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PERCEPTIONS OF STUDENTS WITH DISABILITIES: POST-SECONDARY EDUCATION IN THE UNITED STATES

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PREFACE

Students with disabilities are under-represented in the nations' postsecondary institutions. Of the 16.5 million college students, fewer than 500,000 have a disability that substantially impacts two or more of their daily activities. The researcher's assumption was that a relationship existed between student support services and the students' perceptions of reaching their educational goals.

The intent of the study was to ask students to identify their support needs, and to measure their level of dissatisfaction/satisfaction with the delivery of those services. These data offer insight into the under-representation of the students with disabilities, and expands the knowledge base of appropriate practitioners. Proper application of the data will improve the support service delivery system and ultimately enhance the educational outcome for students with disabilities enrolled in postsecondary education.

The study was designed to give a *voice* to this special-needs population. Some members of the subgroup submitted their reactions in a quantitative survey; this comprised Phase I of the study. It contained a self-designed electronic questionnaire containing 67 items, including one calling for an open-ended narrative reply. Twenty-seven students (N27) completed the survey instrument anonymously. Other students, 15 in number, participated in the qualitative portion of the study. That segment, Phase II, utilized focus group methodology for collecting data, which the participating students gave orally and

anonymously. A professional transcriptionist recorded the students' responses, and the researcher coded them.

A correlation was discovered between student support services and the students' perceptions of attaining their educational goals. Demographic data were gathered as well. This researcher chose to focus only on those students who are *less satisfied,* and thus are at greater risk of dropping out.

If postsecondary education is committed to including students with disabilities among its population, this study should be replicated nationwide. The purpose of such study should be to identify and verify the cadre of support services needed to sustain students with disabilities in their ventures to complete their postsecondary endeavors with success. Education has been identified as the only avenue proven to thrust those with a disability out of a lifetime of poverty.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

Overview of Research Problem

The human and economic costs of disability are extraordinarily expensive. Disability payments under the federal Social Security Insurance (SSI) Federal program alone cost the United States 30 percent of the Gross Domestic Product in 2000. Fully 25 percent of that amount ($2.5 billion annually) was disbursed to individuals between 18 and 64 years of age--usually considered to be employed adults (SSI Annual Report, 2002 & http://www.ssa.gov/OACT/SSIR/SS102/GDP.html). The SSI payment program represents only a single benefit program. Excluded from this figure are the funds expended on those disability programs within each state, and all other federal programs (including the Veterans' Benefit programs).

Most members of this population choose to be gainfully employed, given the opportunity and an appropriate job assignment (Harris Survey, 1998). Some authorities estimate that 84 percent of individuals with disability between the ages of 18 and 64 years remained unemployed during 1999, at a total cost of $79 billion in public benefits (GAO/HEHS-99-101).

Education and training of this disabled population is an economically sound investment. However, students with disabilities are not only "at risk" as candidates for entering higher education and graduating; they are also in peril of ever even acquiring a *high school* diploma! Why? Because of their high dropout rate--which stands at 27.5 percent (Wehman, 1996).

Many of the elements associated with dropping out of high school also contribute to decisions by students with disabilities to leave college prematurely. These elements include an inappropriate and seemingly irrelevant curriculum content, lack of flexibility within the learning environment, poor social skills, lack of vocational experience, and feelings of being unimportant and unappreciated (Egyed, 1998).

Putman, J.W., Spiege., A.N., & Bruininks, R.H. (1995) emphasizes the importance of structuring the school as a "community" fostering a nurturing, caring environment. He also argues (1995) that features of effective dropout prevention programs already have, and must retain, the following features: small schools with small class size; election by students to participate; flexibility; perception of school as a community; and attitudes fostering comprehensive community involvement outside the school edifice. Researcher Egyed (1998) cites the need for students to feel *connected* with the school amid impressions that their teachers care about them as individuals.

Americans with disabilities comprise 25 percent of the total population, or 54 million people. Education and/or training beyond the secondary level comprise the single most important factor assuring that individuals with disability will escape poverty, will be financially able to meet their basic needs (food, clothing, shelter, and health care), and will have successful careers (Harris Survey, 1997).

However, students with disabilities are more likely to drop out of high school, less likely to acquire any postsecondary education or training, and more likely to live in families having poverty-level incomes of less than $20,000 per year (GAO/HEHS-99-101).

Society pays a considerable cost for those individuals exiting high school without a diploma. Orr (1987) characterizes the price tag as follows:

> Dropping out of school is costly not only to the individual, but to society. For the dropouts of the high school class of 1981, potential lifetime earnings lost $228 billion; the lost tax revenues from the earnings are approximately $68.4 billion. Because they suffer from reduced employment opportunities, dropouts require more welfare, health care, and unemployment subsidies.

Afforded little flexibility, students with disabilities encounter a multiplicity of impediments to their graduation. High school graduation for this special-needs population may require them to work harder, study longer hours, and possess increased academic ability--in addition to meeting the daily demands of their disability. The added work and frustration associated with the day-to-day demands of their disability deplete their already compromised stamina (Dropout Rates in the United States, 1995/Dropping Out and Disabilities).

The high school dropout rate for students with disabilities averages 27.5 percent (Wehman, 1996). According to one source (NCES, 2000), 65 percent exit high school without either a diploma or a certificate. Dropout rates vary among disability categories: for example, students having a hearing impairment experienced a rate of 25 percent, students with a learning disability had a dropout rate of 38 percent, and those with behavior disorders had a 50 percent dropout rate (Walker & Bunsen, 1995).

The total college enrollment in the United States in 1998 stood at 16.5 million students (NCES, 1998). Students with disabilities numbered fewer than 500,000--three percent of the total (Horn & Berktold, 1999). These figures point out an obvious fact: students with disabilities continue to be proportionately under-represented in higher education. The U.S. Department of Education's Goals 2000, Priority Two, identified the need to encourage more students with disabilities both to enter higher education and to persist until graduation. In 2000 the dropout rate of 65 percent in 1998-99 among those with disability between the ages of 16 and 24 years of age compared poorly with their non-disabled counterparts, at 10.9. The Priority Two report concluded with the observation that students with disabilities exited high school with either a diploma or a certificate at the rate of only 35 percent, compared with 87.5 percent of their non-disabled counterparts. (U.S. Department of Education, NCES, 1999 & 2000).

The standard of living improves, and employment rates increase simultaneously with the rise in the educational level (Harris Survey, 1998; The National Organization on Disability, 1999; U.S. Census, 1997; New York *Times*, 1994). Acquisition of a college degree propels individuals with disabilities into the mainstream of life, and subsequently reduces their likelihood of experiencing unemployment. Unemployed individuals with disabilities represent an untapped talent pool. This group is on record as having expressed a desire to be gainfully employed, yet voicing a further desire for additional training and education that is inaccessible (Harris Survey, 1997).

According to the U.S. Census (1997) and Blotzer and Ruth (1995), persons with disabilities continue to exist invisibly, restricted to the margins of life, and bound by incomes inadequate to meet their daily living needs. Additionally, the extraordinary expenses associated with the maintenance of a chronic health condition impose a further barrier to achieving the desired quality of life. The sources just cited further observed that the loss of control over one's everyday life minimizes self-esteem, while creating feelings of inadequacy and hopelessness. Individuals having disabilities are dependent upon others who identify their needs and dictate how those needs are met--without ever having discussed the issues with the very personnel upon whom they depend (Blotzer & Ruth, 1995).

The Americans with Disabilities Act of 1990 (ADA) was intended to open wide the doors of universities to students with disabilities. However, many of the disabled view the law as being ineffective, and as making insufficient provisions to encourage compliance (Kortez, 2000).

Provision of both academic and personal care support services holds the key to achieve inclusion of this under-represented population, but it necessitates a high degree of creativity and motivation (Blotzer & Ruth, 1995). This holistic service concept is new in the field of education. Successful recruitment of students with disabilities and their improved persistence toward achievement of their educational goals depend upon the provision of effective support services (Gugerty & Knutsen, 2000).

Statement of the Problem

Why are students with disabilities in the United States under-represented in postsecondary education?

Purpose of the Study

The study being presented here was designed to contribute insight into students' under-representation in the setting of higher education. The author of the study engaged higher education students with disabilities to identify barriers impeding the attainment of their educational goals. The research utilized a two-pronged approach: (1) an online electronic survey instrument, and (2) focus groups.

All of the study's elements were meant to craft a generalized description of the multiple variables comprising the driving forces behind the continuing under-representation of students with disabilities in higher education--whether those forces result from the students' decision not to pursue higher education, or from their failure to persist, once on campus. The data as ultimately drawn together suggest possible mitigations for the barriers and challenges students with disabilities encounter. Ideally, lifting the veil concealing those impediments will result in their abolition (Margolis, 2001).

Makeup of the focus groups resulted from suggestions by counselors and the respective Student Disability Services offices, with the final decision being made by the researcher. Criteria for selecting the participants were framed out of motivation for structuring diverse groups. Focus group members selected themselves to participate. The group dynamics and recorded interaction among participants yielded a rich and complex data source for analysis.

The themes, patterns, and categories within the qualitative inquiry augment the depth and breadth of appreciation for understanding the experiences and encounters of students with disabilities enrolled in post-secondary education. The focus group dynamics generated qualitative data for opening a window of insight into the understanding of all the participants (Goldman & McDonald, 1987; Gordon & Langmaid, 1988; Stewart & Shamdasani, 1990).

Background of the Problem

Since a review of the literature will confirm a gross under-representation of students with disabilities in higher education, society must admit the existence of a problem calling for research. The present study was crafted to give *voice* to students with disabilities enrolled in postsecondary education, and to identify less treacherous pathways to successful achievement of their educational goals.

Several questions arise: Why is this under-representation happening? Is the environment too arduous and hostile to allow the successful participation of students with disabilities in higher education? Can anything be done to create a more receptive environment that better meets the needs of students with disability? Can the students be encouraged to pursue and excel in higher education upon graduation from high school?

Intent of the Rehabilitation Act of 1973 and the Americans with Disabilities Act was to reduce barriers to higher education, and to improve access to and participation in every phase of life for those having disabilities. The research study here reported has attempted to answer some of these questions, while exposing some of the foregoing issues which to date have gone unaddressed.

Research by Blotzer and Ruth (1995, p. xi) produced a most interesting and provocative finding:

> True access to help means [the] availability of all services, not just those pre-selected by individuals with little understanding of persons with disabilities as complex and total individuals. Working with those who have disabilities may be more difficult because [doing so] could require contact with families, employers, and other professionals. However, there will be many opportunities for creative interventions to assist the persons with disabilities toward leading a useful and satisfying life.

Deficiencies in the Literature.

Little research is available concerning students with disabilities, specifically those in higher education. No research has been discovered reporting students who are asked to identify their needs and the *preferred* method of meeting them (Orkwis, 1999). What are the aspirations and educational goals of these students? How often do they choose higher education upon graduation from high school? Why do students with disabilities choose whether or not to attend college? Why do they drop out of general education as well as higher education? What will result in a positive impact on those choices? Do such students receive their learning materials in the preferred alternative format (Orkwis, 1999)?

Justification for the Study

Research is reflecting institutional origins of the impediments marginalized groups encounter in traversing the higher education arena. Scholars conducting the research included Blotzer and Ruth (1995); LynchClaire O'Riordan (1998); Margolis Mary Romero (1998); and O'Connor (1999). They identified institutional barriers emanating from a "hidden curriculum" that rewards the privileged groups possessing the cultural capital of the middle and upper classes. The researchers added race, gender, and class-based barriers—all adversely affecting academic participation (LynchClaire O'Riordan, 1998; Margolis Mary Romero, 1998; and O'Connor, 1999). The authors just named cite the application of resistance theories as effective means for combating efforts to curtail the effective achievement of marginalized groups in higher education, including students with disabilities. Therefore, these resistance methods should be equally effective tools in combating stigmatization, which relegates these students to a less privileged status (McCune, 2001; Smith, 1990).

Further study of successful resistance methods tends to reveal answers to issues affecting students having disabilities. Blotzer and Ruth (1995) discovered that psychotherapy empowered those with disabilities to take charge of decisions affecting their lives, and to challenge when necessary. These authors report case studies and individual accounts of resistance to society's limiting attitudes, stigmatizing views, lack of inclusion, and disregard (Associated Press, 1999; Bowden, 1999; Drew, 1999; Noble, 1998).

According to Gibson (1986, p. 164), critical theorists assert that marginalized, oppressed groups should seek to alter the traditional student-teacher power relationship--thus enabling the group members to become vocal about their needs, to become critical thinkers participating in a positive celebration of diversity absent tokenism; and to effect significant changes in their futures.

The writings of the authors cited earlier demonstrate the ways in which individuals having disabilities successfully resisted society's preconceived notions of their abilities. Michael Apple (1995a; 1995b), Paulo Freire (1998b), Henry Giroux (1983), and Peter McLaren (1998) advocate an equitable and just educational experience for the dispossessed, marginalized students (the poor, minorities, and others not possessing the cultural capital of the white middle- and upper-class citizens).

Blotzer and Ruth (1995) emphasized the significance for individuals with disability to control their lives and to participate at the decision-making table. Purpose of the authors' study was to give voice to students with disabilities currently participating in higher education. These individuals must identify the perceived and experienced barriers to their personal achievement of their higher education goals. This done, students with disabilities should gain not only input but power as well, and control of the support services that *truly* address their diverse needs and desires.

Requiring direct input from students with disabilities traversing the environment of higher education will provide salient data. Those data may help to reveal the basis for the under-representation of students with disabilities in higher education. This population can receive the greatest benefit through the attainment of a college degree. Positioning at the decision-making table with equal power and direct input into the process will create a more equitable higher education environment. People with disability cannot continue to remain silent and invisible, complying with the strong form of the hidden curriculum that reproduces existing inequities across all segments of their lives. Resistance to these structural and attitudinal barriers must continue in order to expose the hidden curriculum, to generate social change, and ultimately to create inclusive educational improvements (Apple, M., 1995a; & 1995b; Freire, P., 1998b; Giroux, H., 1998b; & McLaren, P., 1998).

On November 1, 1977, Senator Hubert Humphrey struck a nerve with the following statement:

> It was once said that the moral test of government is how that government treats those who are in the dawn of life, the children;

those who are in the twilight of life, the elderly; and those who are in the shadows of life--the sick, the needy, and the handicapped.

Significance of the Study

This study was designed with the goal of increasing the knowledge base of higher education administrators, instructors, and policy makers in higher education--to enable them to develop *best practices* for better serving students with disabilities, while increasing the numbers of such students in this environment. If we are to render Senator Humphrey's observation up to date, we must have the moral duty to open wide the doors of access and opportunity to those most seriously challenged in life. Properly applied, the findings of this study will give the students the nerve to address matters they face daily--events which may limit their success in reaching their educational goals. To date, input from this minority group has not been solicited.

Senator Humphrey's statement is a present-day call to action. Paulo Freire (1973) advocates ensuring social change and the ultimate inclusion of citizens with disabilities in our population at the *table of higher education*--which our nation purports to value so highly. Freire argues that seats at that table should be available to the disabled for achieving socioeconomic advancement. Members of other groups approaching their seats gain immediate advantage and cultural capital by virtue of their lineage.

Bias of the Researcher

In addressing the issue of disability, the researcher acknowledges a personal bias: at the age of two years she contracted poliomyelitis. That disease's residual effects, chief of which was paraplegic paralysis, obliged the researcher from the outset to move about with the aid of braces and crutches, and subsequently a wheelchair and an electric cart. However, this researcher believes that her life with disability has enhanced her research: no review of literature or research project reported from afar can replicate a lived experience (Wortman, 1982 cites Kenny, 1982).

Kenny expresses his ethical philosophy of representing others' experiences and views, as follows: "Let us be concerned, but let us remember that we can speak only for ourselves" (pp. 121-122). In line with that orientation, the researcher asked students with disabilities enrolled in higher education to explain their experiences, and to share their support needs (academic, transportation, personal, and financial) and the impact which those services have exerted on their educational outcomes—this with the hope that these data will provide higher education leadership with greater insight into possible mitigating practices for ensuring greater access and participation by those having disability.

Hypotheses

The following hypotheses tested the relationship among the variables enumerated within the study.

Null Hypothesis: No relationship exists between the satisfaction with student support services and students' perceived attainment of their education goals.

Hypothesis 1: A relationship exists between a *higher* degree of satisfaction with support services and students' perceived attainment of their education goals.

Hypothesis 2: A relationship exists between the perceived *quality* of support services available and students' perceived attainment of their higher education goals.

Hypothesis 3 A relationship exists between the perceived *quantity* of support services available and students' perceived achievement of their education goals.

Hypothesis 4: A relationship exists between the *preferred* mode of support services available and students' projected achievement of their education goals.

Hypothesis 5: A relationship exists between support services and students' perception of attaining their education goals.

Assumptions

The assumptions of this study presumed that provided with self-selected adequate students support services, students with disabilities would achieve their educational goals. Heretofore, student support services have been developed largely without input from the students themselves.

Organization of the Study

The study is organized into four additional chapters. The next chapter provides a review of the literature that supports the objectives of this study. It introduces Critical Theory and its ramifications for students with disabilities in higher education; surveys the impact of federal legislation upon the delivery of services to persons with disabilities; reviews the literature that supports the objectives of this study; highlights exemplary programs that have been found to mitigate forces adversely affecting the educational efforts of students with disabilities; and concludes with a summation. Chapter Three further addresses the world of persons with disabilities attending higher education institutions—first, by identifying the specific population of this study; then by reporting the first-hand data that population produced; and finally by analyzing their data. Chapter Four describes the population, the method of data collection, the survey instrument, and the procedures used for analyzing the data. That chapter also presents a discussion of the data for visual display in a variety of tables and charts. Chapter Five discusses the findings of the study and their implications for practice and future research.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

As stated above, Chapter Two will introduce "critical theory" and its ramifications for students with disabilities in higher education. Then it will proceed to survey federal mandates influencing the delivery of educational services to persons with disabilities. A review of the literature supporting the objectives of this study follows. The chapter's final section will feature exemplary programs designed to encourage and promote persistence in educational pursuits among students with disabilities.

The text ahead discusses techniques for making higher education a friendlier environment capable of creating policies and practices that welcome all learners. Included are an overview of the challenges persons with disabilities confront in higher education, and a model for developing effective student support services that help students face and overcome challenges to the achievement of their educational goals.

Educators believe that a diverse student body broadens students' perspectives and promotes mutual respect vital to effective functioning in the broader civic community. Although diverse populations have gained access to postsecondary education, non-traditional students may feel alienated in a traditionally Caucasian, middle-class population of recent high school graduates

(Hurtado et al., 1999). Students with disabilities have reported both alienation and isolation (McCune, 2001; Smith, 1990).

Inclusion of students with disabilities in higher education is best accomplished through an educational environment that nurtures those most at risk in the competitive race for success in higher education--the non-traditional students (which group logically includes students with disabilities). Only emancipated learners can become active participants in realizing their full potential through the educational process. Radical pedagogy, though resistant to the educational structures within our society, incorporates active student participation and flexibility that meets all learners' objectives (Smith, 1990).

A body of theoretical knowledge exists that advocates descriptive valuing as being inclusive, and asserts that the disadvantaged must speak for themselves (Wortman, 1982). Wortman (1982) cites Kenny (1982) with the following quote:

> I am very suspicious of those who say they are speaking for the poor or disadvantaged when they themselves are not poor or disadvantaged. It strikes me that the highest form of elitism occurs when persons unchosen by the disadvantaged say that they speak for the disadvantaged or they say that they take the disadvantaged's interests into account. Let us be concerned, but then let us remember that we can speak only for ourselves (pp. 121-122).

Theoretical Grounding: Critical Theory

Critical Theory can exercise a forceful presence for accomplishing a vitally necessary task: It can expose education's aptly named "hidden curriculum" with its subtle message that students with disabilities are not welcome at the educational institution. The lens of critical theory affords spaces and places for achieving social justice and for celebrating diversity in an inclusive environment, where all learners are valued. So articulates Paulo Freire in *Pedagogy of the Oppressed (1973*) where he champions the theory that all learners, provided the necessary skills and knowledge, are capable of being empowered to better their life's circumstances (Paulo Freire, 1973).

Critical theorists believe that social science research should accomplish social or political good through the emancipation of the dominated, oppressed members of our population, thus promoting an equitable and just society in which marginalized groups such as students with disabilities and/or special-needs populations have equal access to and participation in society at large (including our educational institutions).

From the first, the null curriculum (Eisner, 1994), which has come more appropriately to be called the *hidden* curriculum (Margolis, 2001), sent and continues to convey *intended and unintended* messages within our educational environment, the least intimation of which avoids recognizing the marginalized, invisible group of individuals with disability (Farris and Henderson, 1999; Horn and Berktold, 1999). Once the group's existence is acknowledged, its members must receive appropriate services and programs to address their unmet needs: Raymond Orkwis (1999) carries that contention one step further, to advocate those services should also be offered to every student in the *preferred* format. Critical theorists recognize the absence of such services as counterproductive to the inclusion and educational success of these marginalized groups, who lack the cultural capital requisite to combat the impediments they confront (Apple, M., 1995a; 1995b; Freire, P., 1998b; Giroux, H., 1983; & McLaren, P.; 1998). Barriers of this nature result in inequity that is structurally and institutionally perpetuated, promulgating the hidden curriculum that produces social and political injustice in the education setting (Blotzer & Ruth, 1995).

Negative forces counteracting efforts to accomplish the inclusion of marginalized groups arise from our identification of that hidden curriculum, concealed ever so subtly within our institutions of higher learning (Margolis, 2001). This not-so-secret regimen that advances an ideology--again both intended and unintended--is actually designed to reproduce and prolong the under-representation among students with disabilities. But at the same time, it is a phenomenon the critical theorists have exposed! Their mission has been to rid education of the injustices that continue to limit equitable participation of those students having special needs.

Emancipation of the type advocated by critical theorists empowers both teachers and students to become instruments of social change, by utilizing a culturally relevant pedagogy practiced in an inclusive environment, and by infusing the histories of *all* learners on a level playing field--a single dominant ideology being noticeably absent.

Critical theorists acknowledge that students bring to school their own independent histories embedded in their class, gender, and race interests. This diversity culminates in a variety of needs and behaviors--frequently unacceptable in this environment--working against the students' own best interests. According to the scholars investigating this phenomenon, students formerly were expected to abandon their methods of communication and behavior, ultimately disadvantaging them from day one. We must conclude from the findings of these researchers that empowering learners existing in the margins—specifically, students with special needs--emancipates them to ultimately take control of their lives. This empowerment must accompany creation of culturally relevant schools that celebrate the students' uniqueness and value.

Federal Mandates Impacting Students with Disabilities

For purposes of this section of the study herein reported, the question arises: What accounts for the unacceptable treatment of students with disabilities in higher education? And the reply resonates: Such treatment results from minimal implementation of legislative enactments mandating full participation of students with disabilities in higher education!

The decade of the seventies saw enactment of two important pieces of legislation. First came the Rehabilitation Act of 1973, followed in 1975 by the

Individuals with Disabilities Act (IDEA). The latter law focused on providing an appropriate education for the K-12 population, regardless of handicap.

In 1990, Congress passed a bill committed to opening wide the doors to higher education for individuals with disabilities. The first President Bush signed the legislation, and the Americans with Disabilities Act (ADA) became law. Section 508 of that act requires electronic information technology to be accessible to individuals with disability. The section specifically defines electronic information technology to include: computers; hardware; software; web pages; facsimile machines; copiers; telephones; and other equipment used for transmitting, receiving, or storing information.

With increasing reliance on electronic information, higher education is receiving greater impact from Title II of The Americans with Disability Act (ADA). That title requires a public college to take appropriate steps to ensure that communications with persons with disabilities "are as effective as communications with others." The Office of Civil Rights interprets "communications" to mean the transfer of information (including a verbally presented classroom lecture), a printed textbook, and the content of the Internet. In determining the type of auxiliary aid and service necessary for accessing electronic information, Title II requires public colleges to give primary consideration to the requests of individuals with disability.

The Office of Civil Rights further defines effective communications as follows: they include "timeliness of delivery, accuracy of the translation, and provision in a manner and medium appropriate to the significance of the message and the abilities of the individual with the disability." The courts have held (Tyler vs. Manhattan, Kansas, 1994) that public entities (colleges) violate their obligations under the ADA if they respond only to ad hoc requests for accommodation. Federal regulations further stipulate that there is an *affirmative duty* to have a comprehensive policy, with input from the disability community prior to the request for auxiliary aids by an individual with a disability (U.S. Department of Commerce, 1999).

The referenced legislative enactments and regulations have permanently altered the operations of postsecondary education in the United States, not the least of which has been the movement's activity of enrolling and implementing procedures for accommodating an increased population of students with disabilities (Horn & Berktold, 1999). Undergraduate students with disabilities numbered about six percent in 1995-96. But this special-needs population continues to be proportionately under-represented in the higher education environment, accounting for 500,000 (three percent) of the 16.5 million total college enrollment in the United States (see above in Chapter One).

Studies of Students with Disabilities

A portrait of college students with disabilities (Horn & Premo, 1995) profiled them with the following distinctive characteristics: they were more likely:

(1) than their non-disabled counterparts to be older (31 versus 26 years of age),

(2) to be in the lowest income quartile (30 versus 23 percent), less frequently to have parents with advanced education,

(3) to have taken a remedial course (38 versus 30 percent), and

(4) to be financially independent and themselves to have dependents (caring for relatives as well as parenting children of their own). (Horn & Premo, 1995).

Students with disabilities were less likely to be equally qualified academically for admission to a four-year institution, and more likely to have a lower grade point average (GPA) than their counterparts, thus contributing to increased attrition rates. Additionally, this population reported 2.6 risks that threatened their successful persistence and degree attainment (compared to the 2.2 risk factors reported by annual undergraduates) (Horn & Premo, 1995).

Horn & Malizio (2002) investigated seven risk factors, as follows: delaying enrollment by one year following high school graduation; attending part-time; being financially independent (in calculating eligibility for financial assistance); having children; being a single parent; working full-time while enrolled; and being a high school dropout or holding a General Education Diploma (GED). It should be noted that undergraduates with children and other dependents averaged 4.3 risk factors, while single parents presented an increased average of 4.7 risk factors. Although female undergraduates were more likely to be parents than male undergraduates (experiencing 2.3 versus 2.1 risk factors), men were more likely to be employed full-time. No distinctions were noted between men and women in the overall likelihood of having risk factors exceeding the 1 risk factor reported by 75 percent of all undergraduates. Financially independent students were more likely to report having a disability than dependent undergraduate students (12 versus 7 percent).

Of the disabilities reported, women were more likely than men to report mental illness or depression (21 versus 11 percent), while men were more likely to report having an attention deficit disorder (ADD, 9 versus 5 percent). Additionally, students having parents with advanced education were less likely to have taken a remedial course (30 versus 38 percent) (Horn & Malizio, 2002).

A study on persistence in postsecondary education reported that 64 percent of beginning students with one risk factor persisted to completion of a degree or certification within five years, as compared to 23 percent of those with three or more risk factors (Berkner, Cuccaro-Alamin, & McCormick, 1996). Thus, one might conclude that approximately 50 percent of the students reporting three or more risk factors could be expected to exit postsecondary education absent a baccalaureate degree. Even though minority students continued to lag behind their Caucasian counterparts in academic attainment (U.S. Department of Education, 2000), research indicates that rigorous academic preparation in high school narrows this gap (Horn & Kojaku, 2001; Warburton, Bugarin, Nunez, 2001). However, once received, a bachelor's degree held by students with disabilities enabled them to compare favorably to those students without disabilities, even though they continued to experience an unemployment rate almost triple--11 percent--that of their counterparts--at 4 percent (Horn & Berktold, 1999).

Horn and Malizio (2002) broadened the definition of disability to state:

> It includes students who reported having a "long-lasting" condition such as blindness, deafness, or a severe vision or hearing impairment; who reported having a condition that limits "one or more of the basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying"; *or* who reported having any other physical, mental, or emotional condition that lasted six or more months *and* one of the following five activities: getting to school, getting around campus, learning, dressing, or working at a job.

The study by Horn and Malizio (2002) found that nine percent of undergraduates reported having disabling conditions or difficulties with basic physical activities. However, when students were asked if they considered themselves to have a disability, only four percent responded in the affirmative. The limiting condition most often reported was orthopedic or mobility impairment (29 percent). Mental illness or depression followed (17 percent) as the second highest primary limiting factor; and 15 percent reported generalized health problems. Five to seven percent reported one of the following disabilities: vision, hearing, or a specific learning disability; dyslexia; or attention deficit disorder (ADD). Fifteen percent of undergraduates with disabilities reported having other limiting conditions. Students with disabilities were more apt to be economically independent (11.9), to have an income level in the lowest quartile (16.2), to be working while enrolled in postsecondary education (16.6, either full-time or part-time), and to be the children of parents who more often than not held no high school diploma (10.2). Students with disabilities attended public institutions offering two-year or shorter courses of study (24.6) rather than four-year institutions (15.7).

Students with some type of disability were more apt to have taken a remedial course (40.8 compared to their counterparts, at 35.0), both those with and without a disability most often reporting mathematics as their remedial course (73.1 compared to 74.6 for their counterparts).

Challenges Confronting Persons with Disabilities

For generation after generation, educational institutions in the United States continued to function as they had been functioning. However, in the 1950s, the 1960s, and with increasing fervor in the 1970s, sociologists began exploring the educational structures and the beliefs and values embedded in the nation's learning institutions. For the first time in our history, “civil rights” legislation questioned *who* should be taught, and *what* and *where* students should be learning. Minorities began to be integrated into a previously middle- and upper-class environment. Constituents adhering to a host of agendas began a process of evaluating educational institutions that continues today.

The administrative level of higher education seemed to approach implementation of the ADA by allowing the legal counsel staff to identify an escape hatch by claiming "undue burden" at every possible venue (Kahn, 2002). From such litigious mind-set came the transmission of a double-barreled message--either *intended or unintended*--from the hidden curriculum: students with disabilities were *less* worthy; and thereafter they would be forced to rely upon the court system when institutions failed to meet their legal mandates.

The unfortunate approach just described has resulted in the appearance of fearful professors (Morfopoulos, 2001) and a hostile environment on many campuses. Moreover, as students with disabilities began to enter the higher education playing field, they were confronted by a multiplicity of barriers: attitudinal resistance; physical inaccessibility; teaching styles that did not meet their learning needs; a digital divide that limited availability of information and commerce critical to their learning; and non-existent, inappropriate, or limited support services crucial in attaining both their education goals and their self-actualization. These barriers became an additional burden for students with disabilities to endure to say nothing of managing the daily stresses of their disability.

Social history in the United States is permeated by two attitudes toward those with disabilities: callousness and compassion. Blotzer and Ruth (1995) recalled a personal experience that occurred when airline employees with great care and respect assisted a paralyzed friend of the authors onto an airplane. Upon boarding in his wheelchair, the friend heard another airline employee angrily yell the following question to him: "Why don't you just get up and walk to your seat?"

This remark reflected not only a callous attitude, but also the Social Darwinism that continues even today to prevail in this country. Such thinking is embedded in three values underlying the nation's social fabric: power, perfection, and productivity (Blotzer & Ruth, 1995).

First, historically the American culture has tied disability to weakness, illustrated best by the great care of those around President Franklin D. Roosevelt to conceal his disability for fear he would be seen as a weak leader. Yet he served this nation admirably for twelve years. Disability continues to be correlated with impotence, social and intellectual limitations, and inability to defend one's principles.

Second, modern society's preoccupation with perfect bodies is demonstrated by the proliferation of cosmetic surgery and the idea that everything can be "fixed" to attain an ideal standard of perfection. Many people view disability as an imperfection, and therefore as a threat to one's self-image.

Third, American society assigns great value to individual productivity and independence. Those viewed as less productive or non-productive are shunned, isolated, and seen as a burden. In line with this social model, people are valued for what they produce (Blotzer & Ruth, 1995).

The last half-century has witnessed three stages of change in societal attitudes toward individuals with disabilities. First came avoidance and rejection, as evidenced by the dehumanizing forced sterilization policies and the hiding of victims from public view in huge institutions located in rural areas. Society's tolerance of the disabled followed when in the 1970s, determined parents filed successful lawsuits that ultimately emptied the nation's custodial institutions; this was known as de-institutionalization. Last of the changes came when time brought about integration--the third and future phase of achieving the complete mainstreaming of those with disabilities, refusing as they did and do to be marginalized (reflected in the case studies presented by Blotzer and Ruth).

Psychotherapy has emerged as a tool to empower those with disabilities to take control of their lives, and to make decisions affecting them by demanding access to services *they* identify as necessary for maintaining the same high quality of life that other members of society enjoy (Blotzer & Ruth, 1995).

Blotzer and Ruth (1995) note that since enactment of the Americans with Disability Act of 1990, little improvement has taken place in the quality of life among those living with disability. The authors conclude: "Many of those who have disabilities are still living on the margins of the society with resources that are inadequate or barely adequate for survival . . . " (p. x). The authors continue:

> True access to help means [the] availability of all services, not just those pre-selected by individuals with little understanding of persons with disabilities as complex and total individuals. Working with those who have disabilities may be more difficult because it could require contact with families, employers, and other professionals. However, there will be many opportunities for creative interventions to assist the person with disabilities toward leading a useful and satisfying life (Blotzer & Ruth, 1995, p. xi).

Students were asked to acknowledge whether or not they had a particular disability, e.g. a hearing, speech or mobility impairment; a learning disability; or a visual impairment that could not be corrected with glasses. Those having an "invisible" disability (e.g. psychiatric disabilities, medical disabilities, brain injury, or learning disability) reported such unique experiences as being *doubted* by their instructors, even after the SDS office documented the disability and notified the instructor that an accommodation was needed (Horn and Malizio (2002).

Even though individuals living with disability in the United States comprise a considerable portion of the population (25 percent), most exist in poverty and continue to have limited access to education, health care, transportation, and other quality-of-life amenities (Harris Survey, 1997; Census Bureau, 1998; Wilder, 2002).

Richard Morfopoulos (2001) identifies a "Typology of Faculty Misconceptions" regarding students with disabilities in higher education. His typology reveals the faculty's fears about student accommodations. These Morfopoulos lists as: fear that classroom modifications might be interpreted as unnecessary, and stigmatization by the student, even though that student would have requested the accommodation; fear that the student might see the accommodation as being inadequate; fear that the student with the disability might think he or she was not receiving adequate or appropriate accommodation; fear that those students not having a disability would interpret the accommodation as being unfair and unjust; and fear of litigation based on the special modifications.

Related Research Studies

A Canadian study surveyed students with disabilities in higher education, as well as in the institutions and agencies providing support services to the students. The goal of the study was to identify the *best practices* of both types of service providers (higher education institutions and service agencies). The direct input from students with disabilities was gleaned from the respondents and incorporated into the volume *Working Towards a Coordinated National Approach to Services, Accommodations and Policies* for *Postsecondary Students with Disabilities*: *Ensuring Access to Higher Education and Career Training* (Killiean & Hubka, 1999). According to that study, four factors characterize the *best practices* model: it must have a proven track record over time; the local community should recognize the practice as having positive outcomes; these positive outcomes should be quantifiable; and multiple sources should consider the practice to be creative and innovative.

The study included seven disabilities in its purview: impaired mobility; deaf/hard of hearing; blind/visual impairment; speech impairment; learning disability, including Attention Deficit Disorder (ADD); mental health disability; and medical disability. As a rule, student enrollees with disabilities selected universities having enrollments in excess of 10,000 full-time students and having a centralized office to serve students with disabilities. Students might be referred to other resources for counseling, adaptive equipment, and/or financial aid, etc. Of the student respondents (349), most were younger than 30 years of age, unmarried, and absent any dependents. In the 15- to 34-year age range, women (60 percent) were more likely than men to have some postsecondary education (Killean & Hubka, 1999).

Two-thirds of the students reported a need for extended testing time, while more than half required academic accommodations. Comprehensive services were found at the largest institutions, where services for students with disabilities were most often centralized. Wilder (2002) found K-12 school administrators and teachers to be more sensitive to the needs of disabled students. Killean and Hubka (1999) reported that staff development was found lacking. Staff training on diversity issues, including disability, was viewed as needed; this awareness training was suggested for all staff from the administrators to the janitors. Since most of the contact between the student with a disability and his or her professor is person-to-person, awareness training was seen to be a crucial step toward breaking down attitudinal barriers and facilitating the best possible atmosphere between the professor and the student. Adequate training in the use of the available technology and adaptive equipment was seen as key to improving the students' learning (Killean & Hubka, 1999).

The study reported the impression that sufficient funding--providing both financial and human resources to meet students' needs--must be made available to students with disabilities. In the authors' judgment, colleges and universities should receive funds adequate to support and enhance physical access, support services, and accommodations for their students with disabilities.

Physical accessibility at an institution seemed to be the driving force behind whether or not students with disabilities chose a particular institution. A wide network of accessible institutions, coupled with adequate funding, was seen as critical to meeting the academic objectives of students with disabilities. The study reported inadequate awareness of available resources and support systems to be a recurring theme in the students' responses.

Students were found to need more and better support services, including more adequate information. "Postsecondary institutions cannot merely react to requests but must be actively advertising the service/supports they provide to students with disabilities" (Killean & Hubka, 1999). Admissions packages were seen as a successful way to disseminate information about services to students with disabilities. The availability of information about support services and accommodating aids was found to be inadequate; a general uncertainty existed regarding the methods of obtaining the needed aids; and training to learn how to use those aids was found to be inadequate. Also reported in the study was the need to upgrade institutional policies and practices for improving the level of access and for recruiting new students with disabilities, as well as retaining those already enrolled. Materials in alternative format were noted as frequently unavailable and/or provided late to the student (Killean & Hubka, 1999).

Students with "invisible" disabilities encountered professors lacking the necessary information and sensitivity training necessary for meeting these students' needs. This condition calls for an environment fostering mutual discussions about students' needs, and must be encouraged. Student organizations were found to benefit students with disabilities, and to play a positive role in campus life (Killean & Hubka, 1999).

No comprehensive research studies in the United States have been discovered that report the experiences and perceptions of students with disabilities in higher education related to their need for support services--both academic and personal assistance. However, a nationwide study from the institution's perspective identifies the following items: services available to students with disabilities, number of students served, and amount of the institutional budget allocated for services and accommodations provided for students with disabilities (Ginger, 1997). Vice Presidents of Student Affairs were asked to identify appropriate staff to answer the survey questionnaire.

This study found a greater number of services were provided at the larger institutions completing the survey. Availability of such services accounted for more students with disabilities electing to attend larger institutions. However, institutions in the South reported the greatest percentage of students with disabilities (five percent). The study also found that students could not rely on their counselors or high school representatives as a source of knowledge about specific institutions' provision of accommodation and their ability to meet a particular student's needs. The study concluded that prior to their admission, the students had the responsibility to contact each institution to make inquiry about specific services and accommodations.

Ginger acknowledged in his study that a student's educational achievement might be related to his or her ability to acclimate to a particular institution's efficiency in "provision of services and accommodations for students with disabilities." Larger institutions were found to offer large-print, note-taking services, and taped texts more frequently than smaller institutions. The study recommended that students with a visual impairment should explore their options at larger and medium-sized institutions, as opposed to smaller ones that might be unable to meet their needs. Conversely, the study found that small and medium-sized institutions are more apt to provide tutoring services because federal funding is available.

The Ginger (1997) study (1997) relates that larger institutions traditionally have higher entrance criteria, and that therefore those students are less apt to require tutorial services than are students entering smaller and medium-sized institutions. In order to enhance retention rates, larger institutions were found to provide this service more often than their smaller counterparts.

The study suggests a need for students with disabilities entering postsecondary education to have appropriate transitional planning services to enable their adjustment to a new environment. This in turn requires the student with disability to assume greater responsibility upon entering higher education (e.g. self-identification, documentation of disability at the student's expense, and submission of a request for specific accommodation services). Those institutions receiving "federal financial assistance from the Department of Education are required by Section 504 of the Rehabilitation Act of 1973 to accommodate students with disabilities." Larger institutions are more apt to do a better job than their smaller counterparts at providing services requiring equipment, whereas the smaller institutions do a better job in providing personnel-related services, such as tutoring and support organizations.

Ginger (1997) concludes that all institutions need to be more creative in obtaining additional funding for student support services. This researcher acknowledges that students with disability comprise a potential revenue stream for higher education if the appropriate services are provided simultaneously. When students with disabilities are not successfully retained, the institutions experience significant economic losses. Ginger (1997) recognizes that current conditions constitute "a challenge for higher education administrators to continue their efforts to find new, innovative means of funding; they also need to continue awareness programs which will address policy barriers that often result from negative attitudes; and they must join individually and collectively in advocacy of services and accommodations for students with disabilities."

When students with disabilities were asked about their need for support services (Killean & Hubka, 1999), they reported the need for more and better student support services, as well as the need for a heightened awareness about those services that were available. This points up the fact that both staff and students need technical training. The importance of an organized and routine structure needs to be established intra-institutionally, to enable quick identification of the department responsible for providing services to students with disabilities. Disorganization in the delivery of services to students with disabilities is counterproductive for meeting their needs. Self-help student support groups and programs that foster skill-building in college survival to enhance the students' locus of control are found to be beneficial (Gugerty & Knutsen, 2000). Gugerty and Knutsen's research (2000)--which has been replicated in multiple settings--advances the proposition that students with disabilities can have successful college experiences and graduate. However, it is important to bridge the gap between high school and college through appropriate transitional planning that includes a tempered, measured college exposure beginning in the high school setting.

It is possible to improve the outcome for students with disabilities in higher education, given the proper support systems designed and delivered in a nurturing and caring atmosphere by those who have had direct experience with the frustrations of living with a disability on a day-to-day basis. Kenny acknowledges the need for further research focused on the "value of individuals' rights regardless of differences and/or disabilities, " (Kenny, 1982).

Exemplary Programs Promoting Persistence

Challenged by declining resources and increased numbers of students with disabilities enrolling in two-year postsecondary colleges (Farris and Henderson, 1999; Horn & Berktold, 1999), these institutions have designed highly effective and innovative programs to meet the extraordinary needs of students, especially those presenting with significant disabilities (Gugerty & Knutsen, 2000). In the Workforce Investment Act of 1998, Title IC--of the Rehabilitation Act Amendments of 1998--Section 6 defines persons with a "significant disability" as:

> those having a severe physical or mental impairment that seriously limits one or more functional capacities such as mobility, communication, self-care, self-direction, interpersonal skills, work tolerance, work-skills in assessing employment outcome; additionally, individuals whose

> vocational rehabilitation can be expected to require multiple rehabilitation services for an extended period of time; and those having one or more physical or mental disabilities resulting from amputation, arthritis, autism, blindness, brain injury, cancer, cerebral palsy, cystic fibrosis, deafness, head injury, heart disease, hemophilia, hemiplegia, respiratory or pulmonary dysfunction, mental retardation mental illness, multiple sclerosis, muscular dystrophy, musculoskeletal disorders, neurological disorders (to include stroke and epilepsy), paraplegia, quadriplegia, and other spinal cord conditions, sickle cell anemia, specific learning disabilities, end-stage renal disease, or her disability or combination of disabilities determined to be in need of vocational rehabilitation services.

Now in its tenth year at Metropolitan Community College (MCC) a program in Lee's Summit, Missouri, known as ABLE (Academic Bridges to Learning Effectiveness), has been replicated at numerous sites in many states. The program was established to bridge the gap between secondary education and postsecondary education and training. It is a holistic program, utilizing multisensory teaching techniques (visually and aurally employing discussion groups, work groups, manipulatives in mathematics, and role play). It was designed to structure curriculum and services to develop an environment in which students with learning disabilities, brain injuries, and unique learning needs will be supported and feel secure, thus fostering learning and enhanced self-confidence in the learning experience. In the program, previously passive learners are being taught to become active learners, in charge and in control of their learning through advocacy skill development.

Constituent collaboration and an effective outreach element of the program have fostered community involvement. Potential students begin visiting the campus while they are still in the high school setting. ABLE personnel are involved in planning the Individualized Educational Plan while the student continues in high school. Throughout this incremental introduction, untimed testing and evaluation are accomplished and gradually added to regular courses. As a result, instructors are reporting the students as being better prepared, interested in learning, and more confident in the classroom setting. Additionally, the instructors are seen as becoming more responsive to students with disabilities, " . . . strengthening the students' cycles of success" (Gugerty & Knutsen, 2000).

Committed from the first to diversity, the goal of the ABLE program was to "frame diversity into a broader context to include not only those required and protected by [the] law, but also respect for choices in living, learning, and working" (Gugerty & Knutsen, 2000). The program's stated primary objective was to empower individuals having learning disabilities or brain injuries with the skills needed to control their own lives and learning, enabling them to make successful transitions to traditional college courses, vocational programs, or the workplace. The nurturing efforts were to be focused on increasing the level of comfort in the college environment; enhancing self-knowledge; improving awareness of individual rights; providing appropriate accommodations; fostering assertiveness and decision-making skills; remediating basic skills; and improving self-esteem.

This comprehensive support network has been developed to meet the special needs of students with learning disabilities and brain injury. Every student in the program takes the basic core courses that include personal awareness, assertiveness skills, and college survival skills. The program is designed to meet the unique needs of each student, and might include counseling and weekly support groups. Parents and significant others are welcome to attend the orientation and support group meetings, which are specifically designed to meet the needs and answer the questions of these visitors.

The ABLE program has grown from 15 students in 1985 to 70 students in 1990, and to 89 students in the 1998-99 school year. Collaboration with all the entities involved in the service delivery system is a key factor in the program's success. The ABLE students pay an additional $35 per credit hour. This still keeps the program competitive with four-year institutions. The Vocational Rehabilitation Department of Missouri pays this additional cost for those students who qualify for the services. Occupational therapy interns assist the program in identifying appropriate accommodations. Graduate students from other colleges complete their practica in the ABLE program, further enhancing services to the students at no additional cost.

This intensive program enables students with significant disabilities to transition successfully into the traditional college program. Several organizations provide scholarship funding for those students in the program. The Vocational Rehabilitation counselors frequently serve as instructors for the courses.

In the high school environment, professionals identify and work with students having disabilities, identifying their needs and ensuring that those needs are addressed. Once on a college campus, students with disabilities are expected not only to self-identify, but to know what their academic and accommodations needs are, and to self-advocate to ensure that those needs are met. ABLE provides the needed intensive support services, simultaneously teaching the student to develop metacognitive and self-advocacy skills that bridge the gap in successfully transitioning from high school to college life.

The program's ultimate outcome improves from the presence of the following elements: building relationships while in high school; equipping students with the skills necessary for success in the postsecondary setting; and slowly introducing students with disabilities into the college environment. The small class size in the ABLE program (12 students) promotes interaction and social skill development while promoting active learning. Students are taught successful student behavior such as attending class regularly, being on time, and completing assignments in a timely fashion. In essence, the students learn to conform to the hidden curriculum within the educational environment rather than to employ methods of resisting that curriculum with its limits upon learners' realization of self-determination advocated in the critical theory ideology.

Research by Gugerty and Knutsen (2000) indicates that other benefits accompany the intense academic support services and improvement in the overall comfort level of the students in the college setting: " . . . individuals with an internal locus of control, higher self-esteem, and adequate critical thinking skills have been found to be more successful in life's endeavors." These traits are assessed upon entering the program, and during the week of final exams. The results signify gains in both locus-of-control and critical thinking skills.

For those students eligible to participate in the ABLE program, the Missouri Division of Vocational Rehabilitation (DVR) program will pay for personal care attendants, transportation assistance, tape recorders, personal computers, and assistive technology devices. The Metropolitan Community College provides all accommodations necessary to ensure equal access to its educational programs and services. The college also pays for assistive technology used in the classrooms and laboratories, note takers, readers, interpreters, alternative testing, and alternative formats for print materials. The state' s Vocational Rehabilitation program generally pays for any services the student needs outside the classroom.

Summary

From the foregoing discussion we have seen the impact of four bodies/movements upon the educational experiences of students with disabilities enrolled in this nation's postsecondary institutions: critical theory, federal legislation, scholarly research, and exemplary programs. Against this backdrop, Chapter Three will identify the research population, the method of data collection, the survey instrument, and the methodology of focus group dynamics. The latter unit will be submitted to statistical treatment and qualitative analysis.

CHAPTER THREE

DESIGN OF THE STUDY

Introduction

Chapter Three provides a description of the population selected for the study, the methods of data collection, the survey instrument, and the procedures set forth for analyzing the data. Rationale for the study originated from the author's personal knowledge that individuals with disabilities were noticeably under-represented among the students enrolled in higher education. Having lived her life with a disability, this researcher was keenly aware of the challenges her fellow students face in the higher education environment.

Methodologies employed in the study included the following segments: (1) a review of the literature; (2) a survey; (3) focus groups; (4) observations; (5) private communications; and (6) personal experiences. Two goals motivated the researcher: identification of barriers in higher education that result in students with disabilities being proportionately under-represented, and ultimate discovery of possible mitigations for these impediments.

The author designed the study not only to obtain direct input from the population of students with disabilities concerning their need for support services, but also to receive their recommendations for rectifying the gaps in existing services. She used a single-stage sampling of all students with disabilities known to the Student Disability Services offices (SDS) at randomly selected institutional sites. A further purpose in the author's design was to inform administration and public funding sources about methods of advance service design and delivery aimed at improved outcomes for the at-risk population of students with disabilities in higher education.

Population

The author opted to confine the population of her study to students with disabilities enrolled in higher education who had self-identified and registered with their schools' Student Disability Services offices in order to receive support services. This decision faced up to the fact that such students would represent only a subset within the total disabled student population enrolled at their institutions.

Methods of Data Collection

This study embraced two separate and distinct methods of data collection. Phase I was devoted to a survey of students with disabilities. For crafting Phase I, the researcher drew from a review of the literature, her lifelong encounters, and her personal observations. Based upon these items of input, she compiled a 67-item survey instrument of descriptive and demographic questions. To that document she appended the following single open-ended question: "Please describe how you feel about the university's overall commitment to meeting your needs."

The foregoing combined efforts represent the initial stages of fashioning a tapestry portraying the lived experiences of the students under study. Further, those efforts provide depth and breadth to our appreciation and understanding of that tapestry.

The survey instrument underwent pilot testing at two different universities–one located in the northwestern region of the United States, the other in the southeast. For purposes of ensuring that the questions were appropriate for electronic feedback, the Faculty Support Staff of Oklahoma State University (OSU) reviewed the instrument. Upon the recommendation by a staff person at the National Center for Educational Statistics (NCES), the researcher enlarged the scope of her study to include data gathered from students presenting the following disabilities: neurological disorders, mood disorders, spina bifida, multiple sclerosis, and psychiatric disabilities. Addition of these five specific disabilities minimized the effect of placing them within the 21 percent of disabilities listed together in the innocuous "other" category (Horn & Berktold, 1999).

The Association on Higher Education And Disability (AHEAD) also reviewed the instrument to assure that all students, regardless of their disabilities, would be able to execute the instrument to the highest degree possible.

The researcher willingly accepted the foregoing professional services. She did so with the assurance and hope that doing so would ultimately improve the support service delivery system for all individuals needing support.

Due to the need for preserving the confidentiality of the students and the institutions, the researcher received commitment from the SDS offices that they would distribute the questionnaire electronically (q.v., Appendix D). In addition, the parties to the matter agreed upon the requirement that the completed survey form would be returned to an Internet site without a trace of its origin. The SDS offices were to accept responsibility for notifying all participating students with disabilities about the study and the location on the Internet site (URL) where the survey had been previously posted. Further, the SDS offices were to perform at least one follow-up e-mail seven days after the original notice.

Two weeks after the study began, the researcher had received only five responses from institutions. With this development, the researcher conducted telephone inquiries with personnel at those committed institutions from which no responses had been received. The researcher urged these individuals to make another effort to gain the participation of their students.

When the study had been underway for three weeks, only 15 survey responses had been received. The researcher then broadened the number of institutions agreeing to participate from eight to 25. The timing of the study was problematic: although exploratory contacts had been made with the sites during the month of August, the Fall term in most cases was not scheduled to begin until after Labor Day. By November 1, 2002, 30 institutional responses were in hand. Close of the collection period netted responses from 27 students.

Phase II of this study entailed three focus group sessions conducted by the researcher at institutions of higher education selected by the researcher.

Focus group methodology had its origin in the practice of marketing research. Only recently have social science researchers adopted this group interviewing technique. According to Berg (1998), "Sussman and his associates (1991, p. 773) have gone so far as to state that 'focus group methodology is one of the most widely used qualitative research tools in the applied social sciences.' " Kvale (1996) argues that the use of focus group methodology is too expensive, requiring time-consuming transcription of the data.

The researcher met with students at the three sites where the focus group sessions were held. Following introductions and brief servings of hors d'oeuvres and soft drinks, the researcher discussed the requirements for participation in her research project. She pointed out that each participant would be required to have adult status (i.e. to be at least 18 years of age), and to sign two consent forms--keeping one for his or her records, and providing one for the researcher. Students received assurance all information would be kept confidential, and they were required to select pseudonyms to preserve their anonymity. The researcher and participants thoroughly discussed the consent form (see Appendix A) required by the Institutional Review Board (IRB), and the students received ample time to address their questions to the researcher. Fifteen students enrolled and subsequently participated in the two-hour focus group sessions.

Prior to conducting the group sessions, the researcher employed a transcriptionist to transcribe each session. Following each session, the researcher coded the resultant transcribed data.

Faced with the possibility that the dynamics of focus groups might skew participants' responses and their interaction (Rubin & Rubin, 1995), the researcher encouraged the greatest possible diversity of representation among the participating students with disabilities, and encouraged them to share their experiences and perceptions of the barriers they were confronting both as supports for and/or threats to the achievement of their higher education goals.

Berg cites Krueger's (1994) suggestion that focus groups be limited to seven participants, the researcher confined her sessions to small parties. She urged her guests to speak freely about their lived experiences, to describe the behaviors and attitudes they had encountered, and to express their opinions about their experiences in higher education (Berg, 1998). If a selected participant were to present with a communication disability, the researcher was committed to interview him or her privately.

Research confirms that in the main, students with disabilities attend two-year public community colleges intending to transition to a four-year institution, and thus fail to accomplish their intentions (Horn & Berktold, 1999). Therefore, the researcher opted to choose a junior college as a site for conducting one of her focus group sessions, and further to select two four-year institutions for holding the other such meetings. She reached her decision with the sense that holding focus groups at these sites would provide the means for reflecting a broad-based representation of institutions, for comparing students' experiences, and for evaluating varied offerings of student support services.

During the focus group sessions, the students received three Grand Tour questions, as follows: (1) How do student support services impact your educational goals? (2) What do you consider to be crucial in the design and delivery of student support services? and (3) What is your vision of student support services? Planning to delve even further into the students' treasure trove of the most relentless barriers they encountered, the researcher asked each participant to share his or her most dreadful experience. Probing further, the researcher inquired about the frequency with which each student considered dropping out of school. Motivation for making this inquiry came from knowledge of the finding by Malizio (2002) that students' consideration of dropping out of school is a risk factor among students with handicaps for the non-completion of their educational goals.

The participating students were asked to identify any changes they would recommend to improve the education setting, this for helping students with disabilities to attain their educational goals. Further, the researcher asked the students to assess their institutions' level of commitment to providing the necessary student support services.

Data Sources

Multiple data sources were selected to contribute triangulation and reliability to this study: a review of the literature; the researcher's private communications, personal experiences and observations; as well as the qualitative paradigm (focus groups) and the quantitative (electronic survey) paradigm. The researcher drew these decisions expecting that the resultant findings would yield a thick, rich description of students' lived experiences with disabilities. Further, the researcher felt that the study would produce descriptive and inferential statistics for more thoroughly documenting the nature and impact of barriers impeding students with disabilities in their search for success in higher education.

The researcher made provision for themes and their contributing patterns and categories to arise from the qualitative inquiry. She did so to illuminate the experiences of each focus group participant's encounter with postsecondary education. The researcher hoped that from this approach would come a generalized description of the multiple variables combining to form the driving forces behind the continuing under-representation of students with disabilities in higher education. Such under-representation, the researcher understood, could result either from the students' decision not to pursue higher education, or from their failure to persist once on campus.

Sites

To implement Phase I of her study, the researcher randomly selected 40 postsecondary schools (see Appendix B). The list of random sites emerged from data provided by the National Center for Educational Statistics (NCES) reporting university characteristics according to type (public or private not-for-profit) and enrollment size. As a result, the researcher drew the following university types and university student populations: large comprehensive universities having enrollments in excess of 20,000 students, medium-sized universities with enrollments of 10,000 to 20,000 students, small public universities showing enrollments of 1,000 to 10,000 students, and private not-for profit institutions.

Eight institutions were included in the study: two large, two medium-sized, two small, and two private not-for-profit. The researcher first identified two randomly selected sites within each of the four institutional categories. Then she selected eight alternate sites for each category in the event the first two failed to participate. Thereupon the researcher proceeded to the next institution on the list. She made telephone contacts with the Directors of Disability Services offices or appropriate administrative personnel. Once the institution's consent was assured, the researcher sent an e-mail communication specifying the purpose of the study and issuing an appeal for prompt return of the completed instrument.

Along with the foregoing approach, the researcher selected a random pool of 10 sites from each of the four categories. She contacted the first two sites. If they were not interested in being part of the study, the researcher pursued subsequent sites via telephone. The researcher was intent on assuring a sample of sufficient size to yield ample participation. She estimates that her plan of organization netted a potential pool of approximately 2000 students with disabilities at the institutional sites (see Appendix B).

To put Phase II of her study into operation, the researcher selected three public institutions of higher learning. Specifically, she chose a large community college, a regional medium-sized four-year college, and a private four-year institution--all located in the southeastern section of the United States.

Two Vice Presidents of Student Affairs consented to serve as the initial contact points at their institutions. The researcher chose the Director of Student Disabilities Services as the initial contact point for the third site. The researcher received commitments from these individuals that once a student's participation had been confirmed, an e-mail communication would go out announcing the date, the time, and the desired number of participants in the focus group session.

Sample Population

The researcher received advice to anticipate no more than a 20-percent response rate from the electronic survey. Therefore, she increased the sample size to compensate for an expected low response rate. She was fully prepared to face reality in the event a low number of students with disabilities completed the survey instrument.

Since the researcher had no way to identify the non-respondents, she was to be totally dependent upon the SDS directors and the personnel of their offices to exercise a leadership role in soliciting their students' participation.

Data Analysis

All respondents taking the electronic survey received instructions to complete and submit it anonymously by email. The self-developed survey instrument (Appendix D) included descriptive questions and nine Likert Scale questions measuring perceptions of students with disabilities. The study uncovered significant correlations between a multitude of variables which enhance our understanding of the interacting forces affecting students with disabilities in higher education. The instrument's one open-ended question and descriptive items were designed to yield frequency distributions. The researcher used the Statistical Program for Social Scientists (SPSS) for analysis of the survey data.

Independent Variables

Some students with disabilities require academic support services as well as self-care support services (e.g. activities of daily living). For individuals in this category, the following independent variables were tested: type of financial assistance; scholarships; veterans' benefits; loans; family finances; type of disability; type of living arrangement (living alone, with a spouse, with an attendant, with parents, in a dormitory, in an apartment, or in a house); level of disability; chronic medical conditions; personal caregiver; domestic assistance; cooking; shopping assistance; ownership of an automobile; library and errand assistance; additional types of support services received from the university; support services provided by agencies (e.g. vocational rehabilitation services, the Department of Human Services, Medicaid, etc.).

Provision of academic support services may not necessarily constitute a given student's *preferred* modality, and thus may cause unnecessary and extraordinary physical effort and mental stress. Therefore, it was imperative to identify the service being provided in contrast with that which the student *preferred*. Those independent variables constituting the academic support services to be measured were: required enrollment in remedial math/ writing/science; tutoring and coaching; counseling and/or support groups; mentoring; technical assistance; computer assistance; training with adaptive equipment; ownership of a personal computer (preferably a light-weight laptop) outfitted with extensive adaptive technology; tutoring; note takers; large-screen print enhancement; tape recorders; transcription service; curriculum substitution; testing accommodations; transportation to classes as well as carrying out medical and business activities to help the student get around; etc. The survey questions that address the independent variables are: Questions 1 through 9; 11 and 12; 15 through 31; 39 through 46; 48 and 49; 53; and 56 and 57.

Dependent Variables

The researcher measured the following dependent variables: consideration of withdrawal from the university (dropping out); class absenteeism; frequency of adaptive equipment breakdowns and malfunctions (computer/wheelchair, etc.); the number of course withdrawals; and chronic or acute health problems.

The researcher treated level of dissatisfaction/satisfaction with support services as a dependent variable. Those survey items that address the dependent variables are: Question 10; Questions 13 and 14; 32 through 39; 47; 50 through 52; 54 and 55; and 59. Demographic data gathered were: age of the student, age at which the student became disabled, gender, marital status, and presence or absence of dependents residing with the student. The survey questions responding with these items were: Question 56 and Questions 60 through 66. (see Appendix D)

Summary

Chapter Three's concentration on the study reported herein has identified the population assembled for scrutiny and the methodologies employed in collecting the data from that group. The researcher selected two subgroups for the study: those students with disabilities who answered the online survey questionnaire from their randomly-selected universities, and three focus groups of similarly self-identified and registered students to meet with the researcher on the campuses of three postsecondary institutions situated in the southwestern region of the United States. From this point, the study will proceed to report the data these two subgroups produced.

CHAPTER FOUR

PRESENTATION OF THE DATA

Introduction

Chapter Four reports the findings of both Phase I (the survey) and Phase II (the focus group sessions, in which participants shared individual accounts of their lived realities experienced in higher education). Risk factors emanating from the review of the literature, reported in Chapter Two, and discussed in the third paragraph of the following section, began to take on a distinctive level of significance: these students with disabilities revealed the threads to the tapestry cloaking elements of the hidden curriculum that marginalizes at-risk populations and conveys a message of being less than worthy. Lifting this veil commences to clarify a multitude of explanations for the unsuccessful educational pursuits of these and many other students with disabilities. The analysis and recommendations will appear in Chapter Five.

The researcher chose to concentrate on that segment of the respondents who are *least* satisfied with existing support services, and thus most at risk of dropping out of their postsecondary pursuits. Her report will rely upon the following data sources: the examination of respected scholarly writings, this author's conversations and observations, and the personal accounts of those students presently traversing the postsecondary education environment replete with instances of harsh alienating messages. The analysis and recommendations will appear in Chapter Five.

This researcher is mindful of the sad reality she can offer no data concerning the subjects *most* affected by the adverse forces under scrutiny—people with disabilities who are chilled into doing absolutely nothing toward accessing the setting of postsecondary education. Yet, in this researcher's judgment, these are the very individuals whose data *someone* with research and reporting skills should be collecting.

Delimitations of the Methodology

The researcher was obliged to delimit the methodology of her research project in three ways. First, so far as the survey instrument was concerned, she could not ascertain when, or if the participating institutions notified the students about the survey and urged them to participate, or whether these schools had sent follow-up e-mail reminders. Second, the researcher chose not to include responses to all of the questions within the survey document. However, she hopes and plans to utilize the remaining data for analysis in later journal articles. Third, she could not verify that the respondents had submitted only single replies, because all identifying information was removed from the instrument in order to ensure the respondents' anonymity.

With regard to the focus group methodology, the researcher offers three caveats: (1) the researcher kept her commitment to limit group size to small numbers, as evidenced by the fact that the smallest focus group included one student and the researcher, and the further fact that the largest group had nine participants; (2) participating students frequently veered from the three Grand

Tour questions posed by the researcher, and (3) the students often engaged in side discussions regarding support service issues other than those appearing in the formal questions.

Negative forces impacting the successful completion of the students' educational goals included faulty and inadequate adaptive equipment, acute and/or chronic health problems resulting in increased absenteeism, dissatisfaction with support services provided, unavailable requisite support services, caregiver absenteeism, lack of accessible housing, and lack of a support system for running errands such as retrieving library materials and grocery shopping.

Quantitative Data

The researcher contacted Student Disability Services (SDS) offices at 25 randomly selected postsecondary institutions (Appendix B), first by telephone, to identify the individuals who would be responsible for notifying their self-identified students with disabilities concerning the Internet web where the survey would be posted, and to urge their students to complete and return the survey. Subsequently, the researcher sent follow-up e-mail messages to explain the study and its purpose. Appropriate personnel at the institutions were asked to persuade their students with disabilities to complete the electronic survey instrument posted on a website which Oklahoma State University provided. In addition, the participating institutions were asked to send a reminder e-mail in seven to 10 days following announcement of the study.

A low response rate four weeks into the study prompted the researcher to take action by posting the survey on a listserve available to students with disability. Thereafter, seven more responses were returned, bringing the total number of respondents to 27 (N 27). Evidence surfaced that the survey questions actually threatened certain SDS personnel, as evidenced by hostile e-mails addressed to the researcher.

In this context of our report, the researcher has chosen to concentrate on two classifications of respondents: those who reported an unmet support services need, demonstrated by their choice of the dissatisfied/satisfied survey option; and those reporting that the support services had a minimal to substantial *impact* upon their successful educational outcome.

Not only did students report that support services were significant in achieving their educational goals (at a rating of 84.6 percent, see Table 1), but nearly the same number of them (80.8 percent) reported the *lack* of support services as having impact upon the achievement of their educational goals. It is well to note that the respondents indicated the need for additional support services at the 80.8 percent level. The sample population steadfastly reported the need for additional support services in the following areas: academic (57.7 percent); financial (53.8 percent); personal care (30.8 percent); and transportation (11.5 percent). Moreover, 74.1 percent of the students reported that receipt of their *preferred* service modality had a minimal to substantial impact upon their educational goals. These data reflect a distinct majority of the respondents. However, much of the subsequent data will focus on students who reported unmet needs, as well as on those indicating a high level of dissatisfaction with the support services they received.

Phase I (survey) of this correlation study produced data arising from five hypotheses posited by the researcher. These are now presented, with their relevant survey questions.

Hypotheses

H_1 A relationship exists between a *higher* degree of satisfaction with support services and students' perceived attainment of their educational goals.

Applicable Questions:

Survey Question 14: Do you believe these services aid you in achieving your educational goals? (See Table 1)

Survey Question 50: Mark your level of dissatisfaction/satisfaction with the university's efforts to meet your support needs. (Very dissatisfied to very satisfied or unsure, See Table 2).

Survey Question 54: To what degree do you believe that the support services you receive have an impact on the achievement of your educational goals? (No impact to substantial impact, See Table 3).

A significant correlation was found between the belief that support services aid students with disabilities in the achievement of their educational goals and the level of dissatisfaction/satisfaction with the schools' efforts to meet their support needs. (See Table 2 and Table 4) However, students who reported that support services aided in the achievement of their educational goals tended also to relate they were very dissatisfied or dissatisfied with their institutions' efforts in meeting their support needs. Conversely, those reporting that support services did not aid them in achieving their educational goals indicated they were satisfied or very satisfied with their institutions' efforts in providing support services.

Using Question 54, most respondents reported support services as having a substantial impact (Table 3). To a lesser degree, they reported support services as having a minimal impact on the achievement of their educational goals.

Students (84. 6 percent) believed that support services aided in the achievement of their educational goals (mean 1.15) while 15.4 percent did not.

Table 1

Student's Report that Support Services Aid Them in Achieving Their Education Goals

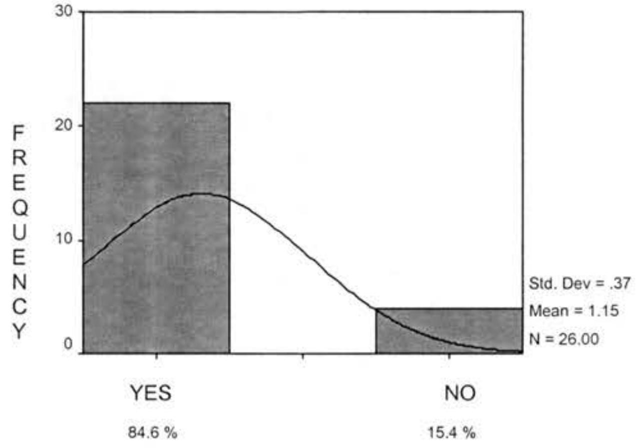


Table 2

Students Level of Satisfaction with the Universities' Efforts to Meet Their Support Needs

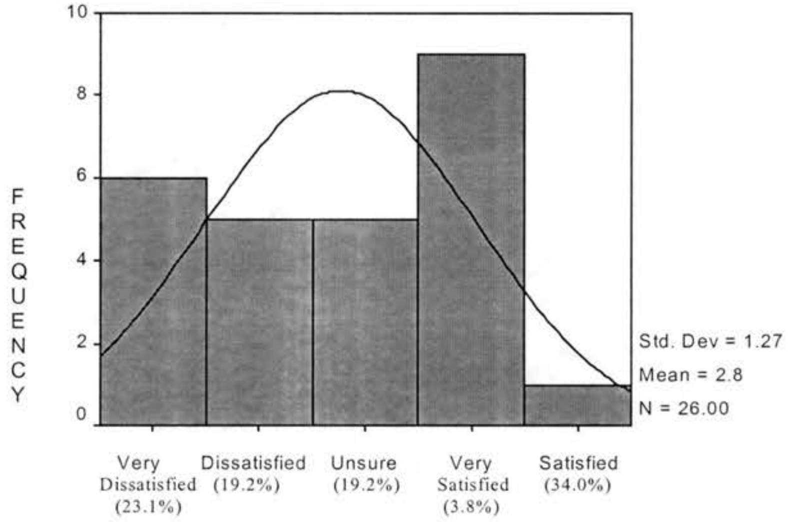


Table 3

Impact of Support Services on the Students' Achievement of Their Education Goals

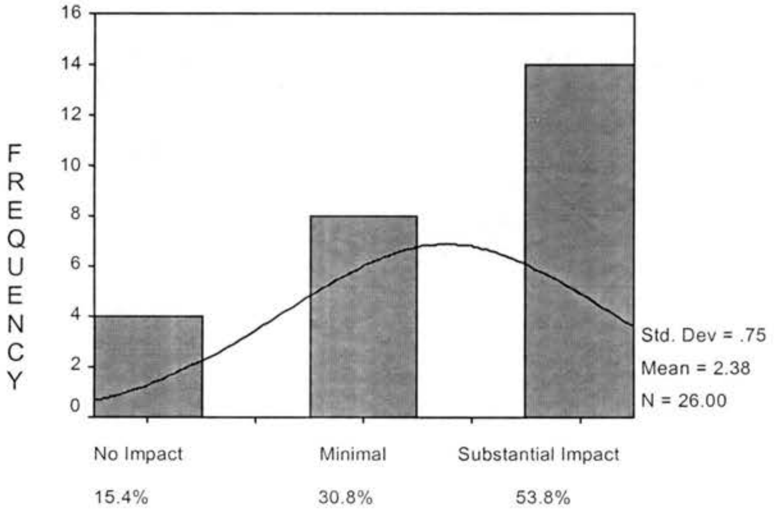
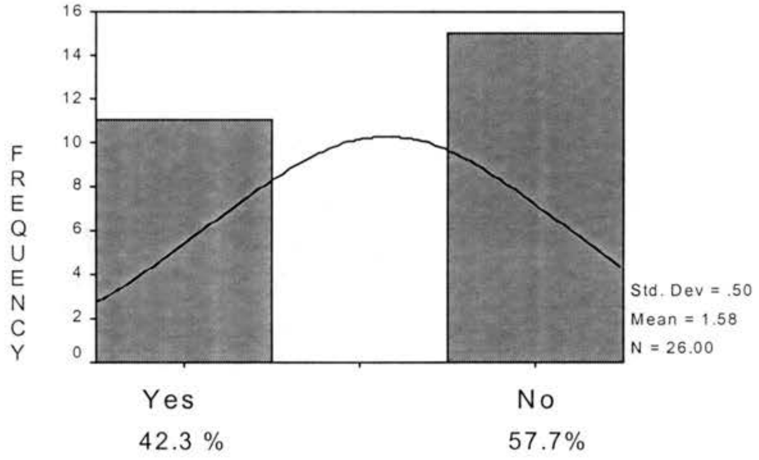


Table 4

Students' Belief that Support Services They Received Aided Them in Achieving Their Education Goals



Students reported their level of satisfaction with their schools' efforts to meet their support needs.

Forty-two percent of the respondents reported being either very dissatisfied or dissatisfied with the schools' efforts (mean 2.8), and 1.64 within the lower 25th percentile range.

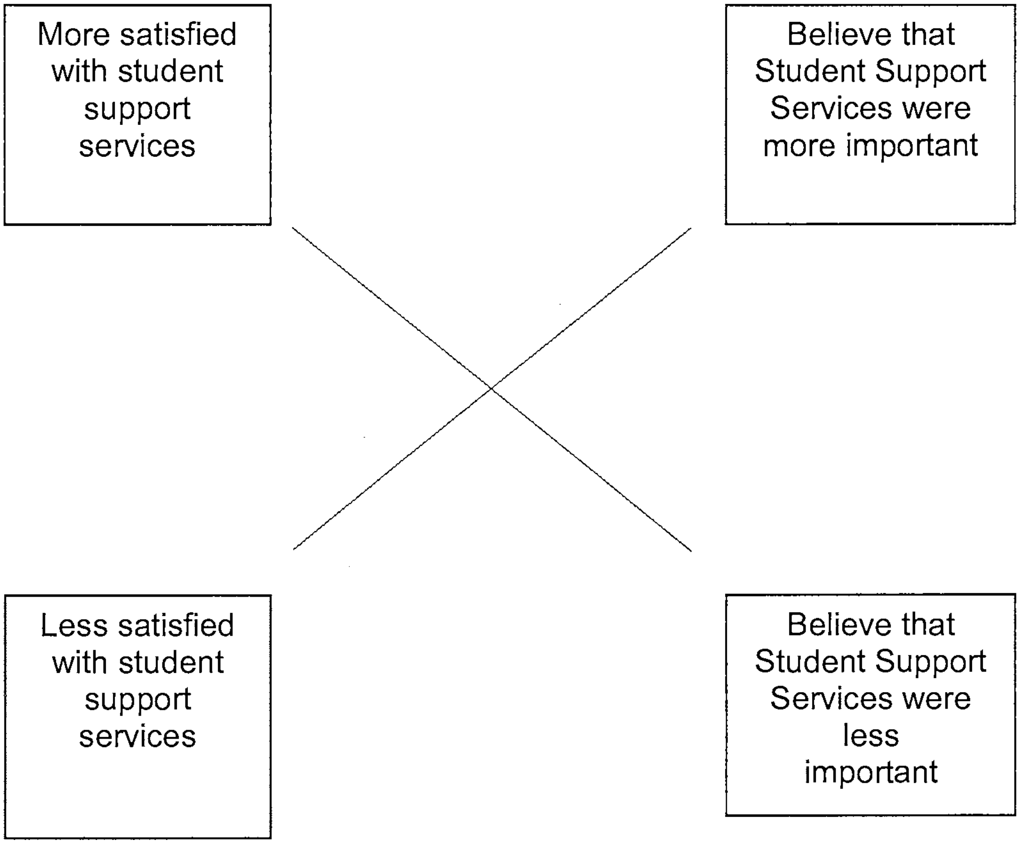
Students believed that support services had a minimum (30.8 percent) to a substantial (53.8 percent) impact upon the achievement of their educational goals.

Students were more satisfied with support services they received when they believed the support services were less important to the achievement of their educational goals. Additionally, as students believed that student support services were more important, they tended to be less satisfied with the support services they received. When they also believed support services were less important to the achievement of their educational goals, students with disabilities achieved their goals (or perhaps stopped out, dropped out, transferred, or changed their majors), regardless of the support services they received. The heightened level of satisfaction can be explained by the fact that students who persist with the intent of completing their educational goals have learned to navigate, plan, negotiate, and strategize the structures of higher education regardless of whether or not support services are available to them. They are more satisfied because prescriptive defined support services commonly known to them are not relevant. Therefore, they are more satisfied.

Conversely, students who believed support services to be more important were also less satisfied with support services because the prescriptive support services did not meet their needs. As students believed the outcome was more important, they received fewer of their preferred support services. This reflects the importance of providing students with the services they need, as opposed to their having to accept, or reject, what has been made available to them, regardless of what their needs are. From this, we may assume that students desperate for support services (who believe support services to be more important) are less satisfied, and thus receive less of their preferred service modality. Given an increased level of importance, students are less satisfied, especially if they are not receiving what they need when the service is most important.

Figure 1

Student Support Services Impact the Goal Achievement

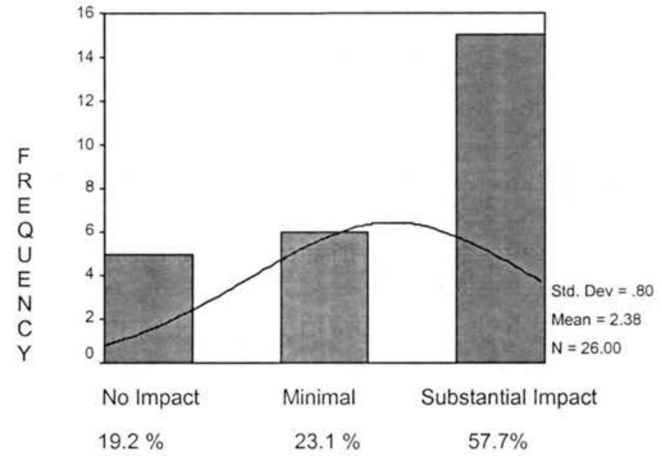


The significance of students with disabilities proceeding without the support services they *need* cannot be overstated. As the system exists today, students with disabilities have to accept only those services made available to them, rather than identify their needs and receive those preferred support services. Quite naturally, the students would be less satisfied because of the heightened level of importance assigned to their needs, along with the students' desperation to have those needs met. Students do not need more of what is already inadequate for meeting their needs. From the narrative testimonials of students with disabilities, this researcher has observed that these individuals have difficulty envisioning a service delivery system that they have not experienced. They draw an immediate inference: If a service is not in place at the time it is requested, it does not exist; therefore, it is irrelevant. This explains the lower degree of satisfaction among these students.

This study's survey found the *lack* of student support services had a substantial (57.7 percent) impact on the students' achievement of their educational goals, and to a lesser extent the lack of services were perceived as having a minimal impact (23.1 percent) upon goal attainment. These respondents were very dissatisfied to dissatisfied with the efforts of their schools to meet their support needs (See Table 5).

Table 5

Impact LACK of Support Services Has on Students' Achieving Their Education Goals



Students with disabilities were more satisfied with the support services they received when they believed the support services were less important to the achievement of their educational goals. Additionally, as the students believed that student support services were more important, they tended to be less satisfied with the support services they received (Figure 1). The heightened level of satisfaction can be explained by the probability that students who persist with the intent of achieving their educational goals have learned to navigate, plan, negotiate, and strategize the structures of higher education regardless of the services available to them. They are more satisfied because prescriptive defined support services commonly known to them are not relevant to their needs. Therefore, they are more satisfied.

H_2 A relationship exists between the perceived *quality* of support services available and students' perceived attainment of their education goals.

Applicable Questions:

Survey Question 15: Have you ever requested any preferred support service that was not provided (See Table 6)?

Survey Question 50: Mark your level of dissatisfaction/satisfaction with support services (See Table 7).

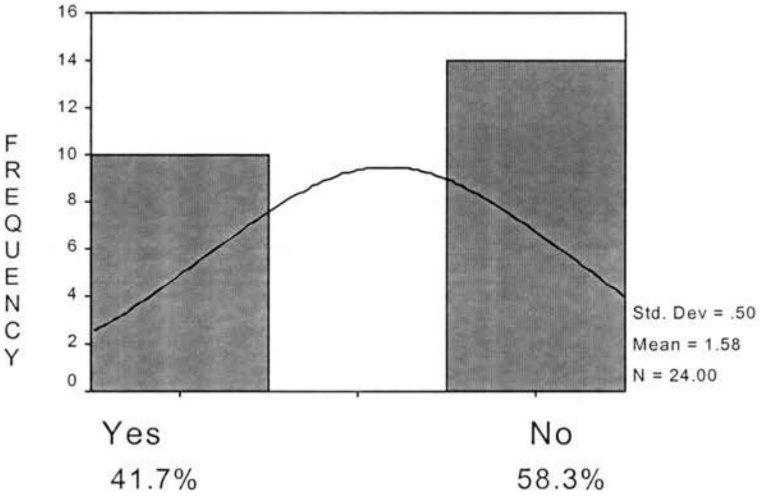
Survey Question 54: To what degree do you believe that the support services you receive (academic, transportation, personal support service, and/or financial) have an impact on the achievement of your educational goals? (See Table 3)

The data reflect that support services had a minimal to substantial impact upon 84.6 percent of the students in their ability to achieve their educational goals (See Table 1). Those students requesting a preferred modality (41.7 percent) reported having received that modality; the remaining 58.3 percent did not receive the preferred services (See Table 6). That condition created a substantial risk factor for this population. The data indicated that 80.8 percent of the students believed the *lack* of support services had a minimal to substantial impact upon their ability to achieve their educational goals (See Table 5).

As we saw above, respondents' replies to Survey Question 15 (the belief that the provided support services aided students in achieving their educational goals) demonstrated that they tended to be more satisfied with the quality of services if they knew those services did not aid in the achievement of their educational goals. From Survey Question 50, a significant correlation was discovered between the level of correlation (Appendix G) between the level of satisfaction with the *quality* of support services and the belief that the provided services aided the students in the achievement of their educational goals. When students were asked in Survey Question 54 to measure the *impact* support services had upon the achievement of their educational goals, their replies resulted in a significant correlation (Appendix G) concerning the level of dissatisfaction/satisfaction with the *quality* of support services received (See Table 7).

Table 6

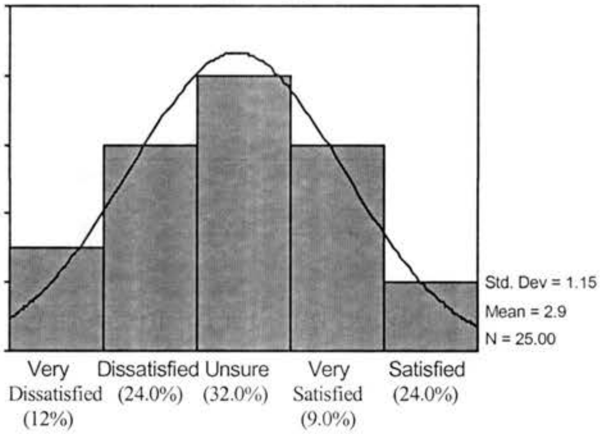
Students' Who Received Their Preferred Support Service



Students (41.7 percent) requested but did not receive (58.3 percent) their preferred service modality (mean1.58), with 1.08 percentile falling within the lowest 25th quartile range.

Table 7

Students' Level of Satisfaction with the Quality of Student Support Services



Twelve percent of the students reported being very dissatisfied with the quality of support service they received. Twenty-four percent were dissatisfied. Thirty-two percent were unsure with thirty two percent being satisfied to very satisfied with the level of services (2.92 mean) with 2.04 in the lowest 25th percentile. (See Table 7)

Students reported requesting their preferred services from: instructors, 19.2 percent; ADA Officer, 7.7 percent; other sources, 19.2 percent.

H_3 A relationship exists between the perceived *quantity* of support services available and students' perceived achievement of their education goals.

Applicable Questions:

Survey Questions 15: Have you ever requested any preferred support service that was not provided (See Table 6)?

Survey Question 54: To what degree do you believe that the student support services you received (academic, transportation, personal support services, and/or financial) have an impact on the achievement of your educational goals (See Table 3)?

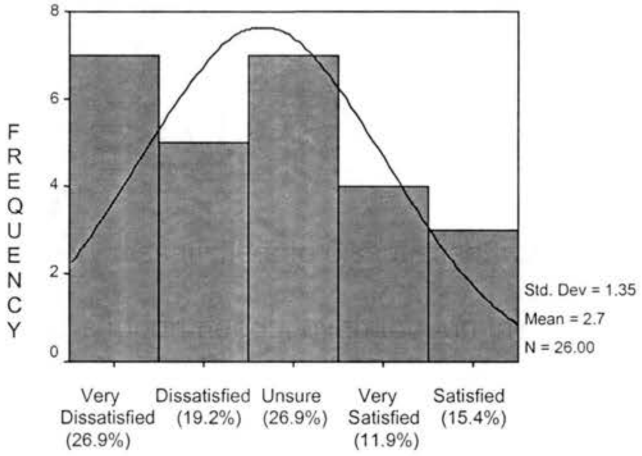
A significant correlation (Appendix G) was found between the students' level of dissatisfaction/satisfaction with the *quantity* of support services and the belief that those services both had an impact upon and aided in the successful achievement of their educational goals. A significant correlation was found between the level of dissatisfaction/satisfaction with the *quantity* of support services and the *impact* of those services upon the successful achievement of the students' educational goals. (See Table 3 and Table 8)

Students were very dissatisfied, to dissatisfied, with the efforts of their institutions to meet their support needs, even though the majority indicated they did not believe that the provided support services aided them in the achievement of their educational goals.

Table 8

Students' Level of Satisfaction with the

Quantity of Support Services Received



Level of Satisfaction with Quantity and Impact of Services on Goal Achievement.

H_4 A relationship exists between the *preferred* mode of support services available and students' projected achievement of their educational goals.

Applicable Questions:

Survey Question 15: Have you ever requested any preferred support service that was not provided? (See Table 6)

Survey Question 53: Did you receive your preferred modality of support services (See Table 9)?

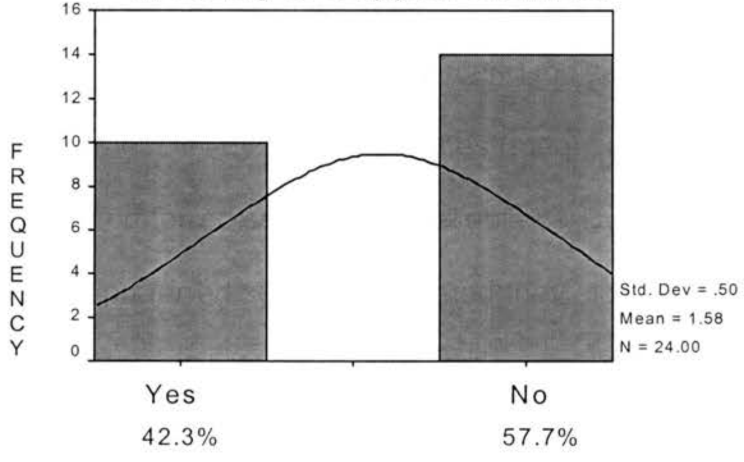
Survey Question 54: To what degree do you believe that the support services you receive (academic, transportation, personal support services, and/or financial) have any impact on the achievement of your educational goals? (See Table 3)

The result revealed a significant correlation (Appendix G) between the students' receipt of their *preferred* modality of support services and their belief that those services aided them in the achievement of their educational goals (See Table 1); and further, the students' belief concerning the *impact* of those support services upon the achievement of their educational goals. (See Table 4)

The majority of the respondents (58.3 percent) indicated they did not receive their preferred modality of support services (mean 1.58); while 41.7 percent did receive the preferred services (See Table 6). By the same token, those not receiving the preferred services indicated they did not believe the services available to them would have aided them in the achievement of their educational goals.

Table 9

Students Received Their Preferred Modality of Support Services



H_5 A relationship exists between support services and students' perception of attaining their education goals.

Applicable Questions:

Survey Question 14: Do you believe these support services aided you in achieving your educational goals (See Table 1)?

Survey Question 53: Did you receive your preferred modality of support services (See Table 9)?

Survey Question 54: To what degree do you believe that the support services you receive (academic, transportation, personal support services, and/or financial) have an impact on the achievement of education goals (See Table 3).

A significant correlation was found among the students' receipt of their *preferred* support modality, the impact of support services on the students' perception of the achievement of their educational goals, and the students' belief that the provided support services aided them in the achievement of their educational goals (See Table 1). The data reflected that as students believed the outcome was more important, they received fewer of their preferred services. These data suggest that as students believed the outcome (i.e. successful achievement of their educational goals) was more important, they received fewer preferred support services.

A very strong correlation was found between the level of student satisfaction with the university's efforts in meeting their needs and the level of student satisfaction with the *quantity* of support services, and with the *quality* of support services.

Even though 84.6 percent of students believed that support services aided them in the achievement of their educational goals (mean 1.15), 30.8 percent reported being either very dissatisfied or dissatisfied with the support services they received (mean 3.23); 2.0 fell within the 25th percentile range (See Table 1 and Table 3).

Transportation is critical, due to the absence of sidewalks, public transportation, and the pressure of inadequate income (56. 5 percent of the sample population reported an annual income below $10,000) to enable automobile ownership (in addition to insurance, automobile licenses, and maintenance).

Students reported being very dissatisfied (4.0 percent) to dissatisfied (32.0 percent) with transportation services.

Additionally, of the students who reported attending summer school (50.0 percent), 29.6 percent experienced a reduction in all services on weekends, evenings, and during summer school--transportation being one critical service.

While 73.1 percent of the students reported having access to an automobile, 57.7 percent reported the unavailability of convenient, accessible parking; however, 26.9 percent (mean 1.53) reported they frequently waited 30 minutes or longer for an accessible, convenient, parking space. Thirty-two (36.0 percent) reported being either very dissatisfied or dissatisfied with their transportation.

Significant correlations (Appendix G) arose between absenteeism related to disability, course withdrawals, changing majors, and the rigorous demands resulting in the students' withdrawal from higher education prior to completion of their educational goals. Twelve percent of the students reported they were either very dissatisfied or dissatisfied with attendant services; another 12.0 percent indicated they were very satisfied to satisfied with those services. Attendant absenteeism resulted in 7.7 percent of the students missing classes. Forty-four percent of the students reported missing more than three classes per semester; 26.1 percent indicated their absences were related to their disability. Students reported withdrawing from courses between one and three times (42.3 percent), and 26.9 percent reported withdrawing from courses more than three times during their college careers. One should note institutional policy punishes students one grade level for excessive absences; additionally, grades are reduced when course work submitted after the due date--one grade level per day was reported.

Changing majors was another significant risk factor and strategizing effort employed by 42.3 percent of the respondents; in fact, they reported having chosen this avenue from one to three times. Another 11.5 percent changed majors three or more times in their college careers. The rigorous demands of academia resulted in 30.8 percent of the respondents withdrawing from college, while the same number (30.8 percent) reported returning to pursue their college careers.

Personal Data of Survey Respondents

The survey instrument offered the following personal data concerning the respondents: (1) 14 of the 27 respondents reported having more than one disability; (2) the 27 respondents listed a total of 62 disabilities; hence (3) on average, each respondent had an average of 2.28+ disabilities. The largest group of respondents, 59 percent, reported having learning disabilities/ADD (attention deficit disorder); 22 percent reported a visual impairment; 18.5 percent reported having cerebral palsy; and 22 percent reported having "other" impairments (including: spina bifida, dyslexia, nerve compression, and sclerosis). Additional disabilities reported were: hearing and orthopedic impairment, accounting for 30 percent of the respondents; medical disabilities, reported by 15 percent; and multiple disabilities, reported by 11 percent (will not total 100 percent). It should be noted that the survey instrument listed some disabilities not represented in the sample population (see Appendix D).

The students' sources of income were reported as follows: employment (50.0); insurance payments (15.4); Social Security (11.5); SSI (7.7); Medicare (7.7); Vocational Rehab (23.1); scholarships (30.8); grants (26.9); loans (57.7); and other (23.1). Most of the students (56.5 percent) reported their annual incomes to be below $10,000 per year. Both those reporting income levels between $10,000 and $19,999, and those with income levels between $20,000 and $25,999 stood at 8.7 percent. Respondents reporting annual incomes in excess of $26,000 per year accounted for 26.1 percent of the respondents. Forty-four percent of the respondents (mean 1.56) determined these income levels to be inadequate.

Assistive devices utilized on a daily basis included: drugs and medical supplies (37 percent), and wheelchairs/scooters (22 percent). Others reported utilizing crutches, walkers, hearing aids, guide/companion dogs, sign language interpreters, white canes, and speech synthesizers. Devices reported under the "other" classification than those listed accounted for 18.5 percent, among them: computer screen readers, braille, adaptive computer software (Dragon Naturally Speaking), laptop computers with accessible software, tape recorders, braces, and medication for pain.

When students were asked who paid for assistive devices, they responded as follows: parents paid the largest percent of the devices (30.0); vocational rehabilitation, the student himself/herself, and private insurance each shared 20 percent of the cost for the devices, while the university, and "other" sources paid 5 percent of the cost; 25 percent of the respondents reported out-of-pocket medical expenses to be less than $300 annually; while 75 percent reported medical expenses in excess of $300 per year (mean 1.75) . Each student paid the largest share of the medical costs (48.0); parents paid 44.0 percent of the medical expenses, while other sources accounted for 8.0 percent of the cost (mean 2.20). These medical expenses were reported to be a burden by 61.5 percent of the respondents (mean 1.38).

Survey question 48 asked if more support services were needed to enable students to reach their educational goals, and if so, what types of services were needed. Over 80 percent of the respondents indicated in the affirmative: 57.7 percent (mean 1.19) needed increased academic support services; 53.8 of the respondents (mean 1.65) needed increased financial support; 38.8 (mean 1.88) needed additional personal care assistance (ADL); and 11.5 percent of the population (mean 2.07) needed more transportation.

Most of the survey subjects (61.5 percent) reported the onset of their disability being prior to age six, while 42.3 percent were between the ages of 18 and 21 years. The largest group of respondents (37.5 percent) reported attending large public institutions with enrollments in excess of 20,000 students; 33.3 percent attended medium-sized (5,000 to10,000) public institutions; 16.7 percent attended large private institutions having enrollments between 10,000 and 20,000 students; and 12.5 percent attended private-not-for-profit institutions. The academic classification of the respondents was: freshmen, 11.5 percent; sophomores, 30.8 percent; juniors, 23.1 percent; seniors, 15.4 percent; graduate students, 11.5 percent; and others, 7.7 percent; graduate students, 11.5 percent; and others, 7.7 percent. The non-disabled counterparts showed the following breakdown: freshmen, 57.8 percent; sophomores, 57.9 percent; juniors, 52.9 percent; seniors, 53.7; fifth-year undergraduate, 55.7; senior/graduated in 1999-2000, 51.2; and unclassified/other, 68.4 (US Department of Education, National Center for Educational Statistics, 1999-2000, National Postsecondary Student Aid Study [NPSAS, 2000]).

The following data came in response to the survey's single open-ended narrative question, "Please describe how you feel about the university's overall commitment to meeting your support needs." One student reported that the Student Disability Services Office, having first denied his/her request for books-on-tape, subsequently denied the request for a modified test because it was seen as an "odd request." Thereupon, discussing his/her test results with the instructor, the student revealed the need for a modified testing modality. In the subsequent sitting, the instructor prepared the test for the entire class in the modality needed by the student having the disability. That test resulted in a 35-point gain for the student. The student explained, " I apparently was the first agricultural student they had ever had, so they have no books-on-tape for my major classes or tutors to provide me."

Other students reported their schools' overall commitment to providing support services as, "It's a joke," or "I was denied services because I was an adult." Another said, "[I] paid about $1000 for a new diagnosis . . . Then support services would not give me the help I requested. I can't help but wonder how much better of an education (and life) I could have had with just a little help. Instead I had to get on [academic] probation, work my ass off, and stay an extra few years [at the university]." Others responded with the following: "Lots of grins and handshakes but can't get it done"; "I feel that there should be more ways to [get] help financially as well as academically"; and "Support is present [but] could be much better."

A strong correlation existed between the students' level of satisfaction with their universities' efforts in meeting their support needs and the level of satisfaction with the quality of student support services. The same was true of the students' degree of satisfaction with the quantity of support services.

Of the sample population reporting the use of a "personal assistant," 44.4 percent reported, at a minimum, needing daily assistance, while 7.4 percent required an assistant two to three times a day; and 7.4 percent required an assistant full-time (more than 22 hours weekly). Students requiring attendant services denoted the number of hours involved in those services per week, as follows: 14.8 percent required six to 14 hours of services per week; 3.7 percent of this population utilized an attendant from 15 to 21 hours of service per week; 3.7 percent utilized the attendants' assistance between 22 and 28 hours per week; and an additional 3.7 percent needed an attendant 29 or more hours per week. For the purposes of this study, the researcher determined those requiring between 22 hours per week and 29 hours or more per week were requiring full-time assistance (i.e. the 7.4 percent of those requiring the assistance of an attendant).

A moderate correlation existed between the level of satisfaction with the attendants' services and specific duties of the attendants. (i.e. bathing, meal preparation, laundry service, shopping, running errands, and providing help getting around). Those services listed in the category "other" than those enumerated were: assistance in using the bathroom; getting up each morning; retrieving books, going to bed each evening; brushing teeth; activities requiring fine motor skills; assistance with hand-eye coordination; help with writing; meal preparation; and taking messages. This category yielded a stronger level of correlation with the level of satisfaction the students felt toward the service.

Students utilized multiple academic support services simultaneously. Those services, in descending order, included: extended testing time (67 percent); tape recorders (41 percent); tutoring (37 percent); note takers (33.3 percent); audio books (25.9 percent); assistive devices (18.5 percent); readers and screen readers (14.8 percent); transcriptionists (11 per cent); one-on-one study coaches (11 percent); and sign language (3.7 percent). "Other" support services were used by 22.2 percent of the respondents. Those selecting the "other" category indicated no services were offered; that is, the services needed and requested were not available. Enumerated within the "other" category were laptop computers, distance-learning classes utilizing CD ROMs (which allowed each student to learn at his/her individual speed); Dragon Naturally Speaking voice recognition software installed on a laptop computer, EZ Keys for Windows, notification to professors of their need for accommodation, and private dormitory rooms. One respondent inserted the statement that a private room was required but was too expensive, and therefore he/she had to move off campus. Another student commented, "No services were offered to me . . . especially the ones I needed and requested." Still another student wrote, "I needed financial aid loans."

Respondents indicated that living accommodations encompassed a wide range of options: dormitories (34.6 percent), apartments (30.8 percent), a house (30.8 percent), and "other" quarters (3.8 percent). When assessing the level of dissatisfaction/satisfaction with housing accommodations, 25.9 percent of respondents required accessible housing; 50 percent of those requiring accessible housing reported difficulty in finding it.

Of the respondents, 80.8 percent indicated they needed more support services (mean 1.19): 57.7 percent needed additional academic support services; 11.5 percent of the respondents (mean 2. 07) needed more transportation services; 30.8 percent of the respondents (mean 1.88) needed personal support services (ADL); and 53.8 percent needed additional financial assistance.

Qualitative Data Analysis

With regard to qualitative research, Bruce L. Berg (1998) suggests that elements of symbolism, meaning, or understanding oftentimes might require consideration of the perceptions and subjective interpretations entertained by the individuals under study. Wortman (1982) goes further acknowledging Kenny (1982) advocates for the inclusion of the personal descriptions of those and by those experiencing the phenomenon under investigation.

Against that backdrop, and with thanks to members of the three focus groups reported in this study, the researcher (participant-observer) now cracks a window to reveal the perceptions and subjective interpretations of students with disabilities relating to their interface with higher education.

The section to follow presents results from the two-hour focus group sessions this researcher organized and scheduled in collaboration with the local

Student Disability Services Coordinators at the on-site institutions. During those sessions, three in number, the students gave accounts of their personal experiences with disabilities. The researcher has extracted these anecdotes to enlighten the able-bodied population at large, most particularly those charged with responsibility for developing and delivering support services to the segment of our population living with disability.

Successful implementation of the opinions and recommendations from the focus group participants will eliminate any *guessing* as to the needs of those who live with disability while seeking educational advancement. Yet, the practice of resisting society's endeavor to marginalize this subpopulation is evidence reflected as a paramount theme. A good example of such practice surfaced in the remark by a focus group participant named Frank. He demonstrated rather keen insight when he remarked, "Don't let perfect be the enemy of good" (Riverside University, September, 2002). This very intelligent young man, severely influenced by cerebral palsy, learned early in his academic career compromises were inevitable in order to meet both the daily challenges presented by his disability and his rigorous academic demands. He had attended five institutions in an effort to discover one that met his needs (Riverside University, September, 2002).

Overarching theme above the focus group sessions was the members' struggle for personal independence. Every one of the participants had chosen to travel the educational route as his or her pathway toward that hard-to-reach, elusive destination. These students with disabilities shared anecdotes of horrific events that indelibly etched their psyches. Fortunately, however, the great effort these individuals expended in traveling this road adds the dimension of depth to the perception of anyone viewing the tapestry portraying the journey. The ways in which these individuals handled their impediments and challenges along the way instruct their successors concerning tested methods to use in mitigating such negative forces encountered along the way.

As we saw in Chapter Two, the literature of research was found to be devoid of personal accounts by those not only living with disability but also enduring the insidious ensuing poverty while pursuing postsecondary education. Paradoxically, the literature did reveal a theoretical basis for valuing the voices of society's dispossessed (Wortman, 1982; Kenny, 1982). The present research project endeavored to pursue this challenge to give a voice to this otherwise voiceless group. Therefore, the researcher has selected accounts and quotations, attempting to emphasize the daily lives of students with disabilities and the strategies they employ to resist society's predetermined notions thrust unwittingly upon them as members of society marginalized through disability. The three focus group sessions elicited input from a total of 15 participants who openly shared their experiences in higher education and their attitudes toward disability in general. Besides exposing intuitive coping skills, these data as coded reveal themes and the contributing categories within each theme. Taken together, the themes further explain the students' encounters with their lived experiences, while exposing the methods and strategies they utilized in negotiating and bargaining their travels through life's challenges.

The researcher posed the following questions separately to the members of the three focus groups:

(1). How do student support services impact your education?

(2). What do you consider to be crucial in the design and delivery of effective student support services?

(3). What is your *vision* of effective student support services?

Figure 2

Education, Avenue to Independence: Lurking Beneath the Students' Resistance is a Host of Barriers They Must Conquer!

The above display illustrates students' striving for independence by advancing their education, even though confronted by a myriad of barriers.

The following predominant themes, four in number, arose from the focus group data: Education, Barriers, Resistance, and Independence. The education-based theme offered the expected category of access to money and finances necessary for meeting the students' living expenses and educational expenses. The next category, ranking second on the participants' list of education-based categories, was the issue of student support services and accommodations the participants needed in order to achieve their educational goals. Third on the group members' list of education-based categories concerned their methods of strategizing and negotiating the academic environment.

The second predominant theme, that of barriers, contained categories which for the students with disabilities focused on the limitations of the built environment; financial aid restrictions; attitudinal barriers; inconsistent application of institutional policies and practices; lack of awareness about the availability and method of attaining the needed services; and the unrelenting challenge both to the existence of the students' disabilities and to the acquisition of appropriate and available accommodations.

The theme of independence is the third desired--if not the most desired--outcome of the students' educational pursuits. Categories encapsulated within the theme of independence are: overcoming the negative forces arising from the dynamics of the students' familial enclaves; the absence of an effective support system; overcoming financial limitations; and the students' uncanny ability to sustain a healthy internal and external locus of control, enabling them to delay their immediate gratification in exchange for the greater long-term benefits of successfully achieving their educational goals.

The fourth predominant theme, namely resistance, permeates the three previous themes as a veiled overlay. This resistance is evidenced by the students' power of persuasion in convincing their immediate families of the efficacy of pursuing postsecondary education; their refusal to accept society's marginalizing stigma (Smith, 1990); their relentless resistance efforts, as evidenced by masterfully strategizing and negotiating barriers, frequently giving way to misinterpretation; inconsistent policy application; the students' concerns regarding their educational goals; negotiating strategies; both available and unavailable student support services; frustrations; self-advocacy; and their unrelenting resistance to an overwhelming array of complexities impinging upon the successful completion of their educational mission. Of more than passing interest to the participants was the fact that although the ADA is at best “vague”. Chapter One reflects the ADA’s regulations concerning accommodations as providing only false hopes for many who anticipated more.

We now share the focus group participants' responses to the questions this researcher posed to them. The first question follows.

(1). How do student support services impact your education?

One Student Disability Services Office encouraged its students to participate in a peer support group to enhance a feeling of being connected (Tinto, 1991), and to allow the students to learn survival techniques (Gugerty & Knutsen, 2000) A participant named Amber recalled this support group [at the community college she had attended earlier] as being like a "home away from home, . . . preparing us for the real world. [Rolling Hills University] is like the real world" (Amber, Rolling Hills University, September, 2002). The experience of transferring from a two-year institution (community college, proud of her 4.0 GPA) brought this further remark from Amber: " [Here] you are your own advocate. . . . You have to take care of your own problems. . . . You make a mistake; it's your fault; you have to deal with it."

Amber recounted how she sought support services when a professor's attitude made her feel, to quote her, as though "I just wasn't intelligent or . . . enough to be in her class. . . . She made me feel like ‘crap’. I worked as hard as I could, turned in my papers exactly when they were due. I tried [doing] extra credit. Halfway through the semester, my grade went from a B to a C. I just had to take a withdrawal. . . . I could not finish the semester. . . . It was her attitude. . . . She wrote snotty remarks on my papers, like ‘Oh, is that so?’ I didn't want to call her a bitch." After Amber and her mother consulted a counselor in Student Support Services, the instructor gave her a withdrawal, necessitating her reenrollment in a subsequent semester. (Rolling Hills University, September, 2002).

Inclement weather brought additional challenges to Amber and other focus group participants (Rolling Hills University, September 2002; Riverside University, September, 2002; & Glendale Community College, September, 2002), which meant navigating the various campuses absent handrails or an adequate transportation system. Amber recalled traversing one of the campuses in a major ice storm during the week of final exams, commenting that she had the grace of a "cow" when navigating on ice.

During one session, the discussion moved to the subject of classroom structures without elevators. Amber (Rolling Hills University, September, 2002) recalled having sought assistance from the Student Disability Services Office when she could not avoid taking a class located on the third floor of a building without an elevator. SDS held that the class could not be relocated because it was a computer class. Amber reported that she had avoided that building as long as possible. Now in her senior year, she was forced to take a class that was offered only in that building. (Rolling Hills University, September, 2002).

Raye (Riverside University, September, 2002) shared, "I dropped out of high school . . . because I always thought I was stupid . . . [Now a mature woman, pointing to her current academic successes] I know now I've always had a learning disability--I wouldn't be here without student support services."

This researcher noted participants' difficulty in answering the second question she had framed for each of them to answer: What do you consider to be crucial in the design and delivery of effective student support services? Perhaps their reticence resulted from their limited experience with any comprehensive student support system. Nevertheless, the researcher sought their reaction to the question. Despite their ambivalence, the focus group members came to regard student support services in the same way as had the respondents to the survey instrument: members of that group submitted in written form their assessment of student support services as having a substantial to minimal impact upon their paramount objectives.

Students who had experienced and participated with peer support groups spoke highly of their effectiveness. One said, "We had lunch every week--we just talked about the things that were bothering us--instructors, course work, problems with getting the accommodations, . . . what we needed and what we got" [with regard to student support services] (Lucille, Riverside University, September, 2002; Bright, Glendale Community College, September, 2002). Don (Riverside University, September, 2002) spoke of an intermediary, possibly an ombudsman--somebody to whom the students could explain their situations, and who would intercede to solve the problem, possibly a person outside the university who could not be co-opted. "We need an independent voice," he said (Riverside University, September 2002).

The focus group participants spoke of the need for a consistent policy application, a single source for the interpretation, monitoring, and distribution of student support services. Chief of their concerns was the need for a campus-wide awareness of both the Resource Center and the students' definitive acknowledgment of exactly what support services were available, and under what conditions students could access them. The students complained of being required to seek multiple service sites spread across multiple agencies and multiple university departments in search of services, which might not even be ultimately forthcoming. The participants shared a commonality in that no one would or could identify those services that were not available, or where and how available services might be accessed.

Question 3 was the final item placed before the focus group participants: What is your vision of effective student support services?

As with the earlier questions, participants had difficulty in addressing the matter posed by this question. However, following Don's (Riverside University, September, 2002) lead, they shared his vision that student support services should include other students having disability, not only for their invaluable input but for their roles as examples that speak volumes to other students with disabilities. No one could be more insightful than other "insiders" (Riverside University, September, 2002).

In recounting their experiences in higher education, the focus group participants exposed a myriad of instances in which inconsistent policy was applied to their cases. They also recalled episodes in which instructors ignored the recommendations for accommodations from their Student Disability Services offices, and advised students that they would be wise to drop courses if they could not adhere to the same class schedules as other class members were following (Rolling Hills University, September, 2002; Riverside University, September, 2002; Glendale Community College, September, 2002).

A student by the name of Bright (Glendale Community College, September, 2002) recalled such an experience. She said, "I have been told that if I cannot keep up with the class work and do the same as everyone else is doing, I was invited to leave the class" (Glendale Community College, September, 2002). Bright said she believed that she was not treated properly, that the laws should have protected her, and that her school should have required the instructor to accommodate her, since SDS at her school had authorized the accommodation. One of the other students suggested that Ms. Bright should enroll and take her classes at another branch of the school, where the SDS Director had achieved success in selecting instructors with reputations for better assisting students with disabilities (Glendale Community College, September, 2002).

The foregoing are but simple examples of how students become artful in negotiating and strategizing around institutional barriers. Others in the group shared instances of dropping and adding classes to avoid instructors who "will not work with you [around your disability needs]" (Glendale Community College, September, 2002; Riverside University, September, 2002; & Rolling Hills University, September, 2002).

Bright (Glendale Community College, September, 2002) had an invisible disability, and was frequently challenged by her instructors about her need for accommodation, even though her disability had been documented and its accommodation authorized by SDS. A fellow student suggested that Bright should try to get books on tape, since extensive reading caused her to have migraine headaches. This illustrates ways in which students try to help by offering advice to each other, based on their own previous experiences. Bright's (Glendale Community College, September, 2002) current and Amber's (Rolling Hills University, September, 2002) earlier institution had an active peer support group that met weekly. Research has found such institutional service to be helpful in improving colleges' retention efforts (Tinto, 1991; Gugerty & Knutsen, 2000).

A common theme arose from the high degree of frustration students felt when constantly challenged regarding their learning requirements, when required to "argue" with the instructors absent any support, and when obliged to solicit tutoring from outside sources because their institutions did not offer the needed tutoring. This latter state of affairs is illustrated by one institutional suggestion that a student--Ronnie, by name--request his church members for help. Ronnie recalled: "I went up front [in the church] and told the whole congregation that I was needing a math tutor. I just asked for prayer. I did not know that there was a woman in my church that could actually . . . she knew about math, and she . . . After service, she came up to me and asked if I needed a math tutor." Ronnie went further to say with pride that his fellow church member helped him with elementary algebra and college algebra, and that he received grades of B in both courses (Riverside University, September, 2002).

Another student recalled an instructor's resistance to accommodation recommendations by SDS, and remarked, "When a teacher still declines to honor that [recommendation], then you have to argue with them. . . . It seems to me that the law is being broken somewhere" (Riverside University, September, 2002).

Members often referred to support services that assisted them in completing their course work as "help with classes" and "help with my courses."

They spoke frequently about their need for assistance with taking class notes. This need was reflected by the members' discussions about strategies for soliciting note takers among their classmates, allusions to the advantages of using tape recorders in classes and then playing the recordings back after they left class, and references to the advantages of having access to the information as frequently as possible.

Student support services were seen as vital to the members' success in attaining their educational goals. The students noted a variety of accommodations as being paramount to their success--tutoring and receiving extra time when taking tests being mentioned most frequently. The students with learning disabilities talked about their lifelong "difficulties in school." Others made such remarks as, "I just thought I was stupid." Several of the members talked about dropping out of high school at age 16 due to their poor performance (Glendale Community College, September, 2002; Riverside University, September, 2002; Rolling Hills University, September, 2002).

School selection and its relevance to the focus group participants' disabilities materialized as a significant factor in their academic careers. Many of the members reported they had visited multiple schools in search of the institution that would best met their needs in terms of curriculum and support services. Some of the students admitted they had attended four or five different institutions of higher education. They voiced a high level of satisfaction with the institutions they were attending at the time of the focus group (Riverside University, September, 2002; & Glendale Community College, September, 2002).

Non-existent elevators were problematic at all three institutions, and they formulated a category within the "barriers theme" that significantly impacted the educational pursuits of the participants (Glendale Community College, September, 2002; Rolling Hills University, 2002; & Riverside University, September, 2002). Two students were forced to change their major fields of study because they could not climb stairs and gain access to their classrooms. One student (Rolling Hills University, September, 2002) with a class on the third floor required her mother's assistance to negotiate the three flights of stairs. Her mother waited six hours in her car until each class session finished, and again escorted her back down the stairs. The mother followed this regimen throughout the entire semester because the Student Disability Services Office did not have a viable alternative (Rolling Hills University, September, 2002). A second student (Rolling Hills University, September, 2002) changed her major from Graphic Design because the computer lab was on the second floor. Relocating one of the computers to the first floor was discussed during the entire semester, yet was not accomplished (Riverside University, September, 2002).

Layers of disability issues and individual accounts thereof converged into a theme intertwined with threads divulging insufficient family support for the members' educational pursuits, inappropriate accommodations for their specific disabilities, and inadequate financial support and its relationship to the required number of hours they were expected to complete. These stressors, coupled with that resulting from life with a chronic disability, frequently overburdened the members and resulted in even poorer academic performance (Glendale

Community College, September, 2002; Riverside University, September, 2002; & Rolling Hills University, September, 2002).

The highest number of poverty markers unveiled by the focus group participants were: lack of money for living expenses (stemming from incomes of less than $9,999 per year), purchases of needed prescription drugs, meeting transportation needs, and so forth (Kahn Survey, 2002). One such example came from Don (Riverside University, September, 2002), in his thirties, who disclosed that his total monthly income was $600; another from Lucille (Glendale Community College, September, 2002), a middle-aged lady with multiple medical problems, who talked about not having sufficient income to purchase her prescription drugs; and a third came from Raye (Riverside University, September, 2002), in her forties and laid off from work, who indicated she was no longer able to purchase her medication, and that oftentimes she had difficulty getting money for gasoline so she could drive to the classes at her university (Riverside University, September, 2002).

Don, in describing his dilemma and that of his fellow students, noted the population with disabilities as being society's "throw-away people," restricted by the rule makers. He described his aspirations as simply wanting to be able to pay his bills, to have a job, to be sufficiently secure financially to take a two-week vacation, and to enjoy the same "normal life" as he saw his non-disabled friends enjoying. His resistance to the little or no empathy those university and city officials showed toward his transportation needs had a critical impact on his ability to pursue his educational goals. This theme surfaced throughout the focus group sessions (Riverside University, September, 2002; & Glendale Community College, September, 2002).

Never complaining, but facing mobility needs and unacceptable economic circumstances, Don drove a golf cart through the city without sidewalks in order to reach the campus of Riverside University, which likewise had no sidewalks. Don drove his golf cart across campus in order to reach his classes. University officials criticized him for "driving his golf cart *on the grass*." He reminded University staff that golf carts are designed to travel across grass without damaging it. Don's battle with city officials and his resistance to those "outsiders' " limitations eventually concluded in his being triumphant: he sought and received support from a state senator in his efforts to gain access to his classes. However, the ongoing need to resist and challenge stereotyping and marginalization proved to be stressful, diverting him from his studies and sometimes causing him to miss class sessions. Over time Don shared his pent-up high level of frustration with society's marginalizing and stereotyping commenting that "my legs are disabled -- not my brain -- "people just have to get over it, I'm here to stay -- not going anywhere," (Riverside University, September, 2002).

The researcher queried routinely about the *worst* experience students had encountered in navigating their pathway in higher education. Amber (Rolling Hills University) shared one such painful encounter. Choking back tears, she hesitantly began her story: prior to the beginning of the semester, she informed the instructor of her disability (epilepsy). Thereupon, according to Amber, the instructor made the following remark in front of other classmates: "Oh, good! I hope you will give us a good time. We'll have good entertainment here, watching you break-dance on the floor because of your epilepsy." Amber cried as she stated further, “And it still hurts. . . . I felt like I had been raped” (Rolling Hills University, September, 2002).

Amber’s was the most severe of the humiliating experiences reported during the focus group sessions. Other members cited multiple instances of instructors asking them as students with disabilities to drop their classes if they could not participate equally, in the same fashion, and on the same time schedule as the other class members. Even though institutional policies on accommodation were promulgated, students frequently reported cases of ongoing tensions provoked by instructors’ noncompliance, inconsistent knowledge of policies, and their improper application (Rolling Hills University, September, 2002; Glendale Community College, September, 2002; & Riverside University, September, 2002).

The students’ accounts revealed their adroitness at strategizing and negotiating around deeply embedded, structurally-based institutional impediments that Margolis (2001) has characterized as the hidden curriculum in higher education (in that it minimizes and chills out participation by special-needs populations). Themes of resistance (perhaps a coping skill developed over time) to society’s repeated efforts to deny full participation emerged, running the gamut of ingenuity (e.g. Don's insistence upon using his golf cart on the city streets and on the university campus lawn); other numerous accounts of students dropping and adding classes in negotiating around professors; inclement weather;

changing majors; using political influence; and manipulating financial constraints. Another member demonstrated further resistance by her persistence in attending a class for a whole semester in a three-story building without an elevator while her mother sat in a car for six hours in order to walk her down the stairs to shield her from falling (Margolis, E., 2001; & Rolling Hills University, September, 2002).

Focus group members recalled many instances of individual instructors refusing to accommodate a student with a disability while citing a fear of *discriminating* against another student who had *no* disability. The literature reveals that this truly was an issue instructors were unable to address accommodations appropriately (Morfopoulos, 2001)

A First-Person Account, Observations, and Interviews

The following is but a single account of this author's experience traversing the higher education environment from a seated position. The author followed the practice of returning to her university before each semester, laying out a stratagem for the upcoming period of learning--meeting with her professors, securing course syllabi, purchasing texts to be scanned onto floppy disks (later to be read aloud by a computer program), and gathering reference materials from the Library. Prior to the beginning of one particular semester, this latter task proved to be an even greater challenge than the one to which the author had become accustomed. For the semester in question, the author’s courses were to include the study of educational facilities. This entailed securing the needed reference materials from the Architectural Library--located two or three blocks distant from the University's main library.

The author waited for a sunny January day prior to classes commencing. Finally, such a day arrived. Telephoning ahead to confirm that in fact the library would be open, the author set out accompanied by a relentless cold wind. At about 10:30 o'clock in the morning, with a fully charged battery in her electric cart, the author began her one-mile journey. Absent curb cuts and sidewalks, she successfully evaded delivery trucks, automobiles, and countless other barriers to arrive at the Architectural Library about an hour later.

After successfully finding a charitable soul to open the inaccessible door, the author proceeded to press the elevator button. Following an extended wait, she began searching for an individual who might be in charge of the building. She encountered the janitor, of whom she inquired as to why the elevator didn't appear to be working. Attempting to offer assistance, the janitor explained that the elevator probably was locked off on the fourth floor. He said he really didn't know why "they" kept the elevator routinely locked off on the fourth floor However, he volunteered to climb to the fourth floor in an effort to bring the elevator down to the first floor--this to enable the author to gain access to the Library, which was located on the third floor.

The janitor cheerfully succeeded in bringing the elevator to the first floor. The author began to enter the elevator and tried to turn around so that she might be able to select the third-floor selector button. After witnessing the author's effort to use the elevator, the janitor again volunteered to accompany the author on the elevator, further observing that "sometimes it [the elevator] doesn't work real well." The author was grateful for the companionship once the poorly operating elevator started moving up the three stories. Having determined the author had reached the destination where she needed to be, the janitor went on his way. However, absent directional signage, the author searched down several corridors and finally arrived at the Architectural Library. This entity had four steps to climb in order to gain access.

The hour of 1:00 p.m. had now arrived. The author was tired and had not yet succeeded in acquiring the needed reference materials for the upcoming semester. Confronted by insurmountable steps, she again began to search for somebody who might be in charge of this building. She set her cart to traveling down corridors, in and out of offices. Eventually she came upon an individual who explained that the Library had a separate elevator. However, it too was locked off.

The author's new friend began fumbling through numerous keys, unable to find the appropriate one, and not sure that he even had access to the Library. Furthering the delay, he went up to the Library to talk to the Librarian about access to the elevator. The Librarian explained that she had been working there nearly three years and had never witnessed the elevator in use. The appropriate key was finally located, and the author was escorted to a locked, secluded elevator access door. The elevator door opened, and there before the author's eyes were stacks of boxes stored within the extremely small elevator. A further explanation of the situation met the author's ears: no one present could recall the elevator ever having been used before!

Once the elevator stopped within the Library, the doors opened, and again the author was confronted by more stacked boxes--this time blocking her exit from the elevator. She waited yet again, believing that perhaps now she might be able to get to her reference materials. Yet, more boxes had to be moved out of her pathway. Still, inaccessible shelving prohibited her from selecting the needed materials. Exasperated, she selected the needed materials from a computer list, only to be informed that the needed materials were not available and that she would need to return several days later when materials would be available.

The author then informed the Librarian that she--the Librarian--must send the materials to the main Library where the author would secure the materials on another day. Thereupon, the Librarian told the author that she could have had the materials delivered to the main Library in the first place--after personnel at the main Library had told the author she would have to secure the materials directly from the Architectural Library. The author returned to her apartment after 3:00 p.m., having spent an entire day searching for very elusive but necessary materials (Wheatley University, 2000).

The author cites the following encounters, which occurred during the course of her involvement with this project. She encountered Charles (Wheatley University, 2000), who had been rendered a quadriplegic following a diving accident during the summer prior to his senior year, and now after a year of intense inpatient rehabilitation was able to return to the University to complete the work for his degree. Having made the many necessary provisions with the Department of Human Services, Vocational Rehabilitation, home healthcare agencies, and having communicated with the University's Student Disability Services Office, Charles' parents took a week's leave from work to accompany him on the 200-mile trip to settle him into his campus apartment.

Upon the family's arrival at the University, they learned that Charles' case record at the Department of Human Services had been lost. His father first contacted the University's Student Disability Services Office for aid in resolving this major dilemma. Exasperated by the ADA's Compliance Officer and the SDS's apparent complacency, he was resigned to the reality that Charles could not be left at the University without necessary assistance. Charles needed a nurse for one hour each day to assist him temporarily with his bowel training.

Charles made an exhaustive effort to secure an alternative solution. He initiated contacts with every home health care agency in the area, to no avail. But after an unsuccessful week of searching for nursing assistance, Charles' parents were prepared to return home, taking him with them. At 2:00 o'clock on Saturday morning, another student with a disability encountered the hysterical mother. That student suggested the mother visit with the author prior to making any definitive decision about returning Charles to the family home.

At 8:00 a.m. the mother awakened this writer, asking her to visit with the family to search for an answer to their dilemma. The writer consulted with the family (who reported their weeklong frustration of dealing with the Student Disability Services Office and the ADA Compliance Officer), and then contacted an individual with nursing experience who lived in the apartment complex. The writer, the nurse, Charles, and his parents collaborated through the entire day, successfully arranging the needed nursing services. Charles prepared a release-of-liability instrument to protect the nurse, and agreed to pay her privately from his personal resources. At 6:00 o'clock that evening, the parents departed for their home. Charles turned to the author, making a triumphant gesture pointing to the achievement of his goal to complete his degree. Two-and-one-half years later, he graduated and was hired to work in the marketing department of a major airline (Wheatley University, 2000).

Zach's story is not as positive. Upon graduation from high school, a car accident left him a quadriplegic. As a result, Zach lost his athletic scholarship and his fiancée. Following extensive rehabilitation, Zach enrolled at the University, unsure of his educational goals, and poorly prepared academically for the challenge lying ahead of him. A non-existent support system (resulting from his parents' impending divorce), no transportation, and inconsistent and inadequate attendant services surrounded him. Zach became ill during a severe winter, and could not get medical care or groceries. Some of his health problems resulted from ill-fitting shoes that caused an infection. Zach was 6 feet, 9 inches tall, wore size-16 shoes (which were quite expensive), and he had no resources with which to purchase proper shoes. Sick and discouraged, he dropped out of school during Spring Break (Wheatley University, 2001).

Glenn (Wheatley University, 1999), a mature student of African American origin, was a Junior when this writer met him. The campus celebrated Martin

Luther King Day by inviting his son to address civil rights issues and talk about Martin Luther King. Glenn prepared to attend. Ironically, upon arriving at the event, Glenn was confronted by six steps leading to the auditorium; upon calling the ADA Coordinator to apprise him of the dilemma, the proposed solution was to gather five or six administrative staff to carry Glenn (weighing about 200 lbs.) and his wheelchair (weighing another 200 lbs.) up the steps, enabling him to attend the discussion about civil rights. Setting out to hoist Glenn over the six-step barrier, he was almost dropped upon reaching the final step or two. This was an inappropriate and dangerous proposal; the appropriate solution would have been to construct a ramp to the side of the steps or install an external, motorized lift allowing any ambulatory-challenged patrons (many of whom were elderly city residents) of this Performing Arts Center (Wheatley University, 1999)

He required an attendant to get him out of bed in the morning, shower, dress, prepared breakfast, place his backpack filled with the textbooks needed for the day, and send him off to the campus until lunchtime when he returned to his apartment where upon the attendant would return to assist him with his personal needs, prepare lunch, and send him back to campus to complete the day. At the end of the day, the attendant would return to prepare dinner and assist with personal care. The attendant returned at nine o'clock to give him his medication, and put Glenn to bed. When the attendant had plans for the evening, Glenn was put to bed at five or six o'clock p.m.-- which reduced his study time. Traversing this 500-acre campus in an electric wheelchair, over an credibly taxing terrain (sidewalks absent curb cuts and riddled with cracks and bumps, and blocked frequently by University service trucks). Glenn was born with Spina Bifida and as adults sustained a back injury after stumbling over an ottoman rendering him a quadriplegic. His academic career began in the late eighties when very little attention was given to accessibility and the needs of those students with special meets. Glenn, living in an apartment on campus and taking courses year-round, found it necessary to withdraw from the University a couple of times in order to regenerate his energy and stamina--each time returning and successfully completing some additional course work (Wheatley University, 1999).

Summary

Chapter Four has recorded the findings both from the present study's survey and from its focus group sessions. Significant statistical data arising from the project's five hypotheses have been reviewed, and salient points emerging from observations by the focus group participants have been duly noted.

The anonymous respondents to the researcher's survey questions gave frank appraisals of the student support services within their respective institutions, as did the students meeting with the researcher in the focus group sessions. From the written statements of the respondents and the transcribed remarks by the anonymous focus group participants, one must conclude that the services of postsecondary institutions to their students with disabilities rank high among those individuals as an item deserving of more attention. This and other matters will be addressed in Chapter Five, to which we now turn.

CHAPTER FIVE

ANALYSIS, CONCLUSIONS, AND RECOMENDADATIONS

Introduction

The study here concluded developed in two phases. Phase I (the survey) enumerated findings gleaned from five hypotheses, narrative testimonials of anonymous respondents, and their replies to the single open-ended survey question. Phase II (focus groups) elicited narrative accounts by anonymous postsecondary students with disabilities concerning their lived experiences. From these elements a complex tapestry has emerged, allowing a viewer to appreciate the variegated shades of color contributing to the scape.

The present project has been staged as a trailblazing effort, conceived by a survey party of one member to open a path that leads to vistas for better serving this under-represented at-risk population. The party of one here reporting has expended her trailblazing energies with the hope of mitigating both the intended and unintended barriers perpetuated by a hidden curriculum veiled within the structures of postsecondary education (Margolis, 2001; Apple, 1995a)

Given the size of the combined sample (N 42) within both the survey (Phase I) and the focus groups (Phase II), one would be presumptuous to conclude that this group was representative of the entire population of students with disabilities on college and university campuses across the nation. Even though federal legislation limits access to records of students having disabilities, a federal regulation extends to institutions the latitude to use student data for research purposes. Therefore, a nationwide study would require institutions to utilize this caveat in order to permit a study of this population. None of the randomly selected institutions allowed this researcher such access. The only remaining option to the researcher, which she utilized, was to post the electronic survey instrument on the Internet, using the University's web site.

Analysis

The institution's president should lead the campus-wide effort to create a nurturing, inclusive campus environment, intent upon the elimination of all barriers--environmental, fiscal, and attitudinal. Those students least satisfied with the support services, while often not a majority of the students, are those most at-risk of non-completion—becoming stopouts or dropouts (Carroll, 1989). This group can be identified and tracked early--many even while in high school. College and university outreach counselors can and should begin to develop relationships with the counselors, students, and parents in secondary schools, making postsecondary transitioning plans. Concentrating intense support services at this level will improve the students' feelings of belonging and academic success, along with the postsecondary institutions' retention rates. The foregoing activities necessarily require generous funding for support services (both prescriptive and self-developed) and controlled voucher components.

Conclusions

Based upon the findings reported in this study, the researcher has drawn four primary conclusions. Secondary, and even tertiary, conclusions can arise for discussion, but the researcher prefers to address only those items unmistakably impressing her as the main issues her study has produced.

<u>Conclusion</u> 1:

A very rich, if not the richest, concept this study has evoked can be wrapped within the framework of the so-called “Insider-Outsider Theory.” A whole school of authorities has judged it a proposition worthy of consideration as a tool for gaining a better understanding of the experiences students with disabilities confront in higher education. For instance, Susan R. Takata and Jeanne Curran (1999) point out that those individuals having divergent norms and values are said to be "misfits" (Takata & Curran, 1999). These researchers indicate that certain phenomena determine whether one finds himself/herself “inside” or “outside” depend upon one's "reference group," that these phenomena are responsible for transferring norms and values, and that in turn the norms and values dictate society’s sanctioned behavior. Parents and the family are one's first reference group.

Individuals finding themselves on the outside, who do not belong or fit into the inside group, sociologists refer to as "deviants". Outsiders do not identify with or belong to the inside group that possesses a position of power and control. The insiders spend extensive effort at keeping outsiders on the outside. While occupying a distinct subordinate position, outsiders are trying to determine how to become insiders, associating with powerful organizations or individuals controlling the information (Takata & Curran, 1999).

Takata and Curran (1999) cite Becker, 1973 as arguing that labeling, and stereotyping are society's reaction to the deviants' behavior; stigma is viewed as an undesired, and different, attribute. The Takata-Curran team continue, discussing the "differently abled" in reference to individuals having a disability; further writing that individuals having a disability will assimilate only after they "stop encouraging and participating in their own stigmatization. They must believe in what they have to contribute to society and stop playing the role of being less than human."

This writer marvels at a society that places high value upon the uniqueness of rare coins, rare automobiles, and irreplaceable antiques as it simultaneously identifies human beings having those same qualities as being "different," while at the same time expecting them to choose to "assimilate." This ideology clearly demonstrates the faulty thinking Kenny (1982) cautions against. Moreover it perpetuates an extremely high unemployment rate of 75 to 80 percent among individuals with disability (Harris Survey, 1997).

The interpretations of those without “insider” knowledge of the lived experiences of individuals with disability have the effect of keeping such individuals forever captive to an “insider” group society whose social and political policies chill out many students trying to succeed in their postsecondary endeavors. Specifically, through a miserly attempt to accommodate students having disabilities, this chilling-out process accounts for the under-representation of college freshmen with disabilities: they represent only 11.5 percent of the total number of students enrolled in postsecondary education, while their non-disabled counterparts comprise 34.6 percent.

Further evidence of a deeply embedded hidden curriculum (Margolis, 2001) that thwarts the successes of disadvantaged populations (including students with disabilities) surfaced in the narrative accounts by the respondents to the survey instrument and in the focus group sessions: in those two contexts, students referred to administrators and instructors who told students with disabilities that accommodations for them would discriminate against non-disabled students (Ginger, 2002). Such behavior is a wrong-headed interpretation of all the legislation intended to aid in propelling disadvantaged, oppressed populations into life's mainstream.

This author, finding herself positioned inside a specific group of outsiders--the minority struggling with disability--, argues that the Takata-Curran interpretation assumes that *assimilation* is a desirable goal, and that it identifies those living daily with disability (inarguably occupying a subordinate position) as being responsible for the closed, rule-making institutional structures and societal attitudes that presently relegate those "abled differently" to that inaccessible bottom rung of--for them--a non-existent ladder to a fictional economic success. As outsiders, we lack the heritage of society's members who possess the cultural capital which positions them at the power-laden decision table, well inside the power structure.

Visible attributes, such as a disability or skin color of individuals, oftentimes incite ongoing and relentless alienation. A wheelchair or skin color is a sure focal point at any first encounter--many times the *only* encounter. Some people seldom see a person--only his or her disability. To call for assimilation is truly arrogant when our only desire is to move into the mainstream of life. The only way to achieve true membership in life's mainstream for those with disabilities is to guarantee that they have an *equitable* opportunity to gain from their unique talents. Humanity's goal should not be assimilation, but removal of society's confining attitudinal stereotyping that results in alienation and isolation (Smith, 1990), with the inevitable accompanying insurmountable mind-set. The civil rights legislation of the nineteen-sixties and seventies demonstrated that legislation alone will not remove attitudinal barricades perpetuating and sustaining deeply held values. The focus group findings of this study were replete with devastating accounts illustrative of battles against such barricades. Again, the goal is neither assimilation nor tolerance; it is placement at a round, collaborative table encircling all members equitably in the decision-making power-brokering process.

Assimilating "deviants" for the purpose of improving society's comfort level is absurd, because doing so limits the options available to those of us who are "abled differently," and forces us to accept without question the right of blue-eyed insiders to sit at "endowed" seats of society's boardroom table. Throughout this writer's lifetime, others have inquired about her use of braces and crutches.

Frequently she replies, "You know, I was wondering why *you* were not using braces and crutches!"

The meaning and interpretation loosely coupling the insider-outsider phenomenon are couched in discrete linguistics perpetuating elements of the hidden curriculum. These defy exposure and any meaningful interpretation by outsiders. Wortman (1982) relates Kenny's (1982) caution against defining and interpreting the lives and the experiences of marginalized groups when one is not a part of that oppressed, marginalized group. This insider author argues that a great deal of *texture* is lost when outsiders attempt to cross over the line to become interpreters and observers of context and phenomenon of which they share nothing.

Outsiders often couch their meaning and interpretation of equitable social placement in strange ways, loosely coupling the insider-outsider phenomenon in discrete linguistic terms. Unfortunately, those terms perpetuate elements of the hidden curriculum that defy exposure to the white light of critical theory and to any other meaningful interpretation. Kenny (1982) cautioned against defining and interpreting the lives and experiences of marginalized groups when one does not hold membership in an oppressed, marginalized group. As an insider author, Kenny argues that a great deal of *texture* is lost when outsiders attempt to cross over the line to become interpreters and observers of context and phenomena, of which they share nothing, and therefore should be barred from defining any delivery of support services for students with disabilities. Students themselves should determine their support services needs, and once verified, instructors must be required to abide by that decision absent any debate (Wortman, 1982).

The research project reported in this paper has revealed that students with disabilities strategize and negotiate their postsecondary careers by dropping and adding courses for some or all of the following reasons: to avoid instructors who are unwilling to meet their needs, to circumvent inclement weather, and to ameliorate course overload. Students with disabilities can be successful in their college careers, but they require more time for achieving their educational goals and for managing the daily stress of a disability, intensified by the rigorous academic regimen. Both the respondents to the survey questions and the focus group participants of this project never expressed an unwillingness to complete the required course work; however, they did express the need for flexibility with timelines and methods utilized for fulfilling course requirements.

Conclusion 2:

Society has yet to meet the challenge set forth over six decades ago by Franklin D. Roosevelt. Society should strive to offer an equitable opportunity for all society's members. Society is losing the talents and contributions of the uniquely-abled population absent a commitment to universal inclusion. The legislative mandates drive the engine of public policy which has set forth a loosely coupled quasi commitment to society's special needs group. A bold effort will reap generous rewards in the long run by moving a portion of those with disability from receiving disability payments to receiving a paycheck and paying income taxes.

Instead of holding politically correct discussions, we should boldly fund the effort to educate those living with disability. Doing so would demonstrate a positive cost benefit outcome. Research previously shared in this report has documented the value of postsecondary education to this population. Where implemented, it has fueled the country's tax base and ultimately reduced welfare payments. Further implementation on the front end will surely minimize the long-term cost over a lifetime.

Conclusion 3:

This researcher has concluded that the institutional assignment of a facilitator/mentor to each student with a disability will assist him/her in mitigating his/her known risk factors while permitting ample time to intervene early enough to allow the student to complete the course successfully without being penalized one grade level. Students in the focus groups spoke often of their course grades being dropped one level for each absence beyond the limited three absences.

The researcher learned that students with disabilities are penalized at every juncture. Re-enrolling is a costly and time-consuming. Students with disabilities receive little or no consideration with the service of financial aid. Survey respondents and focus group participants reported that they often enrolled for additional semesters in order to accomplish their goal of graduation. Many of these discriminatory conditions can be averted by closely monitoring these students' performance with the intent of offering early intervention solutions.

A mentor can buffer against these factors--thus improving the institution's graduation rate through the retention of the at-risk population under study here. This research project indicates 30.8 of students withdrew from college and later returned (we have called them "stopouts"), as evidenced by the fact that they responded to this survey.

One of the obvious risk factors is the number of times students with disabilities change their major courses of study. The data show that 42.3 percent of students changed their majors from one to three times; 11.5 percent of students changed their majors three or more times before moving on toward graduation.

A second risk factor is frequent withdrawal from courses. Of the survey respondents, 42.3 percent withdrew from courses between one and three times, and 26.9 percent withdrew from courses three or more times. As evidenced both from the survey respondents and from the focus group sessions, withdrawal from classes is a strategizing technique to avoid instructors' threatening and/or unaccommodating attitudes. Students also withdraw in order to maintain an acceptable grade point average.

Absenteeism is a third risk indicator: 26.1 percent of the survey respondents were absent due to their disabilities, while 44 percent missed classes when their personal care assistants failed to report for work, resulting in more than three absences per semester.

The lived reality of a large segment within the voiceless community of learners with disabilities comports with a prevalence of such other risk factors as inadequate incomes, spiraling out-of-pocket health care expenses, and burdensome personal care needs. Yet, optimistic about their ability to succeed, these students encounter their challenges with grace, a disarming sense of humor, and the will and determination to conquer the countless barriers along their uncertain pathway.

Conclusion 3:

We saw in Chapter Four that student support services had a substantial or a minimal impact upon the achievement of students' educational goals (Hypothesis I). At the same time, student responses to the survey instrument demonstrated that the *lack* of support services likewise impacted their goal attainment. In short, students saw support services as relevant to the achievement of their educational goals. However, data from the students themselves leave the distinct impression that postsecondary education's delivery system as presently configured does not systematically offer each student's *preferred* support modality (Orkwis, 1999). Rather, it imposes *prescriptive* support services that require the student to acclimate to the offerings of the service system, instead of *accommodating* the students' specific needs. Oftentimes this results in overexertion and further unnecessary depletion of an already compromised stamina.

Conclusion 4:

The findings of all Hypotheses established that student support services, or lack thereof, had an impact upon the students' attainment of their educational goals. But the students wanted support services that were relevant to their needs, and if unavailable they proceeded without the needed support services at the risk of not persisting--i.e. becoming stopouts or dropouts--and no one would ever know why they withdrew from college (Carroll, 1989).

A wide array of services should display the handprints of those consuming the services. Postsecondary educational institutions should implement a voucher system that provides each entering student having a disability with a budget to enable him or her the needed *flexibility* to purchase the services distinctive to his or her unique needs--this in addition to those support systems needed most often. Those unique support services would be determined in collaboration with the secondary school counselor, the parents, and the postsecondary institutions' Student Disability Service offices or other appropriate personnel. That determination should be drawn up in an Individual Educational Plan (IEP) prior to the student's graduation from high school. This planning should begin as early as possible in the high school setting.

The significance of students with disabilities proceeding without the support services they *need* cannot be overstated. As the system exists today, students with disabilities have to accept only those services made available to them, rather than identifying their needs and receiving those preferred support services. Quite naturally, the students would be less satisfied because of the heightened level of importance assigned to their needs, along with the students' desperation to have those needs met. Students do not need more of what is already inadequate for meeting their needs. From the narrative testimonials of students with disabilities, this researcher has observed that these individuals have difficulty envisioning a service delivery system that they have not experienced. They draw an immediate inference: If a service is not in place, it does not exist; therefore, it is irrelevant. This explains the lower degree of satisfaction among these students.

This study's survey found the *lack* of student support services had a substantial impact on the students' achievement of their educational goals, and to a lesser extent the lack of services were perceived as having a minimal impact upon goal attainment. These respondents were very dissatisfied to dissatisfied with the efforts to meet their support needs. Students with disabilities were more satisfied with the support services they received when they believed the support services were less important to the achievement of their educational goals. Additionally, as the students believed that student support services were more important, they tended to be less satisfied with the support services they received. When they also believed support services were less important to the achievement of their educational goals, they achieved their goals regardless of the support services they received. The heightened level of satisfaction can be explained by the probability that students *who do persist* with the intent of achieving their educational goals have learned to navigate, plan, negotiate, and strategize the structures of higher education regardless of the services available to them. There is no way to know which students exited their academic programs absent a credential.

Contribution to Practice

This study is a groundbreaking attempt to lay a foundation for a nationwide study to gather comprehensive data from students with disabilities. No longer can postsecondary education use the excuse that it should not intervene to enhance the successful engagement of students with disabilities in their educational endeavors. That excuse is an obvious vestige of the hidden curriculum. The hidden curriculum chills out the under-represented, marginalized "deviants," and banishes those with disabilities to subordinate status. Moreover, it has the effect of vacating all opposition to the rule-makers' claim upon the legacy pathway to the cultural capital that--until now, at least--has guaranteed its beneficiaries a lifelong chair at the decision-making table. It is now incumbent upon postsecondary education to assume a genuine leadership role by assuring that the needs of students with disabilities at their institutions are provided with a nurturing and supportive learning environment that assures their success and ultimately improves the institutions' graduation rate. In this critical time of limited resources within the states, the institutions' graduation rates may very well become one criterion legislators evaluate during budget allocation decisions.

Students with disabilities, having successfully completed their postsecondary education, are equally competitive with their non-disabled counterparts. Clearly, the research of the present project concludes that our at-risk subpopulation prefers having a contributing role in society rather than being forced into the margins of society and seen as "deviant" and "misfits." Every day the United States opens its doors to thousands of immigrants; yet, those having a disability have not received the same consideration--only miserly attempts to meet their needs and allow them to become contributors to society. Filling *one* boardroom chair with an individual having a disability conveys a powerful message and begins to break down barriers wherever they exist.

Recommendations

Recommendation 1:

This researcher strongly recommends that financial aid regulations be modified in certain instances to allow a student--either with or without a disability--to carry a reduced number of credits, still be counted as enrolled full-time, and not be penalized financially. Here is the reason for our first recommendation, at least as it applies to students with disabilities: The management of a chronic disability, in addition to meeting the educational demands, may require the latitude to reduce the number of credits from the presently mandated 12 credit hours to 8. Students' needs remain the same, regardless of the number of credit hours they are enrolled in. Due to the changing financial environment, most students must work while enrolled in postsecondary education. Students with disabilities need more time than do their non-disabled peers to complete their courses of study. But this policy change will aid *all* students--those with and those without disabilities.

Recommendation 2:

IDEA legislation requires the involvement of students with disabilities in K-12 common schools, along with the parents, to make a transition plan in collaboration with the chosen postsecondary institution. The present writer recommends early introduction of students--at the eighth- or ninth-grade level--to the campus under the leadership of a student-mentor. This approach has been found to reduce students' fears, and accomplish a successful transition to the new environment (Gugerty, J., & Knutsen, C., Eds., 2000). Postsecondary institutions should partner with feeder high schools in transitioning high school graduates into the next level of the educational environment (U.S. Department of Education, 2000). As reported in an earlier context of this paper, researchers have found that a strong academic high school curriculum narrows the gap between minority students and their Caucasian counterparts (Horn & Kojaku, 2001; Warburton, Bugarin, & Nunez, 2001). Students with disabilities, similarly prepared, would avoid many of the stresses that go with meeting the demands of remedial instruction at the postsecondary level.

Recommendation 3:

Institutional policies and practices must support and advocate for *equitable* academic requirements and performance, rather than demanding equal terms of engagement. Institutional leadership must assure that administration, instructors, and students are aware of the policies and services available to reinforce the students in their quest to realize their educational goals. Student Disability Services offices, administered by the population they serve, must not only meet the letter of the legal mandates, but they must extend a helping hand toward transitioning this at-risk, under-represented group from secondary schools to the postsecondary world. This overture requires the development of a relationship with the counselors, the parents, and the students to pave a nurturing, welcoming pathway to academic success. Of first priority should be a concerted effort to fortify the students' academic credentials by building sound math and composition skills.

Recommendation 4:

This study concludes students are less likely to self-identify if services are not relevant to their needs, and if their preferred support service is not obviously available. Self-identification has a high cost which may very well outweigh any hoped-for benefits. Therefore, all students must be made aware not only of those prescriptive support services systematically offered, but also of the prospect that those unique service needs will be addressed. With 25 percent of the nation's population having disabilities, one might well conclude that 25 percent of the nation's college students would likewise have disabilities. But the fact is that only six to nine percent of college students are currently self-identifying as having disability. One should further conclude that those students identified with disabilities would receive genuine access in tandem with their preferred support services. However, one can conclude what the facts would be.

Recommendation 5:

The administration of student support services must be tailored by and for individuals with disabilities. Moreover, support services must be provided in accordance with the students' preferred modalities. State-of-the-art technology, equipment, and assistive devices must be offered freely to those requesting such equipment. Provision of student support services should not fall prey to a process of negotiation. Students having disabilities must have a clear and incontrovertible way to receive services they need without undergoing further demands.

Implementing a voucher system of service delivery will grant students with disabilities the power to define, control, and adapt their self-directed support services to their individual needs. A workable voucher system very well could provide each student with a credit account of $500 to $1000 per semester, to be allocated for his or her specific support needs and allowing him or her to control the reason, purpose, time, and manner for utilizing those funds. This author has firsthand knowledge of operating a successful voucher system of respite care services for the developmentally disabled residents of Wayne County, Michigan. Only recently the writer has learned that the University of Denver offers a similar service delivery system for a fixed fee (University of Denver, 2002).

Recommendation 6:

The findings reported in the literature and in the focus group data of this study oblige postsecondary institutions to make peer support groups available to their students with special needs. These groups have been shown to be a beneficial component in the service delivery of such institutions: they encourage persistence in academic pursuits among students with disabilities. A second component of value to institutions' special-needs students must be the services of an ombudsman. Such services would be most helpful to these individuals by serving as their advocate. The person holding this office must not be embedded within the educational hierarchy, but must stand alone to represent students with disabilities in their struggle against a system steeped in the history and tradition of the past 200 years. This special-needs population must have a buffer between themselves and the system--a human being in a leadership role, charged by a job description requiring the holder to remove barriers deeply veiled within the hidden curriculum still permeating postsecondary education.

Recommendation 7:

The system for meeting the individual needs of special-needs students demands that a greater degree of flexibility be built into it. That flexibility must be expanded to include the rules, regulations, and practices for application and distribution of financial aid, grants, and scholarship programs. The majority of the students (56.5 percent) exist on annual incomes well below the poverty line, while simultaneously meeting their extraordinary expenses related to disability.

Recommendation 8:

Once students with disabilities are admitted into postsecondary institutions, they must be introduced to a well-organized, comprehensive, consolidated service delivery system. The system must be closely monitored, and provided in conjunction with a support system on campus that nurtures and values students with disabilities as unique individuals. Personnel charged with operating the program must take care to meet both the students' academic needs and their personal needs (e.g. peer support groups; see Recommendation 5 above).

Recommendation 9:

An in-service forum should include partnering between a postsecondary student population with disabilities and the institution's administration in order to provide an enriched and meaningful interchange for both groups. *Dialogues on Diversity* (2001), a video presenting the personal stories of 15 University of Michigan students with disabilities, is a powerful tool that could be used as part of an in-service training program to set up a successful roundtable forum of equals brought together engaged in an interchange intended to enlighten all parties concerned.

All members of such roundtable discussion panels should disregard hierarchy of position, and participate equally. Students should receive stipends for both their preparation time and their actual participation in the forum sessions. Students' time and stamina are treasured, as are their input and progress (Rolling Hills University, 2002; Riverside University, 2002; Glendale Community College, 2002; Kahn Disabilities Survey, 2002; & University of Denver Magazine, Winter 2002).

Efforts should be made to ensure a uniform application of institutional policies regarding accommodations, allowing flexibility requested by the student. Instructors should be encouraged to discuss--in private--the students' learning needs at the beginning of each semester (Rolling Hills University, 2002;

Riverside University, 2002; Glendale Community College, 2002; & Kahn Disabilities Survey, 2002).

Recommendation 10:

Instructors must develop avenues to overcome their own personal fears (Morfopoulos, 2001) and misconceptions about students with disabilities and their need for accommodations. This activity on the part of an institution's instructional staff will go a long way toward helping to create the needed collaborative relationship on that institution's campus (Morfopoulos, 2001). Brett Campbell (2002) reported meaningful faculty-student relationships increased feelings of connectedness with staff on the part of students with disabilities. He referred to the study by Beilke and Yssel (1998), which identified autobiographical accounts as a positive force in forming meaningful faculty-student relationships. Campbell (2002) also found that Riverside University's School of Liberal Studies had the most positive attitude toward students with disabilities. He attributed that development to the inclusion of personal stories by students with disabilities in course content (Campbell). His point is well taken: the powerful role of shared relationships cannot be overstated.

Providing the needed support system, a nurturing environment, and a universally designed campus will contribute to an increased institutional graduation rate for this special-needs population. Armed with credentials gained in postsecondary education, students with disabilities are competitive in the marketplace, and face unemployment rates equal to those of their peers having no identified disabilities. As cited earlier individuals with disabilities in postsecondary education successfully traverse their paths to completion will go far toward assuring a lifelong return on the necessary investment.

Fact and Fiction

A body of fiction exists in this country concerning the access of our special-needs students to education. It is this: Adoption in 1992 of the Americans with Disability Act opened the doors wide and encouraged students with disabilities both to gain access to and full participation in the nation's postsecondary environment. In fact, following enactment of that legislation, gaining access to postsecondary education became somewhat insignificant to members of this subgroup. Why? Here is why. That section of our population observed attorneys for postsecondary institutions working hard on behalf of their client institutions to effect policies and practices to meet only the *letter* of the law. As a result, four conditions arose. First, these institutions assigned a higher priority to avoiding litigation than to upholding the *intent* of the law. Second, no comprehensive student support services developed. Third, the institutions frequently offered only prescriptive support services. And fourth, the institutions committed only limited resources to serve the needs of students with disabilities.

Consider an example. In 2000, Wheatley University allocated $10,000 for its Student Disability Services Office. The University's ADA public record included a university-wide self-assessment mandated in the legislation. That document estimated the University's compliance would cost nine million dollars. At the same time, the University set aside a meager $200,000 to be used in addressing the mandates of the law, while simultaneously constructing a $38-million-dollar sports complex having minimal physical access. Elsewhere on the campus, a traveling wheelchair basketball team was formed to promote a commitment to students with disabilities. The team organized an annual garage sale to secure funding for its activities, in contrast with other sports programs that received allocated funds in the University's annual budget.

Wheatley University announced with pride that it had subcontracted the construction of several new, three-story apartment buildings--without elevators--further stating that this action rendered the institution exempt from the requirements of ADA. The facts are that elevators cost pennies per day, and that the construction of educational structures without elevators gives loud expression to a deeply embedded hidden curriculum that renders students with disabilities as being *less worthy*.

The sad truth is that the University's failure to comply with the letter and spirit of the Americans with Disabilities Act of 1992 actually *sprang* from that hidden curriculum, likewise embedded within the fabric of other educational institutions. By any standard of measurement, this type of institutional behavior marginalizes such entities as traveling wheelchair basketball teams, and transmits a message to individuals in that organization and organizations of similar nature that they are not as worthy as other individuals on campus.

Ask any knowledgeable postsecondary student with disability what the enactment of ADA did for him or her. In a flash, he or she will answer that question in much the same fashion as did just such a flesh-and-blood person recently: “Far from opening the college and university doors wide to students with disabilities, ADA barely jarred the gates--for me or anyone like me!”

In the not-too-distant past, our nation received the dedicated services of a notable individual, affected but unhampered by disability. On one occasion he was heard to say, "We know that equality of individual ability has never existed and never will, but we do insist that equality of opportunity still must be sought" (Franklin D. Roosevelt, (www.disabilityemployment.org/the California Governor's Committee on Employment of People with Disabilities, Inc.). Six decades later, this country has not realized that leader's dream that all our citizens will enjoy access to the opportunities 75 percent of the population takes for granted--never questioning why they do not walk with braces and crutches. This country fails to gain from the unique talents and contributions of its “outsider” members--the 25 percent who are "abled differently." We are relegated to the bottom rung of an inaccessible ladder--forever members of an insider group of outsiders peering over a barrier while strategizing and negotiating methods to parlay our movement over the barricade concealing and thwarting our reach for the opportunities alleged to lie beyond.

Society has crafted and continues to underwrite a socially acceptable avenue to inclusion and economic advancement for all. It is called “education.” Insider power brokers place rocks at strategic points in the road to success. These impediments are meant to ensure failure for those outsiders who are "abled differently," and who lack the cultural capital and power base needed to propel them into the culture’s “boardroom” of leadership. We can expect power brokers to guard and protect their positions of ascendancy by limiting our opportunities for advancement, but we can also see our opportunities improve as we move through the educational "hoops."

We outsiders have one parting word of advice for the great majority of our peers. Please refrain from trying to change us to fit *any* limited definition of humanity, be it yours or another's. Rather, broaden your concept of us as humans. Learn to accept *all* of society's members.

This writer has attempted to highlight research that gives a glimmer of understanding to the paradox we present as living figures in that *other* 25 percent of our society. Be assured that inexorably all of us will join each other at some point in time, whether through aging, accident, or death.

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APPENDIX

APPENDIX A

Student Consent Form

Student Consent Form
General Information:

You have been randomly selected to participate in an Oklahoma State University doctoral student, Carolyn Sue (Meadows) Kahn's research project. The purpose of the research is to ask students with disabilities to identify barriers they encounter on a daily basis that impede and threaten the successful pursuit of their education goals. Students will be asked to share their perceptions of the quality and quantity of support services they are provided and how those services or lack thereof impacts their education achievement.

The doctoral student will use the information collected in the survey and focus groups and/or interviews as sources of data. The electronic survey instrument should take no more than fifteen minutes to complete. The four different site locations will each host a single event focus group requiring one to two hours to complete on one evening. All survey and/or focus group interviews/questions are directly relevant to the research project. The eight randomly selected institutions were asked to identify a stratified random sample of students with disabilities who agreed to participate in the study. The doctoral student will tabulate and analyze all data. All the information received is treated as confidential material and kept secure by the doctoral student.

The randomly selected student must complete a completed consent form, with a copy provided to the student before the survey and/or focus group interviews can be administered. All data is destroyed upon the completion of the research project or no later than January 31, 2003.

Subject understanding:

I understand that participation in the research project is voluntary; there is no penalty for refusal to participate; and I am free to withdraw my consent and participation in this research project at any time without penalty by notifying the doctoral student.

I understand that the survey and/or focus group interviews are conducted according to commonly accepted research procedures and that information taken from the instruments is recorded in such a manner that subjects cannot be identified directly or through identifiers linked to the students.

I understand that the instruments will not cover topics that could reasonably place the student at risk of criminal or civil liability or be damaging to the student in any way or deal with sensitive aspects of the students educational standing at the institution. Behavior that is considered to be illegal conduct, drug use, or sexual conduct will not be explored.

I may contact doctoral student, Carolyn Sue (Meadows) Kahn, at 405.332.0740 in case of any concerns. I may also contact IRB Executive Secretary Sharon Bacher; University Research Services; 203 Whitehurst; Oklahoma State University; Stillwater, OK 74078; 405.744.5700.

I have read in fully understand the consent form. I signed it freely and voluntarily. A copy has been given to me.

______________________________ ________ ________

Student **Date**

Time

I certify that I have personally explained all elements of this form to the student before requesting the student to sign it.

______________________________ ________ ________

Doctoral Student **Date**

Time

APPENDIX B

Institutional Random Sample List

Institutional Random Sample List

A. <u>Public Four-year Institutions (Enrollment > 20,000)</u>:

1. California State University -- Sacramento
2. Eastern Michigan University

<u>Alternate Selections</u>:

3. Ohio State University -- Main Campus
4. SUNY at Buffalo
5. The University of Texas at Austin
6. University of California -- Irvine
7. University of Massachusetts -- Amherst
8. University of Michigan -- Ann Arbor
9. University of North Carolina -- Chapel Hill
10. University of Utah

B. <u>Public Four-year Institutions (Enrollment 10,000-20,000)</u>:

1. Indiana University -- Purdue University -- Fort Wayne
2. James Madison University

<u>Alternate Selections</u>:

3. Portland state University
4. Sam Houston state University
5. Stephen F. Austin State University
6. University of Arkansas at Little Rock
7. University of Memphis

8. University of Mississippi -- Main Campus
9. University of North Carolina – Wilmington
10. University of Southern Maine

C. <u>Public Four-year Institutions (Enrollment 1000-5000)</u>:

1. Indiana University-East
2. Ohio State University -- Marion Campus

<u>Alternate Selections</u>:

3. Pennsylvania State University -- Penn State Dubois
4. Penn State University -- Penn State Shenango
5. Southwestern Oklahoma State University -- Weatherford
6. St. Mary's College of Maryland
7. University of Baltimore
8. University of Mississippi Medical Center
9. Valley City State University -- North Dakota
10. Colorado School of Mines -- Golden, Colorado

D. <u>Private not-for-profit Institutions (All Enrollment)</u>:

1. Alma College -- Alma Michigan
2. Babson College -- Wellesley,MA

<u>Alternate Selections</u>:

3. California Lutheran University -- Thousand Oaks California
4. Columbia University -- New York
5. Drew University -- Madison, NJ
6. Kings College -- Wilkes Barre, PA

7. Lane College -- Jackson TN
8. Merrimac College -- North Hanover, MA
9. Miles College -- Fairfield, Alabama
10. San Joaquin College of Law -- Clovis, California

APPENDIX C

Institution Letter of Agreement

(Letter of agreement from the institution to participate in this study).

Dear < < INSTITUTION NAME > > Student Disabilities Services Office or Chief Administrator>>:

< < INSTITUTION NAME > > has been randomly selected to participate in this nationwide electronic survey of students with disabilities who are currently enrolled in higher education. Students with disabilities continue to be grossly under-represented in higher education.

The projected study, as approved by the Oklahoma State University School of Education, will give students the opportunity to identify barriers and other impediments to the achievement of their education goals. The results of this study will supply invaluable data based on the *lived experiences* of the students presently in higher education, thus expanding the knowledge base that is indispensable for identifying mitigating efforts to enhance the number of students with disabilities throughout our nation's university campuses.

Please appoint a coordinator for your institution to help provide the information crucial to this study. Carolyn Kahn, a doctoral student at Oklahoma State University's College of Education, will be conducting the research. The coordinator from your institution will be asked to identify a stratified random sample of students with disabilities according to the guidelines of the study. The electronic format requires students to respond to the survey instrument by E-Mail to Dr. Deke Johnson, dissertation chairperson.

This research includes all students with disabilities attending the eight randomly selected universities selected from the university lists provided by the National Center for Education Statistics.

The O.S.U. School of Education and Mrs. Kahn will join in implementing efforts to ensure anonymity and to preserve confidentiality. Data will be presented in aggregate format. Appropriate personnel of your institution may contact Mrs. Kahn at 405.332.0740. She will direct all research activities and procedures needed in this study. The data collection process is scheduled to begin in early September 2002 and must be completed by October 15, 2002.

We urge your participation in this research endeavor that seeks to collect and analyze data to increase access and participation of students with disabilities in higher education. The requested direct input from the students will assist in developing *best practices* in serving this population.

We look forward to < < INSTITUTION NAME > >'s participation in this study. Thank you for your cooperation and assistance in identifying a coordinator to work with the O.S.U. School of Education to bring this important research project to a successful completion.

Sincerely,

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Stillwater, OK 74074
E-Mail: <<meadowc@okstate.edu>>
Telephone: 405.332.0740

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Oklahoma State University
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APPENDIX D

Students with Disabilities Survey

From Website http://fp.okstate.edu/deke/survey/survey.htm

Students with Disabilities Survey

Express your needs, for student support services. This is your opportunity to indicate YOUR support needs. Students with disabilities (including myself) encounter unique obstacles that influence their success in their college careers. As part of my doctoral research I am conducting a nationwide research study to ask students with disabilities to help identify barriers which they believe hamper the successful completion of their educational goals. I am asking students to assess the quality and quantity of support services -- both academic and non-academic -- available to them. Academic services include tutoring and assistive devices; while non-academic services are considered to be indirect support services (e.g. transportation, housing, and financial resources). Your input supplies important data that will be utilized to develop future support services that better address the needs of all students with disabilities on college campuses.

I will be posting the survey instrument on a webpage, and I am asking the Student Disability Services Office at your university to help direct you to the website address to complete a research survey. Your responses will be submitted through Front Page that will remove your e-mail address preserving your anonymity. Completion of this questionnaire is intended to improve support services you need to complete your educational objectives. The data will be presented in aggregate form to preserve both institutional and individual anonymity.

Directions

Please respond to the following questions; then return the questionnaire via e-mail within 7 days. Your email address will not appear on the returned survey. Thank you in advance for your time and effort in helping me identify the barriers that you encounter, and your need for support services. Support services include any support services (academic, personal service, financial, or transportation regardless of the provider or origin).

1: Please identify your disability. Check any that apply.

- Learning Disability/ADD
- Orthopedic
- Mood Disorders
- Brain Trauma
- Multiple Sclerosis
- Other
- Hearing
- Visual
- Mental Health Disability
- Spinal Injury
- Urological Disorder
- Speech
- Multiple Disabilities
- Medical Disability
- Cerebral Palsy
- Autism

2: If your answer to question #1 included "Other" as a response, please identify what that disability is.

3: Do you have daily access to an automobile?

Yes No

4: Is there ample accessible parking?

Yes No

5: If your answer to question #4 was no - do you ever wait longer than 30 minutes for an accessible parking space?

Yes No

6: Are the accessible parking spaces conveniently located?

Yes No

7: Do you have access to other transportation (family, public)?

Yes No

8: Does the university provide transportation to both your a.m. and p.m. classes?

Yes No

9: Do you have access to transportation 24 hours per day/7 days per week?

Yes No

10: Mark your level of dissatisfaction/satisfaction with the transportation?

Very Dissatisfied Dissatisfied Not Sure
Satisfied Very satisfied

11: Check all of the academic support services you use (those directly related to classroom achievement).

Tutoring
Accessible Laptop
Tape Recorder
Screen Readers
Private Dorm Room
TTD
Assistive Devices
1 on 1 Study Coach
Transcription
Real-time Magnification
Extended Testing Time
Communication Board such as Bliss
Note-Takers
Audio Books
Readers
Sign Language
Braille
Other

12: If your answer to question 11 included other, please identify the academic support service you use.

13: Mark your level of dissatisfaction/satisfaction with these support services.

Very Dissatisfied Dissatisfied Not sure
Satisfied Very satisfied

14: Do you believe these services aid you in achieving your educational goals?

Yes No

15: Have you ever requested any preferred support service that was not provided?

Yes No

16: If your answer to question #15 was yes, what service did you request? Please specify.

17: Of whom did you make the request?

Student Disability Services Office
ADA Compliance Officer
Instructor
Other

18: If your answer to question #17 was other, please specify to whom you made your request.

19: Do you use any personal assistive devices?

Yes
No

20: Please check which devices/services you use daily.

Wheelchair/Scooter
Hearing aid
Sign Language Interpreters
Communication Board such as Bliss
Drugs and Medical Supplies
Crutches or other walking aids
Guide/Companion Dog
White Cane
Speech Synthesizer
Other

21: If your answer to question 21 was other, please describe the device/service you use daily.

22: Who pays for your assistive devices? Please check all that apply.

Yourself
Vocational Rehab
Parents
Private Insurance
Veterans
Siblings
University
Partners
Other

23: Who pays the largest percentage of the cost of your assistive devices?

Yourself
Vocational Rehab
Parents
Private Insurance
Veterans
Siblings
University
Partners
Other

24: What is your annual out-of-pocket expense for healthcare expenses?

Less than $300
More than $300

25: Who pays the largest percentage of your out-of-pocket healthcare expenses?

Yourself
Siblings
Partners
Other
Parents

26: Is paying for healthcare a financial burden?

Yes No

27: Do you require any personal assistance from an attendant?

Yes No

28: How often do you require assistance?

Daily 2-3 times/day full-time

29: How many hours per week do you use the attendant's assistance?

6-14 hours 15-21 hours 22-28 hours 29+ hours

30: Describe the attendant's duties.

Bathing Meal Preparation Laundry
Shopping Errands Helping you get around
Other

31: If your answer to question #30 included other, please specify the duty.

32: Mark your level of dissatisfaction/satisfaction with the attendant's services.

Very Dissatisfied Dissatisfied Not Sure
Satisfied Very satisfied

33: Do you miss class if your attendant does not report for work?

Yes No

34: In an ordinary semester/term do you miss any of your classes more than 3 times per year?

Yes No

35: Is your absenteeism related to your disability?

Yes No

36: How many times have you withdrawn from a class?

Never 1-3 times 3 or more times

37: How many times have you changed your major?

Never 1-3 times 3 or more times

38: Did the rigorous demands ever force your withdrawal from college?

Yes
No

39: If your answer to question #38 was yes, did you later return to school?

Yes
No

40: What are the sources of your income? Please mark all that apply.

Employment
Private Insurance
Disability Social Security
SSI
Medicaid
Vocational Rehab
Scholarships
Grants
Loans
Other

41: Indicate your total annual income range.

$5,000 to $9,999
$10,000 to $19,999
$20,000 to $25,999
$26,000 or more

42: Is this income adequate to meet your needs?

Yes
No

43: With whom do you live?

Alone
Roommate/Friend
Spouse
Parents
Caregiver
Other

44: Where do you reside?

Dormitory
Apartment
House
Other

45: Do you require accessible housing?

Yes
No

46: If your answer to question #45 was yes, did you have difficulty finding accessible housing?

Yes
No

47: Mark your level of dissatisfaction/satisfaction with your living arrangement.

Very Dissatisfied
Dissatisfied
Not Sure
Satisfied
Very satisfied

48: Do you need more support services to reach your educational goals?

Yes
No

49: If your answer to question #48 was Yes, indicate what service(s) you need. Please mark any that apply.

Academic
Transportation
Personal Support (ADL)
Financial

50: Mark your level of dissatisfaction/satisfaction with the university's efforts to meet your support needs.

Very Dissatisfied
Dissatisfied
Not Sure
Satisfied
Very Satisfied

51: Mark your overall degree of dissatisfaction/satisfaction with the quality of support services you receive.

Very Dissatisfied
Dissatisfied
Not Sure
Satisfied
Very Satisfied

52: Mark your overall degree of dissatisfaction/satisfaction with the quantity of support services you receive.

Very Dissatisfied
Dissatisfied
Not Sure
Satisfied
Very satisfied

53: Did you receive your preferred modality of support services? For example, if you prefer books on tape, is that what you receive?

Yes
No

54: To what degree do you believe that the support services you receive)academic, transportation, personal support service, and/or financial) have an impact on the achievement of your educational goals?

No Impact
Minimal Impact
Substantial Impact

55: To what degree do you believe that the lack of support services has an impact on the achievement of your educational goals?

No Impact
Minimal Impact
Substantial Impact

56: Please indicate your gender.

Male
Female
transgender

57: Indicate your current enrollment status.

Full-time
Part-time

58: Do you ever attend summer school?

Yes
No

59: Do you experience a reduction in services you need at any of the following times? Please check all that apply.

Evenings
Weekends
Summers
N/A

60: Please indicate your marital status.

Single Married Divorced Widowed

61: Do you have dependents under the age of 18 years?

Yes No

62: Please indicate your academic classification.

Freshman Sophomore Junior
Senior Graduate Other

63: If your answer to question #62 was other, please specify your academic classification.

64: At what age did your disability begin?

0 to 5 years
6 to 17 years
18 to 25 years
26 to 39 years
40 years or older

65: What is your age range now?

18 to 21 years
22 to 29 years
30 to 39 years
40 years or older

66: How many students are enrolled at your institution?

5,000 to 10,000 [Public]
10,000 to 20,000 [Public]
20,000 or more [Public]
OR
Private-not-for-profit [

67: Please describe how you feel about the university's overall commitment to meeting your support needs.

Author: Carolyn Kahn, M.S.W.

Revised: 09/26/02

APPENDIX E

Institutional Review Board

Signature Page

Oklahoma State University
Institutional Review Board

Protocol Expires: 8/28/2003

Date: Friday, August 30, 2002 IRB Application No ED0311

Proposal Title: PERCEPTIONS OF STUDENTS WITH DISABILITIES: POST-SECONDARY EDUCATION IN THE UNITED STATES

Principal Investigator(s):

Carolyn Sue Meadows Kahn
121 Brumley Apt 2
Stillwater, OK 74074

Deke Johnson
310 Willard
Stillwater, OK 74078

Reviewed and Processed as: Expedited

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 415 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson

Carol Olson, Chair
Institutional Review Board

APPENDIX F

Disabilities Listed by the Researcher in the Survey Instrument

And

"Other" Disabilities Denoted by Certain of the Survey Respondents

Appendix F

Disabilities (15) Listed by the Researcher in the Survey Instrument:

1. Autism
2. Brain trauma
3. Cerebral palsy
4. Hearing disorder
5. Learning disability (ADD)
6. Medical disability
7. Mental disability
8. Mood disorders
9. Multiple disabilities
10. Multiple sclerosis
11. Orthopedic disorder
12. Speech disorder
13. Spinal injury
14. Urological disorder
15. Visual disorder

"Other" Disabilities Denoted by Certain (11) of the Survey Respondents (in addition to the list provided by the researcher):

1. Dyslexia
2. Nerve compression
3. Sclerosis
4. Spina bifida

APPENDIX G

Correlation Tables Resulting from the Study's Five Hypotheses

Appendix G

Hypothesis 1: Relationship between Belief that Services Aided in Educational Goal Achievement and Level of Satisfaction with Universities' Efforts

Correlations

			Belief that services received aid in achieving educational goals	Level of Satisfaction with efforts to meet support needs.
Spearman's rho	Belief that services received aid in achieving educational goals	Correlation Coefficient	1.000	.607**
		Sig. (2-tailed)	.	.001
		N	26	26
	Level of Satisfaction with efforts to meet support needs.	Correlation Coefficient	.607**	1.000
		Sig. (2-tailed)	.001	.
		N	26	26

**. Correlation is significant at the .01 level (2-tailed).

Hypothesis 2: Relationship between Level of Satisfaction with Quality of Services and the Belief that those Services Aided in Goal Achievement

Correlations

			Level of Satisfaction with quality of services received.	Belief that services received aid in achieving educational goals
Spearman's rhc	Level of Satisfaction wi quality of services received.	Correlation Coefficie	1.000	.672*
		Sig. (2-tailed)	.	.000
		N	25	25
	Belief that services received aid in achievii educational goals	Correlation Coefficie	.672**	1.000
		Sig. (2-tailed)	.000	.
		N	25	26

**. Correlation is significant at the .01 level (2-tailed).

Hypothesis 3: Level of Satisfaction with Quantity and Impact of Services on Goal Achievement

Correlations

			Level of Satisfaction with quantity of services received.	Impact of support services on achvmt of educational goals
Spearman's rho	Level of Satisfactior with quantity of services received.	Correlation Coefficie	1.000	.409*
		Sig. (2-tailed)	.	.038
		N	26	26
	Impact of support services on achvmt of educational goals	Correlation Coefficie	.409*	1.000
		Sig. (2-tailed)	.038	.
		N	26	26

*. Correlation is significant at the .05 level (2-tailed).

Hypothesis 4: Relationship between Receipt of Preferred Modality and Belief that Support

Correlations

			Receipt of preferred modality of support services	Belief that services received aid in achieving educational goals
Spearman's rhc	Receipt of preferred modality of support services	Correlation Coefficie	1.000	-.438*
		Sig. (2-tailed)	.	.032
		N	24	24
	Belief that services received aid in achievir educational goals	Correlation Coefficie	-.438*	1.000
		Sig. (2-tailed)	.032	.
		N	24	26

*. Correlation is significant at the .05 level (2-tailed).

Hypothesis 5: Level of Satisfaction with efforts to meet support needs. Level of Satisfaction with quality of services received. Level of Satisfaction with quantity of services received.

Impact of services on of educational		Level of Satisfaction with efforts meet needs.	Level of Satisfaction with quality services received	Level of Satisfaction with of services received
no	Mea	1.500	1.750	1.000
	N	4	4	4
	Std.	.5773	.5000	.0000
minimal	Mea	3.000	3.000	2.875
	N	8	8	8
	Std.	1.0690	1.0690	1.1259
substantial	Mea	3.000	3.230	3.000
	N	14	13	14
	Std.	1.3587	1.1657	1.3587
Total	Mea	2.769	2.920	2.653
	N	26	25	26
	Std.	1.2746	1.1518	1.3547

Relationship between Absenteeism, Course Withdrawals, Changes in Majors, and Rigorous Demands Resulting in Dropping out of Postsecondary Education

Correlation

			Is absenteeis from related to disabilit	How times you from a	How times you your	Did deman force withdraw from
Spearman's	Is your absenteeism class related to disabilit	Correlation	1.00	-	- **	.54 **
		Sig. (2-	.	.88	.00	.00
		N	23	23	23	23
	How many times withdrawn from a	Correlation	-	1.00	.46 *	-
		Sig. (2-	.88	.	.01	.06
		N	23	26	26	26
	How many times changed your	Correlation	- **	.46 *	1.00	- *
		Sig. (2-	.00	.01	.	.01
		N	23	26	26	26
	Did rigorous force your withdrawal college	Correlation	.54 **	-	- *	1.00
		Sig. (2-	.00	.06	.01	.
		N	23	26	26	26

**. Correlation is significant at the .01 level

*. Correlation is significant at the .05 level

APPENDIX H

Enrollment in Post Secondary Institutions

Appendix H

Enrollment . . . in postsecondary institutions participating in Title IV (federal financial aid) programs . . . Fall 2002 (Condensed)

2-year and 4-year degree-granting institutions	Total	Public	Private
4-year inst's	15,313,289	11,752,786	3,559,503
2-year inst's	5,948,431	5,697,388	251,043
Non-degree- granting institutions	389,120	138,664	250,456
Less than 2-year institutions	273,707	77,314	196,393

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data Systems (IPEDS), Digest of Education Statistics, 2002, Chapter Three, Table 170 (Table prepared Fall, 2002)

VITAE ②

Carolyn Sue Meadows Kahn

Candidate for the Degree of

Doctor of Education

Thesis: STUDENTS WITH DISABILITIES INTERFACE WITH POSTSECONDARY EDUCATION: Students' Critiques

Major Field: Higher Education Administration

Biographical:

Education: Bachelor of Science degree in Journalism from Oklahoma State University, December 1966. Received Master of Social Work degree from Wayne State University, Detroit, Michigan, June 1978. Completed requirements for the degree of Doctor of Education in Higher Education Administration from Oklahoma State University, December 2003.

Work Experience: Research Assistant for Oklahoma Community

Education, Psychiatric Hospital Administrator responsible for budget development, staff supervision, regulatory compliance, and operations. Owned and operated nursing homes. Senior Health Systems Planner for seven-county region of Southeastern Michigan, supervising eight planners and the development of the region's health care plan; chaired Consumer and Physician committees.

Director of Respite Care Services for Wayne County; developed and organized the delivery of respite care services to developmentally disabled clients; supervised eight staff members, wrote grants; served as liaison to the Legislature and the Michigan Mental Health Department. Developed and conducted a two-year state-wide needs assessment study of the developmentally disabled citizens for the Michigan Mental Health Department.

Award: Distinguished Graduate Fellowship Award

Professional Affiliations:
Higher Education Department Search Committee Member
Phi Delta Kappa
American Association of University Women