2.) the individual's ability to integrate past adaptive experiences into a holistic plan for ongoing use (Schkade & Schultz, 2003).

Transition Skills

According to The Living Skills Center for the Visually Impaired, there are essential skills required for a successful transition to college for the student with a visual impairment. Organizational skills, orientation and mobility, assertiveness skills, and social skills are among the most important (Vancil, 1997). Organizational skills are described by Vancil (1997) as the ability of a student to organize their work space, note books and assignments which "alleviates stress from being unprepared or unable to find

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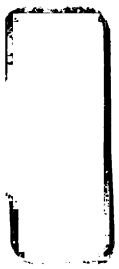
items" (p. 219). "Orientation is the ability to create and maintain a mental map of one's environment and the relationship of oneself to that environment. Mobility, on the other hand, is the ability to travel safely and efficiently through that environment" (Tuttle, 1984, p. 23). Assertiveness skills are defined as the ability to describe one's needs clearly and concisely (Vancil, 1997). Social skills, explained by Vancil (1997) are necessary for establishing relationships with others and allow the student to become an active participant in campus life.

In 1997, McBroom conducted a study involving 102 college students with visual impairments at 66 colleges. He found that student success involved more than high school academic preparation. The students in his study reported the importance of orientation and mobility competency in order to navigate a larger environment and alternative reading adaptations such as the ability to switch from braille to audio books or computers. Time-management, assertiveness, and advocacy skills ranked among the highest priority.

McBroom (1997) also states that the first year of college is critical and "students with disabilities (including visual impairments) have [difficulty] making the transition from high school to college" (p. 262). This statement parallels the work of Tinto (1993). He concludes that transition

> depends on a number of factors, among them the degree of difference between the norms and patterns of behavior associated with membership in past communities and those required for integration into the life of the college. Individuals who come from families, communities, and schools whose norms and behaviors are very different from those of the communities of the college into which entry is made face especially difficult problems in seeking to achieve competent membership in the new communities. Though they may have been successful in meeting the demand of past situations, they may not have acquired the social and intellectual skills needed for successful participation in the



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> new communities of the college. Their past has not adequately prepared them to deal with the future. In the "typical institution, this means that disadvantaged students, persons of minority origins, older students, and the physically handicapped are more likely to experience such problems than are other students (Tinto, 1993, p. 97).

In this chapter I have demonstrated a link between current issues in the literature that frame the research questions of this study. Additionally, it is clear that the needs of disabled students have not been included in the data collected in these previous studies.

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Chapter 3

Research Design

In this chapter I will discuss how a qualitative design, specifically phenomonology, is best suited for this study. Also, I will describe the methodological issues involved in the selection of subjects, as well as problems in interviewing the disabilities. The final section of this chapter will briefly describe the nine respondents who volunteered for this study.

Qualitative Design

A qualitative design was selected for this study based on the following research questions:

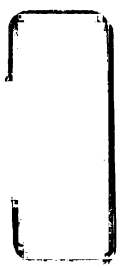
1.) How does the postsecondary educational experience of visually impaired students differ from that of students with normal vision?

2.) What challenges in postsecondary education are perceived by visually impaired students to be the most difficult to meet?

3.) How do visually impaired students in postsecondary education overcome challenges in order to achieve academic success?

Visually impaired students were selected because most students who are blind or are visually impaired, disclose their disability to the College or University in order to receive accommodations, thus making it possible to obtain respondents.

Qualitative research is defined as encompassing broadly stated questions about human experiences, and realities, studied through contact with persons in their natural environments, yielding rich descriptive data that help us to understand those persons' experiences (Boyd, 2001). The focus is on understanding the meaning of participants' lives in their own terms, that will, in turn, provide new options for action and perspectives. (Boyd, 2001; Jansick, 1994).



Qualitative research takes a holistic approach to questions. It looks at the larger picture of human realities (Boyd, 2001). Its focus is on understanding human experiences rather than quantifying them or making predictions. The researcher looks to understand the perspectives of the participants and also must interpret the behaviors and beliefs of the participants based on detailed description and from these detailed descriptions, the researcher inductively builds theories or concepts (Janesick, 1994; Creswell, 1994). "Simply observing and interviewing does not ensure that the research is qualitative, for the qualitative researcher must also interpret the beliefs and behaviors of participants" (Janesick, 1994, p. 213).

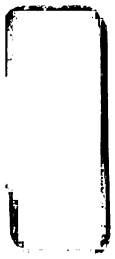
History

Qualitative research began in the United States in the late 1800s (Boyd, 2001). Bogdan and Biklen (1982) assert that qualitative strategies were used initially to disclose rapidly developing social problems associated with urbanization, industrialization, and immigration. Qualitative descriptions of urban problems converted statistics into human terms. These detailed accounts were conveyed through photographs, drawings, and interviews (Bogdan & Biklens, 1982).

In the 1920s and 1930s sociologists utilized qualitative strategies to study social phenomena such as race relations, ethnicity, and delinquency. From the 1930s to the 1950s quantitative methods dominated and were thought of as producing the most promising solutions to problems. However, the social unrest of the 1960s and 1970s renewed interest in qualitative inquiry, producing methodological debates which surfaced in the literature, university courses, and national research conventions (Bogdan & Biklens, 1982).

Phenomonology

For this qualitative research study, the phenomenological method was used for data collection and analysis. Phenomenology is defined as the "naturalistic inquiry that



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aims to uncover the meaning of how humans experience phenomena through the description of those experiences as they are lived by individuals" (Depoy & Gitlin, 1994, p. 302). Husserl (in Depoy & Gitlin, 1994) asserts that studying the same phenomenon from many people's experiences, preserves both the uniqueness of the individual as well as collectively understanding the phenomena.

According to Creswell (1994) this type of study is as much a philosophy of meaning as a method.

> The researcher seeks to understand a concept or phenomenon through individual experiences of the meaning of the phenomenon for individuals (Moustakas, 1994). To do this, the researcher puts aside, or "brackets" his or her own ideas, studies a limited number or individuals through lengthy interviews, and develops themes or patterns that represent the invariant structure of that experience (Creswell, 1995, p. 10).

A particular manner of rigorous reflection, according to Boyd (2001) is phenomonological reduction and bracketing.

> Bracketing is the leading methodological technique used in phenomenology to aid in this process. To describe lived experience it must first be disclosed. Bracketing and phenomenolgical reduction are the means to this disclosure . . . Bracketing our presuppositions about the world is performed 'not deny them and even less to deny the link which binds us to the physical, social and cultural world' (Merleau-Ponty, 1964, p. 49). The reduction is performed so as to expose the link (Boyd, 2001, p. 99).

Boyd (2001) asserts that the process of phenomenological reduction is a matter of refraining from judgments. Layers of ready-made interpretations of experience can be peeled away one layer at a time.

> In its most important sense, phenomemological method is a call to reflective thoughtfulness of the most rigorous kind, at the most rigorous level. The point of

> the effort is to return to the natural attitude where insights gained within the reduced sphere can be put to use (Schutz, 1970, p. 59) (Boyd, 2001, p. 100).

For this study, the central issue or concept of being visually impaired and attending college is explored through semi-structured interviews with visually impaired students. The theoretical lens I used was to assume that the experience of being a visually impaired college student makes sense only to those who live it (Dukes, 1984). Moustakas (1994) describes the phenomenological investigation as the long interview method through which data is collected on the topic of inquiry. The interview generally consists of an informal interactive process involving open-ended questions.

> Although the primary researcher may in advance develop a series of questions aimed at evoking a comprehensive account of the person's experience of the phenomenon, these are varied, altered, or not used at all when the co-researcher (participant) shares the full story of his or her experience of the bracketed question (Moustakas, 1994, p. 114).

According to Fontana and Frey (1994) the decision of how to present oneself as a researcher is one of importance because "after one's presentational self is 'cast' it leaves a profound impression on the respondents and has great influence on the success (or failure) of the study" (p. 367). It is the responsibility of the researcher to create an atmosphere in which the respondent will respond comprehensively and honestly (Moustakes, 1994).

For this study, I presented myself as a doctoral student who is also a faculty member at another college. In my letter of introduction, I explained that my interest was to gain a better understanding of visual impairment based on the students' own perception. In some cases, respondents requested specific details beyond that which was described in the letter (See Appendix C). I willingly answered all questions as truthfully as possible and reassured each participant that all information disclosed in the interview would be kept confidential.

The standardized open-ended interview approach used in this study was based on, according to Patton (1980), carefully worded and arranged questions intended to ask each respondent the same sequential questions with essentially the same words. In the standardized open-ended interview,

> flexibility in probing is more or less limited, depending on the nature of the interviewing and the skills of interviewers. The standardized open-ended interview is used when it is important to minimize variation in the questions posed to interviewees. This reduces the possibility of bias that comes from having different interviews for different people (Patton, 1980, p. 198).

In this study, the opening statement, "Please tell me about yourself and the limits of your vision." was intended to gather basic demographic information on each respondent as well as begin to establish rapport. Subsequent questions were asked in an attempt to get the interviewee to describe in detail, their experiences as a visually impaired student at their particular college or university. A total of six open ended questions were used as a guideline for the initial interviews (See Appendix A).

> It is critical that questions be asked in a truly open-ended fashion. This means that the question should permit respondents to respond in their own terms . . . not presuppose which dimensions of feelings, analysis, or thought will be salient for the interviewee. The truly open-ended question allows the person being interviewed to select from among that person's full repertoire of possible responses (Patton, 1980, p. 212).

DePoy and Gitlin (1994) state that the researcher initially presents the topic of the interview to a respondent then incorporates probing questions to obtain additional information or clairification. "The interview may begin with an explanation of the study purpose and a broad statement or question" (p. 189 - 190). According to Creswell (1994) questions in a qualitative design will evolve and change during the study. This allows for more detailed descriptions and a rich content.

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"A probe is an interview tool used to go deeper into the interview responses. As such, probes should be conversational, offered in a natural style and voice, and used not only to follow up initial responses" (Patton, 1980, p. 238). In this study, probing questions were used to deepen the response, increase the richness of the information gathered, cue the participant when additional detail was desired (Patton, 1980), but also to convey an attitude of active listening with the intent to establish a relationship with the respondents.

When I felt that a relationship was developing, the interviews shifted to resemble more of a conversation than a standardized open-ended interview. Interjecting probing questions felt more natural and appeared to add to the content of the interaction. For example, one respondent was explaining how at times, it is difficult to get accommodations such as enlarged syllabi or books on tape in time for the first day of class. Because I was also interested in problems she may have encountered out side of class, the conversation shifted as follows:

> So what you are saying is that although these accommodations are available, you must take on additional responsibility - more than the sighted students in order to receive the same information you need. What else do you find - outside of class as challenging?

She responded: "Right now I can still see to drive, but where there is road construction . . . that frustrates me." The entrance to the community college and large sections of the parking lot were under construction at the time this interview took place. She continued to explain how the sidewalks have been recently changed due to the construction and she often becomes confused and disoriented. The use of a probe provided a cue to this respondent to elaborate on what turned out to be important information.

As stated previously, open-ended or semi-structured interviews allow the researcher to interact directly and develop rapport with the interviewee (Bailey, 1997). Fontana and Frey (1994) describe establishing rapport as being "paramount" when

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attempting to truly understand the data being collected in the interview. They believe that the researcher must be able to put him or herself in the role of the respondents in order to see the world through their perspective and "close rapport with respondents opens doors to more informed research" (p. 367). However, when there is a common social disconnect between disabled and nondisabled persons marked by strain and misunderstanding, rapport development is difficult (Bailey, 1997). Further discussion on establishing rapport and social disconnect appears in the section on Interviewing the Disabled.

Role of the Researcher

According to Moustakas (1994) the research question is developed out of an intense interest in a problem or topic. The researcher's curiosity is the inspiration for the search. The researcher must reflect or explore the "autobiographical and social significance" of the topic (p. 105).

Because students with disabilities are entering colleges at increasing rates, it is important for faculty, administrators, and college or university staff to understand how students with a visual impairment perceive their academic experience. I became interested in students with visual impairments when one of my students informed me that she was legally blind. This student did not "look blind". She wore glasses, but did not use a white cane or guide dog to travel about the campus. It was necessary for this student to make faculty aware of her visual limitations, problem solve compensatory methods to complete laboratory assignments, and access accommodations and adaptive devices when necessary.

It became important to understand how a blind student differed from those with normal sight. Was my role as faculty somehow changed because this student was legally blind? This lead to other unanswered questions worthy of further investigation.

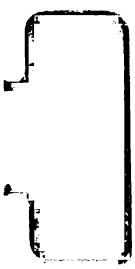
Data Collection Procedures

In order to understand this phenomenon as perceived by the respondents, data was collected through standardized open-ended (semi-structured) interviews with nine visually impaired college students from four different institutions. The individual interviews varied in length from 60 to 90 minutes. Multiple interviews and an increased number of respondents would have allowed for richer data. However, for reasons later described in this chapter, the ability to access respondents and develop a personal relationship with them was difficult.

Nine college students were purposefully selected for this study. All volunteers were visually impaired. All interviews were audiotaped, then transcribed. Transcription took place as soon as possible after the interviews.

Data collection occurred over a nine month period. Initially I proposed that all participants be undergraduates from one large university. This selected university reported a total of 47 undergraduate and graduate students with a disclosed visual disability. A staff member from the Disabilities Program sent out 25 letters to undergraduate visually impaired students. It was approximately 10 weeks before the first response was received and only two undergraduate students volunteered for the study.

The first two respondents telephoned me immediately after receiving the letter of introduction and an interview was scheduled. Because the contact was made through a third party, I have no explanation of the delay or limited response. However, due to the limited response the study was expanded to include graduate students at this university as well as offering a $10.00 stipend. I developed 30 additional letters, amended my original request to the Institutional Review Board, and requested that a second mailing occur. Additionally, a description of the study was published on the Disabilities Program WEB site. There were no responses and I had no way of tracking if the letters were sent or received. I believe the difficulty in obtaining respondents for this study was due to the commitment of colleges and universities to uphold the confidentiality rights of disabled



students. I was also dependent upon a third party to convey my intentions to perspective respondents. The visually impaired students initially contacted were asked to volunteer for a research study without the benefit of meeting face to face with the researcher.

After three weeks, it was decided that the recruitment of respondents needed to be expanded to include additional colleges and universities. I contacted six additional colleges and universities and received two positive responses which resulted in four additional respondents. This process took four months to complete because many staff and students were not on campus for the spring and summer semesters.

The three remaining respondents were recruited from a state convention sponsored by the American Federation for the Blind. I was able to contact the President of the newly formed student organization who invited me to discuss my study at the student forum.

All nine students were enrolled at either the undergraduate or graduate level at one of four colleges located in a Midwestern state. All were legally blind with varying degrees of vision loss.

Interviews took the form of informal conversations as suggested by Patton (1980) since this researcher had little presupposition about what of importance may be learned. Each interview took place at a location selected by the respondent. I often suggested an available room in the library or student center on the campus where the student was enrolled. Six interviews took place in a secluded room of the college library or student center, one in a student's dorm room, and two in a secluded area of a restaurant.

The Interview Process

Methodological Problems of Interviewing

Interviewing, as a form of data collection is "one of the most common and most powerful ways to try to understand our fellow human beings" (Fontana & Frey, 1994, p. 361). The conversation between the interviewer and the interviewee is more than a

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passive attempt to retrieve information from sources holding answers (Warren, 2002). The meaning makers according to Warren (2002) hold a unique perspective and the exchange is aimed at gaining an in depth understanding of the experiences and life worlds of the informants. For these reasons and because blind and visually impaired individuals interact with the world primarily through verbal and auditory skills, I chose interviewing as the method to gather data. However, interviewing the blind and visually impaired respondents in this study presented additional problems beyond those traditionally identified in the literature.

Fontana and Frey (1994), as well as Warren, (2002) identify the following problem areas concerning interviewing including the role of the interviewer.

1. Locating respondents
2. Deciding how to present oneself as the interviewer
3. Gaining trust
4. Establishing rapport
5. Status differences of interviewer and respondents

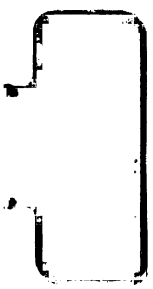
The first concern, locating respondents for the qualitative interview becomes especially difficult when the topic of the interview is stigmatizing or rare in a population. In this instance, the researcher may resort to initially interviewing an acquaintance and through this acquaintance, additional respondents may be located. This is also known as a "show ball" design (Warren, 2002).

The subjects of this study, as well as the identities of all disabled students, are protected by colleges and universities. Therefore, the ability to access this group is frequently very difficult and in some instances, impossible. Although several colleges and universities contacted for this study were initially cooperative, in that they agreed to send my letters of introduction to their blind students, I never received responses. This lead me to conduct an internet search where I was able to contact an individual who belonged to an organization for blind students. She invited me to attend a state

conference. At this point, I was able to utilize the snowball method to obtain additional respondents for my study.

The second concern in interviewing is deciding how to present oneself as the interviewer. "Increasingly, qualitative researchers are realizing that interviews are not neutral tools of data gathering but active interactions between two (or more) people leading to negotiated, contextually based results" (Fontana & Frey, 2000, p. 646). Increased attention must be paid to the voices and emotional tone of the respondents as well as the interviewer-respondent relationship (Fontana & Frey, 2000). The relationship often becomes the basis from which the researcher "hears the meaning of what is being conveyed" (Warren, 2002, p. 85). Therefore, how to present oneself as the interviewer is important because "after one's presentational self is 'cast' it leaves a profound impression on the respondents and has great influence on the success (or failure) of the study" (Fontana & Frey, 1994, p. 367). If this is true, how is the "presentational self" different when the respondent cannot see the interviewer? This became evident when I conducted my first interview.

Natalie was the first student to volunteer for this study. The first thing she asked of me was to lead her to the office where the interview would take place. Natalie needed to trust me to safely lead her to our destination. As she took my elbow, it appeared that she was also mindful of my height and perhaps additional physical characteristics. Most likely she was able to sense my uneasiness at guided sight (something I had never done before) as well as my ability to direct her verbally to a chair in the room. As I began to hand her the consent form, I realized that it would be necessary to explain in detail the process about to take place including the equipment I was planning on using. As obvious as it seems, until my initial interview with Natalie, I did not fully realize how dependent I am on my vision to assess situations, form initial impressions about individuals I come in contact with, and formulate verbal responses based on non-verbal cues or gestures.



Before we began the interview, Natalie requested more detail about my background, my age, area of study, and personal interests. It was at this point that I decided in subsequent interviews I would provide the respondents with more details about myself with the intent to give them an idea of my appearance, thus assisting in establishing trust and rapport, the third and fourth problems identified by researchers.

Gaining trust, remains problematic because the interviewer is frequently asking the respondent to reveal personal experiences that he or she would not ordinarily divulge. "Gaining trust is essential to an interviewer's success, and even once gained trust can be very fragile" (Fontana & Frey, 1994, p. 367). Establishing rapport can not be attained until trust is gained. Because *understanding* is the goal, establishing a rapport with the respondent is paramount. However, close rapport may "also create problems, as the researcher may become a spokesperson for the group studied, losing his or her distance and objectivity" (Fontana & Fray, 1994, p. 367).

The relationship between the interviewer and the respondent often becomes the basis from which the researcher "hears the meaning of what is being conveyed" (Warren, 2002, p. 85). Therefore, permitting the researcher to place him or herself in the world of the informant and see that world from their perspective (Fontana & Frey, 1994, p. 367). Bogdan and Biklen (2003) encourage the display of empathy as a method of establishing rapport and building trust. They state that the interviewer communicates personal interest and attention to subjects by displaying attentive behaviors such as nodding their heads, using appropriate facial expressions and good eye contact. Patton (2002) stresses the value of providing feedback to respondents, including non-verbal cues such as taking notes, silent probes, and posture. Non-verbal gestures assist the researcher in building trust and rapport without verbal interruption.

This presents a different set of circumstances when interviewing a blind or visually impaired individual. The researcher must rely solely on oral discourse including tone of voice. A respondent who is blind or visually impaired does not have the benefit

of seeing facial expressions or gestures that add meaning to conversation. For example, because English is his second language, there were times when I did not understand what Sam was verbalizing. During these times, I had to interrupt his thoughts to ask him to repeat himself. Sam could not see my facial expression of confusion. Another example occurred when I found it necessary to ask Alice to stop while I changed the tape in the recorder. She did not see the light flash, the tape stop, or that I had to reach across the table to retrieve the recorder.

It is important for the interviewer to understand how personal characteristics and status may affect the relationship with respondents. According to Bogdan and Biklen (2003) the researcher may be defined as "dangerous, insignificant, or untrustworthy" (p. 85) based on personal characteristics observed by the respondents. This perception by the respondent is likely to decrease the richness and detail of the discourse.

The focus on status differences between interviewer and respondent has been centered on gender, ethnicity, age, class and sexual orientation (Bogdan & Biklen, 2003; Warren, 2002). This area of concern is problematic because these differences are filters of knowledge (Warren, 2002). Although each of the above differences have received attention in the literature, it is gender to which qualitative researchers are most attentive (Warren, 2002). "Feminist interviewers have sought over the past several decades, to change the social interactions of the interview from being authoritative, sociable, or therapeutic to being expressly egalitarian" (Warren, 2002, p. 95).

The sex of the interviewer and of the respondent "does make a difference, as the interview takes place within the cultural boundaries of a paternalistic social system in which masculine identities are differentiated from female ones (Fontana & Frey, 1994, p. 369). The shift toward a closer relation between interviewer and respondent is attempting to minimize status differences and eliminating the traditional hierarchical situation in interviewing (Fontana & Frey, 1994).

Interviewing the Disabled

A review of the literature indicates sparse interest in the relationship between the interviewer and the disabled respondent with the exception of Morse (2002) who has interviewed and written extensively about individuals who are ill. These include individuals with chronic illness, survivors of traumatic events, and other disorders leading to lengthy and often painful rehabilitation. She states that interviewing this type of population, including the disabled, is different.

According to Morse (2002) there are two basic assumptions underlying qualitative interviewing that do not necessarily hold true when the informants are ill or disabled. The two assumptions are: "(a) Those interviewed must be familiar with their everyday worlds and can be viewed as experts on the interview's subject matter, and (b) good participants are those who can reflect on and articulate their experiences and describe their everyday worlds" (p. 319). However, for ill or disabled individuals, these two assumptions do not necessarily hold true.

There may be individuals who experience ongoing physical or mental changes placing them in unfamiliar and at times, frightening positions. For such individuals, their everyday world may be one of confusion or fluctuation, altering their ability to meet the expectation of "expert informant" (Morse, 2002). Others may be unable to communicate because their illness, injury, or medication has inhibited their ability to do so (Morse, 2002).

Because of the above mentioned difficulties, Morse (2002) asserts that "it is no coincidence that much qualitative research on the ill is conducted with those who have chronic conditions or who are handicapped" (p. 320). Many of the disabled have had time to adapt to their limitations and are able to reflect on their experiences (Morse, 2002). This held true for the respondents of this study who were born blind. however, those who experienced a recent or ongoing decline in vision found the ability to reflect on experiences difficult.

Another important concern when interviewing the disabled is to be aware that there may be times when the process of interviewing triggers memories of emotional events either past or present. According to Morse (2002) when interviewing the ill or disabled, one should anticipate an increase of emotion. Focusing on the details of what one might consider everyday events for the non-disabled, for the disabled may illicit emotional responses not anticipated by the interviewer. The respondent may become tearful, need consoling, or a break from the interview. Any vulnerable population requires "special attention to the human characteristics and frailties of the participants in question" (Morse, 2002, p. 327).

I found this to be true with several respondent in this study. Everyday events, such as reading a report in front of a group or negotiating snow covered walkways soon became triggers for emotion, thus providing a perspective that was especially significant to this population.

Fontana and Frey (1994) assert that the interviewer-respondent relationship can be enhanced by immersing oneself in the situation or culture being studied as well as instances when discourse evolves into "real" conversation and empathic understanding. "This makes the interview more honest, morally sound, and reliable, because . . . it allows him or her to express personal feelings, and therefore presents a more 'realistic' picture (Fontana & Frey, 1994, p. 371).

An attempt to locate respondents, establish rapport, and gain trust, lead me to attend a two day convention for the blind. This experience allowed me to immerse myself temporarily in the blind culture. While in this situation, I was able to observe a large group of blind and visually impaired individuals, (several of whom later volunteered for this study) listen to group discussion, as well as participate in the activities of the convention. As an attendee, I participated in the student forum, socialized with participants, and attended informative workshops. As I became familiar with the culture, language, and mobility issues, I better understood how dependent a blind

individual is on auditory cues. For example, the public address system in the large convention hall projected sound from the front as well as the rear of the room. Initially, I had not given it a second thought. It was not until several blind individuals entered the room and sat at the rear with their back to the guest speaker. These individuals thought they were facing the front of the room and the speaker. I also observed a sighted individual direct a blind woman to an empty chair. The individual not only gave the woman verbal directions but patted the seat of the chair with her hand in order to assist the women in identifying the exact location by sound. These and other real life experiences enhanced my ability to develop rapport with the respondents in this study.

Open-ended and subsequent probing questions asked in the semi-structured interviews of this study were designed to elicit the development of a closer relationship with the respondents as well as an empathic understanding of what it is like to be blind or visually impaired. Although complete empathy was not possible because I am a sighted individual, an attempt to convey empathy through active listening and empathetic verbal responses was the goal of each conversation.

In an attempt to minimize status differences, I was open to answering questions posed by the respondents as well as reflecting feelings in response to emotionally charged situations. Respondents diagnosed with macular degeneration became tearful and at times angry when describing losses, such as the ability to drive, as a result of decreased vision. According to Fontana and Frey (1994) expressing feelings (by the interviewer) often minimizes the traditional hierarchical situation. "Methodologically, . . . this approach provides a greater spectrum of responses and a greater insight" (Fontana & Frey, 1994, p. 370). I found that the informants in this study responded well to this style (empathic) of interviewing and in general appeared at ease. They were forthcoming with concerns, feelings, and descriptions of experiences. The fact that I am an occupational therapist and have extensive experience interacting with individuals who are ill or

disabled may have had an impact on the respondents and the context from which they told their stories.

However, another explanation for their openness is worth mentioning. It is possible that the respondents in this study volunteered because they wanted their voice heard in an alternative medium. Perhaps empathy had little impact on the willingness to respond. Each respondent indicated at least one incident involving their disability where they felt they or a peer was treated unjustly or discriminated against and now they found someone who was interested in their concerns.

The current writings on methodological problems in interviewing do not address the concerns and differences in interviewing an individual with a disability. In this study, the interview process not only included asking questions and probing for detailed descriptions, but the interviews required the interviewer to give detailed descriptions of the process to the respondents. For example, several respondents could not read the informed consent form and relied on the interviewer to read it to them. Details of how information was recorded and the exact location of the tape recorder needed to be conveyed. The visual cues a sighted person utilizes without giving it a second thought and how that might change the interview process when the respondent relies primarily on verbal cues became important when conducting the interviews of this study.

Ethical Concerns

Three areas of ethical concern when the objects of inquiry are human beings are informed consent, right to privacy, and protection from harm (Fontana & Frey, 1994). Extreme care must be taken to avoid any harm to subjects. Informed consent is permission from the subject to conduct the interview after he or she has been truthfully informed about the research. Keeping the identity of each subject confidential (often through the use of pseudonyms) protects their right to privacy. Protection from harm indicates that all necessary precautions to prevent any physical, emotional, or other type

of harm has been controlled for to the best efforts of the researcher (Fontana & Frey, 1994).

For this study, written consent forms were obtained at the time of the interview. Several students utilized an enlarged format or braille, while others allowed me to read it to them in the form of an accommodation. A copy of the consent form was given to each participant. A copy of the consent form is located in Appendix B.

Confidentiality is maintained through the use of pseudonyms instead of real names for both the subjects and their institutions. This researcher has secured permission from the University Committee on Research Involving Human Subjects (UCRIHS) to collect data.

The content of the interviews did not place any participant in physical or emotional harm. However, in the event that any participant expressed emotional distress as a result of the interview process he or she would have been referred to the counseling center at the college or university. If necessary, this researcher would have assisted the student in obtaining an appointment.

In addition to the three areas of ethical concerns discussed, in the field of disabilities studies, an ethical issue frequently debated is that of who should conduct disabilities research. "Some have argued that nondisabled people should not conduct disability research. However, if disability is a relative experience does this imply that only a person who has experienced social discrimination on the base of disability should direct research?" (Brown, 2001, p. 163). From this viewpoint emerged what is known as participatory action research (PAR). PAR is designed to "place the individuals being studied at the center of the decision making process and ultimately to empower people" (Brown, 2001, p. 160). The goal of PAR is to improve a situation and to make concrete changes. Brown (2001) asserts that although PAR does not present a solution to all ethical issues that may arise, PAR "at least brings people with disabilities into the

decision-making process. . . their involvement can help safeguard issues related to privacy, [and] adverse contexts" (p. 163).

Limitations of the Study

The amount of data is limited in this study because of the small number of respondents. Blind students are few in number and contacting them was a difficult and lengthy process. The legislation providing access to higher education for the disabled also protects their privacy. This created a grapevine method of contacting perspective respondents.

The limited number of respondents may also be due to the vulnerability of this population. Many disabled individuals have experienced exploitation and therefore did not consider volunteering for this study.

The amount of data is also limited because each respondent was interviewed only once for 60 to 90 minutes. Follow-up interviews may have yielded additional data.

Data Analysis

The data analysis for this multi-site study was ongoing. According to Depoy and Gatlin (1994) qualitative research is an interactive process. Data analysis begins immediately and is ongoing. "The analysis incrementally builds on ideas as they are generated. Analysis forms the basis from which subsequent field decisions are made regarding whom to interview next, what to observe, or which piece of information to explore further" (Depoy & Gatlin, 1994, p. 266).

Analysis of transcribed interviews began as soon as all transcription was completed. This involved repeatedly reading the text and looking for common ideas or themes. I also reviewed a set of reflective notes I kept after each interview highlighting topics each student appeared passionate about. This is similar to the technique of memoing discussed by Strauss and Corbin (1990).

In the next phase of analysis, I conducted a case-by-case coding of each narrative by highlighting similar topics, key words or phrases in different colors on a copy of each transcript. An example of key words and phrases that reappeared frequently were assertive, stand up for yourself, speak up, and be heard. Additionally, I coded the three areas in the transcripts relating to the interview questions surrounding mattering, accommodation or adaptation, and identified challenges. According to Denzin and Lincoln (2002) codes can act as tags to mark sections of the text for retrieval at a later date. They can mark simple phrases or extend across multiple pages.

Next, I attempted to develop some type of framework by referring to Strauss and Corbin (1990) and their concept of a matrix. This proved difficult and frustrating. I floundered around in my data for several months attempting to gain a sense of how the pieces fit. I continued to sort through my transcripts and listened repeatedly to the audio tapes. Finally, I returned to my literature review and revisited the gaps I initially identified in attempt to organize my data around those gaps. I decided on four basic categories; legislation, marginalization, accommodation and adaptation, and the unseen disability. However, the content did not flow and I could not find a connection between the categories.

After revisiting the literature, the missing piece or central concept from which the other categories emerged, was the legislative element, the American's with Disabilities Act. Working so close to the data, I overlooked what so obviously was the framework from which to build the concepts or categories central to the study. However, I still struggled with the process of analysis.

At the same time that my frustration was increasing, I received my copy of the American Journal of Occupational Therapy. The focus of that month's journal was on qualitative research. In this issue, a colleague of mine had written an article arguing for less jargon and more detailed description of the analytic process. Dickie (2003) states that qualitative data analysis should not be easy. "Ultimately it takes an enormous

amount of 'sweat' by humans who are trying to make sense out of a situation, a setting or culture they thought was interesting enough to study" (p. 55). With that being said, I turned to Polkinghorne and his thoughts on analysis of narratives. According to Polkinghorne (1995) analysis of narratives reduces stories to their common elements and scrutinizes data to discover categories or themes that appear across cases.

Once again returning to the gaps in the literature, my focus became searching the words of the respondents as they related to two main themes or categories of marginalization and adaptation. Denzin and Lincoln (2002) state "themes are abstract constructs that investigators identify before, during and after data collection. Literature reviews offer rich sources for themes as are investigators own experiences with subject matter" (p. 780).

As I began looking for specific phrases throughout each case, then clustering the cases together. Strands of important ideas seemed to be emerging, yet nothing seemed to flow in an orderly fashion. This, I later decided was a good thing. I decided to look at how these strands of ideas might be woven together. How did the various thread form a pattern? What did the pattern look like?

Over time, the pattern began to take shape. I began looking for quotes that would "hold together or 'dovetail' in a meaningful way" (Guba, 1978, p. 154), or data that showed bold and clear differences. Clearly, because of the questions asked in the interviews, the data supported the two themes of marginalization and adaptation. According to Patton (1987) "the patterns, themes and categories of analysis come from the data; they emerge out of the data rather than being decided prior to data collection and analysis" (p. 150). He goes on to state that often these categories are identified by the informants and that the role of the analyst is then to develop terms to describe these inductively generated categories. Recurrent topics, according to Agar (1980) are prime candidates for categories. Quoted statements from the participants are used to support the

emerging ideas. Data analysis is presumed complete when no new categories or themes emerge.

The Respondents

The respondents for this study were nine college students from a Midwestern state. There were two males, one undergraduate and one graduate student, and seven females all undergraduates. All students were legally blind and between the ages of 17 and 42.

Subjects were invited to participate in the study through a researcher-generated letter sent from their college's Office of Disability Services. This method of recruitment maintained student confidentiality as required by ethical and legal standards. The letter provided a detailed explanation of the study and requested that volunteers contact this researcher by phone or electronic mail. Each letter indicated the University Committee on Research Involving Human Subjects (UCRIHS) approval including the assigned IRB# 00-650.

Brief descriptions of each participant are presented in the following section. I have grouped the participants based on college and not by any other criteria. All names of participants and colleges are pseudonyms.

Everett University

John

John suggested that we meet in the Student Union building of Everett University for our scheduled interview. It was the summer term and very few students were on campus, giving us the necessary privacy. Because of his ease of mobility, it is not obvious that John has a visual impairment. He does not utilize a cane nor does he wear glasses while indoors.

John is a 27-year-old education major who is a returning student. Although John is legally blind, he drives independently, commuting to the University. He is an undergraduate and is employed part-time in the Learning Center. He told me that he plans to work with visually impaired students at the elementary education level when he graduates. When asked to describe his visual limitation, John replied, "I don't play baseball and I don't play volley ball outside." He has non-normal cone vision resulting in monochromaticity which is color blindness. "I have a hard time filtering out color and light, sometimes it is hard to drive. If it is a real sunny day it is hard to see red lights from far away. I have special filters for that." John was the only participant from Everett University.

Marrion Community College

Karen

I arranged to meet Karen in the Student Center of her college. The Student Center was small in size and contained eight or nine small tables with chairs for conversation or study. I arrived early in the hope that in this small space I would have little trouble locating a blind student. Because I could not describe myself to Karen over the phone, it would be impossible for her to recognize me.

As I scanned the room for a student I thought might be Karen, I found myself wondering how I would recognize her. Karen told me in our phone conversation that she retained enough sight to drive and I assumed she would not be using a cane for mobility. I noticed a woman about 40 years old seated at the far end of the room. She was holding a text book about one inch from her face and moving the book from left to right. As I approached closer, I noticed that a telescope lens was attached to the right lens of her thick glasses.

Karen prefers to take classes at one of the smaller campuses of Marrion Community College that is located closer to her home. She plans to eventually complete

a master's degree in social work at a local university. At 39 years of age, she decided to return to college after her limited vision caused her difficulties at work. "I was working in a hospital for 18 years. It was too difficult to do everything sighted. Now, I'm learning that I can do things with adaptive devices. It was hard. I still can't do some things on my own."

Karen has 20/400 refraction vision and utilizes a telescope lens to drive short and familiar distances. She describes her visual impairment as follows. "I have macular degeneration. I have the childhood form of the disease. It started at age 11. I started loosing my sight when I was 19. I get light and dark; I can't read very well."

Bonnie

Bonnie, is easily identified about campus because of her guide dog. She agreed to meet me after class one day in the Library on the main campus. After having difficulties setting up her own business she decided to return to college. "I used to work within the Business Enterprise Program which is a program where you go through like six weeks of training and then you can, (long pause) they set you up with your own business that you can run as your own. That didn't go so well."

Bonnie is 42 years-old and depends upon her husband and public transportation (bus) to commute to and from the college. When asked to describe the limits of her vision she stated the following:

> I was born with congenital cataracts. I have no iris, my pupils stay dilated all the time [and] I have glaucoma. I have a nystagmus which means the eyes flutter and it is difficult for me to focus. I am legally blind, my refraction is 20 over 400 in both eyes. I have some peripheral vision, but as the years go by it tends to get worse. So, basically (pause) I'm very lucky because I can see some to travel in familiar areas independently but then when I'm in big areas, even though I'm familiar with the campus, I know where my classrooms and stuff are, I have my

trusty eye dog here on the floor (points to guide dog). She's not just a companion and friend, but she's my eyes. She helps me get to where I want to go.

Bonnie is majoring in child psychology and special education and she plans to transfer to a local university located to continue her education.

Viola

Viola is the only African American student participating in this study. She is 40 years-old and decided to return to school to change careers from practical nursing to early childhood development. "I was majoring in nursing, and I had my LPN license, and when I changed states I did not renew my license, so I had to start all over again. But I decided I would like to teach".

Viola experienced a drastic change in her vision only six months prior to her participation is this study. She is diagnosed with macular degeneration and continues to rapidly lose her sight. "Because I'm 40, they won't operate because it won't be successful. Because it is a degenerative disease rather than a disease you would find in a young person. That is how I got it and it was just a matter of months. It was a drastic change.

Hartland State University

Natalie

Natalie is completing her final semester on campus. She has been totally blind since birth and only for the last two years has utilized a guide dog for mobility. She enjoys playing the piano and singing in her spare time. Her goal is to work with adults or older adults upon graduation. Natalie is completing her second bachelor degree. Her first degree is in psychology that she received from a small college. Natalie chose Hartland State University for the Music program. She is very active in student government, representing the disabled students on campus. "I feel it is important to be an advocate and to be involved." Natalie was initially overwhelmed by the large size of the University and required additional mobility training once arriving on campus. She lives

in a dorm that is located close to her classes and stated that she chose Hartland State University because she could complete her clinical internship on campus since transportation is difficult for her to obtain.

Sam

Sam is a 30 year old international student working on a doctoral degree in rehabilitation counseling. When I asked Sam why he chose Hartland State University, he stated primarily because he was given a graduate assistantship.

You must have, I mean guarantee, finances guaranteed, because you know, I'm not eligible for the services like the Commission for the Blind. I'm not eligible for loans because I'm not a U.S. citizen. So I have to support myself. So the graduate assistantship or financial assistance is critical.

I met Sam while attending a state conference of The American Federation of the Blind. He describes his vision loss as follows. "I'm blind since birth. I have light vision, which means that I can distinguish light and darkness. That's all." Sam displays difficulties with mobility in new settings. Although he utilizes a cane and guided sight for mobility, he has not benefitted from the advanced mobility training offered to American students. "I'm not eligible for the services like the Commission for the Blind."

Amy

Amy is a 19 year-old freshmen and a member of the university band. She has not yet decided on a major but enjoys sports and music. Her visual impairment is known as achromatoopsia and her refraction is 20/200. She utilizes special contact lenses to filter out bright light and is color blind. According to Amy, this makes crossing intersections difficult. However, Hartland State University has several audible traffic signals. "There is like two main ones that have the audible . . . there is one where my dorm is and that's usually where I cross."

Amy selected Hartland State University because of the disability program and that it is primarily a pedestrian campus. "I don't need a car to get around."

Reedville College

Cathy

Cathy is a senior and selected this a small private college because of it's religious affiliation as well as the layout of the campus. Born with a disorder known as frontonasal dysplasia, Cathy explained to me that she required over 30 (facial) reconstructive surgeries. Her eyes are artificial and she requires bilateral hearing aids. She plans on attending graduate school after she completes additional mobility training. "I need more training for mobility and more independence because I never really got that because I was always focused on my academics." She is undecided about a major but teaching is a possibility. "I think I would like to work with blind children." She works part-time in the Learning Support Center and is a member of the choir.

Alice

Alice, is a first year student and is 20 years-old. She also selected Reedville College because it has a Christian foundation. When I first met Alice her advocacy for students with disabilities was striking. She is very involved in state and federal organizations for the blind. She started college a year after completing high school because she decided to attend mobility training in Louisiana first. Throughout our conversations she reiterated the importance of independence and mobility training. Alice is totally independent and strongly promotes the same for all blind and visually impaired individuals. She plans on becoming a teacher and her college major is Spanish.

In this chapter I have outlined the design and methods utilized to conduct this study. Also addressed were the legal and ethical concerns in studying the disabled. Specific obstacles in obtaining subjects as well as problems in interviewing were described.

Chapter 4

Marginalization

In this chapter I will address the question of difference. I will show how visually impaired students perceive themselves as marginalized based on their interactions with peers and faculty, including obstacles they encountered in the environment and when utilizing institutional services. The construct of marginalization will be used to interpret the narratives of the nine respondents in this study. Marginality refers to the communities or subordinate subcultures whose values, beliefs, or patterns of behavior differ from the dominant subcultures that define the prevailing climate or ethos of the institution. (Tinto, 1993).

Marginalization can occur when an individual does not feel that others (faculty, peers, staff) care about them. Schlossberg, Lynch, and Chickering (1989) state that students "must feel appreciated for who they are and what they do if they are to grow, develop, and succeed in college . . . students who feel out of things, ignored by the mainstream, and not accepted will feel marginal, and, therefore, are much less likely to succeed in college" (Upcraft & Moore, 1990, p. 51). According to Tinto (1993) marginality refers to those on the periphery of the social and intellectual life of the college. He states:

> The center or mainstream of institutional life is normally that which establishes the prevailing climate or ethos of the institution, that is, the characteristic and distinguishing attitudes, values, beliefs, and patterns of behavior of the institution. It is in fact made up of one or more communities of individuals or dominant subcultures whose orientations come to define the standards of judgment for all members of the institution. The periphery, in turn, comprises other communities or

subordinate subcultures whose particular values, beliefs, and patterns of behavior may differ substantially from those of the center (p. 60).

For the disabled, in particular the visually impaired, the subculture on the periphery as described by Tinto often consists of less than one percent of the student population. Additionally, Tinto (1993) asserts that "college requires individuals to adjust, both socially and intellectually, to the new and sometimes quite strange world of the college" (p. 45). For the respondents in this study adjustment to college was compounded by their disability. Sam, who prior to attending college attended a school for the blind, describes feelings of isolation. "For me, coming to college was a shock. Being out of contact with sighted peers for 12 years. I felt like I was in the middle of nowhere. I felt different from everybody else".

As noted in the introduction, colleges and universities claim to embrace the challenge of creating a pluralistic learning community where differences are valued and all students are treated equally. "Diversity is one of the greatest challenges facing higher education today. . . Under different labels since the 1960's, campus officials have encouraged cross-cultural relations, pluralism, racial awareness and understanding, and multiculturalism as methods for increasing understanding and acceptance of minorities at traditionally white campuses (Freeman, Nuss, & Barr, 1993, p. 456). Although I believe that great strides are being made toward this end, the visually impaired and blind students who participated in this study did not agree.

The interpretations found in this chapter were derived through analysis of the narratives of the nine respondents. Based on these narratives and the work of Schlossberg, Lynch, Chickering, and Tinto, I have identified marginalization as the first theme of this study. Marginalization fell into three basic categories: 1.) peer interaction 2.) faculty interaction, and 3.) encounters with the environment, institutional services/ staff.

Marginalization: Peer Interaction

One common thread interwoven in several stories was that of in-class group work or group assignments. It is common practice in higher education to require students to complete class assignments in groups, as well as, assign group projects and presentations. What I did not know, but what became evident through my interviews with visually impaired students, was the frequency with which visually impaired students feel marginalized when involved with groups. Viola was able to describe these feelings of isolation. They revolved around her need to ask group members to read and explain directions when assigned to in-class activity groups. She told me that all too frequently she felt that peers thought her a burden to work with. Although not all peers felt this way, in her opinion most students would prefer she not be a member of their group. She was rarely approached by peers to join their group and therefore the instructor would direct her to a specific group. As her sight decreased the feelings of isolation increased; the more dependent upon others she became to provide direction and assistance for participation.

She states:

> Sometimes I felt isolated in a group because everybody is like, 'we have to do all this for her.' Because I can't see and I have to ask them to explain things, you're not connected to your fellow students. In some cases, if the instructor doesn't remember to put you with somebody that is tolerant or patient, *you* have to come up with a solution. I felt lost in the system. You're not connected to your fellow students.

As Viola told this story I could not help picturing her standing alone waiting for someone to invite her to join a group. Finally the instructor would notice her isolation and assist her toward a group of peers.

Natalie tells a similar story. The class was dividing up into discussion groups. Unable to see how the groups were being arranged, she was unable to locate a group.

Natalie sat alone listening to the reorganization of chairs, waiting to be invited to join a group. Her feelings of isolation mounted as she waited to be invited to join a group. I would find myself waiting to be invited to join a group.

> I could hear chairs moving about, moving into groups, but I didn't know where to go. The instructor would say 'get into groups of five' and I couldn't see where the groups were or how many people were in each group. If someone wanted me to join their group, I couldn't tell.

Cathy prefers to sit in the front of the class. However, if she does not arrive to class early, she has a difficult time locating an empty seat. She feels left out (marginalized) because unlike peers, Cathy must depend on the instructor for assistance. She gives the following example:

> When you're blind you have to plan your route and sometimes you have to take the bus. Sometimes you don't get to class when you plan on getting to class and it's really embarrassing . . . and you get to class and it has already started. You walk in and are looking for a seat. The professor doesn't know what to do so he has to stop and direct you to a seat. I felt so embarrassed.

The inability to see non-verbal messages often separates the visually impaired from others in a group. Feelings of separation lead to marginalization. It is estimated that the majority of communication that occurs between people is non-verbal. Visually impaired individuals have little to no access to non-verbal communication and must rely on what is actually said. According to French (1999) visually impaired people often lose the emotional content of messages because they can not see posture, gestures, or facial expressions. These non-verbal messages can give much needed information leading to increased understanding (Hahn, 1997).

Natalie is very involved with her state association for the blind. She frequently presides over meetings, presents at conferences, and speaks to community groups about blindness. She states:

It is difficult in group situations to understand how people are reacting when you can't see their expressions. You don't get immediate feedback. Sighted people don't ask or answer directly. They raise their hands, which I can't see. So I don't acknowledge them. It's hard to have an open discussion, I'm always interrupting.

French (1999) who is visually impaired writes:

When groups of visually disabled people come together the rules of social discourse are changed. People may for example shout out somebody's name. . . or walk around uninhibited where the act of bumping into someone and asking 'who are you?' solves the problem of recognition. . . perhaps this indicates the existence of a 'blind culture'. . . where common experiences . . . bind us together (p. 27).

However, on campus where being blind places Karen on the periphery, she must conform to the social discourse of the sighted. "I've been told that I'm not very friendly. I don't always respond to people because I can't see a face, only a head. I try to make eye contact when I speak to people, but I can't see your eyes, only your head."

Another example of marginalization, as indicated by the respondents of this study that separate the visually impaired students from the mainstream, is the inability to read at a rate comparable to peers. The subjects in this study who are totally blind utilize devices such as computers with speech synthesizers, screen reader software, audio taped text books, and human readers. Subjects with low vision utilize devices such as the Spectrum 20/20 which enlarges print, telescope lenses (glasses), and human readers. In the classroom, the inability to read a handout, overhead, or read at the same rate as sighted peers, places visually impaired students on the periphery. They perceive themselves as "different".

Two of the respondents in this study indicated that enlarging the font size on handouts or tests to 18 or 20 was usually adequate for reading. However, seven of the nine respondents required accommodation beyond enlarged print. These accommodations require the student to leave the classroom and take tests either on

computer or orally with a reader, thus enhancing their feelings of separation and marginalization.

Viola must take her examinations at the Learning Center where she uses the Spectrum 20/20 to enlarge the print. She describes her feelings of marginalization based on conversations she has had with peers. "They ask me why I'm never in class when we have a test." Viola explained that because she retains partial sight, peers do not understand and frequently question her need for accommodations. Additionally, her perception is that other students think "you're just using that for a handicap. I would prefer to take my tests in class just like everybody else." She feels "different" because she is not part of the dominant group, the sighted.

Cathy also feels marginalized when utilizing accommodations for test taking. Given the choice, she too would take examinations at the same time and location as classmates.

> I prefer to take tests on the computer, but it didn't always work that way. So sometimes I had to have someone read the test to me. And this person would stress me out. If I didn't know the answer to the question and I would have to think about it for a second, they might start yelling at me . . . it made my anxiety level high so I didn't do as well . . . I didn't feel I was as good as my peers.

Natalie finds it necessary to use speech software that is only available on personal computer located in her dorm room. However, there were times when peers questioned her motives and integrity. Natalie indicated that she has always been a good student and would never cheat. It was obvious to me that as this portion of her story unfolded, she felt marginalized. She felt the need to justify to her peers why accommodations are necessary and that she is trustworthy. "I believe in the Honor Code and I wouldn't cheat. My computer has speech software and it is in my room. It is really big, not a laptop. I couldn't really bring it to class to take the tests at the same time as the other students."

Not every student interviewed in this study felt marginalized by peers. Amy explains how she feels included in the mainstream culture. Amy stated that in high school she was the only student who did not drive. Whereas on campus, few of the students drive.

> All the students walk to class. So it is really convenient for me. I feel like everybody else. It gives me a new kind of independence. . . [Other students state] 'I can't have a car, it takes away from me, my independence. But it seems like a *lot* more independence for me. That's because I'm like in the same boat as everybody else. That's one of the main reasons I chose Hartland State.

In my conversation with John I asked him if he felt part of the student body at Everett University. He explained: "Not when I need special help. But that's always the way it is with a VI student." Nevertheless, he continued by adding: "You know it only takes about three minutes to get to know someone. To let them know about the visual problem. And they're always usually great about that . . . I just talk to them. I let them know about what's going on." Farther into our conversation, John indicated that he is an outgoing individual and has found that once a person gets to know him, they no longer see his disability. "I usually fit in."

Marginalization: Faculty Interaction

The strongest indication that students were marginalized by faculty was evident in their descriptions of faculty interactions. Most of the respondents' stories indicated that they perceived being treated with respect and their professors attempted to adapt their courses to their needs. However, several experiences stood out as blatant attempts to draw attention to and isolate the visually impaired student. One such story was told tearfully to me by Karen.

I introduced myself to Karen and we located an empty classroom and began our conversation. Karen stated that she could only see the shape of my face, not any features.

She also explained that she is only able to focus on one word at a time and reading is an exhausting task. Her explanation of her visual limits were important because Karen does not "look blind". She does not use a white cane or a guide dog.

Karen revealed feelings of isolation and embarrassment when in-class participation involves reading. Even a brief question or statement placed on an overhead or the chalkboard causes stress. She states: "The other students can answer before I even get through reading the question. I require more time [than peers]."
Karen is only able to read one word at a time. In her own words, she reads like "a first grader."

As Karen told me her story I was impressed by her self-determination and search for the power to overcome the following dilemma. She was struggling with an assignment requiring her to read a four page paper she had written for an English class. Karen could not understand why her English instructor was insisting that she stand in front of the class and read aloud.

> I've been having a problem with one instructor. I'm so mad about him. It is an English class, and we write six papers. He had decided that everyone has to read one of their papers (pause) and it is not like a presentation or anything else, he just wants you t read it. I read like a first grader. And I'm going to have to read it when it happens. And I asked him if somebody else could read my paper, I mean I'll stand next to them so he'll know it's my paper. He said, 'No'. I'll have to read it. And I just don't get it, because I won't be able to put any feeling into it. Even though I wrote it, it is hard for me to read it. No matter how big I make it, my focusing doesn't make it easier to read. I still have to take my time with everything. So he doesn't want to compromise, and I don't know what to do. I don't mind doing a presentation, I can memorize a lot of stuff but I can not remember a whole paper. But he wants it *read.* It is embarrassing to stand up in front of everybody like that. And the class will be embarrassed too. That's what I

don't understand. There is just not reason (pause and tearful) it has to be me that reads it. If I don't, I won't pass the class. I don't know what to do. I talked to him a couple of times. I feel like a baby. I usually don't ask for compensation. I find a way to do things. The only thing I have a problem with is my vision. So to be isolated isn't right.

From the description Karen provided, her repeated attempts to convince her instructor to allow another student to read her paper has failed. Although she was investigating her legal rights under the ADA, her plan was to attempt to memorize the paper hoping it would reduce her anxiety. Karen's predicament is a prime example of how a faculty member's actions can separate a disabled student from the majority group. As Karen was tearfully detailing this scenario, I could not imagine what motivation this instructor would have requesting this of Karen, surely he would not ask a student in a wheelchair to stand in front of the class or walk across the room.

Several of the stories told to me described instances when the subjects felt as if they were a burden to their professors or other college personnel because they requested accommodations. "Like you are wasting their time" explains Viola who has macular degeneration and is trying to adjust to the rapid deterioration of her vision. She frequently must remind her professors that although she does not yet require a white cane or a guide dog, she is legally blind and can no longer focus on standard size print. In fact, Viola's vision loss is so great she requires the use of human readers or the Spectrum 20/20 to enlarge print. For Viola, this means she must repeatedly remind her professors to send examinations to the Learning Center where she herself must schedule the use of the Spectrum 20/20 and a proctor.

Although Viola often feels isolated and frustrated because the task of securing accommodations is often inauspicious, Mary, the vision specialist at her college, takes a special interest in Viola and this relationship has reduced her feelings of isolation and marginalization. "She goes out of her way . . . takes special interest . . . makes you feel

connected with the college." Viola finds the support necessary to rebuild her confidence as a competent student. She feels encouraged about her academic future. "There are a lot of things that you can do even if you can't see if you have an education."

Enrolled at the same community college, Bonnie is facing the same situations, experiences, and frustrations. Born with congenital cataracts, she wears dark, thick glasses and is guided to class by her leader dog. This, I would have suspected would serve as a reminder to others that she is blind. However, Bonnie's narrative repeatedly indicates that it is necessary for her to remind faculty that she can not always keep up with her peers (especially when visual aids are used by the instructor). She sited this example: "He'll ask the whole class 'did you get that?' and he hasn't even repeated what he's got on the overhead. And I'll say 'No' for blind people it's rather difficult to read."

Bonnie remains confident. Reminding her professors and other college staff that she is blind is just a part of her daily routine. She casually stated: "I tend to make myself adaptable to different situations because I've had to all my life."

Most experiences with faculty have been positive for Cathy, the Reedville College senior. She was however able to recall two incidents when she felt embarrassed and marginalized. She explained that she always arranges to meet with her professors prior to the first class. Usually at these meetings, Cathy requests the types of accommodations she needs and gives the professor the opportunity to ask questions. Except on one occasion, Cathy was only able to e-mail the professor and notify her that she would be having a blind student in her class.

> She [the professor] introduced me as 'this is Cathy. She's blind. She doesn't learn as well'. I think I was a little bit paranoid after that. I didn't want to make the effort to communicate with her. And that is tough. You really need to communicate with the person and tell them, 'you don't make a spectacle out of someone like that'. I felt like less of a person after that.

The opposite, although just as significant, her second example was that of an instructor who treated her with "favoritism". According to Cathy, this professor would offer to reduce or even eliminate assignments because she was blind. "This didn't sit very well with my peers."

Cathy felt marginalized based on the interactions with these two professors. She did not feel appreciated or accepted as an individual based on her ability, but prejudged based on her disability. She indicated that at one point she had considered dropping out of college. "It all got to be too much."

Encounters with the Environment and Institutional Services/Staff

Visually impaired college students, like their sighted peers, must make the transition from dependence to independence. Beginning college is an opportunity to develop career choices, explore or expand social interests, and for the visually impaired, face new disability issues. College campuses often have "wide-open spaces, winding pathways that seem to intersect in unusual places, and numerous buildings spaced far apart with no apparent pattern" (Vancil, 1997, p. 220). Orientation and mobility on campus can present a challenge for any student. However, the inability to travel independently can be the most significant barrier a blind or visually impaired individual must overcome (Golledge, 1993). To venture beyond known routes can lead to disorientation, fear, stress, and panic associated with being lost (Kitchin & Jacobson, 1993).

The participants in this study have described difficulties with orientation and mobility as well as environmental challenges such as locating specific offices once inside buildings. For example, the Financial Aid Office, Bussiness Office, and in one instance, the Office for Disabled Students.

For several respondents in the study, each new semester presented a mobility challenge. Once the new routes were established and memorized, mobility generally

occurred without incident. However, there were times when these normal routes were disrupted by weather, construction, or other pedestrian detours.

Sam is an international student from Asia and a graduate student at Hartland State University. He has had to face several challenges since coming to the United States such as language and culture. According to Sam, one of his greatest challenges still remaining is that of mobility. He has not had the advantage of mobility training equal to that of his American peers. He states: "I am not eligible for services like the Commission for the Blind because I am not a U.S. citizen".

Because Hartland State University is a 2,000-acre campus, blind students memorize specific walkways from building to building. In winter the multiple walkways are snow covered and according to Sam, these walkways are not plowed. A blind student has no way of knowing which walkways if any are clear. Sam found this change in routine disorienting. "You can't walk around the place . . . because during the snow season all sidewalks are hidden. It is much harder for a blind person than a sighted person. It is very confusing". Sam's example indicates that he believes that blind students and their special needs are less important than those of the sighted majority.

Natalie, also a Hartland State University student lives on central campus. She plans her walking routes prior to the beginning of each semester. She particularly likes to walk along the river which is the most direct route from her dorm to her classes.

> I like to walk along the river because it's the straightest way [but] it overflowed over the sidewalk and it barricaded the way. I had to find another way. I was told there were signs but a blind person can't see them. There appears to be no concern about how these types of changes effect the disabled. For example [there are] a lot of people in wheelchairs, they [the University] never plow the snow. I mean they're really bad about it. I mean they don't but they take forever to do it. They're not good about clearing the pathways and I have trouble with that too.

Even with my dog, because the pathways are different. I think they're [the University] trying, but there needs to be a lot more done.

It appears that neither environmental service departments nor administrators recognize the degree to which these geographic and environmental changes impact mobility for disabled students. Natalie argues that on the one hand the University claims to be sensitive to the needs of its diverse population of students yet, "there is no concern about how these types of changes effect the disabled . . . [disabled students] care about their education just as much as anyone else does. How can you go to class if you can't get to class".

Likewise, John indicated that the location of the Office of Special Services on his campus is almost impossible to locate. "If we went to the help desk across the way (we were seated in the Student Union) they wouldn't know where it was. That's how bad it is. I can't get help if I can't find the office." John indicated that because there are so few visually impaired students at his university, he feels that the University really doesn't make their needs a priority. They are not part of the majority culture.

Amy, on the other hand, feels that the administration of Hartland State has met her mobility needs by installing audible traffic signals.

I really like the audible traffic signals. That is like so nice. I've never been anywhere that had that before. I didn't even know they had that until I came here. It is so convenient for me. It's so nice because [there is one] where my dorm is and that's usually where I cross. I don't drive and the bus system is great too.

Under the ADA, disabled students can request accommodations to assist them in leveling the academic playing field. However, securing these accommodations is not always an easy task. Cathy tells of an incident where requesting an accommodation made her feel separated from her sighted peers and discriminated against.

Cathy explained that sighted students could access the internet for free by using the computers available in the dorms, library, and computer labs. These computers were

not accessible to blind students. In other words, no adaptive devices for the visually impaired were installed on these computers. Therefore, Cathy requested that the college install internet access on her personal computer. She was denied.

> I had to buy my own computer and they thought that since that was a personal computer that I should have to pay for my internet access. They also were not willing to put a voice on any of the computers in the labs. Sometimes you have to fight for what you want. Sometimes people don't understand. I felt that when I was asking for what everybody else had, I was asking too much. I thought that I was discriminated against because I was blind.

By repeatedly reading the transcripts, what became apparent was the difficulties encountered by those participants with the "unseen" disability. The individuals with partial vision. Karen from Marrion Community College explains:

> One of my biggest problems is that you can't tell I'm visually impaired usually. So if I ask a very stupid question like how do I use the copier? They [the staff at the financial aid office] will say, 'the instructions are up there'. I'll have to explain to them that I can't read the instructions, can you help me? . . . so sometimes I think it is easier to recognize a handicap that they can see.

Viola and Amy, like Karen, also indicated that asking for help was often followed by an embarrassing or even humiliating situation. Viloa began rapidly losing her sight only six months prior to participating in this study. She describes a conversation she had with an instructor that left her frustrated and belittled.

> You know if you don't have a dog and you aren't walking around with a dog, they don't take your vision impairment seriously. I've had some professors say 'you're just using that for a handicap' (an excuse). So its like (pause) some [professors] don't even want to acknowledge it. 'Why are you here, what are you going to be able to do when you get your degree?' Like you are wasting their time, this is how I feel.

Amy also described an embarrassing situation when she came to campus days prior to her first semester at Hartland State University. She was attempting to return a form to the Financial Aid Office as part of her mobility instruction. She was asked by the mobility instructor to enter the building and locate the appropriate person and turn in her form.

> So they have different signs and I can't see them, so I figure I'll just go to the desk and ask where do I put this form? So she [the staff at the first desk] said, 'that goes over there.' So I go to that desk and she [another staff] acted like she knew what I wanted before I got to her desk, and she was kind of like, 'what's your deal? What took you so long?' Like I was dumb. And I wasn't dumb. And then I look up and there is a big sign exactly what I was looking for. You know she looked at me like I was an *idiot.* So I gave her the thing and she goes through my file and of course she is embarrassed because now she knows I'm visually impaired and she apologized. But it shouldn't be like that, even when people don't know you're visually impaired. I'm not going to say ' Hi my name is Amy and I have a vision impairment.'

Not only does the physical loss of sight place students outside the mainstream of the college, but the need for adaptive aids and accommodations (used or not used) affects the reactions of others, often pushing the visually impaired farther out on the periphery. As described by the respondents in this study, visually impaired students are often required to conform to the norms of sighted peers, faculty, and staff if they are to succeed in college.

Chapter 5

Adaptation

In this chapter I will use the narratives to show how the respondents in this study developed adaptations to meet challenges in the classroom and the campus environment. According to Thoren Jonsson, et al., (1999) "all human beings have adaptive potential, but impairment and disability increase the degree of challenge" (p. 354). Adaptation is the cognitive process resulting in a series of events or actions that evolve as an individual faces a challenge to their identity, competence, or environment, or any combination of the three (Schkade & Schultz, 2003).

When we consider the process of adaptation, we generally think of it as a method that enables an individual to complete a given task through learned, modified behaviors. In most instances, these behaviors are transferred or generalized from previous experiences. Schkade and Schultz (2003) tell us that the desire to master one's environment or a specific task is universal based on the physical, social, and cultural features of a particular environment. Thoren Johsson et al. (1999) assert that adaptation is a process that provides a way of *thinking* about what happens when and if a disability worsens (based on the condition itself or the situation/environment) and adjusting the methods required to complete required tasks. Although this holds true, I will propose in this chapter that for these respondents, emotions such as frustration, anger, and feelings of isolation also play a role in adaptation.

The ability to adapt to new situations while attending college, either a small college or a large university, was a recurring theme throughout the conversations with the respondents of this study. Adaptation is a term used by a variety of disciplines such as biology, psychology, sociology, and is the theoretical foundation for the discipline of occupational therapy. (Coelho, Hamburg, & Adams, 1974; Thoren Jonsson, Moller, &

Grimby, 1999, Schkade & Schultz, 2003). It is important to distinguish accommodation from adaptation. An accommodation is a removal of barriers to participation, changes in the environment or method that will allow for successful performance (Cole & Cain, 1966; Kornblau, 1995; Unger 1990 -91). In an academic setting, an accommodation is the responsibility of the institution or members of the institution such as the faculty, administrators, and staff. An adaptation however, occurs when the individual initiates and cultivates the required change required for successful performance. In other words, formulates an alternate method to complete a given task. Schkade and Schultz (2003) identify this ability to compensate as the adaptive process. The adaptive process consists of actions and events that unfold as an individual is faced with challenges that occur as the result of interaction between the individual, the environment, and the task (Schkade & Schultz, 2003). In this study, adaptation emerged as the second of two themes. The conversations from the respondents in this study will be used as evidence to show how the visually impaired students in this study meet challenges faced in college in order to achieve academic success.

Adapting to the learning environment does not mean surrendering to it, but striving toward a successful compromise (Kielhofner, 2003). Successful compromise is defined as an alternative, allowing individuals the opportunity to face new challenges, either to their identity, competency, or from the environment and make conscious decisions (adaptations) based on the cumulative results of past experiences (Schkade & Schultz, 2003).

In some areas of the literature the term adaptation is synonymous with coping. In this study, several of the respondents not only displayed the ability to compensate for their visual loss through alternative methods, such as the use of technology, likewise, they were also able to cope with progressive vision loss. Coping implies changing cognitive and behavioral efforts to *manage* specific demands that exceed the resources of the person. Coping skills develop secondary to psychological stress and operate at a

preconscious level (Kielhofner, 1995). Frequently, psychological stress was evident in the stories told by the respondents of this study. Therefore, I felt that these individuals were describing both conscious and preconscious efforts to negotiate the learning environment.

Successful adaptation requires that individuals adjust to "environmental conditions in anticipation of, or in response to undesirable circumstances that arise in the course of action or to avoid undesirable outcomes" (Kielhofner, 1995, p. 123). Various forms of adaptation were interwoven throughout the narratives presented by all nine participants in this study. The data fell into two major categories: 1.) Classroom challenges and adaptations, and 2.) campus challenges and adaptations.

Classroom Challenges and Adaptations

Classroom challenges and adaptations converged in four subcategories: 1.) time management, 2.) reading, 3.) technology, 4.) and assertive communication. These four forms of adaptation were identified by the participants as methods to successfully navigate the environment of their academic institution.

1.) Time Management

Granting disabled students additional time to complete examinations and assignments is a mandated accommodation. However, the respondents in this study describe their ability to manage time as a precious tool essential for their success in college. For example, students who are not disabled take examinations during scheduled class time. They do not have to compromise additional time to meet the challenge of a disability. Most respondents in this study spent additional time outside of class securing human readers, scheduling a location and time to take examinations, and arranging time to use special computer equipment.

While scrutinizing the transcripts, the issue of time management appeared more prominent for those students with a greater degree of vision loss. Natalie and Sam from Hartland State University, Cathy from Reedville College, as well as Viola and Bonnie from Marrion Community College, all described the need for additional time to complete assignments, read texts, or test taking.

At the time of our conversation, Natalie was preparing for her examinations. She tells several stories explaining how a blind or visually impaired student is capable of competing on an intellectual level with peers, yet a blind student such as herself, must find additional time to arrange for the much needed accommodations. For example, she is often granted permission to take essay examinations in her dorm room where she has a personal computer with specific speech software. "I have a speech synthesizer, screen reader software, and I use JAWS for windows. I use sighted readers, sometimes a scanner . . . I take tests orally or dictate my essays." Natalie explained that the specific programs she currently utilizes are not yet available for a laptop or notebook computer. Therefore, it is impossible for her to take these types of examinations at the same time, location, or in some instances, the same format, as peers. The ability to arrange for special accommodations requires good time management skills.

Most faculty, according to Natalie, "do not have a problem with the way I take my tests." However, she identified several instructors who were reluctant to deviate from their normal testing procedures. In these instances she was forced to contact the Disabilities Center who reminded these instructors that by law they must grant reasonable accommodations. "It's not fair . . . how am I going to get the right education if I can't be accommodated for!"

As Natalie related this example, her voice became louder and her tone emphasized her anger. It was apparent that given a choice, she would take her examinations at the same time, in the same place, and in the same format as her peers. She made it clear that accommodations and adaptations are a necessity and not preferential treatment.

The main point of Natalie's story was that *she* must make additional time to contact professors, arrange for alternative testing time, arrange for a reader or proctor, and on those rare yet significant occasions, contact the Disabilities Center. These time consuming adaptations are additional burdens for visually impaired students. The anger and frustration she expressed drives the need to seek out and justify these adaptations that Natalie stated should automatically be in place. "The ADA has been in place for over 10 years. I just get frustrated when I have to tell people, especially faculty, what they should already know."

At Marrion Community College, Bonnie and Viola have the opportunity to take their examinations at the Learning Center. It is their responsibility however, to schedule the time and arrange for a proctor. Prior to my conversations with Bonnie and Viola, I believed the accommodation of additional testing time to be advantageous to disabled students. To the contrary, I have learned that the additional time required is not necessarily an advantage, but a hindrance. I discovered after my conversations with Bonnie and Viola that the additional time required, often two or three hours, frequently caused fatigue resulting in distraction or the inability to concentrate. According to Viola, using the CCTV for long periods of time causes eye strain and physical discomfort.

Another time commitment for Marrion Community College students is that they are required to make arrangements to meet with their instructors prior to the first day of class and present them with a disclosure letter identifying needed accommodations. Students must first schedule time to meet with the Vision Specialist who types a letter addressed to each instructor explaining the students' disability needs.

Second, the students must schedule a private meeting with each instructor to present the letter and discuss any concerns the student or instructor may have. According to Bonnie, each meeting takes approximately 30 minutes. "The problem is finding a time when your schedule and theirs [the instructor] mesh."

Bonnie indicated that although this process often places demands on her time, the opportunity to meet the professors in advance gave him or her the opportunity to learn more about the accommodations and adaptations she needs for reading.

2.) Reading

The ability to read text places sighted students at an advantage over students who are blind. A blind student is not aware of visual hints or cues, such as pictures and diagrams provided by the printed material (Hoz & Asnat, 2001). Based on several studies, blind students are unable to "(1) perceive the entirety of the text, (2) locate items of interest readily, (3) scan selected parts immediately, or (4) comment or elaborate on the written or recorded text in the desired places" (Hoz & Asnat, 2001, p. 304).

According to Sam he spends a great many hours involved in his graduate studies. His main areas of interest include statistics and organizational policy. He values the opportunity to study in the United States and although services to disabled students are much greater here than in Asia, graduate study for a blind student, according to Sam remains a greater challenge as compared to his sighted peers. "Let's face it, if you are blind you have to put [in] more effort . . . work harder . . . be more serious. That's reality." Sam argues that even listening to the computer read text, as well as reading in braille, does not compare to the reading speed and comprehension of his sighted peers. From Sam's perspective it takes most blind students twice as long to read an assignment. "I have to spend like one hour to read let's say 10 pages. If you listen to the computer read in braille, it doesn't catch sighted peoples reading speed. Sometimes I must listen more than once." Therefore, Sam must also adapt to time restraints in order to remain competitive with his sighted peers.

Arranging for readers and editors is a frustrating task for this group of respondents. Readers, as well as editors are unreliable. Several of the respondents indicated that they prefer to individually hire and pay readers rather than rely on the

college, university, or Commission for the Blind. Cathy explains: "Even the best laid plans often failed. You need a second (sic) back-up plan."

Repeatedly, subjects complained about not obtaining enough reading hours due to the cost; as well as readers mispronouncing words while reading test questions, not showing up for appointments, and incomplete audio tapes from text readings. Nevertheless, these participants managed to adapt to a problematic situation and remain in college.

According to Alice at one time the policy for reading tests to students was the responsibility of the professor. The first time her Spanish instructor read her the test, it made her anxious. Alice was able to convince the Director of Student Services and her professor that it would be best if her personal reader read her tests for her.

> I frequently use readers for tests but I want to select my own readers. It is weird having professors read your tests because you're expected to know everything. You feel like they are sitting there wondering if you remember what we talked about Wednesday. Worse still, when they don't think you studied. It is just uncomfortable having a professor read.

There was frustration in Alice's voice as she related this incident. She decided not to accept the College's current policy and sought out an alternative (adaption) solution that better fit her needs. Again, I would propose that for these visually impaired respondents that emotion also drives the adaptive process.

Alice continues by stating that it is not only difficult locating readers, but if you choose your own reader, you must pay them yourself and it is expensive. She explains:

> Some students will tell you that they get lots of reading hours (provided by the college) and some students will tell you they get none. The Commission's policy (Commission for the Blind) states that the College has responsibility for readers. But for me, I think that is a huge hindering upon students . . . [when you have no choice] you lose control of your life.

Each of these participants indicated a capacity for adaptation based on their perception of the need for change. For Alice, unsuccessful interactions with her assigned reader prompted her to consciously evaluate alternatives, resulting in her ability to hire her own reader. She has applied the adaptive process as defined by Schkade and Schultz (2003) in order to achieve mastery over her own situation. According to Alice, being blind since birth has provided many opportunities and experiences from which to seek alternatives (adaptations) to successfully overcome challenges. Challenges that are enhanced by a disability (Thoren Jonsson et al., 1999). Alice strengthens this assertion by her statement, " I handle most of my own affairs and things don't always go your way, but you have to figure out what is best for you and go for it."

3.) Technology

Technological adaptations are commonly divided into high-technology devices and low-technology devices. Examples of high-technology devices used by the participants in this study are magnifiers, including optical devices such as telescopic spectacles, closed-circuit television systems (CCTVs), speech output technology, optical character recognition devices, and electronic braille devices. The individuals in this study who retain usable vision utilized low-technology devices such as cassette recorders, large-print books, large computer monitors, and hand held magnifiers.

All nine participants use a variety of adaptive devices to modify the visual material into a format best suited for their degree of limitation. Each has access to a personal computer with either speech software or enlargement capabilities. Amy, who retains approximately 30% of her vision, describes the type of technology she finds most useful: "I get my books enlarged and I get some of the talking books. My computer monitor is so big; I want to say 31 inches. My glasses, they have telescope lenses. I use them for everything."

Natalie is totally blind and has used a variety of technology since high school. Without technology, it would be difficult for her to research information for class assignments as well as taking notes in class.

> I have a computer with a speech synthesizer and screen reader software known as JAWS for Windows. JAWS is for the internet. It allows me to search for information for my papers. It reads the information to me. I also use a Braille and Speak.

A "Braille and Speak" and a "Braille Lite" are compact devices resembling a small keyboard. When I first met Cathy, who is also totally blind, she was taking notes on a Braille Lite. She explained how to use it:

> You turn it on and these six keys are the six keys of a braille writer. And you braille in your notes and it pops up on the braille display (on the bottom). Now they have ones like this that you can hook up to your computer and it will print out in braille or on your computer screen. The reason I got this, because I had a Braille and Speak and it was too hard to listen to what the Braille and Speak was saying and listen to the professor at the same time. So I have to have this for an adaptation.

As we move forward into this century, technological advances are expected to continue to level the educational playing field for disabled students. However, the respondents in this study indicated that technology, although very important, was only part of the total picture. Not every visually impaired individual needs the same technology. As one respondent assertively stated: "You not only need to know what works for you but you have to stand up for yourself and demand that you get it."

4.) Assertiveness

Successful adaptation requires that individuals adjust to a variety of conditions "in anticipation of, or in response to undesirable circumstances that arise in the course of

action or to avoid undesirable outcomes" (Kielhofner, 1995, p. 123). In this study the most pronounced form of adaptation described by the respondents was the need for personal control achieved through assertive communication.

Although repeatedly frustrated with the need to remind faculty of her blindness, Natalie feels it is necessary for students to continue to take responsibility to make instructors aware of what a disabled student needs and is entitled to for academic success.

> They just don't understand it. So I have to keep coming to them and say 'this is really hard for me, or this isn't meaningful for me because you are doing this stuff on computers [power point] and it is all very visual and I'm not. Let's work together and help get the best out of it.' You have to be assertive and know what you need. I have had teachers that really listen to me. [And others] they're really not paying attention. I mean you should be your first advocate.

Sam explains that in graduate school, assertive communication is not only important, but also expected.

> They [the professors] accommodate my needs once I speak up. You have to consider my background as a minority, because in my country I didn't even think about requesting for certain materials, things that I thought would be necessary. I need to ask more and more and I think I am more assertive than I use to be.

Bonnie decided to return to college at age 40 because she wanted to be more independent. She told me that her husband is "quite a few years older" and retired. "I need to learn to do more things on my own." As I reviewed the transcript of my conversation with Bonnie, she made several references to the importance of speaking up for yourself. She described assertiveness in the following statements:

> Too many of us people don't speak up and I think that's why we get lost in the system. But over the years I've learned that if you don't speak honey, you don't get what you want. And I do. I tend to make myself adaptable to different situations because I've had to do it all my life. I think a visually impaired or blind

student should . . . be very explicit about what they need. Be very definite and determined and do not give up.

Visually impaired individuals such as Viola and Karen meet the legal definition of blindness while retaining partial vision. Viola must continually remind her professors and college support staff that she is legally blind. She tells of several professors that do not acknowledge her vision loss because it is not obvious. "You know if you don't have a dog . . . they don't take you seriously. Sometimes I have to *insist* on accommodations or give a lot of detail about why I need them."

Karen indicated that she often needs to be assertive when asking for assistance. "Sometimes . . . you just keep asking because people don't offer assistance . . . it is like pulling teeth sometimes." In obvious frustration, Karen told me that she can not read the room numbers outside the classroom nor can she read the directions for the copy machine. When she requests assistance, staff often tell her where the directions are located on the machine. She then must become assertive and indicate that she is visually impaired and can not read the instructions and needs further assistance.

Campus Challenges and Adaptations

Campus challenges are environmental obstructions or obstacles that prevent a visually impaired student from negotiating the campus in his or her routine manner. These obstructions may be caused by construction, snow, or water covering the walkways. Other challenges occur when signs or numbers are not printed large enough or in a location where a person with limited vision would take notice to them.

The respondents in this study describe campus challenges beyond those faced by non-disabled students. Their stories fell into two subcategories: 1.) mobility, and 2.) campus facilities.

1.) Mobility

For the visually impaired student the ability to travel from one area of the campus to another requires skills in orientation and mobility (M&O). These skills involve the use of public transportation as well as the ability to navigate the often winding pathways and open spaces of most college campuses (Vancil, 1997). Golledge (1993) asserts that the ability to independently travel and interact with the environment is one of the most significant skills acquired by a visually impaired or blind individual.

Many Hartland State University students utilize the public bus system to travel about the large campus. Sam, does not live on campus and relies on the bus system for all his transportation. However, these services are not always dependable and he finds adapting to alternate modes of transportation are nearly impossible. As he illustrated several examples, I sensed a deep frustration and dependency in his tone. "As you may know, Hartland has one of the better transportation systems, although they [the buses] don't run at night time, weekends, or breaks. It causes some difficulties when you are stuck around campus."

An additional point of frustration pointed out by Sam was that he must also rely on the bus driver to assist him in locating the correct stop. He states: "Bus drivers are pretty kind and they are compliant except (in the past) some drivers forgot to get me off where I have to get off. I was late for a couple of classes." If Sam does not exit the bus at the correct location, even if it is only one block away, he becomes disoriented.

Like several other participants in this study, Sam finds the winter an extremely difficult time for mobility. He depends on guided sight (assistance from a sighted person) when disoriented.

> In the snow season all sidewalks are hidden. I mean you can't walk around the place. If my usual route is covered, I feel disoriented. But usually I will ask and someone will help me. But when there is no snow, I can get to class by myself.

Independent mobility skills are essential for visually impaired students. When Natalie first came to Hartland State her greatest concern was mobility. Even though she had a guide dog, she often feels overwhelmed by the size of the campus.

> They referred me to the State Commission for the Blind and asked me if I wanted more assistance. They provided me with a mobility instructor who really knew what she was talking about but I still felt really lost. There's still a lot I don't know.

As Natalie described her fears and frustrations, she also revealed her strategies (adaptations) for learning new routes.

> Basically, I take it in chunks and say "where do I have to be this semester?" I'm only going to concentrate on those places or the places that are prime, like maybe the Student Union or somewhere where I can go for lunch or the library.

However, as Natalie continued with her story, she confessed that there have been times when her fear has kept her from attending social events or meeting friends after class. In these instances, adapting to new situations has been difficult. She gives the following examples:

> My friends will ask me to meet them over by the Science Hall and I don't know where that is. Then I will say "What? I'm not going without you!" Because it is too big of a campus to tackle alone. There have been times when the ways I'm use to taking are blocked off for some reason. Like, I like to walk along the river because it is the straightest way. And the river overflowed. It was a huge flood and it overflowed over the sidewalk and it barricaded the way and I *had* to find another way.

As Natalie described in detail her difficulty relocating a safe route to class, her tone of voice revealed frustration and anger over the lack of concern for the disabled; assuming that all students have the same mobility needs.

Viola, unlike Natalie, has retained enough vision to maintain her ability to drive. When roads or parking lots are under construction, she must adapt to changes in her routine. She indicated that she plans her route in advance, often listening to traffic reports before leaving her home. By following the same driving route and parking in the same location, Viola is able to avoid disorienting situations. She explains: "Right now I can still see to drive, but where there is road construction I don't go in that area because I get confused because my vision would blur. I wouldn't travel there because that frustrates me."

At the time our conversation took place, the campus of Marrion Community College was undergoing major construction to several buildings as well as the sidewalks and parking areas. Viola describes the first time she encountered this campus construction:

> They just started to change the sidewalks. I can't see the changes until I get right on top of them. The first time I had to go into the building, I had to go around and I missed a step. I know the step is there but I can't measure the depth of the step. I'm not noticing if it's deep. I stepped down too hard and I looked like I was drunk or something. Because I don't look blind, no one warned me about the step. Now I know, but before, I couldn't see the change and I almost fell.

Campus Facilities

Several respondents indicated that the physical environment of campus facilities often require spontaneous adaptations. John stated that the location of the Office for Disabilities at his university "is in one of the worse buildings on campus. You wouldn't know where to find it." He indicated that because there are so few disabled students at Everett University, the office is very small and not conveniently located. "There are signs, but if you're blind, you can't read them." It was obvious that John and other

visually impaired students can not independently adapt to these situations. They must rely on sighted individuals for assistance.

Many of the buildings on the Everett campus are clustered around a central common area. There are multiple walkways crossing the common area and connecting the buildings. Summer construction according to John has several of these walkways blocked off. "If you are not visually impaired, you can cut across the lawn. One day after several weeks of walking around the long way, someone showed me the short cut."

Adaptations occurring daily for sighted individuals frequently become complex tasks for the visually impaired. Tasks such as finding the empty seat in the class, locating the room number (often appearing in different locations depending on the building), or in Amy's case, seeing the sign directing her to the Financial Aid Office. Once inside the large Administration Building, Amy could not locate the correct office. "They had signs, but I couldn't see them. Amy became embarrassed when she learned that she was asking for directions to the office she was standing in.

Independence is the goal for all the respondents in this study. They have in their narratives described a variety of adaptations developed to meet the challenges of higher education. However, at times it is necessary to ask for assistance from others. Although this is not a preferred adaptation, when unanticipated changes occur in the environment, no other alternative may be available.

In summary, the respondents for this study described situations and experiences that resulted in two basic challenges requiring adaptation. The first, classroom challenges, are divided into the four subcategories of time management, reading, technology, and assertive communication. The second, campus challenges, include issues surrounding mobility and campus facilities.

Each respondent indicated individual challenges and methods for adaptation based on experience and what Schkade and Schultz (2003) state as the desire to master one's environment. However, specific citations from the transcripts indicated that emotions

such as frustration, anger, and feelings of isolation also influenced the amount and type of adaption selected.

Chapter 6

Conclusion

The number of students with reported disabilities, five percent being visually impaired, has tripled since 1970 as a result of the Rehabilitation Act of 1973 and ongoing implementation of the ADA. The ADA specifically addresses academic adjustments for disabled students such as extension of time requirements for degree completion, the use of guide dogs, tape recorders, and interpreters as well as ensuring that no disabled student is denied or excluded from any academic program based on discrimination.

For this study, seven colleges and universities were provided with letters of introduction including a description of the study to be mailed to perspective respondents. This yielded six respondents from two universities and one community college. Three additional respondents were recruited through the Student President of the State Organization of the Blind. This college freshman volunteered for the study herself and invited this researcher to the state convention where two other students volunteered to participate.

Data was collected through individual 60-90 minute semi-structured interviews. However, there were several problems. The first being the ability to locate respondents. Not all students disclose their disability. Those who do, must be contacted by a college representative in order to maintain confidentiality. As is evident from the limited sample in this study, accessing this population proved to be difficult. Therefore, the data collection process took about 16 months.

Second, gaining trust and displaying empathy are essential for a successful interview. These remain problematic because a disabled individual is often asked to reveal personal experiences of a sensitive nature (Fontana & Frey, 1994). Additionally, trust and empathy are often displayed through attentive behaviors such as nodding and

eye contact (Bogdan & Biklen, 2003). These non-verbal gestures go unseen by the visually impaired and the interviewer must remember to verbally convey trust and empathy. With each additional interview I became more comfortable interjecting short phrases such as "I find that interesting" or "I think I understand".

Third, according to Morse (2002) interviewing triggers memories of emotional events and what one might consider everyday events for a nondisabled individual may elicit emotional responses not anticipated by the interviewer. The interviewer must remain aware of the frailties of any vulnerable population.

Three important research questions are answered in this study:

1.) How does the postsecondary educational experience of visually impaired students differ from that of students with normal vision?

2.) What challenges in postsecondary education are perceived by visually impaired students to be the most difficult to meet?

3.) How do visually impaired students in postsecondary education meet those challenges in order to achieve academic success?

How does the postsecondary educational experience of visually impaired students differ from that of students with normal vision? The experience differs in these areas: a.) greater amounts of time are required to manage and complete academic responsibilities, b.) reading, and c.) the ability to safely navigate the college campus.

The respondents in this study stated that they expect to take one to two terms longer than their sighted peers to complete their degrees. Printed materials must be converted to audio or braille and several students require editing for written assignments. In most cases, examinations were taken at alternate times and locations. The most time consuming task, as well as most prominent challenge, is reading.

Reading text is a challenge not generally experienced by college students with normal vision. A visually impaired student can not easily scan selected parts of text, locate specific items of interest, or perceive the entirety of written material (Hoz & Asnat,

2001). Blind and visually impaired students do not have the advantage of visual cues such as pictures and diagrams that appear in printed material to reinforce the text. Additionally, students with normal vision are not faced with the task of securing qualified readers or producing financial resources to pay for reading hours. The ability to see videos, read overheads, or classroom and building signs present ongoing obstacles for the visually impaired.

Traveling safely about campus is a concern for all college students. However, information (visual cues) identifying cross streets, building locations, and obstructions are designed for the sighted. The visually impaired students in this study were successful at navigation without visual cues except when unexpected obstacles such as construction, snow, or flood disrupted their route. When these unexpected obstacles occur, visually impaired students are often forced to ask strangers for assistance or wander about attempting to find an orientation reference.

These differences produce challenges that are addressed in the second research question: What challenges in postsecondary education are perceived by visually impaired student to be the most difficult to meet? The particular challenges they feel most strongly about are: a.) isolation from peers and faculty, and b.) finding it necessary to *repeatedly* justify the need for accommodation. These challenges often cause the visually impaired student to reveal dependency needs to others resulting in feelings of anger, frustration and isolation.

Visually impaired students comprise less than one percent of the total college student population. Several respondents in this study reported that there were no other blind or visually impaired students at their college and at times they felt isolated. According to Tinto (1993) isolation places individuals on the periphery which is comprised of communities that differ substantially from those at the center. The center being the nondisabled (specifically sighted) mainstream culture.

The respondents in this study state specific examples of isolation based on interactions with peers, faculty, and other institutional staff. For example, one respondent was introduced to her classmates (by the instructor) as the "blind student". Another when asking for assistance to use a copy machine was told to "Read the directions". Rather than explain her disability, she walked away.

Receiving accommodations or the use of auxiliary aids also marginalizes visually impaired students. Auxiliary aids draw attention to the differences in how visually impaired students and those with normal sight do their work. Although most visually impaired students are approved for accommodations, having to frequently justify the necessity or defend one's integrity often results in anger and frustration.

Visually impaired students attempt to conform to the mainstream when on campus. For example French (1993) states that blind individuals will endure discomfort and self-denial rather than draw attention to themselves. They will avoid situations rather than ask for assistance or verbalize what they believe the nondisabled person would prefer to hear such as using charm, humor, intimidation, or anger to relieve a sighted person of his or her discomfort.

The final research question is: How do visually impaired students in postsecondary education overcome challenges in order to achieve academic success? They meet these challenges by adapting in these ways: a.) the use of good time management skills, b.) assistive technology, and c.) assertive communication skills.

All nine respondents emphasized that most academic tasks require more time to complete if you are visually impaired. Therefore, you must know how to manage your research and study time effectively.

Examples of time management skills are organizing a class schedule when transportation is available, allow adequate time between classes, try to find classes that are located near each other, and make and confirm appointments with faculty and tutors in advance. Most visually impaired students require readers and editors. Budgeting

additional time for these accommodations is a necessity because reliable readers and editors are difficult to retain. Advance planning and organization are essential for maintaining good management of time.

Although all college students utilize technology today, the use of high-technology devices such as speech synthesizers, scanners, and screen reader software known as JAWS (for internet use) are key for visually impaired students. These technological devices allow for independent completion of assignments. Material can be received in a format that is appropriate to the degree of limitation (large print or oral). Without assistive technology equal access to information would be at the very least difficult and independence would be lessened.

Assertive communication is identified as the most significant adaptive behavior needed to meet the identified challenges. In high school, the visually impaired are *entitled* to accommodations. However in college, disabled students, including the visually impaired, must request accommodations as well as justify the need. Once in college, many visually impaired students must learn to advocate for themselves. The inability to communicate assertively can lead to feelings of inadequacy, frustration, and anger.

Although the research questions that provided a framework for this dissertation resulted in important and meaningful knowledge, the depth of my understanding was affected also by the process of interviewing the visually impaired. I learned that the interview must take place at a location that is familiar to the respondent. It was also helpful if I arrived first because I needed to approach them since they could not see me. Several respondents utilized canes or guide dogs making identification easy. However, others were more difficult to recognize.

I discovered that it is critical to give a verbal explanation of the interview process including the location of the tape recorder, if notes are being taken, as well as details of the consent form. I read the consent form to three respondents. Others utilized the large

print or braille version. Finally, because the respondents cannot recognize facial expressions and gestures, or details, it is necessary to be more informative with verbal interactions. For example, "I'll just place the recorder over here" becomes " I'm going to place the recorder directly in front of you here (tapping the table) on the table."

Because I have worked with the disabled for many years, I believed that I understood disability. However, while attending a conference sponsored by the American Federation of the Blind, I realized that the *experience* of disability is much more complex.

This conference was different from any other I had previously attended. I was not asked to sign in or wear a name tag (things that are useless to the blind). There were no handouts or power point presentations and no one was taking notes. Many individuals sat facing the back wall. This seemed very odd to me until I realized that the sound was being projected from the back of the room. I found myself initially uncomfortable watching people roam around looking for an empty seat. I learned that rather than try to give direction toward an empty chair, one should tap on the seat so a person can follow the sound.

The worse thing a sighted person can do is assume a blind or visually impaired individual "needs help". I learned that most visually impaired people welcome assistance, but on their own terms. It is best to offer assistance and wait to be directed. If help is not needed, the offer is still appreciated. I was able to deepen by understanding of students with visual impairments by using the theoretical concepts of mattering, marginalization, and adaptation.

Schlossberg, Lynch, and Chickering (1989) state the success of a student is dependent upon the extent to which they feel they matter. *Mattering* refers to the beliefs individuals have, whether right or wrong, that they matter to others, that they are the recipient of someone else's attention, and that others care and appreciate them. They must feel appreciated for who they are and what they do (Upcraft & Moore, 1990). On

the other hand, individuals who feel ignored and not accepted by the mainstream will feel marginalized.

Marginalization is the term used to describe those individuals who are placed on the periphery of the social and intellectual life of the college or university. The center or mainstream culture that is the center or prevailing climate of the institution is made up of one or more communities of individuals from the dominant culture (Tinto, 1993). "The periphery, in turn, comprises other communities . . . whose particular values, beliefs, and patterns of behavior may differ substantially from those of the center" (Tinto, 1993, p. 60). In this study, the dominant culture is made up of individuals without disabilities, particularly those who have normal vision, placing students with visual impairment on the periphery.

Each respondent in this study was asked if he or she felt that they mattered to their college or university. Several of the respondents did not understand the question and it became necessary to rephrase it such as, "Do you feel that the people here at your college care about you, do you feel that you matter to them?" All nine respondents felt that they mattered to their college's Learning Support Center and Disability Program staff. They stated that these individuals were helpful, caring, and supportive. Their definition of mattering was not centered around the traditional concepts of race, gender, age, or ethnicity, but rather around their disability and the degree to which their requested accommodations or additional support was received. In other words, they appeared to base their concept of mattering only to those individuals or programs committed to assisting them with accommodations.

However, they felt marginalized. According to the literature, the concepts of mattering and marginalization have a direct link. Students who feel marginalized also feel they do not matter. This was not the case for these nine respondents with visual impairment. One explanation might be that an individual with a disability sees that disability as the most discernible characteristic and others become secondary.

The degree of marginalization appeared to relate to the degree of vision loss. In most cases, the greater the visual loss, the greater difference in behavior or method required to complete academic work, resulting in greater feelings of marginalization. For example, all but three students found it necessary to take their examinations at a separate time and location from peers. This difference physically separated them from the mainstream sighted culture of the college. Prior to conducting this study I was unaware of how the simple act of assisting a student to an empty seat in the classroom could marginalize a student. When a student with a visual impairment must be assisted to locate an empty seat in a crowded classroom, attention is drawn to their dependence on others. This and other forms of dependency were cited as sources of marginalization for the respondents of this study.

Considering that the respondents of this study felt that they mattered to their college or university and at the same time felt marginalized, it would be important to further explore the relationship of mattering to marginalization among groups that have not been included in previous studies, specifically the disabled.

Additionally, the results of this study have hinted that there appears to be the need to study difference within difference. As this study evolved, it became evident that several respondents belonged to multiple groups (racial, cultural, age) that may have contributed to feelings of mattering and marginalization.

In addition to mattering and marginalization, the theoretical concept of adaptation heightened my understanding of the experiences students with visual impairment face in the classroom and on college campuses.

Adaptation is a *process* consisting of a series of events and actions that evolve as a person is faced with a challenge to their identity, competence, or by the environment (or any combination of the three). The ability to adapt enables students with visual impairments to meet the required academic expectations, produced either by others or the environment. In this study, many of the respondents utilized specialized visual aids,

tools, or technology to aid in the adaptive process. Adaptation also is defined as the capacity to recognize a needed change in behavior, create an alternative (adaptive) response, execute the response, evaluate the outcome, and apply the experience to future situations (Schkade & Schultz, 2003). In other words, adaptation is used to create a response to a situation that would otherwise be perceived (by the visually impaired) as unsuccessful.

All and all, this research is important because disabled students are becoming increasingly visible on college campuses. Faculty and college administrators must recognize that the percentage of disabled students will continue to rise as well as the diversity of their needs. With this in mind, it will be necessary to alter the way we perform our work. Including the disabled in our learning communities will require increased flexibility and creativity in designing the learning environment and assessing the effectiveness of our teaching.

Appendix A

Interview Questions

In the semi-structured interviews, the students were asked to answer the following questions:

1. Please tell me about yourself (age, major in college, academic interests, social interests).
2. Can you please describe for me the limits of your vision?
3. What made you choose (insert the name of the college)? What do you like about this college/university?
4. What things do you find the most challenging attending this college/university?
5. Tell me about your experiences with faculty. Does any particular event stand out?
6. Can you tell me about any adaptations you require to be successful in in the classroom?
7. Do you feel as a student, that you matter to this college/university? In other words, that you belong to the college/university community?
8. What suggestions would you have for a visually impaired student who was considering attending this university/college?

Appendix B

Informed Consent

Researcher's name: Jo Anne Crain
File name:
Date:

INFORMED CONSENT:

Thank you for speaking with me. In this interview I would like to ask you some questions about your experiences as a student at this college/university who has a visual impairment. I feel that it is important to understand how you feel about this college, the faculty and your education. This study is part of the requirements of my doctoral program.

I would like to emphasize that this is a confidential interview. Neither your name nor the name of this college/university will be revealed to any individual or group outside of my research advisors. In writing my reports, I may use quoted materials from interviews. but neither the identity of the person being quoted nor the college/university will be identified. **Your privacy will be protected to the maximum allowable by law.** Protecting your confidentiality is an ethical obligation I take very seriously.

The interview will involve about 1 hour of your time. **You will receive a $10.00 stipend for participating in this interview.** I would like to tape record this interview because I am a much better listener when I do not have to take notes at the same time.

If you have any questions or concerns after this interview, you may contact me, Jo Anne Crain at 517-545-7627 or by E-mail at crain_j @acadfl.baker.edu or the Chairperson of the University Committee on Research Involving Human Subjects (UCRIHS), David E. Wright at 517-355-2180.

Before we begin, do you have any questions or concerns?
My signature indicates that I am a willing participant in this interview. I understand that I may refuse to answer any question and may withdraw from this interview at any time without repercussions or forfeiting the $10.00 stipend.

_____ _____

Name Date

Appendix C

March 13, 2001

Jo Anne Crain
1561 West View Trail
Howell, MI 48843

Dear Colleague

I am writing you this letter to request your voluntary participation in my research study. I am a doctoral student in the Department of Educational Administration and am interested in the undergraduate experiences of Michigan State University (MSU) Students who are legally blind.

Your participation would involve about 1 hour of your time and your willingness to expand on several questions involving your thoughts, feelings, and experiences at MSU.

My research thus far has indicated that although university faculty, staff, and administrators attempt to comply with the Americans with Disabilities Act (ADA), the voice of the student is not documented.

I would like to conduct interviews in beginning in March and they would take place at the Resource Center for Persons with Disabilities (RCPD), 120 Bessey Hall. Specific times will be arranged on an individual basis.

To protect your rights of confidentiality, this letter is being sent to you through the Resource Center for Persons with Disabilities. Neither your name nor the name of this college/university will be revealed to any individual or group outside of my research advisors. In writing my reports, I may use quoted materials from interviews. but neither the identity of the person being quoted nor the college/university will be identified. **Your**

privacy will be protected to the maximum allowable by law. Protecting your confidentiality is an ethical obligation I take very seriously.

If you have any questions or concerns regarding your rights as a research participant, please contact the Chairperson of UCRIHS, **David E. Wright at 517-355-2180.**

If you are interested in participating in this much needed research, please contact me by phone or E-mail. **You will recieve a $10.00 stipend for participating in this interview.**

Sincerely,

Jo Anne Crain

517-545-7627 (home) 810-766-4298 (work)
crain_j@acadfl.baker.edu

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