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# Beyond Accomodations: Perceptions Of Students With Disabilities In A Hispanic Serving Institution

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BEYOND ACCOMODATIONS: PERCEPTIONS OF STUDENTS WITH DISABILITIES IN A HISPANIC

SERVING INSTITUTION

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## **Dedication**

To my father, Krishna Kumar Agarwal

and

To my son, Vyom Kumar

BEYOND ACCOMODATIONS: PERCEPTIONS OF STUDENTS WITH DISABILITIES IN A HISPANIC  
SERVING INSTITUTION

by

NEELAM AGARWAL, B.A, MSW, M.A, CRC

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## **ABSTRACT**

The purpose of this mixed method study was to explore perceptions of students with disabilities in a predominantly Hispanic serving institution. Factors of transition from high school to college, campus involvement, engagement in student organizations and their perceptions of campus climate were investigated through both a survey with 104 participants and in-depth interviews with 11 participants. This study also explored how undergraduate students with disabilities perceive their academic success and what are influential factors that impact their college experiences. Data were analyzed and interpreted through Tinto Interactionalist Theory of Student Departure, a Social constructivist perspective, Attribution theory, Rendon's model of validation, and Bronfenbrenners (1979) ecological systems theory.

Overall findings indicate that disabled students who participated in this study seemed comfortable in the environment and felt rather positive about themselves and their communication with others. These findings suggest that disabled students have perceptions of positive interactions with faculty, staff, and fellow students. Equally important, they seem to feel a part of the campus. This conclusion is further supported by positive perceptions regarding the transition services, nature of adjustment to college, campus involvement and with the technology that are seen as characteristic of the campus environment. The uniqueness of characteristics of disabled students was apparent through some of the individual responses that reflect their own experiences based on how they perceive accessibility and interactions with others.



A significant finding of this study is that most students reported that typical interactions with faculty tend to be more formal, brief, and need-based versus informal (i.e., access formal accommodations such as extra time on exams). Tinto (1975, 1993) emphasizes the importance of interaction with both faculty and student peers. This model (Tinto, 1975, 1993) suggests a socialization process whereby students who become successfully socialized into the campus academic and social systems are more likely to persist. Since Tinto's theories also find a strong link between faculty support and student retention and especially with non-traditional students, this study suggests that UTEP needs to be more strategic and systematic in finding ways to develop faculty-student interactions for students with disabilities who are predominantly first-generation and working-class college students. I argue that as UTEP serves non-traditional students thus Rendon's validation model is more applicable. These non-traditional students are first in their family to go to college, are commuter students and are older than typical student population. Research has also found Rendon's validation model to be particularly applicable to low-income, first-generation students enrolled in higher education (Rendon-Linares & Munoz, 2011).

Some of the issues that students revealed in the study included social barriers stemming largely from a lack of friends, feeling socially alienated, and lack social support. Some students also felt that they were misunderstood by faculty, those faculties are not aware about different disabilities that are not visible. Some students are reluctant to request accommodations for fear of invoking stigma. Some also felt they had to spend considerably longer hours in completing coursework than nondisabled peers. Even though the study finds few instances of negative experiences with some of the faculty members, the study suggests that changing the

attitudes of faculty toward students with disabilities is critical to promote social inclusion and equal opportunities. ADA is a civil rights legislation to prevent discrimination. While it is not written into the law itself, a subsequent impact of these laws is to improve the attitudes of individuals without disabilities towards individuals with disabilities. However, in order to create more positive attitudes through legislation first thing that is important is to foster an atmosphere of integration for individuals with disabilities in society. However, this can occur only with a change in the attitudes of the individuals within that society (Livneh, 1988).

The system of higher education plays a significant role in the prevention of social inequality and exclusion. It is one of the tools that enables social mobility and social integration of excluded populations (Kelso, 1994). It is ironic that the programs and supports that we have on university campuses focus mostly on removing the academic and physical barriers, but apparently do not work on removing the attitudinal barriers to reduce the social gap, stigma, and social isolation experienced by many students with disabilities, especially invisible disabilities. In addition, most research and discussions on the inclusion of students with disabilities focus on their academics, and neglect the implications of social barriers on their social integration in society at large. Research has shown that lack of informal social interactions between people with disabilities and people without disabilities can be barriers to social integration into higher education. True success or the goal of ADA will only be achieved when these social barriers are also removed. Thus this study calls for academic institutions, student affairs directors, student organizations, and policy makers to promote social integration programs, as part of the services provided in higher education institutions. If students with disabilities are able to remove these social barriers at this college level, this will also help in

their future workplace. In their new role in work-environment these students must overcome the social barriers that prohibit their successful reintegration into an organizational workforce as this work-environment comprised of nondisabled individuals as the majority population.

Two main areas of concerns are identified through this study – communication and awareness of disability and psycho-social needs of students with disabilities. For students participating in this study, family plays a major role in providing supports for students. An aspect of this study necessitates further study. The study recommends that UTEP look into developing a strong peer mentor program that will help new incoming students to learn from peer mentors that as students with disability they can also build positive identity and competence by participating in different activities on campus. The study also reveals the need of regular sensitivity training programs for faculty members on disability issues.

Recommendations for future practice arising from this study called for a greater focus on creating more opportunities for students with disabilities to engage with other similar students within and outside the classroom, encouraging cultural centers and student organizations for students with disabilities with an aim to support connections between students with disabilities and their allies on campus. The other recommendations include increased disability training for professors on universal design, disability issues, and kinds of disability, more staff support for disability service offices, and peer mentoring programs to foster inclusion in postsecondary education and to provide emotional and instrumental support to the students.

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## **1 INTRODUCTION**

Students with disabilities add to the growing diversity of a university community. The academic and social environment of campus is greatly enhanced by the diversity of the student population, which prepares students to thrive in our global society. Unfortunately not all the colleges consider disabilities when they proclaim diversity for example when college brochures and web sites depict people of various races and ethnicities, people with disabilities are omitted (this, of course, refers to people with visible physical disabilities only). Typically today's college campuses are represented by a wide scope of student diversity in terms of age, life experiences, academic preparation, ethnicity, native language, learning styles, abilities, and disabilities (Chronicle of Higher Education, 2009). Thus it is important for colleges to reexamine their instructional needs in order to serve the needs of this diverse population. Research shows this increase in higher education diversity includes 35.35% of students being of minority status, 45.3% of students attending part time, 21.5% of students being ages 25 to 34 with 18.4% being over age 34, and 11.3% of students reporting a disability (Chronicle of Higher Education, 2008).

According to World Health Organization report on disability 2011, the proportion of individuals with disabilities is growing worldwide. One of the report's most important findings is that the overall prevalence of individuals with disabilities is 15 percent of the world's population, or over 1 billion people, have a disability of some type. This replaces the often-used 10 percent estimate that dates to 1970s, the last time an estimate was attempted. The increase in campus diversity requires that we understand the growing concerns of students with

disabilities and respond in multiple ways by creating comprehensive programs to fulfill their wide variety of needs, issues, and student aspirations (Hall & Belch, 2000).

The enrollment of students with disabilities in higher education has increased in the United States since the 1960s (Dukes, 2001). The increase in students with disabilities who pursue postsecondary education can be attributed, in large part, to legislation, which mandated that both high schools and colleges/universities take active steps to improve the equal access of individuals with disabilities. Demographic trends confirm the efficacy of the laws with regard to access as an increasing number of students with disabilities are enrolling in postsecondary education (Hall & Belch, 2000).

A trio of laws has been enacted within the past 30 years that has significantly changed the landscape for students with disabilities in K-12 settings as well as in the postsecondary education. The confluence of Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) and Individuals with Disabilities Education Act (IDEA) has served to open the door and increase opportunities to students with disabilities in higher education. This has been reflected in the results from waves one and two of the National Longitudinal Transition Study: Part II (Wagner, Newman, Cameto, & Levine, 2005). Between wave one (1987) and wave two (2003) of the study, the rate of participation in postsecondary education for students with disabilities increased by 17 %.

Today an estimated 11% of undergraduate students—more than two million—report having some type of disability (National Center for Education Statistics, 2008b; U.S. Government Accountability Office, 2009). Institutions of higher education have witnessed an increase in the number of students with disabilities over time and also the range of disabilities

in the student population has expanded as well (Kroeger and Schuck, 1993b; Ryan and McCarthy, 1994). The most prevalent disabling conditions today are unapparent in nature (learning disabilities, health impairments, speech impairments, low vision, or loss of hearing) than apparent (deafness, orthopedic, blindness) (Henderson, 1992). This data is also supported by the United States Government Accountability Office report (2009). In 2008, the largest proportion of students with disabilities, 24 percent, reported having either a mental, emotional, or psychiatric condition, or depression. Attention deficit disorder (ADHD) was the next most common type, accounting for 19 percent of such students. With regard to physical disabilities, 15 percent, reported that they had an `orthopedic or mobility impairment. However, a decade ago partially sighted or blind was the most prevalent disability among college freshmen; it was fourth in frequency of reporting in 1998 (Henderson, 1999). This reflects that the proportions of non-apparent and apparent disabilities have reversed, with significant growth occurring in the former category and decline in the latter (U.S. Government Accountability Office, 2009).

Research has revealed that in the postsecondary education setting students with disabilities do not have comparable rates of success when compared with their non-disabled peers (Murray, Goldstein, Nourse, & Edgar 2000). People with disabilities continue to face challenges that result in low attendance and graduation rates when compared to people without disabilities (Dowrick, Anderson, Heyer, & Acosta, 2005). Students with disabilities may have additional needs due to those disabilities such as, living on their own and dealing with the disability in an educational environment. The daily life chores of those with a disability are more complicated than their peers without disabilities (Graham, Weingarden, & Murphy, 1991). For

example mobility impaired students also have to face architectural obstacles within the school's existing environment.

According to the report, authored by Wolanin and Steele (2004) from the Institute for Higher Education Policy, students with disabilities face very fundamental challenges, including inadequate academic preparation in K-12 when compared to their peers without disabilities; lower academic expectations; inferior pedagogy and services; and the lack of full access to the core curriculum. In addition, they are not provided the counseling required for the transition to a dramatically different “culture” and system of higher education, what the report calls “a different planet”.

Statistic shows, however, that the retention rates in postsecondary education among students with disabilities have been persistently low (Stodden et al., 2001). Research has suggested that only 13% of individuals with disabilities possess college degree vs 30% those without disabilities to possess a college degree (Houtenville, 2007). Apart from that 40% of postsecondary students (special education) identify their disability to their postsecondary institution (NLTS2) and 88% actually then receive supportive services, accommodations or learning aids. On average, students with disabilities who finish postsecondary education take twice as long to complete their degree than do their non-disabled peers (National Survey of Educational Support Provision, 2000). The number of students with disabilities attending and completing higher education must increase if individuals with disabilities are going to be competitive in the labor market, financially independent, and successful within society (Stodden et al., 2005).

While there are many issues that impact the success of students with disabilities in post secondary settings a major issue that has been identified is that of transition. Wolanin and Steele (2004) also report that K-12 policies are based on a paternalistic model appropriate for minors that focus on strong parental involvement with little self-advocacy by students with disabilities. The Individuals with Disabilities Education Improvement Act (IDEIA) law in K-12 focuses on “individual education plan” (IEP) aimed at “success” for the student. In stark contrast, higher education has no such structure or guarantees. Students with disabilities in higher education are only guaranteed “non-discrimination,” in part through “accommodations”. Once students graduate from high school they leave the auspices of IDEIA and its supportive environment and move into an arena governed by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA; Parker et al., 2005). These civil rights laws place the burden on the individual student to self-advocate while navigating higher education. Institution of higher education has no structured process or plan that aimed at achieving success for students with disabilities. Their scope is intended to provide only access rather than success (Parker et al., 2005).

Another major issue that students face is a change in the legal structure that protects their rights in college. This change in legal context dictates a considerable difference in the services available to students with disabilities. In addition, students don’t know that they will be accommodated in exactly the same way in college that they were in high school (Madaus & Shaw, 2004; Stodden et al., 2002). Another major adjustment to college for students with disabilities is the role that parents/guardians play in educational planning (Wolanin & Steele, 2004). Students with disabilities in high school are often accustomed to the involvements of not

only their parents or guardians but also every school professional in contact with students. Once they come to college, adjusting to a college environment presents challenges for all students; however, for students with disabilities, the responsibility of managing their disability along with accommodations and their academic coursework presents a set of challenges that are unique to these students. Often, students with disabilities enter college unprepared to disclose their disability or lack the knowledge of how to access services on campus. Students with disabilities must self-disclose to the university to request accommodations and support (Madaus & Shaw, 2004). However, students decide for varying reasons not to self-disclose as some are anxious for a new system in a new educational setting and to avoid dealing with being labeled. They want to shed their old identity of being labeled as a student with disability. In addition, some other students decide to wait to disclose until they are experiencing major academic problems (Getzel, 2008). The logistics of accommodation provision can be cumbersome for someone who need more complex accommodations or who need more comprehensive support services such as someone who may need a technology support as well as a reader, scribe and a note taker for accessing their learning accommodations (Wolanin & Steele, 2004). In addition, these services may vary considerably in both quality and quantity from one institution to another as some universities have more comprehensive service delivery than others (Stodden et al., 2002).

While students with mobility disabilities often encounter greater demands on their time due to the physical accessibility barriers they encounter and as a result they need more time with getting to and from campus locations. Students with disabilities related to learning may encounter time constraints due to a need for longer study sessions and relying on technology

such as books available on CD's. Students with visual impairments may need additional time for travelling between venues. Stodden et al. (2002) note however, that the most influential barrier to students with disabilities is related to campus climate. They assert that the social environment in colleges is fraught with stereotypically negative attitudes about people with disabilities and their ability to be successful in higher education (Stodden et al., 2002).

In order to respond to the increasing enrollment of students with disabilities entering Institutions of Higher Education (IHE) and to meet their specific needs of students with disabilities offices were established on campus called the office of Disability services or Accessibility office, which serve as a liaison and advocate between students with disabilities and faculty. In order to receive services, responsibility falls on students to self-disclose their disability. This information remains as confidential information and carefully reviewed by trained personnel with knowledge of disability laws and appropriate service provision. Based on this medical documentation those individual adjustments or accommodations were documented and provided to the student's instructors by the Office (Palmer, 2006; NLTS2, 2005).

The transition to higher education for as many as half of all students with disabilities is not in an order from the K-12 special education and transition plans process, because frequently, the onset of a disability occurs after a person has left secondary school (Wolanin & Steele, 2004). Moreover, many other students with disabilities take a break and thus routinely delay starting higher education. The other factors that impact the success of students as mentioned by the report includes faculty attitudes and the impinged academic culture were



cited as major barriers to implementing accommodations for students with disabilities in institution of higher education. Faculties often are ignorant of their responsibilities and resent the perceived unwelcome visit of students with disabilities into their academic roles (Wolanin & Steele, 2004). Parker (1999) stated that coming to Higher Education can be a dual challenge for students who need personal assistance with severe disabilities as they have to adjust to the difference in demands of post-secondary education which are so different from the secondary school. In college students need to bear additional responsibility of hiring and managing personal assistants and their funding as well. These personal assistants are also not available full time due to funding restrictions. Apart from that another challenge for these students is that entering higher education are expected to be functioning as independent individuals responsible for their own learning and living and advocating for their needs. This process is much more difficult for young people with disabilities especially if the family has, up to this point, provided much of the personal assistance.

Furthermore, many postsecondary schools focus on equal access for their students with disabilities, ensuring compliance with disability legislation, rather than focusing on providing a quality experience to their students with disabilities where their psycho-social developmental needs are met. Research has suggested that there is a strong relationship between getting college degree and successful employment outcomes. Those people who have a college degree have higher chances of getting a job with a higher salary than people without a postsecondary education. This relationship is even stronger for people with disabilities. Individuals with disabilities have a much higher chance of achieving high valued employment outcomes if they

have a college degree as well as experience of higher education also helps develop critical thinking skills, social skills, independence, and work-related experience (NCSET, 2000).

According to the United States Government Accountability Office report (GAO), 2009, recent legislative changes such as the Higher Education Opportunity Act (HEOA) that added new provisions to the Higher Education Act of 1965 (HEA) and the Americans with Disabilities Amendments Act of 2008 (ADA Amendments Act) and the Post-9/11 Veterans Educational Assistance Act of 2008 (Post-9/11 GI Bill) that expanded education benefits for members and veterans of the military have the potential to increase the diversity and numbers of these students.

According to GAO Report, 2009, this growing number of students with disabilities will further challenge current thinking about how to support them and higher education's institution's capacity to effectively meet their educational needs due to limited funding resources. Specifically the growing number of veterans with disabilities and students with intellectual disabilities may also pose new challenges. In addition to increasing numbers of students with invisible disabilities such as autism, psychological disabilities, and chronic medical conditions, schools are expecting more veterans with disabilities. Some of these veterans have invisible disabilities such as acquired mental or physical disabilities (such as traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), and amputations) that imply the need for a university to provide accommodations. However, many schools lack experience in accommodating the needs of veterans with disabilities. Coupled with an ever increasing

number of students with disabilities on campuses is the broad spectrum of disabilities these students have.

With an increase in this population come concerns about retention and academic success rates. In spite of these trends in increased enrollment, students with disabilities have been less than successful in participating fully in the college experience and in attaining a college degree (Murray et al., 2000). This may be due to the fact the students with disabilities, when they enter college are less prepared academically for college, also have lower overall retention rates, take longer time to complete a degree and have lower persistence rates than their counterparts without disabilities.

According to Wilson, Getzel and Brown (2000), although access to post-secondary education is increasing for students with disabilities, but it does not mean that these students will experience welcoming, supportive campus climates, programming and services that will facilitate choice, independence, and social participation, or adequate supports to promote academic success. In some of the research studies when students were asked to identify problems and barriers, they responded positively to the services they received, but they stressed the continuing problems related to understanding and cooperation from students, faculty, and administration, shortages of resources and adaptive aids; buildings and services that are still inaccessible (West, Kregel, Getzel, Ipsen, 1993).

Legislation over the past 30 years such as the Americans with Disabilities Act of 1990 (ADA) has helped to eliminate some of the academic, attitudinal, and physical barriers that students with disabilities face at institutions of higher learning. However people who have a

disability, still carries with it a great deal of stigmatization and stereotyping and as a result decide not to make use their legal rights (Tagayuna et al., 2005).

Rapidly changing demographics in the country also reveal young Latino populations are struggling to achieve academically in the U.S. Included in this population are students with disabilities who have been referred to in the literature as triple-threat students because they are presumed to have three strikes against them before they even start school (Rueda & Chan, 1979). The first strike is their disability. The second strike is their limited English proficiency. The third is their lower economic status. Research has shown that as compared to non-CLD (Culturally and linguistically diverse) students with disabilities, CLD students with disabilities are face wide variety of barriers such as language, social barriers, the negative effects of having grown up in poverty, and they also have difficulty understanding and writing English all of which increase their risk of school failure and school drop-out (Greene & Nefsky, 1999).

Census data of 2000 leave no doubt that minority are rapidly increasing as a proportion of the total United States population. This is the result of immigration and minorities' higher birthrates compared to Caucasians. Minorities will become the majority of the national population around the year 2050. According to U.S Census, 2010, 48.4 million is the estimated Hispanic population of the United States as of July 1, 2009, making people of Hispanic origin the nation's largest ethnic or race minority. Hispanics constituted 16 percent of the nation's total population. 66% percentage of Hispanic-origin people in the United States was of Mexican background in 2008. 47% of the Hispanic-origin population lived in California or Texas in 2000. California was home to 13.7 million Hispanics, and Texas was home to 9.1 million.

A 24-percent increase in Hispanic college enrollment has brought the number of Hispanic young people attending college to an all-time high and made them the largest minority group of 18- to 24-year-olds on campuses in the country, according to a report by the Pew Hispanic Center. In 1972, just 13 percent of Hispanics in that age group were in college. Thirty-two percent of Hispanic 18- to 24-year-olds were enrolled in 2010. College-completion rates among Hispanics also dawdle. Hispanic young adults lag behind than any other major ethnic group to have completed college or earned a degree. Apart from that much of the enrollment of Hispanic students has happened in colleges that continuously serve large proportion of Hispanic students (Chronicle of Higher Education, 2011).

According to U.S Census Bureau, 2010, in Texas the Latino Hispanic population is approximately of 37.6%. By the year 2040, people from CLD backgrounds are expected to comprise nearly 50% of the United States population. This trend is of huge importance to services provided to students with disabilities as well as racial and ethnic minorities (who often suffer from poverty, high unemployment, lack of health insurance, substance abuse, and poor education as they have significantly higher rates of disability than those of the majority Caucasian population (Stodden et al., 2003).

Our culture shapes how we see the world and make sense of it. Culture influences all of our behaviors and interactions. Our culture also mediates how we make sense of disability and respond to people with disability. Many of the cultural elements such as language, family systems, gender roles, cultural values, beliefs, and practices have also been found to play significant roles. Research has shown that different cultural communities and religious faith

explain and respond to disability differently such as how to behave with individuals with disabilities. In addition, culture has influenced the beliefs about factors that cause disability conditions, and what conditions qualify as sickness and expectations about what a sick person can and cannot do and expected actions of others in response to that person's condition (Stodden et al., 2003). Recent research also suggests that disability along with other characteristics (e.g., race and class) has a much more impact on educational outcome than any one of these characteristics standing alone (Coutinho, Oswald, & Best, 2002).

Hispanic culture is rooted in "familism", a cultural construct that emphasizes prioritizing the family over the individual with the extended family being the primary source of supports for individual members (Yates, Ortiz, & Anderson, 1998). Students with disabilities from CLD backgrounds are at risk of social isolation, due to a mismatch between their home and community culture and that of the postsecondary institution (Feagin & Sikes, 1995; Fries-Britt & Turner, 2002). African-American, Latino, and many non-Western cultures encourage those cultural values that are in sharp contrast from professionally-defined, Anglo-Western self-determination values such as individualism (Frankland, Turnbull, Wehmeyer, & Blackmountain, 2004). Variables that effect self-determination values can include cultural values, family and individual beliefs, neighborhood, religious beliefs, socioeconomic status, group affiliations, and parent education (Wilder et al., 2001). It has also been argued that persons with disabilities belongs to a minority group whose members, share the similar fact that they are often stereotyped and subjected to negative perceptions and low expectations. From this perspective, many CLD persons with disabilities face a burden of discrimination from both aspects (Fine & Asch, 1988).

It is important to understand from the perspective of Hispanic predominantly Mexican-American students themselves, the experience of attending and working through the postsecondary environment in a Hispanic serving institution, especially what factors facilitate and may obstruct their continued enrollment. How have their experiences with faculty members been supported or dissuaded them from continuing their studies? Was faculty knowledgeable and understanding about common accommodations related to student's disability and especially in the case of students with hidden disabilities? Do other students' perceptions prohibit or encourage academic and social engagement of students with disabilities? Are students with disabilities in this study are involved and if they come across any barriers while participating in the campus life/student organizations?

### **1.1 Statement of Problem**

Increased campus diversity requires that institution of higher education focus on the growing concerns of students with disabilities and responds in multiple ways to a wide variety of needs, issues, and student aspirations. College adaptation/adjustment to college, however, is a complex process that includes not only academic but psychological, emotional, social, logistical, environmental, and personal considerations (Tinto, 1993). As laws that protect the rights of individuals with disabilities continue to provide legal frameworks for supporting individuals with disabilities and increased societal awareness, this study is timely in addressing the needs of a population that has been historically overlooked.

Despite a steady increase in their number, disabled students constitute a minority group within the student affairs practice in higher education (Junco & Salter, 2004). There is a limited

attention given by academic institutions to the needs of people with disabilities during their participation in higher education. Students with disabilities encounter stereotypes and prejudices that are similar to those faced by individuals from other underrepresented groups such as Students of color and students from under-represented ethnic and racial groups (Katz, Huss, & Bailey, 1998), however the research on the development and retention of students with disabilities is quite scarce. Thus as students with disabilities struggle to succeed within these settings and also today require more numerous and more intense support services than their predecessors of 20 years ago. The successful integration of college students with disabilities requires positive and accepting attitudes of members in the entire university community that includes peers, professors and other staff members. Faculty members play an essential role in ensuring access for students with disabilities and supporting their success. The negative attitudes of faculty and staff can have profound impact on college experience of students with disabilities. A discriminatory climate may prevent students with disabilities from enacting self-advocacy skills to understand and effectively communicate one's needs to other individuals (such as expressing academic strengths and weaknesses to faculty), understanding their academic needs, and asking for accommodations (Nutter & Ringgenberg, 1993). Such skills are a key to college and life success (Merchant & Gajar, 1997).

Previous literature suggests that students with disabilities that were academically successful in college were so because of institutional factors that includes the positive attitude of faculty and peers (Fichten, 2005). This study helped to develop an understanding of how college students with disabilities develop attitudes and beliefs both academically and socially. The insights gained through this study could lead to a better understanding of what changes to



make to improve campus climate, to enhance retention and graduation rates, to identify and reduce/eliminate attitudinal, physical and academic barriers, how to improve transitional services within the secondary institutions in order to better meet the needs of students with disabilities after they are admitted to postsecondary institutions.

There is evidence that nontraditional college students perceptions on the factors that influence their academic success cover a broad range of areas including social support factors, campus climate factors (e.g., interaction with other students and faculty) (Cheng, 1990; Holland & Eisenhart, 1988). The knowledge gained from this study will help educators and student affairs professionals in understanding the needs of students with disabilities and addressing them so that they are no longer a forgotten minority and by creating or fostering campus environments that are more welcoming and engaging for these students.

## **1.2 Purpose of Study**

The major purpose of this study was to explore the experiences of students with disabilities specifically with regard to their personal experience with transition from high school to college, adjustment to college, campus involvement and communication/campus climate, and technology and other factors among this student population. To ascertain these students' perception of their undergraduate studies experience, this study was designed to determine the following: to what extent do transition experiences and services play in the success of college students with disabilities, and also what is their understanding of the impact of institutions, attitudes of faculty, staff, and peers on their academic success?. How do they perceive what the institutional support system is for the student who has a disability? This

study provided a description of the beliefs and experiences of students as well as the collegiate environment that college students with disabilities believe facilitated their college success.

### **1.3 Research Questions**

To ascertain these students' perceptions of their experience, this study was designed to with a mixed method research methodology to answer the following questions. It includes a survey followed by selected interviews designed to contribute to what is known about transition from secondary to postsecondary school, college adjustment, campus involvement and perceptions of campus climate among students with disabilities.

- What are the perceptions of predominantly Hispanic students with disabilities on how they are perceived, treated, and respected by faculty, staff, peers and/or administrators at UTEP?
- How does a student with disabilities establish academic, social, and emotional supports that create a foundation for success in an environment of higher education?
- How do college students with disabilities describe their ability to engage in the physical structure, institutional, academic and social campus environment?
- What are the obstacles that students with disabilities face while trying to succeed at UTEP?
- What factors do students identify with as the most influential in their college experience and academic success?

## **1.4 Significance of the Study**

This study sought to understand and document the experiences and perceptions of undergraduate college students with disabilities in a Hispanic serving institution. The findings generated by this study might have a significant impact in terms of helping shape policy, research, and practice at institutions of higher education. It will help inform K-12 educators of the challenges and successes of postsecondary students with disabilities so that appropriate programming can be implemented early in the transition process. Results from this study provide help inform colleges and universities about how to meet the needs of this growing population and contributes to the growing body of literature about students with disabilities participating in higher education.

## **1.5 Definition of Terms**

This section provides definitions, abbreviation of terms used in this study.

**Disability.** An impairment that substantially limits a major life activity (Americans with Disabilities Act of 1990).

**Hispanic or Latino:** The U.S. Bureau of the Census uses the term “Hispanic” as an ethnicity category referring to persons who trace their origin or descent to Mexico, Puerto Rico, Cuba, Central or South America, or Spain.

**Hispanic-Serving Institutions (HSIs)** are defined as colleges, universities, or systems/districts where total Hispanic enrollment constitutes a minimum of 25% of the total enrollment. “Total Enrollment” includes full-time and part-time students at the undergraduate or graduate level

(including professional schools) of the institution, or both (i.e., headcount of for-credit students). Member enrollment statistics are self reported by the institution for the fall semester of the year prior to the membership year (Hispanic Association of Colleges and Universities, 2011).

Institutions of higher education (IHEs): Post-high school education attendance at a two- or four-year college or university. In this study, the terms college and university were used interchangeably when referencing IHEs.

Office of Disability services/Office of Accessibility (OA). A term used in this study to identify the department at IHEs that serves students with disabilities.

Perception: Defined as opinions and insights of students' with disabilities.

Transition: Change, Passage from one state, stage, subject or place to another; the gradual adoption of new roles and modification of existing roles (King, Baldwin, Currie, & Evans, 2005). In this study, transition refers to when a student leaves high school and goes on to attend an institution of higher education.

Students with apparent disabilities: Students with apparent disabilities were defined as having physical disabilities such as mobility impairments, hearing impairments, or visual impairments.

Students with non-apparent disabilities: Students with non-apparent disabilities were defined as having cognitive disabilities, such as learning disabilities or attention deficit disorder; psychological disabilities; or chronic health disabilities, such as cancer or heart disease. These disabilities are not readily apparent when observing a young person; in fact, many of these

conditions have not been diagnosed or have not been recognized or acknowledged by the individual.

## 2 LITERATURE REVIEW

As noted in Chapter One, today an estimated 11% of undergraduates—more than two million—report having some type of disability that is marking a two percent increase from 2000 (National Center for Education Statistics, 2008b; U.S. Government Accountability Office, 2009). In terms of distribution of disability there is a significant growth occurring in the non-apparent disabilities than apparent disabilities. Adding to the population of students with disabilities are veterans who have sustained injuries in Iraq and Afghanistan. In proportion of their representation within the student population, White and Native American Students are more likely than Black or African American, Hispanic or Latino or American Indian or Alaska Native to report having a disability. In 2008, nearly 62.5% of students with disabilities are White, Hispanic or Latino is 13.4%, Black or African American is 14.5%, Asian is 5.4%. (U.S. Government Accountability Office, 2009).

Historically, students with disabilities have counted for a very small minority population on college and university campuses but now their number is increased as they are exploring postsecondary education as a realistic goal when planning for their future career (Russo Jameson, 2007). Studies have shown that persons with disabilities share a culture minority group culture thus they face similar issues as ethnic minority students and are often stereotyped and subjected to negative perceptions and low expectations (Shakespeare, 1996; Williams, 2001). Creating a welcoming environment for students with disabilities means having more positive attitudes towards students with disabilities through civil legislation is possibly a result of the idea that creating an atmosphere of inclusion for individuals with disabilities in

society cannot occur without a change in the attitudes of the individuals within that society (Livneh, 1988).

With the passage of Federal legislation such as the Individuals with Disabilities Education Act (IDEA), Americans with Disabilities Act of 1990 (including the recent 2008 ADA Restoration Act) and Section 504 of the Rehabilitation Act of 1973 they have lead IHE to require them to provide only equal access by providing them reasonable accommodations for students with disabilities rather than success. It is the responsibility of the student to disclose that they have a disability and provide proof of the disability. The main aim of these laws is to integrate individuals with disabilities into mainstream society and to create a welcoming environment in society at large. The other secondary intent of these laws is to improve the attitudes of individuals without disabilities towards individuals with disabilities (Livneh, 1988). More specifically, Section 504 requires postsecondary institutions to provide equal access to all aspects of a college campus and its programming. Furthermore, the ADA requires postsecondary institutions to reasonable accommodations in such areas as academic programming, examinations and evaluations, housing, and recreational facilities (Americans with Disabilities Act, 1990; Rehabilitation Act of 1973).

Minority students and students with disabilities, in particular, make up a disproportionately large percentage of those dropping out. Developing a campus climate providing opportunities to all students regardless of race, gender, sexual orientation, or disability is essential to the success of all students. This starts with a shared responsibility between faculty, staff, and students in developing an understanding of the needs and concerns

of students with disabilities. Pascarella and Terenzini (1991) describe a number of environmental factors that influence retention of college students. Most of these environmental factors involve the role of university faculty and staff in student socialization. Student social participation (such as clubs and activities) has appeared positively related to retention because it helps the student connect and increases her/his commitment to the university.

In a research study, Nutter and Ringgenberg (1993) suggested that creating a welcoming environment would enable students with disabilities to be a college graduate without facing the deadly effects of stereotyping. Welcoming environments must first start with positive attitudes of the individuals that comprise the environment such as students, faculty, and staff. The transition and adaptation to college pose many challenges for all students including academic, personal and social adjustments (Chickering, 1969). However these challenges are particularly challenging for students with disabilities who also encounter specific academic, attitudinal and physical barriers that impede academic and social integration that can put them at risk for failure at institutions of higher education. In a study by Blacklock et al. (2003), stigma was identified as the most common barrier to full participation in college for students with psychiatric disabilities that puts them at risk of dropping out from college.

These students are sometimes thought of as the forgotten minority of student affairs in higher education (Junco, 2004). Though the number of students with disabilities enrolled in postsecondary programs increased to about 11%, making a two percent increase from 2000, yet many in the higher education community is still struggling with how to support and



effectively serve students with disabilities who have wide and complex needs (Blackorby & Wagner, 1996; Stodden & Dowrick, 2000).

In this literature review, I present an in-depth discussion about students with disabilities in higher education. Firstly, I examine the literature on disability laws, history of disability laws, disability case law, and self-identification and documentation in higher education. Secondly, I evaluate the literature on factors that has an impact on college adjustment for undergraduate students. The issues include transition barriers from high school to college, transfer from community college to university, role of culture, culture and transition failure and its impact on students with disabilities in postsecondary Education, acceptance of disability and the Mexican American Culture, issues of retention and persistence and issues impacting positive college outcomes for students with disabilities such as adjustment, communication, campus involvement and technology. Third, I review the theoretical framework of the study and that includes Tinto Interactionalist Theory of Student Departure, Attribution Theory, Social Construction of disability, Bronfenbrenner's (1979) Ecological Systems Theory (BEST model) and Rendon's (1994) theory of Validation.

## **2.1 Historical Overview of Disability**

Throughout recorded history, people perceived as disabled have been vulnerable to practices such as infanticide, slavery, physical abuse, and abandonment (Braddock & Parrish, 2002). Throughout history, people with disabilities have been the target of subtle and obvious discrimination. During colonial times, people with disabilities either were born with them or their disability was the result of war-related injuries and the family assumed responsibility for

the care of the individual (Winzer, 1997). In the 1800s, people with disabilities were considered meager, tragic, pitiful individuals unfit and unable to contribute to society, except to serve as ridiculed objects of entertainment in circuses and exhibitions. They were assumed to be abnormal and feeble-minded, and numerous persons were forced to undergo sterilization. It was not until 1812 that institutional care, also known as custodial treatment replaced family responsibility for the care of the disabled in the country (Barnett & Scotch, 2001).

The period from 1820 to 1850 saw the increasing use of almshouses to warehouse poor people as well as those with physical and mental impairments. Those who were placed in almshouses experienced wretched conditions and physical abuse. The collective action against the conditions from within was unlikely to occur because of the variety of social, physical, and mental problems that occurred at the almshouses (Ferguson, 1994).

According to Albrecht, (1992), the marginalization of people with disabilities continued until World War I. The first example of postsecondary services for individuals with disabilities in the United States was the establishment of Gallaudet University in the 1860's as a liberal arts institution for deaf students. Additional progress in postsecondary disability services was minimal to non-existent until the end of World War I. However, in the first half of the twentieth century, with the thousands of WWI soldiers returning home, the first vocational rehabilitation acts were passed in the 1920s to provide services to WWI veterans with newly acquired disabilities. In 1917, with the passage of the Vocational Education Act, the Federal Board for Vocational Education was established. Several states soon followed the example of the federal

government and established Vocational Rehabilitation agencies, largely to meet the needs of World War I veterans with disabilities (Scales, 1986).

In the 1940s and 1950s, disabled World War II veterans placed increasing pressure on government to provide them with rehabilitation and vocational training. World War II veterans made disability issues more visible to a country of thankful citizens who were concerned for the long-term welfare of young men who sacrificed their lives to secure the safety of the United States (Barnett & Scotch, 2001).

The early part of the century saw only occasional reports of individuals with disabilities graduating from college, however, after World War II the Disabled Veterans Vocational Rehabilitation Act and the Serviceman's Readjustment Act of 1944 (the G.I. Bill of Rights) increased the presence of students with disabilities on college campuses (Jarrow, 1987). As African Americans, women and other social minorities gained political consciousness, so did people with disabilities. In the United States, the disability rights movement began in the 1960s, encouraged by the examples of the African-American civil rights and women's rights movements. The Civil Rights Act of 1964 made it against the law to discriminate against people because of their race, religion, and, later, gender. Disability was not mentioned in the Civil Rights Act, so people with disabilities began their own civil rights movement (Ferguson, 1994).

Beginning in 1968, congress passed a series of legislations with the intention of providing integration of the disabled through equal access and equal opportunity. Until this point in history, the United States has had a long history of segregating individuals apart from the rest of society who were thought of as having a lesser value and somehow less deserving of

human rights. For example, prior to the 1970's, it had been a common practice to institutionalize individuals with disabilities in facilities that resulted in long-term isolation and segregation from the general population (Barnett & Scotch, 2001).

In the 1970s, disability rights activists lobbied Congress and marched on Washington to include civil rights language for people with disabilities into the 1972 Rehabilitation Act. In 1973, the Rehabilitation Act was passed, and for the first time in history, civil rights of people with disabilities were protected by law. Section 504 of the Rehabilitation Act of 1973 marked a major shift in the disability rights movement to a declaration of rights from one of charity. Thus 1970's is marked as the beginning of modern era in postsecondary disability services (Madaus, 2000).

The 19th century is noted for institutionalizing people with disabilities and they were looked upon as patients or clients who needed curing. This practice had the effect of excluding people with disabilities from the larger society and implied that something was inherently and permanently wrong with them. It provided no room for integration, and perpetuated myths of inequality (Lissner, 2005).

The twentieth century marked the beginning of age of inclusion in both university and societies at large. The G.I bills after World War II enabled thousands of young men to enter college. In addition the women's movement and the civil rights movement demanded that thousands more be given entry to all sorts of privileges previously reserved for the white upper class male, including a postsecondary education. The disability rights movement shares many

similarities with other 20th-century civil rights struggles by those who have been denied equality, independence, autonomy, and full access to society (Madaus, 2000).

The increase in students with disabilities who pursue postsecondary education can be attributed, in large part, to legislation, which mandated that both high schools and colleges/universities take active steps to improve the equal access of individuals with disabilities. Disability laws mandate that all postsecondary institutions must not discriminate in the recruitment, admission, or treatment of students (Madaus, 2000). Legislation in the past 30 years has facilitated to some extent in eliminating some of the academic, attitudinal, and physical barriers that students with disabilities face at institutions of higher learning. Though the Americans with Disabilities Act of 1990 (ADA) and the Americans with Disabilities Act Amendments Act of 2008 provides protection against discrimination for students with disabilities in K-12 schools as well as in postsecondary education, the major barrier that people with disability face is attitudinal barrier as society as a whole still embraces the negative and paternalistic attitudes that restrict people with disabilities from participating fully in equal education (Lissner, 2005).

## **2.2 Disability Laws in Higher Education**

The twentieth century marked the beginning of students with disabilities access to higher education in significant numbers (Ryan, 1993). Section 504 and the ADA are the two pieces of legislation with the most direct impact on higher education for students with disabilities. The impact of these civil rights laws created the opportunity for this post school

path for students with disabilities and help students in obtaining accommodations they need to be on a level playing field with everyone else in college classrooms (Ryan, 1993).

### **2.2.1 IDEA—the Individuals with Disabilities Education Act**

IDEIA was originally enacted by Congress in 1975 to ensure that children with disabilities have the opportunity to receive a free appropriate public education, just like other children. The law has been revised many times over the years. The most recent amendments were passed by Congress in December 2004. The goal of this federal legislation was to ensure access to an appropriate, free public education for all children, regardless of disability. The law was amended in 1997 and is known as the Individuals with Disabilities Education Act (IDEA, 1997, 2004). The purposes of the law is to ensure that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for employment and independent living. The other purpose is to ensure that the rights of children with disabilities and parents of such children are protected (Brinckerhoff, 1994). The IDEA amendments of 1997 and 2004 mandated that students be invited to participate in their transition planning, including planning for postsecondary education. This was the first introduction of meaningful student involvement in making decisions regarding their own education. Since its inception, the intent of PL94142 and IDEIA has been for students to be active participants.

### **2.2.2 Rehabilitation Act of 1973**

The Rehabilitation Act of 1973 was the first “rights” legislation to prohibit discrimination against people with disabilities. However, this law applied to programs conducted by Federal agencies, those receiving federal funds, such as colleges participating in federal student loan programs, Federal employment, and employment practices of businesses with federal contracts (Madaus & Shaw, 2004). According to Weintraub et.al (1976), Section 504 of the Rehabilitation Act of 1973 is a major shift in the disability rights movement from a declaration of rights to one of charity. The Act stated that —no otherwise qualified individual could be excluded by sole reason of his or her handicap from participation in or benefit of any program receiving Federal funding. As a result, individuals with disabilities gained entrance into colleges and universities (Dukes & Shaw, 1998).

Section 504 does not require special education programming to be developed for students with disabilities but does require an institution to be prepared to make appropriate academic adjustments and reasonable modifications to policies and practices to allow for full participation of students with disabilities. Persons diagnosed with disabilities are protected by Section 504 if their condition substantially limits a major life activity such as learning, working, speaking, writing, walking, seeing, and hearing. This law represented the first legal mandate requiring public and private postsecondary institutions to provide equal opportunities for individuals with disabilities (Hall & Belch, 2000).

Under Section 504, colleges and universities cannot discriminate in any of the following: limit the number of students with disabilities admitted; ask pre-admission questions about disability; exclude a qualified student with a disability from any course of study; counsel a

student with a disability toward a more restrictive career; or establish rules and policies that may adversely affect students with disabilities (Stodden et al., 2000). Postsecondary institutions may make accommodations for students with disabilities, such as removing architectural barriers, providing interpreters, allowing extra time to complete examinations, or permitting the use of computer software or other adaptive technologies. What the Rehabilitation Act of 1973 has failed to do is making standard comprehensive service delivery requirements or the nature of services/accommodations that postsecondary institutions should make available to students with disabilities. Some universities have more comprehensive services than other universities such as tutoring program for students with learning disabilities (Hall & Belch, 2000).

The Rehabilitation Act of 1973 (Section 504) also provide equal opportunity for employment within the federal government and in federally funded programs, prohibiting discrimination on the basis of either physical or mental disability. Section 504 of the Rehabilitation Act also established the Architectural and Transportation Barriers Compliance Board, mandating equal access to public services (such as public housing and public transportation services) to people with disabilities, and the allocation of money for vocational training (Stodden et al., 2002).

### **2.2.3 Americans with Disabilities Act (ADA) of 1990**

Since the passage of the ADA, this mandate from the Rehabilitation Act of 1973 was expanded to include any public or private institution. This legislation prohibited discrimination against individuals based on their disability status (Stodden et al., 2002). The ADA reinforces the statues of the Rehabilitation Act of 1973 such as the Subpart E of the Rehabilitation Act



requires an institution to be prepared to make reasonable academic adjustments and accommodations. With relation to the college setting, a qualified person with a disability is one who meets the academic and technical standards required for admission or participation in the institution's educational programs or activities (ADA, 1990).

This would allow students with disabilities full participation in the same programs and activities available to students without disabilities and there has been a significant increase in support provided to individuals with disabilities. The ADA further reinforces these statutes. However, barriers continue to exist in regard to the way the law was written and how postsecondary institutions choose to provide the required services. The differences in the interpretation of the Americans with Disabilities Act make it difficult to have a minimum standard for providing specific types of accommodation, services, and supports (Tagayuna et al, 2005).

Both Section 504 and the Americans with Disabilities Act (1990) required colleges and universities to provide equal access and services to qualified individuals with disabilities (Madaus & Shaw, 2004). However, it is the responsibility of the student to disclose that they have a disability and provide proof of the disability. This is a significant shift from the entitlement to one of eligibility under the law. This change in legal status is often difficult for students with disabilities to negotiate (Scott, 1991).

A series of legislative mandates in the past thirty years created access to higher education for students with disabilities. Since the passage of the ADA, the number of students with disabilities who attend postsecondary institutions has increased dramatically (Hall & Belch,

2000; Stodden et al., 2001). Demographic trends confirm the efficacy of the laws with regard to access as an increasing number of students with disabilities are enrolling in postsecondary education. Coupled with an ever increasing number of students with disabilities on campuses is the diversity in the type of disability these students have. In spite of these trends, students with disabilities have been less than successful in attaining a college degree and also in participating fully in the college experience (Murray et al., 2000).

#### **2.2.4 ADA Amendments Act of 2008**

This new law, which clarifies the intent of the ADA, was signed September 25, 2008 and went into effect on January 1, 2009. The legislation is intended to restore the intent and protections of the ADA passed in 1990. This law expands the definition of major life activities, and specifies that one should not consider mitigating measures (i.e., medication, devices, prosthetics, assistive technology, etc.) when determining eligibility for accommodations. The legislation would also include protections for conditions that limit bodily functions, such as the immune system, circulatory system and brain injury (Keenan, 2009). The ADAAA also expands the coverage of persons who are “perceived as disabled” by society at large. According to Grossman, 2009, the objective of the ADAAA is to shift the focus of attention from who is an individual with a disability such as a psychiatric condition to whether an individual was the object of adverse treatment and disability discrimination based on stereotypes. The ADAAA will most certainly benefit veterans with disabilities.

### **2.3 Historical Background of Disability Support Services**

The first example of postsecondary services for individuals with disabilities in the United States was the establishment of Gallaudet University in the 1860's as a liberal arts institution for deaf students (Madaus, 2000). Following World War II there was an increasing awareness of the need to serve returning war veterans with disabilities who were eligible for educational benefits (Bonney, 1984). The passage of two federal acts, P.L. 78-16 (the Disabled Veterans Vocational Rehabilitation Act) and P.L. 78-346 (the Serviceman's Readjustment Act of 1944, or the G.I. Bill), increased educational opportunities for veterans with disabilities (Ryan, 1993). Since the late 1960s, legislation has been passed that directly impacts individuals with disabilities and the opportunities afforded them at institutions of higher learning.

In the middle of the 1960's, the Civil Rights movement began to gain momentum across the nation. The principles of the movement spread to individuals with disabilities and a new civil rights action began to take root, as exemplified by the work of students at the University of California at Berkeley (Madaus, 2000). A group of 12 students with severe disabilities formed a group called the "Rolling Quads", and began pressing for increased accessibility and independence, eventually gaining improvements in transportation, classroom accessibility, and even in the renovation of curb cuts on downtown city streets. The movement changed not only the architecture but also the attitude of both the campus and the city (Shapiro, 1993).

## **2.4 Current Perspectives of (Inclusion/Normalization)**

Inclusion is rooted in this "Normalization" principle that aims to provide social interactions and experiences that parallel those of society to adults and children with disabilities. Inclusive education means students with disabilities receive the services and

supports appropriate to their individual needs within the general education setting. The traditional model of special education has been “pulling the student out of the general education class to receive support, inclusive education focuses on "pushing services and supports into" the general education setting for both students and teachers. Current research suggests that segregating students is detrimental to the development of their academic and social needs and contributes to the isolation of special learners in broader society (Zionts, 2005).

One of the most obvious advantages of inclusion is the fact that students with disabilities can be integrated socially with their peers. They can create long-lasting friendships that would not be otherwise possible, and these friendships can give them the skills to navigate social relationships later on in life. Relationships have even been found between a student's sense of community and increased academic motivation, engagement, and better behavior (McNeely, Nonnemaker & Blum, 2002; Osterman, 2000). Many benefits have been found for students with disabilities when placed in an inclusive classroom. Inclusion is meant to give all children equal access to education and equal opportunity to shared experiences with their peers (Lipsky & Gartner, 1994). Apart from equal opportunity, students with disabilities develop friendships and a more positive self-image by having the opportunity to do what other students do. These friendships will become future natural supports for the students into adulthood. Thus they learn age-appropriate social skills by imitating students without disabilities in the environments where they are needed in future also to succeed in society as adults (Falvey, 1995). There are many advantages of inclusion for those students in an inclusion classroom who do not have disabilities as well. Students without disabilities also progress in social cognition

and develop a greater understanding and acceptance of students with disabilities who are different from them and diversity as a whole, as a result of experiencing inclusive. This also causes an increase in students' empathy and tolerance. These students can also gain strong friendships that would have been impossible (Fisher, 1999). Carter and Kennedy (2006) also found that students without disabilities, who were in inclusive classrooms, showed greater appreciation of diversity and raised expectations of their classmates with severe disabilities. They also found that these typically developing students gained self esteem and developed new friendships (Carter & Kennedy, 2006).

Unfortunately, inclusion is often misunderstood as being synonymous with the physical mainstreaming of students with special needs into normalized settings without consideration of strategies to enhance membership to the new setting (Lipsky & Gartner, 1994; Falvey, 1995). The goal of inclusion is to prepare both students with and without disabilities to become valuable members of their community and society (Lipsky & Gartner, 1994). Other benefits of inclusion for students with disabilities are senses of being normal member, respect, and dignity (Zionts, 2005).

## **2.5 Adjusting to the Demands of Higher Education**

Students attending postsecondary education face many obstacles while working towards degrees. Some students enter college immediately after high school and some students go to community college before coming to four year college. As students transition into postsecondary institutions, they must develop knowledge and skills that assist with assuming independent roles and learn ways to adjust to the demands of academia. Students

with disabilities shift from a high-school environment that allows them to be relatively "passive" to a college environment that expects them to be relatively "active" and independent regarding their disabilities.

Therefore, it is important to acknowledge the stages of transition that students experience as they progress their journey. The following section includes: (a) a description of the transition from high school to college, (b) the transition from community college to four year university.

### **2.5.1 Transition from High School to Higher Education**

Transition is a natural part of life that we all experience at some point in time. All students entering college have to endure the challenge of navigating differences between the environments of high school and higher education; however, the difficulty of managing the college experience is magnified for the student with a disability (Hicks-Coolick & Kurtz, 1996; Dragoo, 2006). The leap from high school to independent college life is difficult for any freshman, but it can be especially challenging for disabled students. Research has shown that many students with disabilities and their families experience difficulty when accessing necessary transition services (Johnson, Stodden, Emanuel, Luecking, & Mack, 2002).

The reauthorization of IDEIA (2004) added focus on the preparation of youth for post-school environments including higher education as transition is a federally mandated part of the individualized education program (IEP) of a student with disabilities, and it is meant to help bridge the gap between the student's high school experience and their future (Sitlington, 2003).

Under IDEIA (2004) Transition Services is defined as “a coordinated set of activities for a child with a disability that (a) is designed to be within a results oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child’s movement from school to post-school activities, including postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation; and (b) is based on the individual child’s needs, taking into account the child’s strengths, preferences, and interests; and includes instruction, related services, community experiences, development of employment and other post-school adult living objectives, and, if appropriate, acquisition of daily living skills and provision of a functional vocational evaluation (IDEA, 2004; 20 U.S.C. 1401(34)). This had an indirect impact on higher education for students with disabilities by creating full secondary educational opportunity that included the —“college track” (Jarrow, 1991).

Unlike the IDEA, Section 504 and ADAAA define disability broadly and in functional terms (Simon, 2001, p. 6). These laws have a three pronged criteria for meeting the definition of disability that is — (1) has a physical or mental impairment which substantially limits a major life activity, (2) has a record of having such impairment, or (3) is regarded as having such impairment (p.6). Thus the criterion for who is an individual with a disability is defined more broadly than under IDEA, and is also open to varying interpretations. Under these laws postsecondary students are eligible for —reasonable accommodations in the form of academic adjustments or auxiliary aids and services (p. 3).

The postsecondary milieu is considerably different than the K-12 public school environment for the student with disabilities. In their high school experiences, students receiving special education experiences are supported by multidisciplinary teams that (includes parents, students, teachers, counselor, school administrator) available for future planning and interventions related to their disabilities. They implement individual Education Plans (IEP's) and specialized instruction. On the other hand, when a student comes to college environment, it does not provide the same extent of support that he or she gets accustomed to in a High school settings. Once a student enters college, how does he or she navigate the transition from a system that is obliged to actively identify, remediate, support, and accommodate to a setting that requires the individual to proactively set up these accommodations and services (Eckes & Ochoa, 2005).

The legal system that protects the rights of individuals with disabilities in higher education requires the student to play a different role. In higher education, there is not only the responsibility to identify oneself as having a disability, but also to provide medical documentation of the disability and to actively work with the disability service provider to determine appropriate academic accommodations and services which allow equal access to the educational experience . As a result this shift in self-disclosure of disability from the school to the individual with regards to seeking special disability related support services (Eckes & Ochoa, 2005). It will be a major adjustment for those students who are coming into higher education from public schools and are used to receiving support and resources that parents and educational professionals have initiated since diagnosis (Brinckerhoff, Shaw, & McGuire, 1993).



Brinkerhoff, et al., 1993, describe the inconsistency between the two environments: “Students with learning disabilities in elementary and secondary schools are often surrounded by a team of special educators, speech and language therapists, counselors, and teachers. Institutions of higher education are not required to provide special programs, and few higher education settings have the luxury of providing comprehensive support services to students with learning disabilities”

The students also need to understand that there is a huge differences between high school and college academic environment, stress/support, responsibility and physical environment, such as time spent in class; class size; time for study; testing approaches; grading methods; teaching strategies; and freedom/ independence pose additional challenges for students with learning disabilities who are making the transition from high school to college (Brinkerhoff, et al., 1993). Apart from that, students with disabilities who are preparing for higher education need to understand the differences between special education federal laws. For example, one important difference among IDEA, Section 504 and the ADA relates to disclosure of disability (Brinkerhoff, et al., 1993).

IDEIA does not apply to the postsecondary education environment. Instead, Section 504 of the 1973 Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA) of 1990 apply. These laws function as civil rights laws, protecting qualified individuals against discrimination. Under both Section 504 and the ADA, students have the burden to disclose their disability to university officials. Section 504 prohibits personnel in universities from asking about students’ disability status (Madaus, 2005).

In postsecondary education settings, because it is an adult environment students are required to self-disclose their disability and to present medical documentation that documents the nature of the disability. This documentation must be provided at the student's expense, as colleges are under no obligation to identify or evaluate students. The students also are primarily responsible for selecting their courses, disability related supports, and monitoring the utility of requested accommodations. Therefore, high school students with disabilities transitioning to college must develop specific competencies, respond appropriately to their new environment, and develop independence (Hadley, Twale, & Evans, 2003). However many of these students do not have self-advocacy skills when they arrive at postsecondary institutions (Stodden & Whelley, 2004). Many students lack awareness of services that might be of benefit to them or have a fear that disclosure will bring on rejection or hospitalization (Getzel et al., 2001).

The transition from high school to postsecondary education signals a transition in responsibility for advocacy for support services. Students with disabilities who do not have self-advocate skills have a very difficult time adjusting to college life. Postsecondary endurance requires that students who are used to being recipients of special education become their own proactive self-advocate (Heiman & Precel, 2003).

### **2.5.2 Transfer from Community College to Postsecondary Education**

Community colleges, with their philosophy of open admissions, community service mandates and emphasis on teaching rather than research, have long prided themselves on accommodating all types of students from first generation learner to those with disabilities.

Barnett and Li (1997) conducted a national survey with the American Association for Community Colleges. This effort polled 672 community colleges across the United States, and their findings indicated that close to 80% of responding institutions had a formal office that served individuals with disabilities. Participating colleges indicated 8% of students reported a disability, and approximately half these students requested academic accommodations.

Community colleges have a mission of equal opportunity and access to postsecondary education for all members of society, including students from disenfranchised groups, such as students with disabilities (Hoachlander, Sikora, Horn, & Carroll, 2003; Rendon, 2000). The other factors that encourage individuals with disabilities attending community colleges include the following: open-door admission policies, geographic accessibility, and emphasis on faculty teaching, the supportive environment that eased student anxieties about going to college, strong student counseling components, and special services for special populations, affordable tuition rates, and supportive legislation (Barnett, 1996). The majority of these persons are choosing community colleges to fulfill their dream of higher education (Barnett & Li, 1997; National Center for Educational Statistics, 2000).

Students with disabilities are attending community colleges in record numbers due to various legislative acts, such as Section 504 of Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (Madaus, 2005). These mandate that educational programs and facilities, including vocational education and training programs at the secondary and postsecondary levels, may not discriminate in recruitment or admissions. Research shows that 63% of students with disabilities have enrolled in some form of postsecondary education

compared with 72% of students without disabilities. Of those enrolled in postsecondary education, 42% of students with disabilities and 62% of those without disabilities are enrolled in four-year schools (Burgstahler & Crawford & Acosta, 2001). The results of this study include specific suggestions for how two-year and four-year colleges can work together to improve the postsecondary outcomes of transfer students with disabilities such as becoming familiar with each other colleges' policies, procedures, programs and services, educating faculty and staff on both types of campuses about disability and transfer issues.

In a study conducted by Shaw & Dukes (2001), of over 839 community colleges and universities nationwide they found that majority of these colleges are having support services such as academic adjustments, counseling and advocacy, instructional interventions and consultation, collaboration & advising. However there still remains a need for other support services.

### **2.5.3 Transition Barriers**

The arrays of discrete agencies which replace IDEA in the post-school sector have varying eligibility requirements, capacities, and quality and length of service. Individuals with disabilities are attempting to go to college without systematic change in the education system but they struggle to overcome the barriers created by the lack of coordination of educational and related services. Research suggests that supports and services in postsecondary education should be delivered in a coordinated manner and often are not (Whelley et al., 2002).

Coordination refers to alignment of required supports and services from the institution of higher education and with Vocational Rehabilitation Agency, Medicaid. These agencies which

replace IDEA in the post-school sector have varying eligibility requirements, capacities, and quality and length of service (Stodden & Whelley, 2004).

Student services tend to vary according to service goal priorities, size of institution, and specific degrees granted by the institution (Bursuck, Rose, Cowen, and Yahaya, (1989). Two-year institutions tend to provide more personalized one to one services and a greater number of services to students with disabilities than four-year postsecondary institutions (National Center for the Study of Postsecondary Educational Supports, 2000a). In particular, two-year schools have been found to typically provide greater assistance to students with disabilities in the areas of academic accommodations, assistive technology, counseling, tutoring, and assessment than four-year colleges (Cocchi, 1999). Two-year college students have expressed more satisfaction in terms of support services and physical access and have reported fewer barriers than four-year college and university students (West et al., 1993). Further, many of these students are at risk of leaving college before earning a degree. College completion is important, and those students who have earned a degree have a greater chance at becoming financially independent (Quick, Lehmann, & Deniston, 2003).

The National Council on Disability (2003) reported that students with disabilities lag behind their peers in academic preparedness. The issues about the inadequacy of students' high school preparation are linked to the expectations students and others have about their futures. Many students with disabilities are not expected to attend college. Seemingly, the pervasiveness of negative stereotypes creates conditions that foster lowered expectations about the level of contributions students can make (Carvin, Alper, Sinclair, & Sitlington, 2001).

Those who do go on to college unprepared are more likely to have lower grade point averages and lower SAT scores than non-labeled students (National Council on Disability, 2003). The desired incessant transition from high school to community college is also hampered by a myriad of institutional barriers such as the attitudinal barriers of professors and school personnel who lack knowledge concerning students' needs (Burgstahler, Crawford, & Acosta, 2001), inconsistent services, and insufficient financial resources (National Council on Disability, 2003).

## **2.6 Disability and Culture**

Research has suggested that disabled students of color face the stigma of double labels: disabled and minority. Thus it is critical for a service provider to be sensitive to their cultural differences as that cultural belief regarding the acceptance of disability is another factor that can impact how students of color utilize services (Ball-Brown & Frank, 1993).

The institutional setting chosen for this study is a university situated along the U.S-Mexico border where more than 77 percent of student population is Hispanic. Thus it is important to understand the ethnic and cultural background of the region and also the demographics of its participants. The University of Texas at El Paso (UTEP) has had a mission commitment over the last two decades to provide access and excellence in research and education to serve fully the people of El Paso region now and in the future. Enrollment has increased to more than 22,000 students and full time student number is 63.1% and part time student number is 36.9%. UTEP has clear successes in serving non-traditional students including first-generation, low-income, and mostly Hispanic students. In an economically challenged

region – 30 percent of UTEP students have a family income of \$20,000 or less, nearly 50 percent of incoming students qualify for Pell grants and nearly 60 percent are first-generation college students. Thus UTEP serves the most economically challenged and undereducated communities in the nation (The University of Texas at El Paso, 2011).

According to Sharp (1998), while there are many positive features of this unique and dynamic region, it is also No. 1 for its poverty rate, percentage of impoverished school children, and share of adults lacking a high school degree. According to Martinez (1994, p. 10), there are infinite variations in the borderland milieu because of differences in cultural and linguistic configurations. It is precisely at this juncture that effective interventions can be designed and implemented to help create more just and humane educational systems such as in El Paso, where over 80 percent of the population is of Mexican origin (Rippberger & Staudt, 2003, p. 6). In other words, mainstream institutions must create a border milieu that is inclusive and tolerant of others, reducing if not obliterating destructive borders of stereotypes, injustices, discrimination, racism, and persecution. Being first generation learners and coming from low-income families, they face not only financial challenges but also additional challenges like being in unknown territory, which no one in their family has experienced. When they need college guidance they don't know whom to call on for direction (Carnevale & Fry, 2000; Terenzini, Springer, Yeager, Pascarella, & Nora, 1996). These students face barriers that are associated with inadequate academic preparation; they lack assistance from teachers as well as knowledge of college requirements such as tuition costs, financial aid and scholarship (Kenny & Stryker, 1996; London, 1992). While keeping in mind the increasing diversity of today's college students and the need to increase the successful retention of all students, these factors underscore the

importance of reevaluating our understanding of individual student variables that predict retention.

The book *Con Respeto* by Valdéz, (1996), an ethnographic study of ten newly arrived Mexican families along in a border town, describes Mexican born immigrant families in the Southwest. The book focuses on Mexican American family life, parental attitudes toward school, and efforts to increase student achievement by changing families. Throughout the study she takes the position that we, as educators, administrators and policy makers, although well-intentioned, are tampering with the lives of these Mexican and other immigrant families without a solid understanding of the issues and complexities of their lives. Research shows that teachers of the majority culture are better able to relate to children of their own ethnic/racial and linguistic background and usually are unaware of their differential and culture-bound treatment toward children of the minority culture (Bennett de Marrais & LeCompte, 1995).

According to Texas Higher Education Coordinating Board, 2010, the majority of public school teachers are white and females. As of 2009, 77 percent of teachers were female and 23 percent are males. Sixty-seven percent of teachers are white, 22 percent are Hispanic, 9.6 are African American, 1 percent is Asian, and Native American teachers comprise less than 1 percent of the teacher workforce (Texas Higher Education Coordinating Board, 2010). This data reflects the lack of Hispanic role models in student's underachievement in education. Students' academic performance also often follows in the direction of teacher expectations with gender, ethnicity, and social-economic status being traits that influence low teacher-student expectations (Apple, 1996; Cummins, 1989).



Cultural capital refers to the system of attributes, such as language skills, cultural knowledge, and mannerisms, that is derived in part from one's parents and that defines an individual's class status (Bourdieu, 1986; Bourdieu & Passeron, 1977). Middle- and upper-class individuals possess the most valued forms of cultural capital (McDonough, 1997). Social capital focuses on social networks and the ways in which social networks and connections are sustained (Morrow, 1999). In his comprehensive assessment of the origins and uses of social capital, Portes (1998) noted that social capital is acquired through an individual's relationships with other individuals, particularly through membership in social networks and other social structures. Coleman (1988) suggested that social capital is derived from two types of relationships: the relationship between a student and his/her parents; and relationships between a student's parents and other adults, particularly adults who are connected to the school that the student attends.

According to Mpofu and Wilson (2004), family and culture mediate transition from school to adulthood through the opportunities structure such as an invaluable social, psychological and material support to students with disabilities that helps students to acquire life skills. However, their role can be restrictive or enhancing. Thus those families and cultures that recognize and support competence in people with disabilities are likely to enhance perceptions of opportunities in people with disabilities as compared to those families that discourage and neglect competence. We know that the Hispanic population is the fastest growing minority group in the United States thus it is important to know that how families who are culturally and linguistically different view or become involved in transition for their young adult sons or daughters. (Marotta & Garcia, 2003). Previous literature has shown that families

have reported encountering barriers such as discrimination, cultural insensitivity, and problems accessing accommodations, services, and supports (Geenen et al., 2003).

In a study conducted by Shapiro, Monzo, Rueda Gomez and Blacher (2004) lack of information, particularly information in their native language, and lack of emphasis on their cultural value is a significant barrier for these mothers in participating in the transition process. Independent living is a key element of transition planning, but Hispanic families have reported that their culture does not necessarily share this as a primary concern as their culture places a high priority on staying at home and contributing to the family .Moreover, Hispanic mothers have reported feelings of alienation from service providers and in particular from school personnel (Shapiro et al., 2004). Transition studies has also suggested that effective transition practices with students with disabilities from a cultural minority background must consider the cultural interface between the dominant White American majority culture and the culture of minority groups (e.g., racial) that could enhance or restrict student future success (Szymanski and Treuba, 1994).

Teacher-student interactions and teacher-student cultural incompatibility have contributed to the historical over-representation of ethnic minority youth in remedial classes and special education. Ethnic minority students often fail to see themselves positively integrated into the culture of the school (Cazden, 1988). Typically, Hispanic students do not have daily interactions with Hispanic teachers who understand their culture or language. As a consequence, Hispanic students, especially those who are Spanish dominant, may not have the benefit of an appropriate education and social capital due to the lack of bilingual-qualified

educators. Further, a more recent testing issue adversely affecting many Mexican American students is high stakes testing in which state mandated tests have determined weight in allowing school administrators to make profound decisions about student future.

According to Valenzuela (1999), the very notion of mainstream, standardized educational experience implies a systemic disregard for the children's personal, cultural and community based identities. This Texas-style accountability is subtractive to these students because of a culturally and linguistically chauvinistic curriculum that privileges the English language while devaluing the bilinguals. According to Valenzuela (1999), the rigidity and narrowness of test practice and test score production on a standardized test rule out the possibilities for the expression of an affirmation of cultural identities. If these testing and assessment issues are not expediently addressed then many more Mexican American student will be adversely impacted as their population swells.

The data continue to show educational gaps and barriers for Mexican American students in public schools. Being the "other" as noted by Madrid (1988), Mexican Americans still face enormous challenges in American education. Researchers have conducted independent studies about the border, about gender, students with disabilities and about Latino students. However, very little research exists connecting all three of these important topics. Data will reveal how family, culture, and identity have been shaped by their personal experiences and perceptions of the challenges and supports they have encountered through their educational journey.

Transition planning must include an analysis of cultural variables that includes cultural values, beliefs, traditions, and habits of thinking, patterns of social and interpersonal relationships, and family expectations. Thus culture impacts the kinds of transition activities that will best match a student's personal and family value (Black, Mrasek, & Ballinger, R. 2003; Greene, 1996). Perhaps the most important cultural implication for transition is family/student involvement in the planning process. "The family is a cultural group, unique by virtue of the values, beliefs, and experiences shared by its members" (Dennis & Giangreco, 1996, p. 107). There is often a lack of involvement of culturally diverse parents in educational planning for their children (Boone, 1992; Harry, 1992). Barriers to participation of culturally diverse parents in the transition process are often related to socio-economic circumstances, language, and cultural/ideological values. For example, Boone (1992) discusses the influence of culture on parental behavior in transition planning meetings.

## **2.7 Culture and Transition Failure: Impact on Students with disabilities in Postsecondary Education**

Culture is defined as the shared norms, values, beliefs, behaviors, traditions, ideals, and rules that are followed by a group of people over time (Timm, 1996). The culture of U.S special education follows the Anglo-American values with a focus on independence denying too often the importance of interdependence, reciprocity, and inclusion (Smith & Routel, 2010). As Hispanics (at 42.7 million) continue to be the largest minority group as well as the fastest-growing group, it is important to understand their culture while working with this population. However there is an overrepresentation of ethnic and minority students in special education, it seems to be inappropriate to use Anglo-American norm as the starting point for transition goals

and services of students with disabilities. Such norms, often results in a deficit, medical model approach and resulted in exclusionary and alienating practices rather than inclusionary practices. “CLD students are those whose backgrounds encompass a range of cultural, ethnic, racial, or language elements beyond the traditional Euro-American experience; ‘language different’ signifies the same as ‘linguistically different.’” (Smith, Dowdy, Polloway, & Blalock, 1997, p. 303).

In a GAO Report (2009) the researchers examines college enrollment among Minority Students and according to this report, college enrollment among minority students has grown rapidly since the 2000-01 school year, though African-American and Hispanic students are increasingly likely to enroll in two-year colleges rather than four-year colleges. The report found that overall college enrollment among Hispanic students grew by 25 percent between 2000-01 and 2006-07; among African-American students, it grew by 15 percent; among Asian-American/Pacific-Islander students, it grew by 15 percent; and among white students, it grew by 3 percent.

According to Stodden et.al, 2003, by the year 2040, people from CLD backgrounds are expected to comprise nearly 50% of the United States population. This fact is important for service providers to know as racial minorities have also high significantly high rates of disability than those of majority Caucasian population. Apart from that the students of color such as Hispanics are significantly underrepresented in most colleges and university disability service programs due to many reasons and that can include language differences, cultural differences in perceptions of disability (Ball-Brown & Lloyd Frank, 1993).

When these students come to higher education setting then they bring K-12 experience of unnecessary placement in special education programs. These students faces double stigma due to their identification as both minority and disabled. Minority students who are disabled may not think that they are treated or will be treated in an accepting and genuine manner due to their history or practices of social Darwinism and eugenics (Ball-Brown & Lloyd Frank, 1993).

Understanding a family's cultural norm helps professionals connect with families. Such as outcomes for students with disabilities are most successful when IEP planning involves the family and considers the family's cultural values and beliefs (Morningstar, Kleinhammer-Tramil, & Lattin, 1999). This also influences how the family interprets there: involvement in planning, satisfaction in planning, roles and responsibilities in planning, (Geenen, Powers, Lopez-Vasquez & Bersani, 2001). It is essential to the development of sound transition planning and instructional practices to consider the cultural and social capital that students with disabilities bring to transition process and that can be accepted or rejected by valuable by school personnel. Capital is influenced by socio cultural factors, such as race/ethnicity and socioeconomic characteristics of both schools and families that interact together in the transmission of cultural and social capital.

Another such example is the case of self-determination as the contextual factors or variables that can impact this includes country of origin, school environment, family and individual beliefs, community setting, socioeconomic status and parent education. The values that guide special education practices such as U.S Individualism and consumerism may seem

inappropriate to those from outside these Anglo-American middle class cultural topographies (Trainor, 2005).

Zhang and Benz (2006) in an extensive review of literature regarding self-determination of culturally diverse students with disabilities, found: Asian, Latino, and Native American reject the self-determination, as the Western culture knows it. These particular cultures make decisions and goals by considering their family needs first then their own. This practice is said to “bring honor to the family” (page 4). In United States this disconnects between individualism and collectivism is a major source of transition failure, especially for students with disabilities and their families who lie outside the boundaries of normal geographies. As in many Hispanic families there is a strong cultural pattern of resisting out-of-home placement and so the concept of independent living after high school was completely inappropriate as they believe that marriage marks young adult independence and movement away from home (Rueda et al, 2005).

CLD parent involvement in transition planning is considerably lower than that of European American families because of particular challenges such as: poverty/ low income, language, limited resources/support, different beliefs about disabilities, insufficient school support (Lynch & Stein, 1987). In order to make a difference the school professionals and service providers need to have cultural reciprocity. The awareness of cultural differences, then, is the recognition that the way we act and what we believe can be different than how other people act or what they believe (Kalyanpur & Harry, 1999).

It is important to understand the culture of students with disabilities who are transitioning to adulthood as it is not appropriate to force the dominant values of independence and autonomy upon all persons does not lead to great achievement. Here in order to improve the quality of life of young adults with disabilities, the professionals need to examine self-determination within the context of context of different cultures and family values and this can be done by meeting families where they are and complementing their family culture and values (Trainor, 2005).

The important need is how to foster the development of self-determination and self-advocacy skills on the part of CLD Students with disabilities as in order to receive services these students' responsibility includes informing school officials of their disability, provide documentation of their disability and suggesting the viable documentation that they need. But a major challenge for many students with disabilities is the change in how services and accommodations are planned and provided as they move from high school to postsecondary settings. Students move from protective environment where school personnel were responsible for providing services to an environment where students are responsible for disclosing disability and asking specific accommodations. Such self-advocacy is often especially hard for CLD students due to conflict of cultural values that discourage disclosing personal challenges and prohibit asking for help, a lack of experience or having difficulty in asking for help from authority figures, and other CLD-related factors (Eckes & Ochoa 2005).

CLD students with disabilities should be taught self-advocacy skills during high school. There are a number of self-advocacy programs and curricula have been developed and



demonstrated, such as the *Can I Make It? Project* of the University of Illinois Transition Research Institute, (<http://www.ed.uiuc.edu/sped/tri/makeit.html>) featuring a 20-hour curriculum during which each student creates a “self-advocacy portfolio.” Postsecondary faculty and staff play a significant influence in the success of these students by providing them information about different awareness of supports they will need in college, such as social supports of faculty and peers, self-advocacy skills, cultural competency, faculty and peer role models, and mentors.

Another need of CLD youth with disabilities that helps students in smooth transition in postsecondary settings has been the development of the kind of supportive interpersonal relationships that most postsecondary students establish with peers, faculty members and also with staff personnel. The literature has suggested that family and friends networks have provided critical support that is essential to the success of these students. At San Francisco State University the Solutions through Advocacy and Resource Teams (START) Project has demonstrated how a problem-solving team model could build supportive peer mentor relationships that helped fill gaps in the lives of many students with disabilities as it provides “circles of support” which provide essential social interaction and emotional support. This network consists of friends, family members, professionals, volunteers, and others providing support from helping with activities of daily living to academic tutoring. The positive aspect of this is that expertise on relevant cultural issues and linguistic challenges may be identified and included within the circles (Leake et. al, 2006). This program removes obstacles to postsecondary success caused by low self-esteem, depression, or undeveloped social skills (Stodden et al., 2003).

When students with disabilities from CLD background make the transition to postsecondary education then they have to overcome a variety of challenges. However these challenges are not faced by their peers without disabilities and those who are white students with disabilities. The unified factors of being culturally and linguistically diverse (CLD) and having a disability double their socio-cultural challenges and create barriers to postsecondary entry and success for qualified students (Greene & Nefsky, 1999). The barriers includes social barriers, negative effects of being brought up in poverty, lack of self-advocacy skills, lack of cultural competency of faculty and other personnel in the provision of instruction and services, social isolation on campus, unavailability of appropriate mentors and role models; lack of access to assistive and or computer technology, inability to afford postsecondary attendance, lack of attitudes, skills and knowledge required for postsecondary education success, lack of finances to attend postsecondary attendance (Greene & Nefsky, 1999). Thus the challenge that Disabled student service office personnel face in serving CLD students with disabilities is to provide support programs that go beyond academic needs and that is doing programming to fulfill their social and cultural needs as these are essential in maintaining academic progress and graduation (Leake et. al, 2006).

## **2.8 Acceptance of Disability and the Mexican American Culture**

Individuals differ in their reactions to disabilities. However the acceptance and their reaction and adaptation of disability play a very significant role in their rehabilitation process as that can influence their decision to apply for services and the success of the rehabilitation

outcomes such as predicting independent living, educational, and vocational program-related outcomes. Different cultures view, react to, and treat disability differently.

The acceptance of disability is influenced by culture. The cultural elements such as language, family roles, beliefs and acculturative stress can play a significant role in treatment and rehabilitation outcomes (Cuellar & Arnold, 1988). While working with students with disabilities, it is important to gain understanding of culturally determined perceptions and definitions of disability. A major cultural factor that influences the acceptance of disability among Mexican American culture is called “a Familial, cohesive, Protective society.”

The literature suggested that Mexican American cultural values focus towards family oriented Hispanic culture is dedicated to providing comfort and solace care at home. According to Cruz (1979), as cited in Smart and Smart (1991), “Hispanic families tend to overprotect and paternalize their disabled. Even if a disabled individual wants to learn to be independent and self-sufficient, he or she is seldom allowed to do so”. The research has also shown that the treatment of some Hispanics children with disabilities as overprotective and they are kept at home to be taken care of and may not even be allowed to go to school.

## **2.9 Issues of Retention and Persistence**

Research suggests that students with disabilities are less likely to complete a degree than students who do not identify as having a disability. Approximately two-thirds of students without disabilities who pursue postsecondary education earn their degree as compared with one-half of students with disabilities (Hall & Belch, 2000; National Center for Education Statistics, 1999; Stodden, 2005). Even though the gap for high school completion is closing

between individuals with and without disabilities, however some analyses report that completion of some college coursework by individuals with disabilities declined from 30% in 1986 to 26% in 2001 (Whelley, Hart, & Zaft, 2002). Statistics show, however, that the retention rates in postsecondary education among students with disabilities have been considerably low (Stodden, 2001). According to Getzel, 2008, although the number of students with disabilities who are entering postsecondary education programs has increased however they face multitude of issues and challenges that prevent students from successfully completing their degree programs.

One of the overall reasons for their lack of retention is the lack of attention given by academic institutions to the needs of people with disabilities during their participation in higher education. Critical to the success of these students are factors that influence their general aptitude. This section addresses issues in the performance, persistence and retention of people with disabilities in postsecondary education. The main reason for the lack of persistence and retention of college students with disabilities is the issue of adapting to an entirely new set of challenges in managing their academic program. Students have a responsibility of self-identifying themselves as students with disabilities, but students enter college lacking skills as to how to disclose their disability or lack the understanding of how to access support services on campus. Some students want to avoid being labeled as they are tired of being labeled, or being seen as "different" in high school. They want to have fresh start by shedding their old identity. Thus they have the added challenge of managing their accommodations along with their academic coursework. Thus in order to address issues of retention and persistence in higher education, some colleges and universities are seeking new strategies and are also

testing new models of service delivery to assist students. For example, Lehigh University in Pennsylvania established a peer-mentoring program for any student experiencing academic problems.

Thus, despite changes in legislation designed to provide access to postsecondary education for students with disabilities, many students with disabilities continue to encounter obstacles that may significantly impact their educational experience. These include a lack of consistency between services provided at the high school and college level (National Council on Disability, 2008; Shaw, Madaus, & Banerjee, 2009), a lack of awareness on the part of faculty and staff about the availability of accommodations and how they can be implemented in the classroom (Eckes & Ochoa, 2005), and structural barriers such as a lack of ramps and/or elevators in multi-level school buildings, heavy doors, lack of automatic doors, inaccessible washrooms, and/or inaccessible transportation to and from school that may prevent true inclusion and accessibility for such individuals (Singh, 2003).

Campus climate studies also show that people tend to hold negative attitude towards students with invisible disabilities and that is both conscious and unconscious (Katz, Huss, & Bailey, 1998). While these students are as eligible for legal protection as their more observable peers, they may be more subject to misconceptions and stereotypes regarding the invisibility of their disability and their need for protection. Some students with invisible disabilities also bring an array of individual factors which are contrary to academic success, such as persistent cognitive deficits, deficiencies in basic skills, poor use of study strategies, including organization and time management, lack of appropriate social skills. Due to this increase in number of

students with invisible disability, studies have shown that perceived visibility of one's disability may impact a student's adjustment to college differently for those with visible as compared to invisible disabilities (i.e., due to factors such as discrimination and stigma associated with visible disability, fear of discovery for invisible disability, and/or the stress of repeatedly explaining why educational accommodations are needed for a disability that is invisible in nature).

It has also been proposed that people with invisible disabilities face increased attacks to their self-esteem. As they have to deal constantly with the anxiety associated with possible finding of their disabling condition. As a result they may have issues with accepting their condition specific manner, because of unresolved issues linked to loss and its finality (Matthews & Harrington, 2000; Falvo, Allen, & Maki, 1982, as cited in Livneh et al., 2001).

## **2.10 Issues impacting Positive College Outcomes for Students with Disabilities**

### **2.10.1 Adjustment**

As students transition into institutions of higher education, they experience a rigorous and competitive learning environment in pursuing their career goals. The demands of higher education gradually increase as student's progress in academic programs (Smith, English, & Vasek, 2002). Whether students are transitioning into undergraduate or graduate degree programs, they experience social, emotional, and academic demands (Gerdes & Mallinckrodt, 1994). Prior research has suggested that it is common for first-year college students to experience feelings of isolation and loneliness, difficulty with separation from the family and with personal individuation, increased interpersonal conflicts, and financial pressures (Baker & Siryk, 1980). If students cannot adjust, they may be more likely to leave the university. Students

are leaving their secondary institutions uninformed and not prepared to obtain accommodations, identify necessary accommodations, and advocate for their accommodations. As a result, they do not fully utilize services offered by their post-secondary institution, which may contribute to low achievement. In a study conducted by Neal, 1992, followed by Nelson, 1993, Students with disabilities identified positive faculty-student and student-administration relationships as being contributing factors to a positive school experience (Neal, 1992; Nelson, 1993). Junco (2002) found that negative professor's attitudes decreased students' with disabilities willingness to use self advocacy skills. That refers to student's ability to articulate reasonable need for academic or physical accommodations.

### **2.10.2 Communication**

Broadly defined, the academic and social climate in which students with disabilities interact with faculty, staff and peers remains a critical factor in their retention and success (Wiseman, 1988). Research has also suggested that the successful inclusion of college students with disabilities requires welcoming attitudes of members in the entire college community (Scott, 1997). Here faculty attitudes toward students with disabilities play an important role in students' adjustment to college. Many students with disabilities experience frustration with their postsecondary experiences due to negative attitudes from others. University faculty may be prone to frequently held stereotypes, which may in turn be a barrier for students' success, and although staff may not manifest negativity toward these students, however, they may lack adequate understanding of specific needs of students with disabilities and about the different types of disability also. Some faculty members often doubt the nature of reasonable

accommodations as they think that this might provide an unfair advantage to the student with the disability (Scott, 1997). It is important to study the attitudes of faculty, administrators and peers as research has shown that the attitudes of faculty and administrators can impact the success or failure of students with disabilities. The attitudes also have a profound effect on the social and educational integration of the student with a disability into the college community (Fichten, Amsel, Bourdon, & Creti, 1988).

### **2.10.3 Campus Involvement**

Campus and community involvement refers to student involvement in formal or informal organized activities or events including student organizations, volunteerism, service learning, etc. Students with disability ability to involvement with the campus environment may lead to student perceptions of institutional and peer support (Tinto, 1993) and this can be an important factor influencing student development in college. Studies have shown that involvement in out-of-class activities as a critical element that contributes positively to student outcomes, among them, persistence, cognitive and intellectual development, interpersonal and intrapersonal competence, practical competence, and subsequent post graduation success (Astin, 1993; Kuh, 1995; Pascarella and Terenzini, 1991). However, students with disabilities often face many physical barriers and attitudinal barriers to accessing opportunities to participate and become actively involved in academic and social activities at universities. Studies have shown some of the architectural barriers that students with disabilities face include features of buildings, building access due to lack of ramps, automatic doors, classroom access, and public facilities such as elevators, accessible restrooms and accessible parking availability within a university (Brown, 1992; Schneid, 1992). Specific barriers identified by



students with disabilities were the lack of adaptive aids, inaccessible buildings and grounds, and lack of other educational accommodations (West et al, 1993). Research has shown that it is the responsibility of student affairs professionals to ensure that students with disabilities have access to without any barriers to become active participants in campus life (Johnson, 2000).

#### **2.10.4 Technology**

##### **Role of Technology as a Support in Postsecondary Education**

Computers and information technology now have an established presence on college campuses. The development of technology had made the use of technology in education easier and more affordable in terms of time and money invested (Van Eck, 2006). Technology has a profound impact on students with disabilities, both positive and negative. The positive impact includes for people with disabilities, such as technology access has the potential to maximize independence, productivity and participation in academic programs and employment and succeed in adult life (Burgstahler, 2002).

Although the benefits of technology may be even greater for people with disabilities than for people without disabilities, however with regard to its usage there are some negative issues (Goldberg & O'Neill, 2000; Stodden & Conway, 2003). For example, blind people were among the first people with disabilities to benefit significantly from computer technology. Using simple machines that could read the words on early text-based computer screens and convert them to synthesized speech, blind people were able to operate computers efficiently. Computer technology allows individuals to connect with other people and get information about the world. Deaf-blind people communicate with technology that allows them to touch

raised letters in a book. For blind users, programs like JAWS, reads any text out loud. Screen-magnification programs assist partially sighted computer users.

On the negative side, individuals with disabilities are less than half as likely as their non-disabled counterparts to own computers, and they are about one-quarter as likely to use the Internet (Kaye, 2000). Students with disabilities are entering postsecondary education programs unaware of existing technologies that can assist them in an academic setting (Getzel et al., 2004). Apart from that faculty, with an aim to integrate technology into their teaching, forget to consider sometimes the access needs of students with various disabilities (Bissonnette & Schmid, 2003). In a study conducted by Asuncion et al., (2004) reported the needs and concerns of 725 disabled students with different types of disabilities in Canadian universities. The key insight from this study is that the needs of these Disabled students are diverse and these needs should be considered at the design stage of learning technologies, not as an add-on later on. As a result it is important to consider various access issues faced by students such as how students without the use of their hands can use a laptop that is not outfitted with adaptations, how a student who is blind will participate in an on-line activity involving sharing graphs and charts with fellow students on an electronic whiteboard. How a student who is deaf will access learning material as using an uncaptioned educational video clip are most probably not in conscious awareness or a concerns of faculty and staff during selection and implementation of information and instructional technology. Professors generally lack awareness as to how to make course files like on blackboard accessible to ensure that students with disabilities have full access to their electronic course materials like on Blackboard or professors have not thought about which features of software and hardware make these

inaccessible (Banks & Coombs, 1998). When professors upload assignments, handouts, lecture notes, and practice tests, and so forth, on the web in readily accessible formats (i.e., plain text or html) than this is likely to be useful for students such as students with dyslexia who need to access print materials using alternative means such as enlarged print (Fichten et al., 2001).

### **Technology barriers and students with disabilities**

According to Fichten et.al, 2001, computer technologies can enable or cause problems for students with disabilities. Some of the technology barriers that may be faced by students with disabilities include issues such as having some educational CD-ROMs have fonts that are too small to see for some students with visual impairments; tables, PowerPoint, and Adobe Acrobat PDF files can cause problems for many students who are blind; some students have problems with accessing web sites due to screen sizes and colors; students with hearing impairments will probably miss the audio portions of video clips and have problems with audio on web pages and most CD-ROMs; some students have problems in computer labs when they need to use a mouse, etc (Fichten et.al, 2001).

It is important that professors are aware about kinds of things to do to ensure that students have full access to their electronic course materials [e.g., that Adobe Acrobat PDF files can have problems with accessibility for students with print impairments, that PowerPoint is problematic for some students with visual impairments, that text (.txt) versions that work in Windows don't necessarily work in a DOS environment, that students with hearing impairments will probably miss audio clips on web pages and CD-ROMs, that some students have problems

in computer labs when using a mouse, etc. They simply do not think of these issues when they are developing their courses.

Burgstahler (2002) described that technology can enhance postsecondary and career participation by individuals with disabilities, and that includes their ability to (a) maximize their independence in academic and employment tasks, (b) participate in classroom discussions, (c) gain access to peers, mentors and role models, (d) self-advocate, (e) gain access to the full range of educational options, (f) succeed in work-based learning experiences, (g) secure high levels of independent living, (h) master academic tasks that they cannot master otherwise, and (i) enter high-tech career fields.

Burgstahler in a study she did for the University of Washington called "Working Together: People with Disabilities and Computer Technology 2007." She writes: "People with disabilities face a variety of barriers to computer use. These barriers can be grouped into three functional categories: barriers to providing computer input, interpreting output, and reading supporting documentation. Hardware and software tools (known as adaptive or assistive technologies) have been developed to provide functional alternatives to these standard operations. Full access demands that students can 'engage' with courses: take notes, read, produce essays, do experiments. All of these activities are related to students' assessment experiences, either directly or indirectly. To ensure that disabled students can engage, they require adequate assistive technology.

According to Fichten et.al, 2001, computer technologies can enable or cause problems for students with disabilities. Some of the technology barriers that may be faced by students

with disabilities include issues such as students who are deaf or hard of hearing are unable to use web-streamed video if it is not appropriately captioned. Similarly individuals who have limited hand dexterity are unable to use a computer mouse or keyboard if rapid keystrokes or mouse movement is required to interact with the content displayed on the screen. Apart from that, if instructors who teach class using electronic whiteboards or computer graphics do not describe the information accurately, some educational CD-ROMs have fonts that are too small to see for some students with visual impairments. These important issues will certainly leave out those who are blind or have visual impairments; students with limited or no vision won't be able to see what is being displayed on the screen. In short, educators must consider the needs of all students when designing electronically-mediated instruction. Many online distance education programs present barriers to students with disabilities. A primary concern is the accessibility of the Web pages, which are generally presented in HTML. However, if the educators are willing to adapt the technology than it will be of great help for students with disabilities. For example, visual learners can get help from applications in PowerPoint and Flash Multi-Media technology. Auditory learners can benefit from online classrooms with auditory lectures, Podcasts for students, as well as live chats. From an integrated perspective, some online programs offer both auditory lectures, as well as PowerPoint slide presentations (Bissonnette & Schmid, 2003).

According to Burgstahler, S. (2003c), other barriers to technology access for individuals with disabilities include lack of trained professionals to evaluate assistive technology, difficulties in locating assistive technology to test by individuals with disabilities, confusion about existing laws and policies regarding assistive technology and accessible electronic and

information technology, gaps in laws and policies that fund assistive technology, and the bureaucracy of public programs and insurance companies (National Council on Disability, 2000).

### **2.11 Innovative Model Programs and Services for Students with Disabilities at Other University Campuses**

Komives et al. (2003) described the roles of disability support services on campus: to advocate for students with disabilities, advise students about their rights and responsibilities, improve physical access on campus for students with mobility challenges, and to provide outreach and consultation to other campus offices and academic units. In recent years, more comprehensive programs designed to enhance independence through self-advocacy; self determination and improved self-esteem have been in practices (Troiano, Liefeld, & Trachtenberg, 2010). Komives et al. (2003), and Troiano et al. (2010) assert that engagement with university disability and academic support services greatly improves academic and social integration for students with a disability, which, in turn, positively affects their academic persistence and success.

Growing numbers of students with disabilities and in the range of disabilities it becomes more apparent however, that many campuses are not equipped to meet the unique and varied needs of these students (GAO Report, 2009). There is also increasing pressure to leverage funding at the local, state, and federal levels create unique challenges for disability programs (Rund & Scharf, 2000). Disability accommodations require adequate funding. Schools are required to bear the cost of providing accommodations to students with disabilities. Some disability accommodations, such as sign language interpreting or services for visually impaired students, require substantial financial investment. Specialized equipment, hardware, software,

and technical personnel are expensive ongoing costs, as are mandated auxiliary aides such as note takers, readers, interpreters, library research aides, and science lab assistants. In some cases, institutions are tempted to select accommodations based on cost or administrative convenience (Rund & Scharf, 2000). The university's services are now comprehensive, ranging from an independent living center on campus to a top wheelchair sports program. The University of Illinois even has a study abroad program for students with disabilities. In 1998 the disability magazine, *New Mobility*, named the university the No. 1 disability-friendly campus in America (Haller, 2006).

According to National Center for Education Statistics (NCES), *Students with Disabilities at Degree-Granting Postsecondary Institutions: First Look*, 2011 report funded by U.S. Department of Education, Among institutions that enrolled students with disabilities during the 2008–09 academic year, 93 percent provided additional exam time as an accommodation to students with disabilities . Large percentages of institutions also provided classroom note-takers (77 percent), faculty-provided written course notes or assignments (72 percent), help with learning strategies or study skills (72 percent), alternative exam formats (71 percent), and adaptive equipment and technology (70 percent).

Apart from providing accommodations, schools are also required to provide equal access to higher education, an equal opportunity to participate in the institution's courses, programs, and activities, including activities such as sports, fraternities and sororities, and clubs , thus they need to ensure that facilities of the postsecondary environment such as campus buildings, campus transportation, campus housing, campus technology and physical equipment are also accessible for students with disabilities. Historically, various fund sources (federal,

state, institutional) have been relied on to support students with disabilities (Rund & Scharf, 2000).

According to GAO Report on Higher education and Disability, 2009, schools face additional challenges in providing those services to students with disabilities that involve specialized knowledge and resource-intensive accommodations. Disability accommodations require adequate funding. Schools are required to bear the cost of providing accommodations to students with disabilities. Some disability accommodations, such as sign language interpreting or services for visually impaired students, require substantial financial investment. Specialized equipment, hardware, software, and technical personnel are expensive ongoing costs, as are mandated auxiliary aides such as note takers, readers, interpreters, library research aides, and science lab assistants. In some cases, institutions are tempted to select accommodations based on cost or administrative convenience.

Apart from providing accommodations, schools are also required to provide equal access to higher education, thus they need to ensure that facilities of the postsecondary environment such as campus buildings, campus transportation, campus housing, campus technology and physical equipment are also accessible for students with disabilities. Historically, various fund sources (federal, state, institutional) have been relied on to support students with disabilities. Colleges and universities across the country are looking at strategies and approaches to address the specific needs of students with disabilities. Several programs have been in place for a number of years (e.g., supported education, University of Arizona's Strategic Alternative Learning Techniques, Harper College's ACHIEVE!). Other colleges and



universities have established services through securing funds from sources such as grants, foundations, or other resources (Hall & Belch, 2000).

Due to an increase in specific populations of students with disabilities such as psychological disabilities, autism or chronic medical conditions have put additional demands on schools. These demands includes providing comprehensive support services such as a need of specialized staff with expertise in mental health counseling or need of more separate testing areas that are distraction free and disability services proctoring staff due to more students with ADD/ADHD requesting separate testing areas (GAO Report, 2009).

In addition to an increase in number of students with autism, intellectual disabilities, psychological disabilities and chronic medical conditions, schools are also experiencing more veterans with disabilities who are returning from Iraq and Afghanistan seeking postsecondary education. Veterans with disabilities are challenged by the challenges associated with acquired physical and mental challenges as well as the challenge of adjusting to the after affects of combat and many of them had multiple tours in combat zones. Thus the disability service officials face many challenges as these veterans may feel reluctant to disclose disabilities and schools lack experience in bearing this new responsibilities at a time of receding budgets and resources in providing accommodations and helping veterans with disabilities in adjusting to the classroom (GAO Report, 2009).

#### **2.11.1 Transition Program for Veteran Students with Disabilities**

The study conducted by Seal, 2009 from the San Francisco Department of Veterans Affairs Medical Center and the University of California, San Francisco, found that more than one-

third of Iraq and Afghanistan war veterans who enrolled in the veteran's health system after 2001 received a diagnosis of a mental health problem, most often post-traumatic stress disorder or depression. Some schools have innovative programs to ease the transition of veterans with disabilities. The disability service office of one school has developed a comprehensive Veteran Student Initiatives project to help veteran students adjust to campus life, their disabilities, and feel comfortable seeking services. They have one staff member specifically hired to assist veterans and works with outside agencies, such as the Department of Veterans Affairs, to help expedite the referral and documentation process for veterans with disabilities. This project trains faculty, staff, and non-veteran students about relating to veterans and the issues they face as they return to civilian life. In addition, the project aims to work with veteran student groups in developing peer and social networks on campus that can help other veterans overcome the fear of disclosing disabilities (GAO Report, 2009).

#### **2.11.2 Adaptive Technology Center at the Arizona State University**

Arizona State University (ASU) is a public university that serves more than thirteen hundred students with disabilities through its Disability Resources for Students (DRS) program. The DRS program provide comprehensive disability services, including sign language interpreting, real-time captioning, mobility services, C-print operators, reading services, Braille and alternative print format production, and coordination for in-class accommodations. ASU has various collaborations with state, county, and local agencies, vocational rehabilitation, and local businesses to provide comprehensive programs to students with disabilities (Belch, 2000). Funding sources include a U.S. Department of Education TRIO Student Support Services grant, private donations, corporate sponsorships,

and university funds. Hewlett-Packard has funded an adaptive technology center that serves as a comprehensive facility for students with a variety of physical and cognitive disabilities (Rund & Scharf, 2000). DRS also awards \$100,000 a year in scholarships to students with disabilities.

#### **2.11.1 Promoting Access and Academic Excellence through the Higher Education Transition Model**

Jointly sponsored by the Office for Continuing Education and the Division of Student Services at the University of Arkansas, Project Excel, an intensive six-week summer program, was designed to: (a) facilitate the transition to college for incoming students with disabilities, and (b) promote academic excellence. Program activities were clustered into three categories: (a) psychosocial adjustment, (b) academic development, (c) University and community orientation (Serebreni, Rumrill, Mullins, & Gordon, 1993). These categories, which emerged from a series of summer workshops and college transition programs for students with disabilities, provided a comprehensive framework for the development of a Higher Education Transition Model for working with high-achieving students with disabilities. Project Excel recruited high-achieving students with disabilities, defined by high school grade point averages of 3.0 or higher and /or ACT (American College Testing Program) composite scores of 22 or higher.

#### **2.11.2 Transition Program for Students with Autism**

In response to a need for better transition services for students with autism, one college has implemented a 1-year program designed to provide this support. The program aims to help students independently access accommodations and services in higher education by building

skills in organization, time management, social interactions, self advocacy, and transition planning. To accomplish these goals, students in the program work individually with specialists, attend individual and group coaching sessions, and design long-range plans for college and career development. School officials also reported building an autism community of interest on campus comprised, in part, of faculty who are experienced in working with students with autism.

The principles of a supported education model emphasize a client driven, person oriented support system that integrates both community and university resources. The model structures these resources around the students' career choices to help meet both short- and long-term goals (Cooper, 1993; Egnew, 1993; Unger, 1998). At Virginia Commonwealth University (VCU), the model was designed to provide supports within the existing DSS structure on campus, using both university and community resources. This enables students to receive services as part of their typical experience on campus. The intent of the VCU-supported education program is to assist students to increase their capacity to direct and manage their education and ultimately their careers. In order to facilitate these goals, VCU adapted a three-step model framework that moves students toward greater independence (Brinkerhoff et al., 2002).

## **2.12 Theoretical Framework**

### **2.12.1 Tinto Interactionalist Theory of Student Departure**

Tinto's (1987) student departure model is the most common models of student success. Tinto's Student Integration Model (1975), based in part on Durkheim's theory of suicide, and theorizes that the social integration of students increases their institutional commitment,

ultimately reducing the likelihood of student attrition. Tinto's (1975, 1987, 1993) interactionalist framework emphasizes students' attitudes and perceptions about their experiences. As Tinto wrote, "It is the interplay between the individual's commitment to the goal of college completion and his commitment to the institution that determines whether or not the individual decides to drop out." Students with strong commitments and intentions in these areas will be the most likely to persist in college, and those with weak commitments will be the most likely to withdraw. Tinto's 'interactionalist theory' views retention as a function of the match between the student's academic capabilities and motivation as well as the institution's academic and social characteristics. That is to say, all other things being equal, the fit between the individual's and the institution's characteristics strongly influence the student's goal commitment (of obtaining a degree, diploma etc.) and her/his institutional commitment (to the College) (Berger and Braxton 1998).

What Tinto's work and allied research has suggested therefore is that the more students interact with other students and staff, the more likely they are to persist (Astin 1975, Tinto 1986). Tinto's model proposes that individuals enter institutions of higher education with a range of differing family and community backgrounds (e.g. social status, parental education), a variety of personal attributes (e.g. sex, race), skills (social, intellectual), financial resources, dispositions (e.g. motivations, political references), and various types of precollege educational experiences and achievements. These attributes are filtered through the students' commitment to the institution and their personal goal to graduate. Each attribute is posited as having a direct impact upon departure from college.

Tinto (1993) identifies three major sources of student departure: academic difficulties, the inability of individuals to resolve their educational and occupational goals, and their failure to become or remain incorporated in the intellectual and social life of the institution. Tinto's "Model of Institutional Departure" states that, to persist, students need integration into formal (academic performance) and informal (faculty/staff interactions) academic systems and formal (extracurricular activities) and informal (peer-group interactions) social systems. Students who become adequately integrated into the social and academic systems of their college through participation in extracurricular activities, interactions with other students, and interactions with faculty develop or maintain strong communities.

Tinto (1975) argues that positive and integrative experiences reinforce persistence, whereas negative or disconnecting experiences, or the absence of interaction, can weaken intentions and commitments, thereby enhancing the likelihood of leaving. An individual student's characteristics including background, skills, financial resources, prior education, intentions, external commitments, and their subsequent interactions and integrations with members of the academic and social systems of an institution contribute to these positive or negative experiences (Tinto, 1987). It is believed that the greater the interaction among students, the more likely they are to establish membership in the social and intellectual communities of the college, and therefore increase their likelihood of persistence. When both academic and social systems are in support of each other, they reinforce integration within the institution.

Tinto asserts that institutional commitments in the form of co-curricular activities and interactions with faculty and peers are crucial to enabling students to achieve academic goals. Thus a satisfying and rewarding encounter with both the academic and social system is very important to student satisfaction and retention. Tinto (1975, 1993) emphasizes the importance of interaction with both faculty and student peers and suggests a socialization process whereby students who become successfully socialized into the campus academic and social systems are more likely to persist. The model strength lies in its explanatory framework for guiding inquiry about student persistence. The emphasis of Tinto's model on student perceptions lends itself to a study such as this one which is based on student voices of their postsecondary experiences. Another issue requires attention, namely the relevance of retention and subsequent models of students with disabilities.

Despite its much strength, the model has ignored the disability-related aspects to retention. It is also important to understand that the Tinto model is developed for traditional-ages undergraduates, that is, those of 18 to 22 years old. While Tinto Student Integration Model takes into consideration internal factors, it fails to take in account external factors. These external factors include the student's decision to persist in an institution based on finances, as well as transfers versus permanent dropout—students who continue their education at another institution as opposed to dropping out from college. This model fails to differentiate the experience of students of different gender, race and social status backgrounds (Tierney, 1992). Tinto model is also criticized for focusing due to the mono cultural bias of the model and as a result their relevance to students of color and minority population has been called into question. The model is also criticized for emphasizing assimilation into the dominant culture (Rendon et al.

2000) and for focusing only on the individualistic level rather than on the collective level that is important to many students of color (Tierney, 1992). The National Center for Education Statistics (NCES, 1998) found that “consistent with Tinto’s (1993) theory of academic integration, students who were less able to engage with their academic program were more likely to leave early, even when controlling for such other factors as low GPAs” (U.S. Department of Education, National Center for Education Statistics, 1998, p. 24). Again this illustrates the importance of students engaging with their environment. If institutions want their students to persist, they must offer opportunities and assistance to engage them actively and often.

The diverse character of higher education’s environment, specifically the growing number of minority groups, older students, sexual orientation, students with disabilities, raises serious questions about the universal applicability of these theories and models (Rendon, 2005). Tinto model is also in question as it does not place appropriate responsibility on the institution for ensuring the student's success. As the impact of college on students with disabilities in a Hispanic serving institution remains virtually unknown and shows a gap in our theoretical framework. This current study may be able to explain some issues related to impact of integration and college environment on the academic and social life of students with disabilities.

Because no better explanation has been found to explain why students drop out of institutions of higher education in America, Tinto’s understanding and explanation of integration, as a means to improving retention and success, would be used in this research work in discussing students with disabilities experience in a predominantly Hispanic serving institution. Though Tinto’s integration theory has been a big boost in studying the reason



students drop out of college; it may not be the perfect model. Thus, despite the critiques and criticisms of Tinto's integration model, his (Tinto's) model still remains the practicable theory that studies students' retention and integration.

### **2.12.2 Attribution Theory**

Attributions are inferences that people make about the causes of events and behavior. People make attributions in order to understand their experiences. Attributions strongly influence the way people interact with others. Attribution theory describes relationships between perceptions of others and behavior, such as offering assistance. Attribution theory is about how people make causal explanations and addresses the ways individuals arrive at causal explanations and the implications of those beliefs. In other words, attribution theory examines behavior and tries to answer "why?" (Weiner, 1980).

Attribution theory proposes that the attributions people make about events and behavior can be classed as either internal or external. Weiner focused his attribution theory on achievement (Weiner, 1980). He identified ability, effort, task difficulty, and luck as the most important factors affecting attributions for achievement. Weiner (1980) states: "Causal attributions determine affective reactions to success and failure". Attributions are classified along three causal dimensions: locus of control, stability, and controllability. The locus of control dimension has two poles: internal versus external locus of control. The stability dimension captures whether causes change over time or not. For instance, ability can be classified as a stable, internal cause, and effort classified as unstable and internal.

Controllability contrasts causes one can control, such as skill/efficacy, from causes one cannot control, such as aptitude, mood, others' actions, and luck.

In an internal, or dispositional, attribution, people infer that an event or a person's behavior is due to personal factors such as traits, abilities, or feelings. In an external, or situational, attribution, people infer that a person's behavior is due to situational factors. Researchers also distinguish between stable and unstable attributions. When people make a stable attribution, they infer that an event or behavior is due to stable, unchanging factors. When making an unstable attribution, they infer that an event or behavior is due to unstable, temporary factors. Students with higher ratings of self-esteem and with higher school achievement tend to attribute success to internal, stable, uncontrollable factors such as ability, while they contribute failure to either internal, unstable, controllable factors such as effort, or external, uncontrollable factors such as task difficulty.

Internal attribution: When an internal attribution is made, the cause of the given behavior is within the person, i.e. the variables which make a person responsible like attitude, aptitude, character and personality.

External attribution: When an external attribution is made, the cause of the given behavior is assigned to the situation in which the behavior was seen. The person responsible for the behavior may assign the causality to the environment or weather.

Perceived causality certainly will differ from person to person and within an individual over occasions. Attribution messages sent by significant others in one's entourage are

important sources of cue upon which individuals base their conception of their own performance. Positive feedback serves to reinforce belief of oneself as an adequate learner. Negative feedback serves to reinforce belief of oneself as a learner who cannot be adequate. Attribution researchers have identified ability and effort as the principle perceived causes of individual success or failure and these inferences are manifest in one's self-esteem, expectation for success and failure, and academic performance (Weiner, 1989; Clark, 1997). Attributions for performance are important because they influence both our emotional reactions to success and failure and our future expectations and aspirations (Michener et al., 2004). The attributions students make can be quite potent. Locus impacts a student's academic self-esteem. A student that attributes failures to an internal locus will have a lower self-esteem than a student that cites external factors.

Some students with disabilities may develop dysfunctional attribution style, learned helplessness. Students' attributions for success and failure influence learning-related emotions, cognitions, and motivation because each dimension has unique cognitive and affective consequences. The locus dimension fosters feelings of pride following an internal attribution for success. The stability dimension influences expectations about the reoccurrence of the event and feelings of hope for future success (hopefulness/hopelessness). The controllability dimension determines responsibility judgments concerning the event and guilt and shame emotions related to negative events. Following failure, a low ability attribution is motivationally dysfunctional because it affirms the expectation that failure can reoccur (stable/uncontrollable failure), while increasing feelings of shame. Attributing failure to lack of effort, results in greater persistent levels only if it is paired with attribution beliefs that ability contributes to success.

Environmental messages play a key role in the development of self-directed attributions (Marsh, 1986; Gladstone & Kaslow, 1995; Peterson & Seligman, 1984, 1985).

### ***Attribution theory and students with disabilities***

Research reveals that disability often undermines ordinary encounters between disabled and non-disabled people, showing that disability discomforts both parties. As indicated by attribute theory, the cause of disability has historically been linked to attitude formation regarding people with disabilities (PWD). The constrictive effects of negative societal attitudes in preventing individuals with disabilities from mainstreaming into society are well documented in the rehabilitation literature (Arokiasamy, Rubin, & Roessler, 2001; Brodwin & Orange, 2002). Yuker (1994) states that the “beliefs that a non-disabled person has regarding person with disability is probably the most significant factor that influences attitudes”. Goffman (1963) contended that those without disabilities experienced uncertainty and negative effect in the presence of stigmatized (e.g., disabled) individuals and that they sought to avoid having stigma spread to them by avoiding close association with a person with disability. Studies of the behavior of nondisabled people toward people with disabilities demonstrate a variety of responses that, at the very least, hinder ordinary social interaction. These interaction problems include the avoidance of social contact; distorted verbal behavior; and nonverbal behaviors such as turning away, avoiding eye contact, and ignoring a person’s presence (Fine, M & Asch, 1988).

Additionally, research by Katz et al. 1988 revealed that, on the one hand, those without disabilities often exhibited favorable kinds of responses to disabled persons (e.g., giving disabled person’s high impression ratings or complying with their requests). On the other hand,

nondisabled people often felt uncomfortable and uncertain when interacting with persons who were disabled. Such as students with learning disabilities (LD), often have difficulty engaging in effective social interactions with other people. They also have difficulty in interpreting social cues. As such, students with LD, Asperger's syndrome and Autism may experience social isolation and or rejection from others, including instructors and non-disabled peers (Healey, 1987). As a result of these interpersonal deficits, unfavorable social interactions towards students with LD can lead to faculty experiencing and displaying negative behavioral reactions and responses towards such students. This serves as inhibiting cue that negatively impacts the relationship between faculty and these students. While learning disabilities mirrors other disabilities in some ways, it differs from more visible disabilities in that persons with learning disabilities are compared to their non-disabled peers due to the invisible nature of the disability and tended to cut short or avoid such encounters.

### ***Perceived visibility of disability***

Empirical differences between those with visible and less-visible disabilities are associated with countless factors such as discrimination and stigma, fear of discovery, and or the stress of repeatedly explaining why they need accommodations as disability is not evident. As a result students with less-visible disability such as learning disability, ADHD have more difficulty in adapting to college than those with more visible disabilities. This issue of negative interaction with professors serves as barrier to student's academic success. Student-faculty interaction is one of the most important factors in determining the student's success in, and satisfaction with, higher education (Astin, 1975; Pantages and Creedon, 1978; Pascarella. 1980).

Unfortunately, a number of researchers have found that nondisabled faculty often lack awareness as to how best to interact with disabled students in their classes (Frith and Edwards, 1981; Hendlin, 1981) and in advisement sessions (Avery, 1982). It has been reported in the literature that academic success will be contingent upon positive communication with faculty, fellow students, and university personnel (Wiseman & Morgan, 1988).

Literature focusing on perceived visibility of condition has been associated with stigma formation and marginality (Frale 1993; Goffman, 1963). Thus differences between apparent and non-apparent disabilities are important to understand partially because of the problems attitudes about an invisible disability can present for students in the classroom. The biggest issue those with invisible disabilities have is that non-disabled people often do not believe what they are going through is real, because to them they “look good” and people often accuse them of just being lazy or malingering. Thus they are thought of as "taking advantage of the system" (Rickerson, Souma, & Burgstahler, 2004; & Davis, 2005). If students with non apparent disabilities perceive faculty members to be unreceptive to accommodation of their needs, and if perceptions can be seen as an indicator of what actually occurs, they will likely foresee their needs will go unmet and will fear stigmatization (Davis, 2005).

For a person with an invisible disability, revealing one's condition is almost always necessary in order for the individual to receive accommodation (Davis, 2005). If the aforementioned fears take hold, then, students could be less likely to disclose their disability in the first place, which could greatly impact academic performance and this will also make it difficult for marginalized individuals such as students with invisible disability to engage in

normal social intercourse (Goffman, 1963). Therefore, faculty attitudes toward disabilities can have implications beyond the accommodation of students. Students' perceptions of their attitudes could be a factor in their decision when deciding whether or not disclosure of their disability is "worth it". Apart from that this lack of disclosure may also result in an ever present anxiety associated with the possibility of finding out, low self-esteem and difficulty in accepting one's condition (Davis, 2005).

Previously conducted research has shown that, throughout postsecondary institutions, negative attitudes toward disabled students do exist (Upton & Harper, 2002). Further research has also shown that faculty members' attitudes toward students who have invisible disabilities are more negative than those toward students with visible disabilities. Keefe (2007) discussed that there exists a "disability hierarchy" (in which one type or severity of condition is perceived as better as or worse than others) amongst faculty members in postsecondary education: Visible disabilities are at the top of this hierarchy and invisible disabilities are at the bottom.

The attitude/accommodation link identified in previous sections applies to the differences between visible and invisible differences as well, albeit regarding students and not necessarily faculty. Students rated fellow classmates as more deserving of accommodations if their disability was visible in nature (Upton & Harper, 2002). Apart from faculty-student interaction, another significant factor that influences disabled students' college success is their interaction with peers. Nondisabled students are able to provide support to disabled students such as academic assistance like proofreading their papers and emotional support. Unfortunately, many nondisabled students do not understand the needs of disabled students

due to lack of knowledge and as a result their interactions with them are often inappropriate (Rice, 1979; Safferstone, 1977). In society, this stratification may reinforce pity and thus students with disabilities are also often victims of insults, apathy, and unsolicited and demeaning help (Wiseman et al., 1988). In terms of impact it can result in social isolation, physical segregation and other negative outcomes for people with disabilities. Thus the second barrier that research has shown is related to peers social engagement.

### **2.12.3 Social Construction of Disability**

Social construction will also provide the conceptual framework for the present study and will be used to explain the individual experiences reported by participants. Social construction draws on the concept that society creates meaning and value through subjective means of social interaction (Berger & Luckmann, 1966). The word “disability” is itself a socially constructed term; the meaning of disability is developed in contrast to “ability” and describes a limitation that a person possesses that situates him or her differently from “able-bodied” and supposedly “normal” persons (Harper, 2009).

Instead of perpetuating the individualist view of disability that pervades U. S. society, this social constructivist view of disability critique the society that “creates” disability by considering some forms of being and doing as normal and correct and others as dysfunctional and not normal (Dudley-Marling, 2004). Proponents of this model work to ensure that environments are barrier-free and welcoming to all people. Consequently, the proponents of this idea demands that responsibility of student’s learning and development depends not solely on the individual, but also on the larger educational community such as teachers, peers, parents



and society at large (Harper, 2009). Thus it clearly requires that persons who control the educational environment make modifications to ensure that individuals with disabilities have access to equitable opportunities in the classroom without having to request such changes. Thus, Universal instructional design (UID) would be viewed as a reasonable strategy for modifying the classroom environment. This perspective has led to the development of Universal Design (UD) principles, both in architecture and instruction (Paterson & Hughes, 1999). However, how the individual is viewed and treated in this process is deemphasized within this framework.

This social constructivist also called as interactional model is compatible with current student development theory, which suggests that academic and social integration and not just normalization that is what students need to be successful in college (Aune, 2000). This social model of disability calls for a society's collective responsibility in supporting students with disabilities inclusion in campus life. In order to foster integration of students with disabilities in campus life it needs an adjustment by non-disabled students, faculty and staff as well as students with disabilities. According to Conyers, and Szymanski, 1996, there are two critical factors essential for integration of students with disabilities. First one is called the ease of social interactions with peers and the second one is called the receptiveness of faculty members to accommodate the needs of students with disabilities. This is also in conjunction with what Tinto (1993) research on general student population found and that is students experiences with their campus environment affects their college goals and their commitment to college completion. . Even though research has shown campus involvement affects positively student's experiences in college. However, research has shown that not all students with disabilities are involved in

campus activities. As reported by Johnson and others, 1998 found in a survey of 251 colleges and university students with disabilities of nine Midwestern campuses that 84% of students mentioned that they were not at all involved in co-curricular activities.

According to Jones (1996), definitions of what it means to be disabled in America have been framed primarily by "the eyes of others." Using Linton's ideas disability then could be said to refer to a lack of ability or to be the opposite of, or separate from, the able-bodied. Disability has been explicitly defined by the dominant culture as "(a) lack of adequate power, strength, or physical or mental ability; incapacity and (b) a physical or mental handicap, esp. one that prevents a person from living a full, normal life or from holding a gainful job" (dictionary.com, 2009). Albrecht & Levy (1981) discussed the disability definitions as follows: We contend that disability definitions are not rationally determined but socially constructed. Despite the objective reality, what becomes a disability is determined by the social meanings individuals attach to particular physical and mental impairments. (p. 14). These definitions have not, however, been used in exploring the notion of disability coexisting with any kind of positive outcomes or even as a valued measure of diversity. People with disabilities are consistently regarded as different from those without disabilities (Scheer, 1994). The definition of disability in the ADA reflects recognition of the social construction of disability, especially by including coverage for persons who are perceived by others as having a disability

Asch (1984) and then Asch and Fine (1988) were the first to reframe disability as a socially constructed phenomenon. The social constructivist perspective contends that one's understanding of the world cannot exist independently of the context within which the

individual interacts with the world (Gergen, 1999). In defining the social construction of disability, Asch and Fine (1988) write, "...it is the attitudes and institutions of the non-disabled, even more than the biological characteristics of the disabled that turn characteristics into handicaps" (p.7). Such a perspective does not discount the existence of either the biological fact of disability or the functional limitation, but the limitation is just that--a limitation (Lombana, 1989). This biological fact cannot be meaningfully understood outside the contexts, relationships, institutions, or situations that define and shape the meaning of disability (Asch & Fine, 1988; Scheer, 1994). This framework has been popular in cultural studies since its introduction in the late 1960s (Berger & Luckmann, 1966) and has been used in reference to ideas on race, class, gender, religion, and other topics of sociological interest. Wendell (1996) described the influence of culture on the social construction of disability.

The power of culture alone to construct a disability is revealed when we consider bodily differences--deviations from a society's conception of a "normal" or acceptable body--that, although they cause little or no functional or physical difficulty for the person who has them, constitute major social disabilities. An important example is facial scarring, which is a disability of appearance only, a disability constructed totally by stigma and cultural meanings. Stigma, stereotypes, and cultural meanings are also the primary components of other disabilities, such as mild epilepsy and not having a 'normal' or acceptable body size (Wendell, 1996, p. 44).

Foucault (1977) emphasized that societies organize people based on categorical terms and in doing so establish relationships based on power. These categories and relationships are also supported through the use of language. The language used to describe disability has had a

great impact on the construction of disability in society. Gergen (1999) addressed the role of language as follows: "Language is a major ingredient of our worlds of action; it constitutes social life itself" (p. 49). The word "disability" itself brings about negative connotations. Linton (1998) stated "the prefix dis- connotes separation, taking apart, sundering in two" (p. 30). According to Jones (1996), to think inclusively is to consider the experiences of persons with disabilities and examining the quality of their interaction with the campus environment. Such a perspective acknowledges the power of environmental, structural, and cultural definitions of disability which exert a strong force on those living with disability. This perspective forces an analysis of the social structures that have pushed students with disabilities to the margins of institutions and created handicaps out of characteristics.

The social construction of disability has been expressed through a variety of models. These models have helped define disabled identities throughout modern culture. The medical and social models of disability are two of the most prominent and are described below to further clarify the conceptual framework of social construction.

### **Medical model of disability**

The Medical Model holds that disability results from an individual person's physical or mental limitations, and is largely unconnected to the social or geographical environments. The medical model has been the dominant model of disability and its influence is evidenced by the World Health Organization's ("WHO") development of an International Classification of Impairments, Disabilities and Handicaps (World Health Organization, 1980). This document expounds the following definitions: -

Impairment: Any loss or abnormality of psychological, physiological, or anatomical structure or function.

Disability: Any restriction or lack (resulting from impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.

Handicap: A disadvantage for a given individual, resulting from an impairment or disability, that limits or prevents fulfillment of a role that is normal, (depending on age, sex, social or cultural factors) for that individual. (WHO, 1980, pp. 27-29)

This approach supports the idea that a person with a disability is one who is deficient and who can and should be healed through medical intervention, allowing for assimilation into normal society. In this model, college students with disabilities must assume individual responsibility for such activities as negotiating the campus, organizing themselves for their classes, and making friends.

Under the medical model, persons with disabilities are viewed as "sick. . . [and] when people are sick, they are excused from the normal obligations of society: going to school, getting a job, taking on family responsibilities, etc." (Kaplan, 1999). This Medical model has influenced the formulation of disability policy for years such as the Social Security system, in which disability is defined as the inability to work. The medical model approach has dominated rehabilitation paradigms, for two reasons: (a) Persons with disabilities are perceived by society as helpless and (b) rehabilitation agencies and professionals benefit from people with disabilities needing help through the expansion of their work and role in society (Swain, French, &

Cameron, 2003). Finally, the medical model of disability has been supported by contemporary American ideals that value physical, intellectual, and emotional perfection above all else. People with disabilities then become the opposite of what is valued by those in power. The metaphors used above, again use language to express the collective consciousness of society. Disability scholars (Crow, 1996; Oliver, 1996; Shakespeare, 1996) have argued against the medical model of disability construction, noting that "disability as a long-term social state is not treatable medically and is not certainly curable. Hence many disabled people experience much medical intervention as, at best, inappropriate, and, at worst, oppressive" (Oliver, p. 36). They instead supported the social model of disability. Disability rights groups also see the medical model of disability as a civil rights issue, and criticize charitable or medical initiatives that use it in their portrayal of disabled people, because it promotes focus on pitying the individual and disability is defined as loss or reduction of functional ability (Kirch, 2008). Many disability advocates are now calling on the public to move away from viewing disability as a medical and welfare issue but rather as a social issue that demands an end to discriminatory practices and cultural changes to make society more inclusive.

### **Social model of disability**

The *social model* of disability, on the other hand, sees disability as a socially created problem and not at all an attribute of an individual (Jones, 1996). On the social model, disability demands a political response, since the problem is created by an unaccommodating physical environment brought about by attitudes and other features of the social environment. The definition of disability in the ADA reflects recognition of the social construction of disability, especially by including coverage for persons who are perceived by others as having a disability.

The social model of disability emerged to combat the medical model as a result of the oppression felt by persons with disabilities. This model has been used to challenge the medical model in that the problems faced by persons with disabilities are viewed as a result of attitudinal or physical barriers which have been socially created (Oliver, 1996; Shakespeare, 1996). Although one's impairment may have a biological cause, as with learning disability, the social model recognizes social discrimination as the most significant problem experienced by persons with disabilities and as the cause of many of the problems that are regarded as intrinsic to the disability under other models (Kaplan, 1999).

The social model of disability introduced a clear distinction between impairment and disability. The Union of the Physically Impaired Against Segregation (UPIAS) defined impairment and disability as two distinct terms. Impairment, like the medical model, described the physical difference that denotes someone as different from the norm. Disability, however, was defined as: . . . the disadvantage or restriction of activity caused by a contemporary social organization which takes no or little account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities. (UPIAS, 1976, cited in Swain et al., 2003, p. 23). These definitions and distinctions in terminology reflect the idea of disability being socially constructed. Under the social model view of disability, the reduction or elimination of these barriers is possible through social change (Shakespeare, 1996). Instead of focusing on the physical or mental difference, the social model perspective requires a consideration of not only the communication, social, and learning differences of students with learning disability and students with disabilities, but also the unique physical and social postsecondary environments which they attend. Consequently, the social model of disability, under the framework of social

construction, seems an appropriate lens for which to frame this study. In higher education, accommodation of students with disabilities starts as soon as a prospective college student enters the admissions process. Once a prospective student claims to have a disability, modifications for entry into a college will result in continued stigmatization of the student, at least in the mind of the student as the stigmatization caused by these systematic labeling procedures follows students till the time they are in college. As a result, the self-esteem of a student with disability is eroded over time by shame, labels of incompetence, and experiences of dependency, fear, anxiety, and helplessness (Roer-Strier, 2002). The social model of disability, conceives of the problem from a sociopolitical perspective (Barton, 1996; Oliver, 1996; Shakespeare & Watson, 2001). The social model considers practice, attitudes and policies within the social context as underpinnings for barriers and/or aids which either hinder or help disabled individuals to access and participate in education processes within different environments—social, economic, educational, etc. (Barton, 2006). Students with disabilities will be included in campus life when attitudinal, environmental and institutional barriers and discrimination are removed from society.

#### **2.12.4 Bronfenbrenner's (1979) Ecological Systems Theory (BEST model)**

Bronfenbrenner's (1979) Ecological Systems Theory (BEST model) provides a model that emphasizes the interactions between students with disabilities and their surrounding environments. BEST framework is particularly appropriate as it takes into account the holistic impact of a situation and a contextual map to help understand the many different factors contributing to their overall experience of university. Bronfenbrenner provided us with the



framework to do this; by allowing us to examine the immediate settings containing the students with disabilities, as well as the larger social contexts, both formal and informal, in which these settings are embedded (Bronfenbrenner, 1977, p. 513). Bronfenbrenner's ecology model entails *microsystems*, *mesosystems*, *exosystems*, and *macrosystems*, linked together in "a system of nested, interdependent, dynamic structures ranging from the proximal, consisting of immediate face-to-face settings, to the most distal, comprising broader social contexts such as classes and culture" (1993, p. 4). The four systems describe the nested networks of interactions that create an individual's ecology. Bronfenbrenner (1979, 2005) identifies the central circle as the "microsystem". Immediate settings for these students include the home or family, college, peer group, and faculty and staff members (*microsystem*), whereas larger social contexts include interactions among these settings such as between professor and disabled student service staff members (*mesosystem*), as well as the effects of systems that impinge on their college experiences, such as government policies and the types of educational supports offered by university (*exosystem*). Broadest of all influences are those that include the cultural values, customs, and laws that impact learning. It includes influences such as economic, social, educational, legal, and political (*macrosystem*). The framework further helped to identify at what level the interventions could be made or where connections and relationships could be improved so that students with disabilities have better college experience.

#### **2.12.5 Rendon's (1994) Theory of Validation**

Rendon's (1994) theory of Validation states that "the more students are validated, the richer the students' academic and interpersonal experience" (p. 34). The theory goes on to

explain that validation is most powerful during the early stages of a student's academic and interpersonal experience. Rendon's theory of validation is particularly applicable to low-income, first-generation students enrolled in higher education (Rendon, 1994). The diverse population of higher education that includes students of color, students who come from various social classes, students who have disabilities and students who have diverse sexual-orientation backgrounds face additional obstacles as non-traditional students when they enter higher education settings. Rendón (2004) argues that non-traditional students have history of experiencing poverty, racism, discrimination, stereotyping, and marginalization. In addition, they come from resource poor schools and lack a knowledge base about higher education. The non-traditional students usually are not aware about student clubs or organizations on campus and it becomes difficult for students to take advantage of all the opportunities that college offers. Thus Rendon (1994) suggests that students may not become involved or engaged in the educational experience unless the college or university makes a point of reaching out to them. Validation theory calls for faculty and staff to get closer to students, to reach out to students to offer assistance and to help students make social and emotional adjustments in college, if not in their personal lives (Rendon, 1994).

Validation can be fostered both in- and out-of-class. Some of the In-class validating agents include faculty, classmates, and teaching assistants. Out-of-class validating agents can be 1) significant others, such as a spouse, boyfriend, or girlfriend; 2) family members, such as parents, siblings, relatives, and children; 3) friends, such as classmates and friends attending and not attending college; and, 4) college staff, including faculty who meet with students out-of-class, counselors/advisors, coaches, tutors, teaching assistants, and resident advisors

(Rendon, 1994). For traditionally underserved students, Rendon (1994) argues that validation may be a more important influence on student success than involvement. She suggests that students who are first generation learners who have not grown up assuming they would go to college may benefit from active efforts to validate them on the part of the institution.

Validation helps them building self-confidence. Many first generation college students have doubts about their ability to succeed in college which can be compounded by invalidation.

These students often have no previous history of college success and might have a history of dropout behavior. They also lack role models who have attended and finished college. They view the transition to college as an unnatural and often disjunctive process.

I reviewed two research studies that have been conducted at UTEP utilizing Validation theory. One study was conducted by Edens (2007) titled “Student involvement at a majority Hispanic, Border institution: a study of undergraduate experiences”. The study examined the involvement experiences of undergraduate students attending a public, four-year University located on the United States – Mexico border. Edens (2007) concluded that at UTEP that serves nontraditional students as they are first in their family to attempt higher education and are often has multiple family responsibilities thus students shown lack of involvement in campus activities. The students did not seek ways to get involved until one of the faculty, peers or administrative staff took an active interest in them by showing concern and recommended involvement opportunities. This validation has an impact not only in a structured setting but also out-of class. Once they became involved however the students realized the tremendous benefits associated with membership in a club or organization.

In another research study conducted by Stein (2006) titled “Developing voices: A study of developmental education students and their perspectives of individual and institutional attributes necessary for academic success” at UTEP used Rendón’s (1994) validation theory as a primary theoretical framework to analyze student responses. This study suggests that it is important that all faculty members should be acquainted to validation theory and trained as to how they can validate student’s in-class and out-of-class as that support student learning especially of non-traditional students. In this study the participants exhibited an overwhelming sense of confidence as a result of faculty’s shown care and concern of these non-traditional students.

### 3 METHODOLOGY

This chapter 3 explains the methodology for the study, including a description of the study population, participants, setting, and discussed the procedure employed for collecting data. The measures used in the study are described and discussed. In addition, the research questions and hypotheses guiding the study are presented as well as the research methods that were used to implement this study.

This study explored students with disabilities and their college experience. Previously conducted research has shown that, throughout postsecondary institutions, negative attitudes toward disabled students do exist (Upton & Harper, 2002). Further research has also shown that faculty members' attitudes toward students who have invisible disabilities are more negative than those toward students with visible disabilities. Keefe (2007) notes that there exists a “disability hierarchy” amongst faculty members in postsecondary education: Visible disabilities are at the top of this hierarchy and invisible disabilities are at the bottom. Besides faculty-student interaction, another factor that influences disabled students' success in school is their interaction with fellow students. Nondisabled students can provide disabled students important academic assistance and emotional support. Unfortunately, many nondisabled lack awareness and as a result do not understand the needs of disabled students thus their interactions with them are often inappropriate (Rice, 1979; Safferstone, 1977). Students rated fellow classmates as more deserving of accommodations if their disability was visible in nature (Upton & Harper, cited in Keefe, 2007). Disabled students are often victims of insults, apathy, and unsolicited and demeaning help (Wiseman et al., 1988). Thus the second barrier that research has shown is related to peers social engagement.

Research has shown that the lifetime of people with disabilities are also molded by their racial and ethnic status, their religion and their first language (Stienstra, 2002). Little research has been done on these intersections. Most of the literature on disability ignored these important intersections about race and ethnicity. What research has been done is primarily from the perspective of service providers and the need to provide culturally appropriate services. Thus this study is also investigated how the intersection of race, ethnicity, culture, and family and disability impacts the college experience of students with disabilities.

### **3.1 Purpose of Study**

The major purpose of this study is to explore the perceptions of students with disabilities specifically with regard to their personal experience with transition from high school to college, adjustment to college, campus involvement and communication/campus climate, and technology and other factors among this student population. To ascertain these students' perception of their undergraduate studies experience, this study was designed to determine the following: to what extent transition experiences and services played in the success of college students with disabilities and also their understandings of the impact of institutions, attitudes of faculty, staff, and peers on their academic success. How do they perceive what the institutional support system is for the student who has a disability? This study provided a description of their experiences of themselves and the collegiate environment that college students with disabilities believe support their college success.

The knowledge gained from this study will help educators and student affairs professionals in understanding the needs of students with disabilities and addressing them so

that they are no longer a forgotten minority by creating or fostering campus environments that are more welcoming and engaging for these students.

The current study is broader in scope, with the intent to explore not only the general impact of disability on students' college experience, but also focusing on specific variables that may impact this experience, including accessibility, faculty and student attitudes toward disability issues, and the students campus adjustment and campus involvement. The last part is the transition process that students experienced when shifting from high school to postsecondary education. This study will facilitate understanding of this growing marginal population that may lead to improvements in our practice, and in providing comprehensive services to students with disabilities. The findings will contribute to a knowledge base; extend past the research found in the disability and postsecondary literature grounded in the reality of the student voice.

### **3.2 Participants and Sample**

The participants of this survey and interviews are undergraduate students with disabilities enrolled at The University of Texas at El Paso and who have elected to participate in the survey and interview. As per UTEP student profile data, there are 18,975 undergraduate students that are 83.80% of the total body. In an effort to obtain a large sample size, the researcher opted to send a copy of survey to all of the 400 registered undergraduate students with disabilities instead of selecting a random number from this number. The survey was open also to those who have disabilities but are not registered with this office at the University of Texas, El Paso. This ensures that those students who have not decided to register with DSSO to

take part in this study and this helps in getting to know why they do not want to register and receive services from DSSO. The participants include students with visible and invisible disability. In total, out of total 400 students, 74 registered students with Disabled student service office completed the survey along with 30 non-registered students with disabilities. All the survey participants are volunteers.

Prior to recruiting the participants, permission to conduct research on this population is obtained through the University of Texas at El Paso Institutional Review Board (IRB). The interviews in this study involve gathering in-depth participant's narratives in one single interview that described participants' postsecondary experience. In a single 30 minutes to an hour interview the participants described their own perception of how having a disability and how it impacts their college experience. All participants are assigned pseudonyms and personal identifying information is deleted from the final manuscript. Descriptive, demographic information were requested to determine the degree to which the population and this sample reflect each other.

### **3.3 The Setting: Undergraduate Population of Students at UTEP**

The institutional setting chosen for this study is a university called The University of Texas at El Paso situated along the U.S- Mexico border where more than more than 77 percent of student population is Hispanic. Thus it is important to understand the ethnic and cultural background of the region and also the demographics of its participants. The University of Texas at El Paso (UTEP) has had a mission commitment over the last two decades to provide access and excellence in research and education to serve fully the people of El Paso region now and in



the future. Enrollment has increased to more than 22,000 students and full time student number is 63.1% and part time student number is 36.9%. UTEP has clear successes in serving non-traditional students including first-generation, low-income, and mostly Hispanic students. In an economically challenged region – 30 percent of UTEP students have a family income of \$20,000 or less, nearly 50 percent of incoming students qualify for Pell grants and nearly 60 percent are first-generation college students. Thus UTEP serves the most economically challenged and undereducated communities in the nation (The University of Texas at El Paso, 2011).

Of more than 22,000 plus students enrolled in UTEP courses, more than 400 are actively registered with the UTEP Disabled Student Services office. This represents approximately 1.9% of the UTEP student population. This percentage is lower than the national average that according to 2003-2004- 11.3% of undergraduates reported having a disability (National Center for Education Statistics, 2006). Yet students can report to having disability but not register with DSSO.

### **3.4 Disabled Student Service Office**

The Disability Services Office at UTEP offers qualifying students who register with the office a variety of accommodations and assistance. The mission of the office is to provide disabled individuals equal access and opportunity, empowerment, support, resources, and advocacy. The office also collaborates with and other segments the university campus and community so that students can participate freely and actively in all facets of university life. The university's policy regarding admission and access prohibits discrimination on the basis of

disability. UTEP admits students without regard to disabling conditions as long as they meet definition of disability.

DSSO coordinates accommodations and services designed to provide access for students with disabilities. While students are not required to disclose disability information during the admissions process, students are encouraged to contact Disability Services for information as soon as they consider enrolling at UTEP.

### **3.5 Research Questions**

To ascertain these students' perception of their studies experience, this study was designed to determine the following.

- What are the perceptions of predominantly Hispanic students with disability on how they are perceived, treated, and respected by faculty, staff, peers and/or administrators at UTEP?
- How does a student with disabilities establish academic, social, and emotional supports that create a foundation for success in the environment of higher education?
- How do college students with disabilities describe their ability to engage in the physical structure, institutional, academic and social campus environment?
- What are the obstacles that students with disabilities face while trying to succeed at UTEP?
- What factors do students identify with as the most influential in their college experience and academic success?

### **3.6 Research Design**

The research design for this study is based on utilizing mixed methods of research. Philosophically, it is the "third wave" or third research movement, a movement that moves past

the paradigm wars by offering a logical and practical alternative; mixed research makes use of the pragmatic method and system of philosophy. This method's logic of inquiry includes the use of induction (or discovery of patterns), deduction (testing of theories and hypotheses), and abduction (uncovering and relying on the best of a set of explanations for understanding one's results) (deWaal, 2001).

Tashakkori and Teddlie (1998) propose that there are three approaches to research --- quantitative, qualitative and mixed methods. In Creswell's model each research approach is characterized not only by the stance taken, which he terms knowledge position but by the strategies used to apply the design and the methods of data collection, particular paradigms, strategies and methods tend to be associated with each approach (Creswell 2003). According to Johnson and Onwuegbuzie (2004), Mixed methods research is formally defined here as the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study.

Mixed methods research can be defined as the collection, analysis, and integration of quantitative and qualitative data in a single study or in a program of inquiry (Creswell & Plano Clark, 2007). Its core characteristics include collecting both quantitative (closed-ended) and qualitative (open-ended) data, the rigorous and persuasive methods associated with both forms of data, and the integration of the two data sets through merging them or connecting them sequentially, with one building on or extending the other.

I selected the mixed methods paradigm because it is a "Transformative-emancipatory" paradigm that places central importance on the lives and experiences of marginalized groups

such as women, ethnic and racial minorities and people with disabilities (Mertens, 2003).

Researchers working the transformative-emancipatory paradigm are aware of power differentials in the context of their research and use their research to promote greater social equity and justice (Mertens, 1998).

Mixed methods approaches are associated with the pragmatic paradigm and strategies that involve collecting data in a simultaneous or sequential manner using methods that are drawn from both quantitative and qualitative traditions in a fashion that best addresses the research question/s (Creswell, 2003). Tashakkori and Teddlie (2003) discussed the three areas where a mixed method is superior to other single methods approach. The first area is the ability to answer research questions that other approaches cannot; mixed methods can answer simultaneously confirmatory and exploratory questions. Secondly, they provide stronger inferences through depth and breadth in answer to complex social phenomena. Thirdly, they provide the opportunity through divergent findings for an expression of differing viewpoints.

Bryman (2004) puts forward a number of reasons for combining of quantitative and qualitative research, these include the logic of triangulation, an ability to fill in the gaps that were left when using one approach of research design, gaining the perspective of the researcher and the researched, to address the issue of generality and to study different aspects of a phenomenon.

### **3.7 Researcher Profile**

While interpreting the results of any study one should consider the professional background and perspective of the researcher (Patton, 2002). My professional qualifications are

in the field of psychology, social work, and Rehabilitation counseling. Thus I have developed an interdisciplinary perspective that informs my daily work as the Assistant Director of Disabled student's service office at UTEP. I work with students with disabilities and with the campus community in facilitating academic accommodations, disseminating resources about working with students with disabilities, awareness and advocacy. My experience working directly with students with disabilities and knowledge has given me a strong perspective on the nature of the barriers they face while transitioning from high school to college and also to their adjustment to college, campus involvement and disability related challenges they face. Working at UTEP, I have observed how the population of students with disabilities has grown in number, and in my interactions with students with disabilities I have seen first-hand many of the struggles experienced by these students at UTEP. My personal experiences working with this particular population may present itself as a bias in interpreting the obtained data. In order to objectively research student perceptions regarding their college experiences, triangulation of data was ensured through the development of a survey based on previous research and conducting semi-structured interviews, and my own professional experience of working with this population in interpretation of thematic interpretation of qualitative data in order to obtain validity.

### **3.8 Development of Survey**

I reviewed the literature to find out if there are any survey instruments available to measure perceptions of students with disabilities with regard to their college experience related to transition to college, adjustment to college/University, campus Involvement and communications/campus climate. When research could not find an instrument that measures

all of these above variables that are identified as having an influence on students when addressing academic success and other desired outcomes of college. Then the researcher developed "Perceptions of students with disabilities survey instrument while adapting part from the following survey instruments and developing questions on her own on demographics and on technology section.

Transition to College & Campus Involvement: McEvilly, Thomas F (1995). Disabled students: Access Issues in Higher education. University of Wisconsin-Madison.

From this survey, the researcher adapted the questions on Transition to college & Campus Involvement.

Adjustment to college/University: Miller, Lauren (2001). Involvement in Extra-curricular activities, Adjustment of college and Perceptions of campus climate among college students with disabilities. Florida State University.

From this survey, the researcher adapted the questions on adjustment to college.

Communications/campus climate: Wiseman, L. R, Emry , A. R, Morgan. D. (1988). Predicting Academic Success for Disabled Students in Higher Education. Research in Higher Education, Vol. 28, No. 3, (May, 1988) pp. 255-269.

From this survey, the researcher adapted the questions on Communications/campus climate.

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From this survey, the researcher adapted the questions on Campus involvement.

### **3.9 Procedures**

For purposes of this study, a survey research method was first employed to explore the research questions followed by student interviews. After getting an approval from the UTEP Institutional Review Board, the researcher sent an on-line survey. A copy of the IRB approval letter is located in Appendix A. The main objective of these invitations was to provide individuals with the opportunity to participate in this research study. Contact information pertaining to the researcher, the researcher's academic advisor, and the Institutional Review Board were provided. In addition, a web link was displayed. If selected, this link would take potential subjects directly to the survey. Prior to distribution, special needs room staff in the library to test all e-mail invitations and on-line survey materials with JAWS to ensure accessibility for visually impaired students. The surveys were launched at the beginning of Fall semester and it was open from September to October. As this survey was open to all those students who have a disability irrespective of whether they are registered with DSSO or not thus I used other strategies to reach out to those students such as the following methods. Sending the survey via DSSO email list serve, campus announcement, sent the survey link to student organizations, sent to student Government Association (SGA), sent to deans of all the colleges, sent to coordinator of special Needs room in library, sent it to some individual

professors and posted flyers about the study all over the campus. Those students whom I saw on a one to one basis were also informed by me about the survey. After one week potential participant students received an email reminder from another staff member of Disabled Student Service Office. Another email reminder was sent to those who have not responded after four weeks. A final email reminder was sent three days before closing the survey. In total, out of total 400 students, 74 registered students with Disabled student service office completed the survey along with 30 non-registered students with disabilities. All the survey participants are volunteers.

The survey link included a description of the study and implied informed consent information, instructions for survey completion, and the survey instrument. A copy of the “Perceptions of students with disabilities survey” is located in Appendix C. To increase the survey response rate and due to the relatively long length of the survey (Heppner et al. 2008) an incentive for participation was offered to participants. In exchange for their participation, respondents who completed the survey were invited to enter a raffle for a chance to win one of ten \$25 gift cards to University Bookstore. Once they completed the survey students were directed to provide their email address if they want to so that the lucky winners could be informed. No other identifying information was sought from participants and no one other than the primary investigator had access to the raffle submission emails. At the completion of survey administration, five survey participants selected to participate in the raffle incentive. At the survey end, the primary investigator used the random number generator in SPSS to randomly select ten “winners” from the email raffle pool. A message was sent to the 10 students via email as they want to be a part of the raffle and information was provided about them being a



lucky winner and of redemption of the \$25 electronic gift card from University Bookstore. Following delivery of the gift card to the five winners, all email addresses were deleted.

### **3.10 Student Interviews**

The participants of these interviews were eleven undergraduate students who were volunteers and are enrolled at The University of Texas at El Paso. Most of the participants have invisible disabilities. The demographic profile of interview participants is on Table 1.

The interviews in this study involved gathering in-depth rich contextual information in the form of participant's narratives that described participants' postsecondary experience. The researcher created interview questions (Appendix D) that served as a checklist to ask all the questions and to cover all the relevant topics the researcher wanted to address with. The participants described their own self-perception of disability and what it means to them. The purpose of the research was to have interviews focus on the perceptions and experiences that were subjective to the participants and let those perceptions and experiences guide the interview.

The interview was recorded on a digital voice recorder to ensure the accuracy of the responses. Those recordings were later transcribed so that interviewees could be quoted in the research findings. The decision to record the interviews rather than to take notes during the interview was made so that the flow of conversation would not be impeded by the pauses caused from writing the interviewees' responses. All participants are assigned pseudonyms and personal identifying information is deleted from the final manuscript.

### **3.11 Survey Research**

Due to the exploratory nature of the study, and the need to obtain self-assessment information from the student with disability population, a survey design deemed appropriate to measure student's perceptions regarding their transition to college, adjustment to college, campus involvement and communication/campus climate and role of technology and other factors that may impact their college experience. The survey instrument is developed when a review of related literature revealed limited information available about these concepts for college students with disabilities, even though the importance of these concepts in general college populations and with students with disabilities has been established. Existing survey instruments do not measure in an integrated manner perceptions of students with disabilities regarding transition from high school to college, adjustment to college, campus involvement and communication/campus climate and technology and other factors among this student population which affect student access, thus the researcher created an instrument by reviewing other standardized survey instruments and borrowing some items from other instruments/adapting the items pertained to campus involvement, transition to college, adjustment to college and communication/campus climate with permission from the researchers.

The purpose of survey research is to produce measurable statistics reflecting a specific population or sample of that population (Fowler, 1993). According to Heppner, Kivligham, and Wampold, 1992, one method to obtain information from a large sample or in order to receive self-report data on opinions, attitudes, and observations is to conduct survey research. Thus in

this study one method to obtain information on how students with disabilities experience academic and social engagement was to conduct survey research. In this manner, first hand reports from numerous disabled students provided sufficient information regarding constraints with regard to transition from high school to college, adjustment to college, campus involvement and communication/campus climate and technology and other factors among this student population which affect student access.

The Perceptions of students with disabilities survey instrument was adapted in part from the following survey instruments.

- Transition to College & Campus Involvement: McEvilly, Thomas F. (1995). Disabled students: Access Issues in Higher education. University of Wisconsin-Madison.

This survey was tested for validity by both content experts and methodological experts.

- Adjustment to college/University: Miller, Lauren (2001). Involvement in Extra-curricular activities, Adjustment of college and Perceptions of campus climate among college students with disabilities. Florida State University.

The validity for this survey was obtained by doing pilot testing, panel of expert judges who reviewed the instrument, students with disabilities who already graduated from the university.

- Communications/campus climate: Wiseman, L. R, Emry , A. R, Morgan. D. (1988). Predicting Academic Success for Disabled Students in Higher Education. Research in Higher Education, Vol. 28, No. 3, (May, 1988) pp. 255-269

Factor analysis was conducted to establish instrument's construct validity.

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The NSSE instrument is validated based on data collected from focus groups, cognitive testing, and various psychometric analyses.

The survey includes six sections and consisted of Likert scale questions. In terms of determining the further validity of my own survey, I am thinking of doing either pilot testing of survey or conducting factor analysis.

### **3.12 On-line Survey**

To establish an understanding of student's perceptions regarding their transition to college, adjustment to college, campus involvement and communication/campus climate and role of technology and other factors that may impact their college experience, an on-line survey administered via Survey Monkey was sent to current students registered with the Disabled student's service office at UTEP as well as to those who have a disability but are not registered with Disabled student service office. Survey Monkey is an easy-to-use tool for the creation of online surveys that allows users to design surveys, collect responses, and analyze the responses of their created surveys. Survey Monkey does not relay identifying information of respondents so anonymity is maintained. The results of the surveys can be shared instantly with people the user chooses. These surveys from Survey Monkey can be on any subject the creator wants and there are twenty different types of questions or categories that users can use for their surveys.

To disseminate the survey to those who are registered with Disabled student service office I asked for permission to get the email addresses of students registered with DSSO. DSSO gave me a list-serve that has email addresses of all the 400 students.

The primary advantages associated with on-line surveys are that it provides access to populations with special characteristics such as individuals with these conditions like physical disabilities and diseases are often difficult to reach because they are stigmatized offline (Binik, Mah,& Kiesler, 1999). The main advantage of the ability of the Internet is to provide access to groups and individuals who would be difficult, if not impossible, to reach through other channels (Garton, Haythornthwaite, & Wellman, 1999). Thus internet provides access to researchers conducting survey research. The other advantages of the on-line survey includes that they allow questionnaires to be administrated more flexibly, inexpensively, and quickly than traditional survey methods (Best, Krueger, Hubbard, & Smith, 2001). However at the same time, the main limitation of this is that inability to compensate for four common errors are associated with web-based surveys. These specific sources of error are referred to as coverage error, sampling error, measurement error, and non-response error (Dillman & Bowker, 2001). Dillman (2000) calls them the “cornerstones for conducting a quality survey” (p. 9).

### **3.13 Validity of Survey Instrument and Study**

Validity is considered to be the most important dimension of survey research and refers to the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure (Russ-Eft, 1980). Researchers should be concerned with both *external* and *internal* validity. External validity refers to the extent to which the results of a

study are generalizable or transferable. Researchers discussed several types of internal validity. Internal validity includes Face Validity, Criterion Related Validity, Construct Validity, and Content Validity. Face validity can be described as a sense that the questionnaire looks like it measures what it was intended to measure. Were the questions phrased appropriately? Did the options for responding seem appropriate? Since this was not an experimental study using an intervention, there were no threats to internal validity. The external validity threat regarding time was limited because the survey was available to all participants for the same length of time.

Face validity and Content validity for this survey instrument is established by reviewing the relevant literature, utilizing the related literature, utilizing the researcher's experience of working with college students with disabilities, asking expert judges to review the instrument and complete an instrument rating form.

The pre-testing of this survey involved a process with three stages. In the first stage, I asked an expert review panel to review and complete the survey just like the students will do and to send me a detailed feedback regarding the survey. The expert panel included five experts from higher education and that includes three researchers who are experts the area of field of higher education & research methodology and they have extensive experience in research questionnaire design; one person is an expert in educational psychology and special education and very knowledgeable about issues and challenges related to students with disabilities, another reviewer is an expert in the area of rehabilitation counselor education research. I reviewed each expert's feedback and modified the survey accordingly. In the second stage, I then requested the coordinator who is an expert in the area of technology to review the

survey with the aim to ensure the accessibility of on-line survey for students with visual impairments. He asked one of his students to test the survey and we found one or two issues with the accessibility of survey with JAWS and Kurzweil software. They gave me excellent suggestion and with the help of that I was able to remove those issues. In the final stage three, I sent the survey to another student who has visual impairment to complete the survey and to let me know if he faced any barriers while completing the survey. This final review is intended to ensure accessibility and readability of the final instrument. The student has not faced any technical difficulties so there was no need to make any further changes.

As suggested by Creswell (2003), in order to further validate the study, in this study both the quantitative and qualitative instruments were closely linked to the research questions. I followed the sequential approach of collecting data, namely, I first analyzed the themes from the survey data and then further explored these trends in the student interviews as well as those issues that I could not ask in my survey such as the role of family support in the student's college life.

### **3.14 Reliability of the Study**

Reliability refers to the degree to which a measure provides stability of the results. The reliability of this study is constructed through the use of using multiple ways of collecting data by using the survey and student interviews for this study.

### **3.15 Survey Limitation**

All the survey and interview participants were volunteers. Thus reliance on their self-report for their perception data on their college experiences introduces the possibility of a

social desirability bias in the results (i.e., respondents claim to be more positive in their responses on survey items than they actually are). Thus it is possible that students indicated social desirability response bias by choosing responses they believe the researcher wants or that they would like to believe are true about them and thus may have compromised the validity of student's responses (Dillman, 2000).



## 4 FINDINGS

There are many factors that combine to determine any student with disability experience in postsecondary education. Experiences with other students and the campus's disability services office undoubtedly play a role, as do the student's own perceptions and ways of dealing with his or her disability (Hill 1996). Even with access to multiple academic accommodations, students with disabilities persist at the lower rates than their non-disabled peers. The research on the development and retention of students with disabilities is quite scarce. Most of what is known about the experiences of students with disabilities in postsecondary education is based on studies of particular sub-groups of students with disabilities (e.g., students with LD, ADHD, physical disability, bipolar disorder). Although college student development theories have explored identity development in diverse cultural groups, no theory has been formulated specific to the student with a disability.

Apart from that there are various studies that have been conducted on the theoretical constructs of student's campus involvement, student's adjustment to college and campus climate but they have been conducted on students in general. It is difficult to generalize the results of the studies to make inference about students with disabilities. Students with disabilities are a unique population with unique needs in itself. In light of low persistence and completion rates of students with disabilities, the rationale for conducting the current study is to explore perceptions of students with disabilities, specifically with regard to their perceptions of how these students with disability perceive their own transition from high school to college, their campus involvement and engagement in student organization and nature of campus

climate(i.e. the attitudes of non-disabled professors, peers and administrative staff towards disabled students) are measured in this exploratory study through a mixed methods study. This study explored how undergraduate's students with disabilities perceive their academic success as well as the influential factors that impacted those experiences. The specific research questions that guided this study were:

- What are the perceptions of predominantly Hispanic students with disability on how they are perceived, treated, and respected by faculty, staff, peers and/or administrators at UTEP?
- How does a student with disabilities establish academic, social, and emotional supports that create a foundation for success in the environment of higher education?
- How do college students with disabilities describe their ability to engage in the physical structure, institutional, academic and social campus environment?
- What are the obstacles that students with disabilities face while trying to succeed at UTEP?
- What factors do students identify with as the most influential in their college experience and academic success?

The research design for this study is based on utilizing mixed methods of research. I selected mixed methods paradigm because it is a "Transformative-emancipatory' paradigm that places central importance on the lives and experiences of marginalized groups such as women, ethnic and racial minorities and people with disabilities (Mertens, 2003). Here, the Perceptions of College Students with Disability Survey was implemented first in order to establish patterns in student perceptions, and after analysis of the survey data I sought to probe further anecdotal and specific data using semi-structured student interviews. The researcher has a list of questions to be covered, however not all the questions followed on exactly in the way outlined. It provided an opportunity for the interviewer and interviewee to discuss topics in detail and

also to direct the interviewee into the research topic area. Thus the researcher was able to gather more in depth or detailed data (Creswell, 2003, Patton, 2002).

The survey format included multiple choice questions, Likert scale, open-ended questions and check-list questions. In total, out of total 400 students, 104 students had completed the survey. 74 registered students with Disabled student service office completed the survey along with 30 non-registered students with disabilities. All the survey participants are volunteers.

Only the complete surveys were included for analysis. The 70 student surveys were not included as they were incomplete. Students provided either no data or left the survey after the consent form or after the demographic information. Other students left the survey within the next five section of the survey. One student indicated he was in a graduate program and so was not eligible to participate in the survey. This survey is open to those who have registered with disabled student's service office and to those who have a disability but are not registered with disability.

Along with the survey, students were provided with a separate section at the end of survey requesting volunteers to participate in the interview process. About twelve students provided their consent to participate in the interview. Finally, In terms of student interviews in this study, eleven participants shared their understandings of their experiences in undergraduate studies and the impact of institutions, faculty, and staff on their college experience. At each interview students were welcomed by the interviewer and informed consent was obtained via the consent to participate in research form approved by the UTEP

Institutional Review Board. Interview times ranged from approximately thirty minutes to an hour and were uneventful, consisting solely of the asking and answering of questions, with some students decided to elaborate more than others. Each interview was digitally recorded and transcribed by the researcher in order to maintain confidentiality. Interview data was then coded by relevancy to each research question using templates created in Microsoft word. The findings associated with the research questions are discussed in this chapter.

#### **4.1 Profile of Survey Participants**

The full survey is available in Appendix C. The survey demographic data below is presented in Table 1. Results of a descriptive analysis revealed that of the 104 participants, 41.3% were male (n = 43) and 58.7% were female (n = 61). The average age of the participant pool is in an age range between 18 and 25 (see Table 1). 36.2% of students are in the category of 18-25, 23.8% of students are in the category of 26-35, 19.0% are in the category of 36-45, and 15.2% are in the category of 46-55 and 4.8% in the category of above 56. Thirty seven percent of respondents were between ages 18 and 25. The largest numbers of participants (see Table 1) were Senior classified as (44%) with 45 participants, and 22 in their junior year (21.2%). Sophomore comprised 15.4% of participants with 16 sophomores and 7 freshmen (6.7%). Most participants were Hispanics (71.2%, n = 74). Non-Hispanics are 28.8% with 30 responses.

In terms of disability background (see Table 1), 42.2% had a Physical Disability, Learning disability is 30.8% (32), and psychological disability is 19.2% (20), hearing impairment is 13.5%, cognitive disability is 9.6% (10), visual impairment is 12.5%(13), speech impairment is 1.9%(2). The other chronic health impairment is 19.2%. The other invisible conditions include 15 more

responses. In terms of registering with Disabled student service office (see Table 1), about 71.2% that is (74) students are registered with DSSO and about 28.8% (30) are not registered with DSSO. In terms of college credits, (63.5%) that is (66) participants had more than 60 credits. In terms of current GPA, 33.7% (35) have a GPA in the range of 2.5-3.00, 32.7% (34) have GPA in the range of 3.00-3.5%, and 4.8% have GPA in the range of below 2.0. In terms of transfer students, 33.3% (35) said that they did not transfer from any other educational institution, 52.9% (55) said they are transfers from El Paso community college (EPCC), 13.3% (14) transfer are from other 4-year universities and 3.8% from other community colleges.

In terms of college enrollment (see Table 1), 30.8% (32) are from the college of Liberal Arts, 24.0% are from the College of Education, 13.5% (14) from the College of Health sciences and 13.5% (14) from the College of Science also. The other 5.8% are from the School of Nursing. The majority of students are in academic programs that are helping professionals such as education, social work, criminal justice, music, nursing and related disciplines. 21% of students are majored in STEM related programs.

In terms of accommodations from DSSO (see Table 1), the most common accommodation requested by students includes "Extended time on tests" (69.5%), the second most preferred accommodation used by students is "Note taker services" (59.8%). The third most common accommodation used by student is called "Quiet location for exams" (45.1%). Next is "Extended time on assignments (24.4%), assistive technology (22.0%), Reader/scribe for exams (11.0%) and books on CD (11.0%), alternative format of assignments is (7.3%). With regard to responses in open-ended question on other accommodations that could enhance

student learning includes, “getting some stuff in large print, longer time allowed for assignments, a quiet place to study close to office before a test, help on medical equipment or even information on where to find help. Nearly half of the students are first in their family to go to college (42.3%). In terms of financial aid (see Table 1), 43.3% receiving financial aid, 13.5% receive scholarships from UTEP, private foundations and national organizations for specific disability. Forty percent have other sources of financial support such as federal loans, grant and personal and family funds). Twenty five percent reported not having any source of financial support.

In terms of transportation (see Table 1), 25.7% drives to campus and use a disabled parking placard. Another 24.8% depend on parents/relatives, friends to drive to and from campus, 12.4% use Sun Metro Para-transit shuttle the Lift, 1% use Shuttle service from LULAC Project Amistad (LPA).

Table 1

*Demographic profile of survey participants*

Characteristics of Participants	Variables	Percentage	Response count
Student Classification	Freshman	6.70%	7
	Sophomore	15.20%	16
	Junior	21.00%	22
	Senior	43.80%	46
	Unclassified	13.30%	14
Gender	Male	41.30%	43
	Female	58%	62
Age	14-17	1.00%	1
	18-25	36.50%	38
	26-35	24.00%	25
	36-45	19.20%	20
	46-55	14.40%	15
	55+	4.80%	5
Ethnicity	Hispanic	71.20%	74
	Non-Hispanic	28.80%	30
Student status	Full Time	76.00%	79
	Part-Time	24.00%	25
First Generation Learner	Yes	42.30%	44
	No	57.70%	60
Registered with DSSO	Yes	71.20%	74

	No	28.80%	30
	College of Liberal Arts	30.80%	32
	College of Education	24.00%	25
College	College of Health Sciences	13.50%	14
	College of Science	13.50%	14
	School of Nursing	5.80%	6
	College of Business	5.60%	6
	Hearing impairment	13.50%	14
	Visual Impairment	12.50%	13
Primary Disability	Speech Impairment	1.90%	2
	Chronic health impairments	19.20%	20
	Extended time on Tests	69.50%	57
	Note taker services	59.80%	49
Main accommodations	Quiet location for exams	45.10%	37
	Assistive technology	22.00%	18
	Other	51.00%	53
	Drive to campus/using disabled parking placard	25.00%	26
	Riding Sun Metro Shuttle	12.50%	13
Forms of Transportation	Parents/Relatives/Friends Drive me to and from campus	24.00%	25
	No	25.00%	26



Scholarship/Financial award	Financial aid (BOGG, PELL, SEOG, CALB. Yes, Financial support through Department of Assistive and Rehabilitative Services (DARS)	43.3%	45
	Scholarships offered through UTEP, private foundations and national organizations for specific disabilities and businesses and local agencies	13.50%	14
	Other sources of financial support (i.e., federal loans, grant, personal; parent/family funds).	40.40%	42

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## **4.2 Profile of Interview Participants**

The interview demographic data below is presented in Table 2. Eleven students with disabilities self-selected to participate in the interview from among the whole university population were interviewed. As shown in Table 2, out of total of eleven students, seven were males and four were females, were interviewed in the course of this investigation. There were three non-Hispanic students and eight Hispanic students. Nine out of eleven were registered with the Disabled student's service office (see Table 2). The students ranged in age from 22 to 58. There were five students in the age range of 22-25, two students in the age range of 26-27, two students in the age range of 34-38 and two students in the age range of 51-58. All students lived at home with family. To protect their confidentiality, pseudonyms were given to all of the participants and any individual they referenced during the course of the interviews. The researcher created interview questions (Appendix D) that served as a checklist to ask all the questions and to cover all the relevant topics the researcher wanted to address with. I wished the scope of my study was larger where I have opportunity to do more than one interviews with the participants, because it would have been interesting to broach additional topics with the participants. They seemed to have fascinating insights. Some participants were eager to talk more than others.

Table 2

*Demographic Profile of Interview Participants*

Name of student	Age/Gender and Classification	Ethnicity/Living status	Disability/Registered with DSSO	College
Gabriel	38/M/Fr	Hispanic/ Living with wife and kids	PTSD/Not registered with DSSO	College of Liberal Arts/Graphic arts
Joshua	27/M/Sr	Hispanic/Living with mother and siblings	Ocular Albinism/Registered with DSSO	College of health sciences/Social work
Rebecca	24/F/ Sr	Hispanic/Living with aunt and cousin	Learning disability/ Registered with DSSO	College of Heath sciences/Social work
Patricia	51/F/Jr	Hispanic/Living with husband, have kids	Autoimmune disease, arthritis, asthma, lung problem, osteoporosis/Registered with DSSO	College of science
Sammy	25/M/ Jr	Hispanic/Living with wife and kid	Hard of hearing/Registered with DSSO	College of Liberal arts/Psychology
Vivian	22/M/ Sr	Hispanic/Living with parents	Cerebral palsy/ Registered with DSSO	College of liberal arts/Criminal justice
Alejandro	23/M/ Sr	Hispanic/Living with parents	Cerebral palsy / Registered with DSSO	College of Business/Management
Brian	25/M/ Sr	Non-Hispanic	Dyslexia/ Registered with DSSO	College of liberal arts/English
Robert	34/M/ Sr	Non-Hispanic	ADD/ Not Registered with DSSO	College of liberal arts/Music
Liliana	26/F/Sr	Hispanic	Lupus/Registered with DSSO	College of liberal arts/Sociology
Rosie	58/F/Sr	Non-Hispanic	Arthritis. Shortness of breath, pain in the joints/Registered with DSSO	College of Education/Teacher education

*Note:* M - Male, F - Female, Jr - Junior, Sr - Senior, Fr – Freshman, Sr - Sophomore

### **4.3 Research Question One**

*What are the perceptions of students with disability on how they are perceived, treated, and respected by faculty, staff, peers and/or administrators at UTEP?*

The following survey questions in “Perceptions of College Students with Disabilities Survey” addresses this research question in the Communications/Campus climate section of the survey that has 17 survey questions and provides a 5 point Likert system response that includes the following choices strongly disagree, disagree, I am unsure, agree, strongly agree. Examples of items on this section include “I feel that UTEP's faculty accepts me”, “Professors are aware of the special needs of disabled students in their classes”, “Professors have conveyed confidence in my ability to do well”, “I find myself lonely and lost on this campus”, “I do not have much communication with nondisabled students”, “Nondisabled students are genuinely friendly toward disabled students”. The other survey questions include “Relationships with faculty members, Relationships with other students, Relationships with administrative personnel and offices”.

#### **4.3.1 Perception of Faculty**

The survey participant’s perceptions of faculty data that are discussed below are presented in Table 3. In response to the question on faculty acceptance out of 104 responses (see Table 3), the vast majority of them feel accepted (75% agree/strongly agree) in comparison to a small number who do not (9.6% Disagree/Strongly disagree). This shows that the most of the students had positive experiences with professors. The other survey question is “Professors are aware of the special needs of disabled students in their classes” show strong argument

(64.4% agree/strongly agree) in comparison to those who don't (16.3% Disagree/Strongly disagree). In another question related to faculty attitudes, "Professors have conveyed confidence in my ability to do well", the vast majority of them agree (72.1% agree/strongly agree) in comparison to those who disagree (8.7% Disagree/Strongly disagree).

Table 3

*Perception of Faculty*

Survey item	Percentage Agree/Strongly disagree	Percentage Disagree/Strongly disagree
I feel that UTEP's faculty accepts me.	75%	9.60%
Professors are aware of the special needs of disabled students in their classes.	64.40%	16.30%
Professors have conveyed confidence in my ability to do well	72.10%	8.70%
Relationships with faculty members	48.1% found them to be helpful 31.7% find them to be available to them	

### 4.3.2 Student Faculty Interaction

Issues related to interactions with professors are the most referred group of barriers that impacts students' college experience. Overall, students reported positive relationships with faculty. However students described that they had mixed kind of experiences with their professors. For example one of the student participants in her interview described her positive interaction with one professor as well as one negative interaction with another professor.

According to Sammy, who has issues with hearing described his experience with faculty members and also some challenges associated with it as following.

*I did not have any negative experience with Professor; if I miss anything then I let them know. It is necessary to make sure that I can see my professor as I need to read lips. I depend on them for communication. Having conference with one to one professor is hard. Some professors are better than others as they repeat questions that some another student in the back of the class has asked. Sometimes I did not get the answer. Sometimes I am confident, let it slide. Another thing is a physical factor. A professor with a moustache is a problem that depends on accent, difference in linguistic background. Apart from that background noise and basement of liberal arts I need to take out my hearing aids as it amplifies background noise. I do not take notes as I use my memory as I need to focus on content.*

According to Rosie,

*Dr. Acosta is wonderful and I had him the most and he has been really great. They are very understanding and treat me normally. Whereas, one in particular teacher did not, he was very rude. I have contacted my instructor, Dr. Silva. He put us in groups, and this one particular group didn't work with me at all, and that stemmed the problem to something larger. The professor has been and continues to be ignorant about my feelings. I had tried to talk to him about the situation many times and had questions and he never answered them. I realize in my last e-mail to my team I spoke the truth of how I felt. It was harsh and I wish it didn't have to be. I am generally a team player and work well with other people. They have totally ignored me and didn't consider my feelings at all. I didn't like what he had to say, I tried the nth degree to resolve this situation.*

Brian described the need of professors understanding and training on disability conditions.

*I always felt uncomfortable about disclosing my disability. I feel lot of professor do not know what dyslexia is and so they have lack of knowledge about it. Their reaction was kind of surprise, confused about letter switching off as I am in English literature department. Even though I am doing well with it and excel in the field also.*

Another participant shared in his open response to the survey

*Professors need to understand and be well-versed in ADA laws. Professors need more seminars on how to deal and understand disabled students of all types of disabilities, visible and invisible.*

In an open survey response, one participant shared his dissatisfaction

*I have found that many instructors really don't like to have disabled students in their classrooms. They are unsure as to how to treat us or they just think of us as a nuisance.*

Another student participant also shared his suggestions.

*Some instructors need to be more sensitive to the student having a disability and have an understanding that these students are also part of the student body and although needing special needs for their studies are people with feelings and can do an exceptional job to accomplish their education or work.*

#### **4.3.3 Professor with Disability as a Role Model**

Brian mentioned that

*In his department, one professor also has dyslexia. I also get inspired by her. She just tells randomly people about her dyslexia. It was amazing. I really like the way she tries to get over her disability. I try to do the same. However it does become difficult. She is my role model.*

#### **4.3.4 Positive Experiences with Professor**

Another student who has loss of vision has mentioned

*How professors in his social work department have gone above and beyond to help him with the reading material. The participant described one of his experience with how Professor Faith. She was passing out hand out in class and when she came to me she passed me a enlarged print handout without having to ask her. This is something I had never experienced before. The other professor in Social work department come and ask me would it be easier for you if we enlarge the notes for you but I know that this is something difficult for them so I replied them that if you have time to do then please do so. All my professor in social work and when I was in Music department were very helpful to me as they have gone out of their way to accommodate my needs even without asking or requesting from them. This is something I never have expected or requested from them. Even in classroom setting if I cannot understand anything due to my vision then I request them if they can repeat this again. I never had any issues with my professors.*

Rebecca mentioned that her experience with her professors varies based on their previous experience with student with a disability.

*My interaction with professor depends on if they have dealt with a student with disability. I have two or three professor who has never gone through work with student with disability and that is a challenge for them.*

Another participant named Alejandro mentioned that

*My professors are very accommodating and treat me the same like other students. Some professor already had an experience with students with disabilities then they had no problem. Once one professor asked me what is scribe and what they do. He was under the impression that they help me with the exams but I explained them that the scribe only writes what I tell them. But once I explain this to the professor then he had no issues.*

According to Alejandro,

*I am very satisfied with my professor. They are fair as they follow policy. They are willing to accommodate to my needs.*

#### **4.3.5 Formal vs. Informal Student Faculty Interaction**

Two of the student participants described the nature of interaction they had with their professors.



*You know I email them (Professor) when I need something, but it's not that much. Like I said, I basically stay to myself. I give them my accommodation letter and that's about it.*

The other interview participant Gabriel who is a veteran mentioned that

*My first class, my university class, I speak to my professor on a professional basis, and only when needed. I've already had a pre-midterm appointment with him, and it was five minutes. "How are you doing?" "I'm doing well." "What do you think of your classes?" "I like them." "Ok, thank you very much, has a nice day." Just like that. I have one, one person in my work group, which is me and her and we chat sometimes. My second class is a math class, I don't talk to anybody in there. I ask the professor professionally, and he talks to me professionally, and we're done. And, my art class, my drawing class, I like my drawing class. I talk to a few people, lately more people have been talking to me, I guess because they see what I'm drawing. Just yesterday somebody was talking, "hey you did a really nice drawing, and you did a nice job with your drawing" I said, "aw thank you very much, I appreciate that." We talked for a little bit. That professor, I talk to him...on a level below professional. You know, just "hey, how are you?"*

This reflects that most of the interactions that students have with professors are mostly formal and professional that are need based (access formal accommodations such as extra time on exams) and very brief also. Even though the participant did suggested need for more communication with faculty members however there is no initiative taken by the student to have informal meeting that could provide supplementary support to students. The professors can provide direct help and services to students with disabilities. Previous research has shown that professors are willing to provide advice about future plans or personal goals (Murray et.al, 2008).

#### **4.3.6 Perception of Peers**

The survey participant's perception of peer's data that are discussed below is presented in Table 4. In general, participants reported positive interactions with other students at the

university. In the survey, in response to the question on relationship with peers “I find myself lonely and lost on this campus”, a majority disagreed 58.6% Disagree/Strongly disagree in comparison to 22.1% agree/strongly agree (see Table 4). In response to the question on “I do not have much communication with nondisabled students” a large majority disagreed 69.3% Disagree/Strongly disagree in comparison to 17.3% agree/strongly agree. In response to the question on “Nondisabled students want to get to know disabled students” students were unsure 43.8% said “I am Unsure”, 26.7% Disagree/Strongly disagree in comparison to 29.5% agree/strongly agree. In response to the question “I lack confidence in dealing with faculty and students”, students disagreed 60.0% Disagree/Strongly disagree in comparison to 27.7% agree/strongly agree (see Table 4). A large majority of respondents agreed with the “I communicate well with nondisabled students and faculty” 6.7% Disagree/Strongly disagree in comparison to 79.1% agree/strongly agree. In terms of survey question on “Relationships with other students”, 46.7% find them to be friendly, 18.1% find them to be supportive and 18.1% find them to have a sense of belonging. The results also show 15.2% to feel a “Sense of alienation” (see Table 4).

Table 4

*Perception of peers*

Survey item	Percentage Agree/Strongly disagree	Percentage Disagree/Strongly disagree
I do not have much communication with nondisabled students.	17.30%	69.30%
Nondisabled students are genuinely friendly toward disabled students.	51.90%	23.10%
Disabled students do their best to establish friendly relationships with nondisabled persons.	68.30%	11.60%
I communicate well with nondisabled students and faculty.	6.70%	79.10%
Relationships with other students	46.2% found them to be friendly 18.3% found them to be supportive 18.3% felt sense of belonging	

#### **4.3.7 Student/Peer Interaction**

In the interview section, the participant described their interaction. Joshua who has loss of vision mentioned that:

*He has very understanding friends and they of course know about my disability as when we go out then I don't mind asking them can you read menu. When it comes to offer me a ride they are always willing to offer me that.*

*On the other hand Rosie mentioned that*

*I don't have friends. I don't have anybody. I mean, I like to feel not so lonely, but I just don't know how to get there. But it's not all the peers fault, it's my fault, too, you know. Because I think, like, a lot of them are very nice and helpful, but, I just tend to shut everything out.*

*According to Vivian,*

*I have good number of friends at UTEP. They are very respectful of me. They create access for me. For example if there is a door that is too heavy for me then they open it for me. In the classroom if I needed a desk then they find it for me.*

In an open ended question on survey, one participant stated that

*Students are insensitive to people with disabilities.*

#### **4.3.8 Friends Support**

In the interview, participants also described the nature of support from their friends.

One participant mentioned that

*My friends provide me emotional support, they are new friends, do not see a whole lot, majority of time study together, come for classes and go back home. I pretty much spend time in studying and relaxing and watching TV.*

Sammy mentioned that

*I do not have friends on campus. I socialize out of school and not with groups. My friends who are out of school are in 40's and I am 25 years of age. It is hard for me to get along with younger people as they don't understand me and my disability. It is easier to tell older person about my hearing issues and adjustment that needs to be made.*

One another participant who uses a wheelchair named Alejandro suggested that

*My peers are very friendly since I got here. I require accessible table and by now they already know that I use adjustable tables. So they help me with adjustable tables. They also help me with putting my backpack to my wheelchair. They are very assistive. They help me with whatever they can. If I need help then I do not mind asking for help. I advocate if I needed to. I am 23 year old and my friends are of the same age. I do not go out with my peers at school as I do not know them to the point that we can go together. I see them in school and there are few of them that I talk outside as they helped me earlier more than what they possibly should do to help me out such as one Note taker she took my notes more than she has to.*

According to Vivian,

*I interact with my friends very well on campus. We talk about studies in class, do homework together, we also go out to have food, entertain also.*

According to Gabriel,

*Usually the people, or the friends the acquaintances that I meet that are the most supportive are Vet's. But they're only acquaintances.... I think he's a sophomore, and he has other classes so we run into each other sometimes. I talk to him. My social worker from the VA, my counselor, he's a Vet. So I go to talk to him maybe once a month. There are a couple of other Vet's, acquaintances that I've met on campus, and we chat. You know, we chit chat, and that's it. And that's enough support.*

*I did with one guy when I first got here to UTEP, but it was awkward because I text 'how are you today?' 'yeah' 'cool.' 'I'm good', and that's it, because that's all we have in common, is being in the Army together. You know me, I don't like football. I don't like sports. Especially with all those people, it makes me very shaky. I don't like sports. I don't like, football, basketball, baseball, none of that. I don't like cars. I don't care about cars. I don't know the names of any models. I don't like video games. I don't like any of that stuff. All of them do. Most or all of them do. And so, I like art, and theatre and music, and dance. So, most folks don't like that, even the girls nowadays.*

#### **4.3.9 Church Family as Biggest Support**

According to Patricia,

*My church family encourages me that I am smart. My family has jeopardized my self-esteem when I was younger as I was not straight “A” student as I used to stutter and after being to speech class I felt better. My church family sees repairing computer is a big deal. They think I am big. So that helps me in improving my self-image.*

#### **4.3.10 Perception of Administrative Staff**

The survey participant’s perception of administrative staff data that are discussed below is presented in Table 5. Table 5 shows in response to the question on “Relationships with administrative personnel and offices”, the response shows that 37.1% found them to be helpful, 21.9% found them to be flexible and 19.0% found them to be rigid. The other relevant question in survey was “Administration is sensitive to the needs of disabled students”. The results shows that (16.2% of students Disagree/Strongly disagree) in comparison to (53.3% agree/strongly agree).

#### **4.3.11 Perception of DSSO Staff**

According to Rebecca,

*My experience with the DSSO here at UTEP is wonderful. The staff does a very good job of making me feel very welcome, and also independent.*

*Another survey participant mentioned that,*

*I think that one of the best experiences have been on UTEP where the professors and staff have been not only understanding but very accommodating to my specific disability.*

Table 5

*Perception of Administrative Staff*

Survey item	Percentage Agree/Strongly agree	Percentage Disagree/Strongly disagree
Administration is sensitive to the needs of disabled students	52.9%	16.3%
Relationships with administrative personnel and offices	36.5% found them to be helpful and 15.4% to be considerate.	

#### 4.4 Research Question Two

*How does a student with disabilities establish academic, social, and emotional supports that create a foundation for success in the environment of higher education?*

The survey addresses this in surveys section that includes Adjustment to college/University, Campus Involvement, Communications/campus climate and Technology sections and provides a 5 point Likert system that includes the following choices strongly disagree, disagree, I am unsure, agree, strongly agree. Examples of items on this section include “I have developed meaningful interpersonal relationships in college”, “I possess the social skills necessary to relate well to others in college”, “I have found the correct balance between my social and academic life”

##### 4.4.1 Social Support

The survey participant’s perception of social support data that are discussed below is presented in Table 6. In terms of social support, the survey has questions “I have developed

meaningful interpersonal relationships in college” 61.6% agree/strongly agree in comparison to 23.1% Disagree/Strongly disagree. In response to the question on “I have found the correct balance between my social and academic life” 65.3% agree/strongly agree in comparison to 15.4% Disagree/Strongly disagree (see Table 6). The other social support questions includes, “Nondisabled students are genuinely friendly toward disabled students” 51.9% agree/strongly agree in comparison to 23.1% Disagree/Strongly disagree. The other social support question includes “Disabled students do their best to establish friendly relationships with nondisabled persons” and 68.3% agree/strongly agree in comparison to 11.6% Disagree/Strongly disagree (see Table 6). Similarly there is a survey question that assesses campus climate for students with disabilities “I Feel welcomed by other participants in activities’. The results shows that 49% agree/strongly agree in comparison to 26% Disagree/Strongly disagree.

Table 6

*Social Support*

Survey Item	Percentage Agree/Strongly Agree	Percentage disagree/ Strongly disagree
I have developed meaningful interpersonal relationships in college	61.6%	23.1%
I have found the correct balance between my social and academic life	65.3%	15.4%
Nondisabled students are genuinely friendly toward disabled students	51.9%	23.1%
Disabled students do their best to establish friendly	68.3%	11.6%



relationships with  
nondisabled persons

I Feel welcomed by other  
participants in activities

49%

26%

#### 4.4.2 Academic Support

The survey participant's perception of academic support data that are discussed below is presented in Table 7. In terms of academic support, survey addressed the role of Disabled student's service office or DSSO support in "Transition" section of the survey. The first question is "I am satisfied with the involvement DSSO had in providing disability-related services". The results shows that 77.9% agree/strongly agree in comparison to 7.7% Disagree/Strongly disagree (see Table 7). The other question was "I am satisfied with the amount of time it took to receive DSSO services". The results shows that 76.9% agree/strongly agree in comparison to 8.7% Disagree/Strongly disagree. Related question is "I am satisfied that my DSSO intake counselor identified services that accommodate my disability related needs". The results shows that 77% agree/strongly agree in comparison to 9.7% Disagree/Strongly disagree (see Table 7).

Table 7

##### *Academic Support*

Survey Item	Percentage Agree/Strongly Agree	Percentage disagree/ Strongly disagree
I am satisfied with the involvement DSSO had in providing disability-related	77.9%	7.7%

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services		
I am satisfied with the amount of time it took to receive DSSO services	76.9%	8.7%
I am satisfied that my DSSO intake counselor identified services that accommodate my disability related needs	77%	9.7%

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#### 4.4.3 Disabled Students Service Office (DSSO) Support

The survey participant's perception of academic support data that are discussed below is presented in Table 8. The other survey question also shows the involvement of DSSO in providing information on out-of class opportunities for campus involvement. The survey question was "I am satisfied with the information I obtained from my intake advisor regarding other campus and community organizations that provide disability-related services not offered by DSSO". The results shows that 60.6% agree/strongly agree in comparison to 14.4% Disagree/Strongly disagree (see Table 8). These findings show that DSSO is an important component in enhancing their academic success.

Table 8

#### *Disabled Students Service Office Support*

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Survey Item	Percentage Agree/Strongly Agree	Percentage disagree/ Strongly disagree
I am satisfied with the	60.6%	14.4%

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information I obtained from  
my intake advisor regarding  
other campus and community  
organizations that provide  
disability-related services not  
offered by DSSO

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#### **4.4.4 Role of Family support/Hispanic Culture**

The survey does not explore the role of family in student's academic success. But the research has shown that family provides a natural support to students with disabilities.

Research has suggested that in the Hispanic culture the most significant value of Mexicans (and most Latino cultures) is the value of familismo - family unity, welfare and honor. Family feels they are responsible in taking care of other family members. Mexicans have a deep sense of familialism and family loyalty, are reliant on extended family and social support networks and emphasize interpersonal relatedness and mutual respect (Forehand and Kotchisk, 1996). Family comes first.

In his interview, Joshua described the role of his family while he was looking for colleges

*I did have acceptance from different colleges that were out of town as I do not want to go in-town school like my peers. But I have 5 year old sister with Down syndrome and grandma who is 70 years old and my work was single working parent thus I realized how I can leave my family alone that includes my sister, my grand mom. I decided to turn down other colleges and stay here with my family. My family has a huge role in my decision to stay here.*

In his interview, Robert stated that

*My biggest support at first was my mother as she used to drive me to school and pick me back to home. After some time my friends has started helping me with ride back and forth to home like providing ride for rehearsal and performance.*

This student also spoke about the support from her proud single Hispanic working mother, which was meaningful for many reasons.

*According to Robert, This support was invaluable because my father died when I was just two years of age and my mother had high school education, but she desired the best for me that is her son. My family is very proud of the fact that I am doing my bachelor's, as I am first in my family to go to college so I am first generation.*

Another interview participant names Alejandro mentioned that

*My parents are from Mexico and they are Mexican American. They are family oriented. They provide family support for my education. They support me with transportation. Sometimes when I feel unmotivated, they give me motivation to keep going, also with providing better life, very supportive with whatever I need.*

According to Alejandro,

*My parents are my biggest support. I just do the mental aspect of coming to school and take exams. They have to do other part for me like getting me ready for school and bringing me to school as that decides how my day goes. My parents help me with transportation. They have a lift in their vehicle. They bring me to campus Monday through Thursday. That is every day. They pick me up also. Since I got financial aid, food and clothing is provided by my family also. I live with my parents. My parents also show me what is good and bad especially due to my age as I am young. Like they suggest if you do drug then it will be even further harmful.*

*As I am the only one in my family with disability, sometimes they help me too much like they overprotect me. My brother is of same age too and he suggests me that my parents are not going to be here forever so he suggests me to start becoming independent. My parents also want the same thing but they do not want me to struggle. My brother is very assertive. My brother shows me the ways as to how I can become independent. It is harder for my parents to let go. They want to take care of me.*

According to Vivian,

*I live with my parents and they help me with mobility issues. My parents like they help me with carrying stuff or carrying pathways that is not accessible. They also provide me with emotional support. They raised me in a way to become independent as possible and with love, care and respect.*

According to Patricia, who is from African American family/Culture mentioned that

*Due to my stuttering condition, my family has never expected me to go to college? My mother never took academic interest in me. I was not raised, I just grew up.*

According to Robert,

*My biggest support is my girlfriend. She is a saint. She helps me a lot as she has accounting degree and home business. My biggest problem is where I put my stuff from school.*

Another interview participant mentioned that in terms of financial support, state of the Texas has paid for his tuition under the Texas Department of Assistive and Rehabilitative Services (DARS). Students who are a Texas state resident and who are legally blind, or legally deaf attending a public university in the State of Texas, they may be eligible for a tuition waiver. If they qualify, their tuition waiver can be used at any Texas state institution.

In terms of emotional support,

*My wife has supported me. My brother who is also hard of hearing is also studying at UTEP and it helps as we discuss about school and what I am learning in school. My youngest sister is already a college graduate and that motivates me.*

Another student mentioned that

*I am Hispanic and I am born and brought up in El Paso. Thus I feel more comfortable here, if I went to other place for college then I feel out of place. Here you know a lot of people so feel comfortable. I have family and some friends support. My family is my backbone. If I am having a difficult time they support me especially as much as they could financially, they also support me with my homework, with whatever I want to do. I live with my aunt, uncle and cousin that is about 20-30 minutes away. My aunt drives me every day. My family sees me as baby, they feel the need to take care of me, and they baby me. But I do not want to be babied. I want to be independent. I did tell them that this is what DSSO wants you to be independent. I explain to them that this is my responsibility. Then my family asks me did you go pick-up your books. They are accepting now, more or less as I have to be independent. I am older also.*

According to Gabriel,

*Family's very important. If you don't have the support of your family then you're basically on your own, and if you can't do it on your own, then you can't do it. It's been my experience interviewing different people that, I think that just ethnic cultures are pretty much all the same, where family is the core, yes?. They are my biggest support. They help me with a lot of the things. They always keep an eye out for me. They make sure that I eat. On top of the leg disorder, on top of the back disorder, on top of PTSD, I have diabetes, too, and in April I had an issue where I had a diabetic seizure. In the middle of Wal-Mart and so now they make sure that I*

*eat, and they make sure that I, you know. They help me with my homework if I need help. Things like that.*

#### **4.5 Research Question Three**

*How do college students with disabilities describe their ability to engage in the physical structure, institutional, academic and social campus environment?*

Campus physical engagement included those activities that rely on structural or architectural accessibility on campus, e.g., parking, classroom locations and accessible buildings on campus. In terms of engaging in physical structure of the campus, the survey addresses this in question section three of survey called “Transition to college”. Example of items on this section includes “I am satisfied with the physical accessibility of the campus”.

Campus social engagement included behaviors directed towards activities with friends and other classmates, participation in co-curricular activities. Closely aligned with academic engagement is the student’s feeling of acceptance and ability to work with the faculty and peers. In terms of engaging in academic and social campus environment includes are in the campus adjustment section includes “I have difficulty approaching new people and making new friends, I have developed meaningful interpersonal relationships in college, I possess the social skills necessary to relate well to others in college and I often feel lonely and isolated from my peers.

In terms of engaging in campus activities, in the campus involvement section of survey the following are examples. “Preparing for class (studying, reading, writing, doing homework or

lab work, analyzing data, rehearsing, and other academic activities). The results show that 23.1% spend about 11-15 hours a week on preparing for class. The other survey question is participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.). The results shows that 78.8% spend about 1-5 hours a week in co-curricular activities and the other 10.6% spend about 6-10 hours a week in participating in co-curricular activities. The researcher has also crosstab the responses of this question with the age as a variable factor. The results shows that in the age group of 18-25, 63.2% (24) spend about 1-5 hours in a week, 84%(21) are in the age group of 26-35, 95.0% (19) are in the age group of 36-45 age, the other 87.5% (19) are in the age group of 46-55 age and 5%(5) are in the age group of 46-55 age.

In terms of relaxing and socializing, the results shows that 51.0% spend about 1-5 hours a week on relaxing, the other 25% spend about 6-10 hours a week on it and the other 12.5% about 11-15 hours. In terms of providing a care for dependents, 42.3% spend 1-5 hours a week on providing care for dependents, another 18.3% spend about 6-10 hours a week, and 11.5% spend about 11-15 hours a week. The other survey questions are "Providing care for dependents living with me (parents, siblings/children, spouse, etc.) and "Commuting to class (driving, walking, etc.). The results shows that in a 7 day week about 56.7% spend 1-5 hours commuting to class, about 25.0% (26) spend about 6-10 hours, and 9.6% (10) spend 11-15 hours. As shown in Table 9, in terms of the statement, I am satisfied with my involvement in campus co-curricular activities, about 31.7% (33) agreed with it.

As shown in Table 9, in terms of discover what activities are accessible 47% agreed to it, in terms of feeling welcomed by sponsors of activities about 29.8% (31) agreed with it. About 36% were able to find support for making interesting non-accessible activities accessible. In response to the question on feel welcomed by other participants in activities about 50% agreed to it. About 53% responded that they feel welcomed by sponsors of activities.

Table 9

*Campus Involvement table*

Survey Item	Percentage agree/strongly agree	Percentage disagree/strongly disagree	Response count
I am satisfied with my involvement in campus co-curricular activities			
I am satisfied with my ability to:			
Discover what activities are accessible	47.1%	26.0%	105
Find support for making interesting non-accessible activities accessible	35.5%	27.9%	105
Find enough students interested in participating in currently accessible activities	32.7%	28.8%	105
Feel welcomed by other participants in	49.0%	26.0%	105



activities

Feel welcomed by sponsors of activities	52.9%	23.1%	105
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Table 10

*Communications/campus climate*

Survey Item	Percentage Agree/Strongly agree	Percentage Disagree/Strongly disagree	Response Count
My disability prevents me from having more contact with my professors	70.4%	18.1%	105
I feel that UTEP's faculty accepts me.	75%	9.6%	105
Professors are aware of the special needs of disabled students in their classes.	64.4%	16.3%	105
Professors have conveyed confidence in my ability to do well	72.1%	8.7%	105
Administration is sensitive to the needs of disabled students.	52.9%	16.3%	105
Nondisabled students want to get to know disabled students	29.5%	26.7%	105

I find myself lonely and lost on this campus	21.9%	59.0%	105
I do not have much communication with nondisabled students.	17.3%	69.3%	105
Nondisabled students are genuinely friendly toward disabled students.	51.9%	23.1%	105
Disabled students do their best to establish friendly relationships with nondisabled persons	68.3%	11.6%	105
Architectural barriers prevent my access to educational resources and/or buildings	26.7%	55.2%	105
I lack confidence in dealing with faculty and students	27.7%	60.0%	105
I communicate well with nondisabled students and faculty.	79.1%	6.7%	105
I feel I am well-adjusted to college.	77.2%	8.6%	105

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#### 4.5.1 Role of Disability

Students with non-apparent disabilities fight the stigmatization of an invisible disability, namely that the disabling condition is not credible. Students perceived some faculty members didn't believe them because of their unapparent disability and that prevents interaction or academic engagement between student and the faculty members. As shown in Table 10, the following survey question addresses the role of disability in the Campus involvement section of the survey. "My disability prevents me from having more contact with my professors". In terms of results, (18.3% agree/strongly agree) in comparison to (70.2% Disagree/Strongly disagree). The other question was "I feel that UTEP's faculty accepts me". In terms of results, (75% agree/strongly agree) in comparison to (10% Disagree/Strongly disagree). This question was further explored in the interview section of the survey.

#### **4.6 Research Question Four**

*What are the obstacles that students with disabilities face while trying to succeed at UTEP?*

Barriers to education can take a variety of forms. They can be physical, technological, systemic, financial, or attitudinal, or disability -related and they can arise from an education provider's failure to make available a needed accommodation in a timely manner. Students with disabilities encounter environmental obstacles as well as prejudicial obstacles that lead to non-acceptance of them and inhibit their social engagement. These social barriers are in line with the "minority group" paradigm suggested by Jones (1996).

##### **4.6.1 Social and Emotional Barriers**

The survey participant's perception of academic support data that are discussed below is presented in Table 11. In a section on adjustment to college that addresses the social barriers faced by students with disabilities, there is a statement on "I have difficulty approaching new people and making new friends". In terms of results, 38.5% agree/strongly agree in comparison to 53.8% Disagree/Strongly disagree (see Table 11). The other statement was "I often feel lonely and isolated from my peers". The results shows that 31.7% agree/strongly agree in comparison to 50.9% Disagree/Strongly disagree. The other survey questions that address the social barriers faced by students include questions such as "I have developed meaningful interpersonal relationships in college". The results shows that 62% agree/strongly agree in comparison to 22.9% Disagree/Strongly disagree (see Table 11).

The other question was "I possess the social skills necessary to relate well to others in college". The results shows that 76.2% agree/strongly agree in comparison to 3.9% Disagree/Strongly disagree (see Table 11). These results show that some students face social barriers that may impact their college experience. In a one to one interview, Sammy stated that

*I avoid social situation such as group situation and one to one situation. People think that I lack intelligence and I am dumb specially those who does not know about my hearing loss and someone else with the same disability. Sometimes in classroom it happens to me. Group assignments are hard for me.*

Table 11

*Social and Emotional Barriers*

Survey Item	Percentage Agree/Strongly Agree	Percentage disagree/ strongly disagree
I have difficulty approaching new people and making new friends	38.5%	53.8%
I often feel lonely and isolated from my peers	31.7%	50.9%
I have developed meaningful interpersonal relationships in college	62%	22.9%
I possess the social skills necessary to relate well to others in college	76.2%	3.9%

#### 4.6.2 Attitudinal Barriers

Students with disabilities often face attitudinal barriers from students and faculty while attending postsecondary institutions.

##### **Faculty attitudes**

The attitudes of faculty, administrators, and able-bodied students are important because they have a profound effect on the social and educational integration of the student with a disability into the college community (Fichten, Amsel, Bourdon, & Creti, 1988).

The survey participant's perception of faculty attitude data that are discussed below is presented in Table 3, 10, & 12. In terms of faculty attitudes, the survey questions include "I am satisfied with the amount of faculty involvement in providing disability related services". The results shows that 69.2% agree/strongly agree in comparison to 15.3% Disagree/Strongly disagree. The other questions include "I feel that UTEP's faculty accepts me". In terms of results as shown in Table 3, 75% agree/strongly agree in comparison to 9.6% Disagree/Strongly disagree. In response to the question, "Professors are aware of the special needs of disabled students in their classes". In terms of results, 64.4% agree/strongly agree in comparison to 16.3% Disagree/Strongly disagree (see Table 3). The other related survey question was "Professors have conveyed confidence in my ability to do well". In terms of results, 72.1% agree/strongly agree in comparison to 8.7% Disagree/Strongly disagree (see Table 3).

In a section on communication /campus climate, as shown in Table 10, the survey also includes following questions that addresses the students comfort level in interacting with faculty and peers. The survey question includes "I lack confidence in dealing with faculty and students". The results shows that 27.9% agree/strongly agree in comparison to 59.7% Disagree/Strongly disagree. The other related survey question is "I communicate well with nondisabled students and faculty". The results shows that 78.9% agree/strongly agree in comparison to 6.7% Disagree/Strongly disagree (see Table 10). In terms of "Relationships with faculty members" the results shows that 48.1% felt professors to be helpful and 31.7% find professors to be available to them (see Table 12). About 11.5% found professors to be unhelpful and unsympathetic.

## **Administration attitudes**

The survey participant's perception of administration data that are discussed below is presented in Table 10 and Table 12. The following survey question addresses this question, "Administration is sensitive to the needs of disabled students". In terms of results, 52.9% agree/strongly agree in comparison to 16.3% Disagree/Strongly disagree (see Table 10). The other related survey question is "Relationships with administrative personnel and offices", in terms of results 36.5% found administrative staff to be helpful and 22.1% to be flexible, and 15.4% to be considerate (see Table 12). However, 6.7% found them to be Unhelpful and inconsiderate.

## **Peer Attitudes**

The survey participant's perception of administration data that are discussed below is presented in Table 10. The following survey question addresses these peer attitudes questions. "Nondisabled students want to get to know disabled students". The results shows that 28.8% agree/strongly agree in comparison to 26.9% Disagree/Strongly disagree. The other related questions are "I find myself lonely and lost on this campus" (see Table 10). The results shows that 22.1% agree/strongly agree in comparison to 58.6% Disagree/Strongly disagree. The next question was "I do not have much communication with nondisabled students". The results shows that 17.3% agree/strongly agree in comparison to 69.3% Disagree/Strongly disagree. As shown in Table 10, the other related question was "Nondisabled students are genuinely friendly toward disabled students". The results shows that 51.9% agree/strongly agree in comparison to 23.1% Disagree/Strongly disagree.

As shown in Table 12, in terms of question on “Relationships with other students”, the results shows that 46.2% found them to be friendly and 18.3% found them to be supportive. The other 18.3% felt sense of belonging also. About 1.9% found them to be unfriendly.

Table 12

*Relationship tables*

Relationships with other Peers/ students	
Unfriendly	1.9%
Unsupportive	0.0%
Sense of alienation	15.2%
Friendly	46.7%
Supportive	18.3%
Sense of belonging	18.3%
Relationships with faculty members	
Unhelpful	3.8%
Unsympathetic	7.7%
Available	31.7%
Helpful	48.1%
Sympathetic	8.7%
Relationships with administrative staff personnel and offices	
Unhelpful	1.9%
Inconsiderate	4.8%



Rigid	19.2%
Helpful	36.5%
Considerate	15.4%
Flexible	22.1%

#### 4.6.3 Physical Barriers

The survey participant's perception of physical barriers data that are discussed below is presented in Table 13. Research studies have shown some of the specific barriers identified by students with disabilities are the lack of ramps and/or elevators in multi-level school buildings, heavy doors, inaccessible washrooms, and/or inaccessible transportation to and from school, inaccessible buildings and grounds, and lack of other educational accommodations (West et al, 1993). As shown in Table 13, in terms of physical barriers faced by students with disabilities the survey asked question, "I am satisfied with the physical accessibility of the campus" and the results show that 59.7% agree/strongly agree in comparison to 26.9% Disagree/Strongly disagree. This is also supported by one another survey participant who discussed the need of having a walkway between two buildings, *"I'm blind, so getting walkways from the union to the education building would help me out a lot"*.

The other survey question was "Architectural barriers prevent my access to educational resources and/or buildings". The results show that 26.9% agree/strongly agree) in comparison to 54.8% Disagree/Strongly disagree (See Table 13).

In a comment section of the survey, one survey participant described the physical accessibility of the campus.

*Very limited access to ramps or areas where disabled students with Wheelchairs or walkers can access. People that cannot take stairs as myself, sometimes elevators are broken down and some buildings don't have anything but stairs. There are major improvements that are needed for people with disabilities. Some instructors need to be more sensitive to the student having a disability and have an understanding that these students are also part of the student body and although needing special needs for their studies are people with feelings and can do an exceptional job to accomplish their education or work.*

Table 13

*Physical Barriers*

Survey Item	Percentage Agree/Strongly Agree	Percentage disagree/strongly disagree
I am satisfied with the physical accessibility of the campus	59.7%	26.9%
Architectural barriers prevent my access to educational resources and/or buildings	26.9%	54.8%

#### 4.6.4 Transition

In terms of transition challenges, a significant issue that provides a barrier to successful transition is the student's self-determination. The self-determined individual knows a great deal about him or her, can self-advocate, and can muster the necessary supports to accomplish what he or she wants. The survey addresses this in Transition section of the survey. The question includes "I am satisfied with the involvement I had in acquiring disability-related services to meet my needs". The results shows that 76.9% agree/strongly agree in comparison to 8.7%

Disagree/Strongly disagree. The other question is “I am satisfied that my DSSO intake counselor identified services that accommodate my disability related needs. The results shows that 77% agree/strongly agree in comparison to 9.7% Disagree/Strongly disagree.

Another related question is “I am satisfied with the information I obtained from my intake advisor regarding other campus and community organizations that provide disability-related services not offered by DSSO”. The results show that the students are able to find the resources that they need to be successful in college. In terms of results, 60.6% agree/strongly agree in comparison to 14.4% Disagree/Strongly disagree.

#### **4.6.5 Disability Related Barriers**

In a one to one interview several students mentioned that they need to spend additional time and stress associated with disability.

According to Brian,

*I face struggle with my disability on a daily basis. Coming from writing is a challenge as I cannot spell simple words and I have problems in writing out also. It is a struggle to remember and feel lost with words. I need to ask people as to how do you spell that word? It can be frustrating. I use smart phone as dictionary.*

*I perceive myself as equally capable as anybody else. I try to be as meaningful and equal as possible.*

According to Liliana,

***my disability is like a second job for me***

*My lupus is so varied so it comes and goes sometimes I have my good days and my bad days, my bad hours and my good hours...the pain in my joints sitting there in class, is the class is cold I walk in Ok but then I walk out (----) I take the elevator because I can't go downstairs ...and*

*to sit there I'm literally in pain, I can concentrate because I'm just thinking: Ok let me go and take a pain killer or what can I do, I walk out of the class warm up a little bit ...in the summer walking to the class is the sun, cause also the sun makes me fatigue... and in the winter is the cold weather that locks at my joints..Year around different challenges. Takes over all like changing, you know the doctor's appointments I had to do the lab work week before, the prescriptions the calling the insurance, social security cause I was applying for disability for a while, and you know all the paperwork, interviews. Very time consuming you know it's just like I don't work because I'm unable right now my body is... I have a lot of fatigue the stress of school. So I want to finish school that has been my one goal. My parents have been saying ...you can stay with us and go to school finish school see what you can do because my body can't do work and school at the same time.*

*I was diagnosed with lupus so it was up to my first year of college and that's when, they said that stress related to the lupus and makes me you know have flare ups so I have to cut down in my classes I couldn't take a full load cause I was taking a full semester. And so I had to take three classes at the time and even then you know the stress in the class it's just you know coming to class every day was like stress in my body, so I had to schedule my classes certain days and certain times, that way my body won't get tired. And summer school I can't do summer 1 and Summer 2 I just I'll have a flare for sure no matter what classes they are, and that's what I've been doing, went to jersey came back and been doing three classes at a time during summer. And only have four classes left*

#### **4.6.6 Transportation barriers**

In one to one interview some participants described issues related to parking.

*They should have more disabled parking. Preferably in front would be nice. Parking close to classes and library.*

*According to another survey participant,*

*Parking is a nightmare because of the lack of Handicap spaces. I have received several tickets which were successfully appealed but a waste of my time, energy, and resources. We need more parking spaces or stop ticketing handicap vehicles.*

*According to Vivian,*

*I found disabled parking to be limited, I need to drive around to find available disabled parking spaces and sometimes I get late for my class as I could not find parking then I need to walk also.*

*A good suggestion would be for UTEP internal transportation to become more accessible/specialized in commuting students within campus buildings-specially when there are long distances to consider.*

*You know every now and then you have a class that is at a certain time and even the disabled parking is all gone, so I have to park a little bit further away. But it is still on campus, so I'm thinking at least, I don't have to walk all the way from the last you know the one by the freeway. I try to get here earlier, like if I have class at a certain time I always try to be early, that way if I can't find parking I know I have that time to walk and find something and I won't be late to class. During summer I remember I had class every single day, so it was hot so I had to come early and I remember.*

One survey participant also shared how other people abuse disabled parking placard.

*Some people (drivers) borrow their relative's handicap parking placards in order to secure inner campus parking; many times the driver has no physical limitations or challenges. Therefore, abusing the privilege to park in a handicap zone. Parking Officials must require the purchase of a UTEP placard + the handicap placard.*

#### **4.6.7 Loss of self-esteem**

According to Gabriel, a veteran student who is in first semester at UTEP discussed how he feels about himself that shows the need to build his self-esteem.

*Because when I was in the Army, I used to be a sergeant, and I had soldiers I was in charge of. I used to be a sergeant in the Army. I used to be very important. I used to, people used to look up to me, and now, I just feel like I'm broken. I feel like I'm not important anymore. Because nobody pays attention to me. Nobody has the time to say "Good morning. How do you do?" anymore, and shake my hand. And, well, that's what hurts a lot. You know. You mean to tell me you can't spare one minute out of your busy day to stop and say "Hi. Good morning. How do you do today?" "Well I hope you have a good day, I'll see you later on, ok." "Ok. Bye" Then you keep going. No that's too much to ask.*

Some of the survey participants stated the need for following:

#### **4.6.8 Quiet place to study before exams**

*I think students should have a quite area close to where they will test to study before tests. I think all doors should be automatic. I think teachers should be empathetic to students with disabilities especially because some disabilities are not visible.*

#### 4.6.9 Technological Barriers

Technology can support much of the effort toward curriculum access, participation and progress. It facilitates increases students with disabilities independence, personal productivity and empowerment. The technology related findings are presented in Table 14.

One survey participant mentioned in his open response of survey that

*More of the labs throughout campus should have accessible tech.*

Another survey participant described the need of more awareness on technology.

*I don't remember being told about the technology offered in the library (computer software that reads the book) until my last year of college.*

Another survey participant mentioned that

*Teachers should not be allowed to use any kind of audio presentations that do not have closed caption or subtitles. Also, students with hearing disabilities should have access to alternatives to group work, given that it is extremely difficult for some of us to communicate in group settings.*

Table 14

*Technology table*

Survey item	Percentage Agree/Strongly agree	Percentage disagree/Strongly disagree	Response count
Technology that helps enhance my learning opportunities is readily available to me	67.4%	10.6%	105

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Computer labs across campus have technology that accommodates my learning needs	68.3%	13.45	105
Computer labs that house technology available to me are open during hours I can access during the day	75.9%	6.7%	105
Computer labs that house technology available to me are open during hours I can access during the evening and night hours	58.6%	15.4%	105
Computer lab staff is knowledgeable about assistive technology and tools I can access	56.7%	13.4%	105
UTEP has a technology lending lab so that I can take hardware home for days I can't get to campus.	32.7%	14.4%	105

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Faculty have been			
understanding about the	58.7%	10.6%	105
technology			
accommodations that I			
require to access			
information presented in			
my classes			
Faculty have been			
instrumental in using	52.9%	16.4%	105
alternative methods in their			
instruction for me to access			
content in the course			
Workshops have been			
developed for UTEP	47.1%	17.3%	105
students to learn about new			
technology tools available			
to enhance learning			

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#### 4.6.10 Not registering with DSSO

According to Gabriel

*I do not utilize any of the disabled student services, simply because there's no need to, I don't find any shame in having a disability but I feel that I would just use it as a crutch and I don't want to use a crutch. I feel that if I consider myself disabled I'll expect help and I won't try as hard. I want to go as far as I can on my own before I ask for any help. I want to be like*



*everybody else. I want to be normal. I'm having a, part of my difficulty, part of the difficulty that I'm having is that, I don't want to feel, I don't want anybody to make any special accommodations for me. I want to be able to succeed by my own merit. And I guess that's stubborn and stubbornness stems from my training in the army.*

Here the student who is a veteran shared his concern as to why he did not register with DSSO as he does not want to ask for help and he want to be treated like other students. He wants to succeed on his own strengths and his own efforts.

#### **4.7 Research Question Five**

*What factors students identify with as the most influential in their college experience and academic success?*

This was addressed in different sections of the survey such as in demographic section students needs to answer question "List any accommodations that you have not been able to receive from DSSO that would enhance your learning experiences at UTEP? The transition section of the survey asks questions such as "I am satisfied with the information I obtained from my intake advisor regarding other campus and community organizations that provide disability related services not offered by DSSO", "I am satisfied with the involvement I had in acquiring disability related services to meet my needs".

Under the suggestions section of survey where students are asked to list any accommodations that they need but could not get. One of the survey participants discussed the need of having "Self advocacy training". According to the participant

*I often feel that it is difficult to approach a professor about my disability. It makes me uncomfortable. It would be productive to have support group meeting to help break the nerves when talking about a learning disability with others.*

One participant suggested that

*Professors need to understand and be well-versed in ADA laws. Professors need more seminars on how to deal and understand disabled students of all types of disabilities, visible and invisible.*

Another participant discussed the need to make aware the professors about his disability related needs

*I have had trouble here in that the teachers don't really take into consideration that since I have problems with hearing, if they would amplify their voices a little, that would make things a little easier*

Another survey participant discussed the need of understanding professor, closer parking spaces, and quiet study place for tests in DSSO and also need for professor training.

*I think students going full time should have understanding professors in regards to the duration it takes from one class to another and the amount one assignment takes when you have a disability. The distance of parking for disabled students should be closer. Online classes should explain they are not suited for students with certain disabilities. DSSO should be able to offer placement testing and a room to study in before a test rather than being rushed through. Professors should have more empathy towards students with disabilities.*

Another survey participant suggested the need of connecting with friends

*My only issue was my inability to connect with other nondisabled students due to my social lack of confidence. During my stance at UTEP, I fail to reach out to make friends and that affected me psychologically in my last semesters at UTEP. I became so depressed after my separation from my spouse, and because I didn't have many friends that created a big tool on my life until this day.....*

#### **4.7.1 Emergency Evacuation Procedure**

Another participant discussed the need of emergency evacuation procedure available for students with disabilities.

*I am concerned that every facility goes over its emergency evacuation procedures for disabled students.*

One another participant discussed the need of having learning disability diagnosis evaluation service available at UTEP.

*My learning disability was diagnosed in elementary and EPCC gave me the help I needed, however once I got to UTEP I needed doctors diagnose. It is very expensive I cannot afford to go to a doc. so I find myself strangling by myself.*

#### *Physical Accessibility/Universal design*

One interview participant who has invisible disability has made comments about physical barriers on campus as according to him

*In one of the campus building there is no automatic door near elevator but he needs to use them when he is carrying his music instruments. If there is automatic doors and ramps then it is easier for all of us. According to him some of the doors are difficult to open.*

These physical issues reflect the importance of Universal design.

In his interview, Vivian mentioned that

*My biggest struggle on this campus is accessibility. Not all buildings have handicap accessibility or if they have access then it is quite lengthy as you need to walk all the way in the back. Apart from that they have stairs in front of buildings. If there are few stairs then I use them otherwise I use ramps also. In the classrooms, desk size is small.*

Two of the interview participants work part time and that helps them in their college life.

#### **4.7.2 Part Time Job**

One of the interview participants mentioned that

*I have a part time job of church janitor but I work only for 7-8 hours a week. Not enough as I am always running. I do not like to do anything as I do not have time; I need to cut these activities down next semester.*

One another interview participant mentioned that

*I like this job of campus student organization student intern position as he gets chance to meet students and he likes people interaction.*

The interview analysis reveals that out of eleven students only two of them work part time. One of them works on campus as an intern and another one work part time as a janitor in

a church. Joshua who works on campus is very enthusiastic about his work. He mentioned that he likes working and meeting new people. He is a people friendly person. The other student mentioned that he works few hours as a janitor in a church and that helps him feel good. He does want to work more hours but he does not have much time. After graduating he wants to become a music teacher.

#### **4.7.3 Difficulty with Para-transit**

The interview participants also shared their frustrations with the Para-transit system that they use to commute to campus. This difficulty with the Para-transit also has an impact on their academic and social engagement. According to one of the interview participant,

*I used to use Para-transit when I first started at EPCC. But you have to go by their schedule and not by their own schedule. We do not have 9.00, we can drop you by 8.00 am, and they say that they can drop like one hour before. Sometimes you could not make it with school and everything. You need to plan everything like one or two weeks in advance. When you have emergency then you cannot rely on them. You just missed out as it should be well-planned out.*

#### **4.7.4 Personality Attributes**

The interview participants also discussed their own personality attributes that has an impact on their academic and social engagement. According to one of the interview participant,

*I was not social*

#### **4.7.5 Friends**

The interview participants also mentioned they have only acquaintances and not close friends due to difference between them and their classmates.

*I have acquaintances and not friends like I know some people from Music class, I know one graduate student. I guess the reason is that I am older than they are.*

#### **4.7.6 Student Engagement**

The interview participants also mentioned about their expectations and priorities while they are in college. This also has an impact on their academic and social engagement.

*According to Robert,*

*I was always being outcast as I just want to get my diploma and that is why I am just here.*

Another participant mentioned that

*It takes me a long time for me to do assignments throughout my courses however extracurricular activities is not much of my focus.*

*According to Patricia,*

*I am a member of NACS that is a National Society for Collegiate Scholars; I was vice president of Sigma Alpha Lambda, and UTEP honor society also.*

*According to Vivian,*

*Randomly I do participate in activities such as guest speakers on campus like Millennium lectures, job fairs and social events on campus. Sometimes I do want to go to watch football games to Sun Bowl but parking is saturated not many handicap spaces. Pack street that makes it difficult for me to access the games. Seating is another issue and due to that I walk around rather than seating. I do not have time to be a member of any student organization on campus.*

*According to Sammy who has difficulty in hearing:*

*I socialize outside of school. There is no group participation and socialization on campus. I come to school only to attend classes and that is it.*

His perception of college life is very different than other regular students as he just thinks that school is for academic reasons only. The other factor is age difference and according to him he is 25 and most of the students is younger than him. Thus he thinks that he has difficulty in relating to new students on campus.

However he has friends outside school and they are mostly 35 or 40 years of age. According to him it is easy for him to relate with them as they are more understanding and sensitive to his disability.

#### **4.8 Summary**

Descriptions of survey and interview findings were presented in this chapter. Survey findings reveal that the majority of disabled students who participated in this study seemed comfortable in the environment and felt rather positive about themselves and their communication with others. These findings suggest that disabled students have perceptions of positive interactions with faculty, staff, and fellow students. Equally important, they seem to feel a part of the campus. This conclusion is further supported by positive perceptions regarding the transition services, nature of adjustment to college, campus involvement and with the technology that are seen as characteristic of the campus environment. However not all the disabled students viewed the same climate items in similar terms. This would suggest that not all disabled students perceive the campus environment as favorably as other disabled students. One campus climate factor is the student-faculty relationship and that also require student self-disclosure of the disability. The interview provided more in-depth details about the nature of faculty-student interaction and peer interaction. As reported by the interview

participants and as supported by the, a student with a hidden disability such as dyslexia may not feel comfortable enough to approach their college professors and perhaps even disclose the disability. Self-disclosure is strictly on a need to know basis. Apart from that most of the interactions that students have with professors are mostly formal that are need- based (access formal accommodations such as extra time on exams) and very brief also. Even though the participant did suggested need for more communication with faculty members, however there is no initiative taken by the student to have informal meeting that could provide supplementary support to students. These findings suggest that this aspect of student College experience with a disability engagement (faculty-student interaction) may be different from the non-student with a disability. These important underlying concepts in the literature may influence engagement or participation of students on campus. Moreover, disabled students do not seem as involved in the participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc).

## 5 CONCLUSIONS AND IMPLICATIONS

In this chapter I discuss the major findings of this study and discuss implications for practice. The major purpose of study is to examine the ways that students with disabilities experience their campus environment specifically with regard to faculty and student interaction and student peer interaction. It also focuses on support that students with disability receive in the form of emotional, social and academic support. The campus environment includes the academic environment (faculty and peers), the social environment (friends, classmates, clubs), the physical environment or structure (accessibility of classroom and other buildings, accommodations, accessibility barriers, parking and transportation), and the institutional environment (relate to institutional programs or services such as disability services, counseling services, and scholarships, tuition etc).

Previous literature on experiences of students with disabilities in postsecondary education is based on studies of specific sub-groups of students with disabilities (e.g., students with LD, ADHD, Bipolar disorder, psychological disorder and physical disability). Research evidence suggests that the post secondary environment can be unfriendly to students with disabilities (Wilson & Getzel, 2001). This "campus climate" refers to a broad area that describes the overall social college environment of university and that is impacted by the attitudes held by members of the campus community including administrators, faculty, staff, and students (West, Getzel, Zhu, Ipsen, & Martin, 1993).

In this current study, 104 students responded to a survey and eleven participants shared their understandings in one- on- one interviews of their experiences in undergraduate studies



and the impact of institutions, faculty, and staff on participants with disabilities. I specifically focus on these main areas of the students' college experiences that emerged from the theme analysis and that includes the academic and social barriers that impacts academic and social integration of students with disabilities, disclosure of their disability, their identity as a disabled student, and what kind of support they rely on most in their academic journey. According to McEwen (2003), practitioners must first have an understanding of how disabled students perceive themselves and their disability as part of their identity, as that has an impact on their academic and social integration. This is an essential element that helps practitioners in developing programs, activities and interactions with students without disabilities, as that will promote all areas of psychosocial development.

## **5.1 Academic and Social Engagement Findings**

### **5.1.1 Academic Barriers**

Research studies have shown that students with disabilities were less likely to complete their undergraduate degrees than students without disabilities (NCES, 2000). However there are exceptions to this and that is if students with disabilities receive support services then their graduation rates will be similar to those without disabilities. These research findings have led to the growing concerns and further inquiry about the barriers to academic success that create a chilly climate for students with disabilities. These students encounter academic barriers that prevent them for persisting to degree completion on time.

Key to the academic engagement is formal and informal student interaction with the faculty. In this study, the survey findings reveals that in response to the question on faculty

acceptance out of 104 responses, the vast majority of students had positive experiences with professors. The other survey question is “Professors are aware of the special needs of disabled students in their classes”. The other question related to faculty attitudes is “Professors have conveyed confidence in my ability to do well” majority of them agree. In comparison to survey findings, interview results shows mix results as there are some instances where students had negative instances also.

*Dr. Layton, and I had him the most, and he have been really great. Very understanding. Treats me normally. Whereas, one in particular teacher did not, he was very rude. I have contacted my instructor, Dr. Gimbel. He put us in groups, and this one particular group didn't work with me at all, and that stemmed the problem to something larger. The professor has been and continues to be ignorant about my feelings. I had tried to talk to him about the situation many times and had questions and he never answered them. I realize in my last e-mail to my team I spoke the truth of how I felt. It was harsh and I wish it didn't have to be. I am generally a team player and work well with other people. They have totally ignored me and didn't consider my feelings at all. I didn't like what Dr. Gimbel had to say, I tried the nth degree to resolve this situation.*

Another survey participant mentioned that

*I have found that many instructors really don't like to have disabled students in their classrooms. They are unsure as to how to treat us or they just think of us as a nuisance.*

Another interview participant reveals that he had some professor who lacks knowledge about his learning disabilities called “dyslexia’ that is not visible to others. As a result the professor is skeptical or made negative comments about him and his disability. Such perceived negative attitudes are also identified as one of the significant barrier to student academic success as this also prevents students from disclosing their disability and receiving accommodations. Thus they feel intimidated and reluctant to disclose their disability that makes them at risk of lower grades and failure.

Although the students experienced a mix of good and bad experiences with faculty members, their overall experience was positive. The majority of the negative experiences with the faculties revolved around lack of knowledge about different non-apparent conditions or lack of knowledge of certain accommodations such as “scribe” and willingness to make certain changes such as one student who has hearing loss mentioned that “I have had trouble here in that the teachers don't really take into consideration that since I have problems with hearing, if they would amplify their voices a little, that would make things a little easier”. This finding is consistent with the disability higher education literature, namely that faculty attitudes are mixed. This study did not look at faculty attitudes, and instead looked at student perception of the faculty. One of the survey participant mentioned that “I often feel that it is difficult to approach a professor about my disability. It makes me uncomfortable. It would be productive to have support group meeting to help break the nerves when talking about a learning disability with others”. Academic engagement for the students in this study increased with positive faculty interactions. The students described supportive faculty members as accepting, and included the student in learning activities.

For instance, a student participant who has loss of vision has mentioned

*How professors in his social work department have gone above and beyond to help him with the reading material in a enlarged print handout without having the student to ask her. This is something I had never experienced before. The other professor in Social work department come and ask me would it be easier for you if we enlarge the notes for you but I know that this is something difficult for them so I replied them that if you have time to do then please do so. All my professor in social work and when I was in Music department were very helpful to me as they have gone out of their way to accommodate my needs even without asking or requesting from them. This is something I never have expected or requested from them.*

This example reveals that these supportive actions that faculty and administrators take help the students feel more welcome and accepted on campus. The students see these actions as an important part of making them feel comfortable. The faculties who go beyond the minimum expectations validate the students' experience and show evidence that they believe in the students' abilities are appreciated by the students.

Another finding of my study is that most of the interactions that students have with professors are mostly formal and are need- based (access formal accommodations such as extra time on exams) and very brief also. Even though the participant did suggested need for more communication with faculty members, however there is often no initiative taken by the student to have informal meeting that could provide supplementary support to students. Yet, the overall results indicate that students with disabilities perceive a positive attitude from other faculty.

### **5.1.2 Social Barriers and Peer Interaction**

The survey findings reveal that peer reaction was generally supportive, helpful and understanding. Overall students do not experience social barriers on campus but this is still an area that needs to be improved to make campus climate welcoming for students with disabilities as reported by students that they feel isolated on campus.

The student interviews also reveal social isolation, and support the findings of previous disability research. Although this study did not look at outcomes of engagement, social isolation may affect persistence for students with disabilities. Student involvement on campus is

positively related to academic success and persistence in college (Fischer, 2007). As an example from this study, one student who is 58 years old mentioned that

*I don't have friends. I don't have anybody. I mean, I like to feel not so lonely, but I just don't know how to get there. But it's not all the peers fault, it's my fault, too, you know. Because I think, like, a lot of them are very nice and helpful, but, I just tend to shut everything out.*

Another student mentioned in his open response section of the survey that.

*My only issue was my inability to connect with other nondisabled students due to my social lack of confidence. During my stance at UTEP, I fail to reach out to make friends and that affected me psychologically in my last semesters at UTEP. I became so depressed after my separation from my spouse, and because I didn't have many friends that created a big vacuum on my life until this day.....*

Another interview participant mentioned that

*I do not have friends on campus. I socialize out of school and not with groups. My friends who are out of school are in 40's and I am 25 years of age. It is hard for me to get along with younger people as they don't understand me and my disability. It is easier to tell older person about my hearing issues and adjustment that needs to be made.*

On the other hand another participant with physical disability who is of similar age like other students stated

*I have no problems in interacting with my peers as they have accepted me and my disability. They have shown acceptance to my needs by assisting me in my class accommodations such as arranging my adjustable tables or helping me with heavy books and backpack.*

From these responses, age came up to be an important factor that impacts social interaction between students with and without disabilities. The apparent lack of understanding by other students of different disabling condition is difficult for students in this study and appears to have affected their social engagement. This finding is troublesome from student developmental perspective also as Eric Erikson (1959) discusses the importance of a supportive social network of friends and peers during adolescent and young adult identity formation.

To help the students with a disability on campus assimilate into the campus social culture and to build a support network it is important to foster interactions between students with and without disabilities. This can be possible if more and more students with and without disabilities join the campus organizations that encourage membership for students with disabilities. The other way to help these students is by doing disability awareness on campus as suggested by one of the survey participant. According to him,

*“Disability Awareness throughout the campus would be very helpful”.*

This is also supported by Tinto interactionalist theory as he posits that increase in social and academic integration such as participating in co-curricular activities and interaction with faculty and peers are crucial to enable students to fulfill their academic goals. These activities also enhance student’s commitment to individual goals and institutional commitment and thus subsequently increase the retention rates also. According to Tinto (1993), an integral part of student persistence is the ability of the student to develop meaningful relationships in the college community (Astin, 1993). One important aspect of the relationship that must be cultivated is the student-faculty relationship. In my study one student mentioned that there is a lack of communication between students and faculty members. Students only communicate with faculty when they need to give them accommodations letters and that is it. There is no regular communication between them. Research has shown that students with disabilities are less likely than their peers without disabilities to communicate with professors or other sources when special considerations may be needed (Fichten & Goodrick, 1990). However, for various reasons, including the lack of communication described below, students in general often fail to

develop these integral relationships with faculty members (Graff, 1999). In their study, Fichten and Goodrick (1990), found that students frequently would only approach professors at a last moment for assistance as when things are not in their control and they get aggravated too.

### **5.1.3 Campus Physical Engagement**

Physical engagement included behaviors or activities that rely on structural or architectural accessibility on campus. For instance, it includes parking, accessible classroom locations etc. Physical barriers serves as a final obstacle that many students with disabilities confront in postsecondary environments is the issue of accessibility, particularly for those with physical and visual limitations. In my study, both the survey participant and interview participant shared their physical challenges.

One survey participant talked about:

*I believe buildings have to more accessible and jobs on campus do too. Overall there are still many things that can be done to simplify things for students with disabilities.*

Another survey participant mentioned that

*Parking is a nightmare because of the lack of Handicap spaces. I have received several tickets which were successfully appealed but a waste of my time, energy, and resources. We need more parking spaces or stop ticketing handicap vehicles.*

*Very limited access to ramps or areas where disabled students with Wheelchairs or walkers can access. People that cannot take stairs as me, sometimes elevators are broken down and some buildings don't have anything but stairs. There are major improvements that are needed for people with disabilities. Some instructors need to be more sensitive to the student having a disability and have an understanding that these students are also part of the student body and although needing special needs for their studies are people with feelings and can do an exceptional job to accomplish their education or work.*

*To continually improve the needed accommodations for students with disabilities in all facets of university activities. For instance, a good suggestion would be for UTEP internal*

*transportation to become more accessible/specialized in commuting students within campus buildings-specially when there are long distances to consider.*

The other survey participant mentioned that

*I think all doors should be automatic. I think teachers should be empathetic to students with disabilities especially because some disabilities are not visible.*

The other survey participant has a concern

*I am concerned that every facility goes over its emergency evacuation procedures for disabled students.*

The other survey participant has a concern

*I'm blind, so getting walkways from the union to the education building would help me out a lot.*

Another survey participant has concern regarding the distance from a parking lot to the classes.

*The distance of parking for disabled students should be closer. Online classes should explain they are not suited for students with certain disabilities. DSSO should be able to offer placement testing and a room to study in before a test rather than being rushed through.*

Another survey participant talked about elevators. According to him

*People with no disabilities dominate (take over) the elevators. Others are inconsiderate occupy elevators and keep us waiting.*

In his interview, Vivian mentioned that

*My biggest struggle on this campus is accessibility. Not all buildings have handicap accessibility or if they have access then it is quite lengthy as you need to walk all the way in the back. Apart from that they have stairs in front of buildings. If there are few stairs then I use them otherwise I use ramps also. In the classrooms, desk size is small also.*

One interview participant who has invisible disability has also made comments about physical barriers on campus as according to him,



*In one of the campus building there is no automatic door near elevator but I need to use them when I am carrying my music instruments. If there are automatic doors and ramps then it is easier for all of us. Apart from that some of the doors are difficult to open.*

In a qualitative study of students with disabilities in the United Kingdom, Holloway (2001) found that students with disabilities had difficulty accessing buildings and facilities. Apart from that they also need to spend an extra effort and time to organize their own support. Students found that they had to voice their needs on numerous occasions, such as during exam periods or to gain access to buildings. In his interview Vivian mentioned that his biggest challenge is physical accessibility on campus and for some classes he needs to walk a lot as he cannot find close parking to the class room buildings and then he needs to make a balance between what events he would like to engage with energy conservation.

The interview data from this study suggests that participants are facing difficulty in accessing his learning environment and navigating campus due to difficulty in accessing physical environment such as lack of automatic doors or ramps at the wrong places.

Vivian also mentioned that he encountered obstacles as being on crutches he needs to go around the building, needs to travel long distances instead of taking a normal route that other normal students take. The other thing he mentioned is that there are ramps that are in wrong places and he needs to wait for someone to open the door. Thus it takes them longer to complete daily tasks and to operate in an academic setting. The results shows that the participants face problems in navigate the physical campus environment that limits their academic and social engagement. This is also supported by West et al. (1993) who found that architectural barriers limit opportunities for involvement. In my study students need to spend extra time and energy that prevent them from attending co-curricular activities such as going

for games and attending student organizations meetings. To that end, physical functioning seemed to limit campus engagement in this group of students.

#### **5.1.4 Support Findings**

Support takes different forms such as emotional, academic, financial, or social. In this section the focus is on academic, social, and emotional supports. First, I look at who supports the students, examining “natural supports” from family, friends, and other students with disabilities, as well as “formal supports” such as DSS staff, faculty, advisors, and mental health professionals.

#### **5.1.5 Role of Family**

Previous research has shown that family ties are strong in Hispanic culture. The whole family gets involved in the education process. According to Head, 1982, p. 106 “The family is the source of strength, the survival mechanism, the advisor, the counselor, and the center of social life.....when a Hispanic student makes an important decision, it is not his or her decision alone to make, but the unit, the family”.

The majority of participants in the study discussed the significance of their family and peers in their journey and in their education. However, the study participants also mentioned that they need to make sure they are not being overprotected by their parents as that will restrict their independence in life. This may be the case in the Hispanic culture. This has been supported in the research literature. According to Cruz, 1979, “Hispanic families tend to overprotect and paternalize their disabled. Even if a disabled individual wants to learn to be

independent and self-sufficient, he or she is seldom allowed to do so". Other research studies have also shown the role of family in being supportive for students with disabilities and they may be overprotective to the extent that they may discourage students from going out of state to pursue postsecondary education or for fulfilling career goals like doing internships. In my observations at UTEP, this is what I observed as students are mostly from Hispanic culture and they are close to family thus they do not want to leave the home environment that is secured to be in unknown place where they need to take care of everything. These family ties are also strong with non-disabled Hispanics.

Almost all the interview participants mentioned how their parents have supported them throughout their college life. According to one participant,

*My parents sacrificed a great deal to make sure we had a good education. They moved to the country to provide a more nurturing environment. My mother drove us to the neighboring county for music lessons. Family is the number one reason I am a scholar.*

The support that students get from their parents clearly is invaluable to them. Many identified their parents first when asked who was supporting them. This is also supported in the literature, Nelson et.al (1993) found that students attribute their success to the support of their family describing it as "emotional support and encouragement as well as high expectations" (p. 16-17).

#### **5.1.6 Friends**

Brian mentioned in his interview that

*I have some friends who know about the nature of my disability. As I am English major, my friends provide me the extra help by proofreading my papers so that there are no grammatical and spelling errors.*

### **5.1.7 Identity**

A healthy sense of identity in college students is integral to participation in the campus experience (Torres, Howard-Hamilton & Cooper 2003). Chickering (1969) contends that one of the chief tasks of higher education is not socialization but rather identity formation, influenced in part, by one's relationships with others.

Students with a "hidden disability," one that is unapparent to the unknowing observer, make daily decisions about which identity to embody. They are constantly negotiating when, where, why, and how to disclose and adopt the disability identity or to "pass" and give society the impression of "able-bodiedness." Matthews and Harrington (2000) note that people with hidden disabilities work not to disclose their disabling conditions due to stigma, shame, impression management, impact on relationships, and so forth. In their view, hiding one's disabilities can have tangible as well as psychological effects on the individual. These can be both positive and negative.

Olney and Brockelman (2003) have suggested that college students are aware of the non-verbal communication through which the communication of knowledge about their disability status may disrupt the interaction between people with disabilities and others. People with visible disabilities, according to Olney and Brockelman are assumed to be less intelligent, or to have cognitive disabilities, but people with hidden disabilities often were seen as not disabled. Both of these perceptions can result in change in perceptions and influence students

with disabilities development; both psychosocial and identity development in a number of ways.

People may choose not to self-disclose out of fear and avoidance. According to Lynch and Gussel (1996), negative responses upon disclosure of one's disability can prohibit future self-disclosure. Hiding or denying one's disability has been equated with 'passing' to avoid a stigmatized identity. In my study, Brian disclosed his disability selectively and only to his close friends who know him closely and some professors from whom he need to get the accommodations but he does not feel comfortable to disclose to others due to a "feeling of being judged". Another participant named Liliana disclosed her disability to professors. According to her,

*Since my disability it's invisible. It's a little bit more challenging because I go up to them. Sometimes I go up to them at the beginning of the semester and I tell them you know what I'm register at the disabled office and I do have this accommodations. I do have pain and fatigue, so if you see me in pain if I walk out that's because I'm going to go home and take a pain killer or something because I'm not feeling too well.*

In his interview, Gabriel mentioned that

*I have not disclosed my disability not to my classmates and not to my professors, only to my design teacher because I missed an assignment and I had to tell her about the medication I was taking. And that was because it affected my assignment because of the medication I was taking. And that was it. What I'm afraid of, I'm afraid I'm going to ask for help, and everybody says, "come and get help' Come and get help" Yes. ? And I'm afraid if I ask for help I'm not going to get it. I don't want to set myself up for that disappointment.*

According to Liliana

*I don't tell them like every semester. But maybe in summer semester when I know my body is not ready and I kind of expect some troubles. So I just let them know you know if I walk out early I am not trying to be rude, or anything it just that I can't sit in there so much pain. So that it's when I let them know, but other than that I just keep it to myself. I mean because it is not something that affects anything that it's going on. I'm still there I'm still paying attention*

*and everything, and once I start feeling sick, at the middle of the semester I just might let my teacher ok I'm feeling this.*

#### **5.1.8 Invisible vs Visible Disability**

The interview participants with invisible disabilities mentioned that due to the stigma that so often accompanies a disability is a major reason why so many students with invisible disabilities such as students with lupus or dyslexia make the decision not to disclose their limitations to the majority of their professors and peers, believing that as soon as people are aware that they suffer from something out of the ordinary people, they will be treated differently or have a feeling of being judged. They have to face the struggle that lies not only in coping with their disabilities, but doing so in a world that doesn't know they're sick.

Though many of these students aren't visibly different from the ordinary people they pass on the street, their disabilities may require actions or behaviors that seem strange when unexplained, which often leads other students to judge them unfairly due to lack of knowledge about different disabling conditions. For example a student with Lupus, need to protect themselves from sun thus they must carry an umbrella and may be wear sunglasses when it's sunny due to the severe photosensitivity she has as a result of her lupus. Apart from that chronic conditions vary on the day to day basis and there are days when her symptoms flare up. The chronic conditions are really unpredictable, which is, I think, one of the hardest things for these students with a chronic disease at school. There are days when they just couldn't get out of bed. These chronic conditions also have an impact on the social aspects of her disability. Their condition requires them to sleep or takes rest more than the typical college student. Their biggest concern was fatigue and as a result they have hard timer to do other things that they

want to do such as going out with friends. These issues that students with invisible disability face makes it important to study this problem with the help of qualitative study so that disabled students service office can make awareness about these disabling conditions and campus climate is welcoming for this population.

Barga (1996) discovered that college students with learning disabilities adopted a variety of strategies to pass as nondisabled. Coming out of the disability closet is a personal decision that has serious indirect effect for the individual in terms of relationships and opportunities. Students engage in a decision making process about the relative advantages and drawbacks of telling others about the disability. This decision also has reverberating implications for one's whole self-concept and social relationships. Individuals with disabilities are in an educational environment and may face stigmatization and decreased self-esteem. In a study of students with intellectual disabilities, the majority of the participants reported experiencing discrimination, stigmatized treatment from their non-disabled peers (Cooney, Jahoda, Gumley, & Knott, 2006). Specifically, the students reported experiencing ridicule and exclusion. This change in environment can be particularly stressful for individuals with invisible stigmatized identities who may be grappling with disclosure decisions.

Research has shown that students with disabilities are dropping out of college and one reason cited has been a lack of understanding by institutions of higher education for this special student population. Greenbaum, Graham, and Scales (1995) have noted that “the most common institutional barrier cited by SWDs was a lack of understanding and cooperation from faculty and administrators...” (p. 468). In reviewing the extant literature regarding faculty attitudes towards Student with disabilities, Rao (2004) concluded that amongst faculty and staff

that there is a “need to be better informed about disabilities and students with disabilities” (p. 197). Thus, from this lack of understanding and knowledge on the part of faculty and staff, the integration of these students into collegiate environments may be considered hindered by stereotypical beliefs and discriminatory practices on the part of both professors and fellow students (Gmelch, 1998).

When students with a disability feel respected valued, deemed competent and understood by faculty, peers and administrators in higher education, they will likely adjust well in the college environment and their disabling condition with positive behaviors. An inclusive environment enhances student critical thinking skills, problem-solving skills, and communication skills that effects engagement behaviors and ultimately translates into student success.

#### **5.1.9 Locus of Control**

In terms of attribution theory, research as shown that college students with hidden disabilities such as learning disability may rely heavily on an external locus of control until their high school perhaps as a result of years of necessary dependence on parents, teachers and other service providers. The Individuals with Disabilities Education Act (IDEA) strongly emphasizes the involvement of families at every step of the special education process, from referral to evaluation, to Individualized Education Program (IEP) development, to monitoring progress. As a result any students with hidden disabilities may not have the opportunity to develop a sense of independence and self-sufficiency requisite for positive psychosocial development in this area (Brinkerhoff, et al., 1993).



#### **5.1.10 Registered vs Non-registered Students with Disabilities**

As this study includes students with disabilities who are registered with Disabled students service offices as well as those who are not registered, the researcher was able to get an insight as to why some students with disabilities felt restricted in coming to Disabled students service office to receive services.

Those interview participants who were not registered with DSSO and thus not receiving services from DSSO are not registered with DSSO and they are not willing to ask for help and accommodations as that don't want to be asking for help. Apart from that there are students who got diagnosed later in life with the disability, thus unlike those who have lived most of their lives with disabilities, they had no previous experience as a disabled individual and didn't even know how to go about asking for accommodations.

Some students were diagnosed with the disability shortly before coming to the University; others were diagnosed well into their time at college. For those with new disabilities, learning to accept new limitations is often difficult and unwelcome. For these students it was a huge psycho-social adjustment in terms of their personal identity as going from a high-achieving, healthy student who could do what she wanted to being limited by this disease or disability and its effects and medications. Thus I think it is important to study perceptions of students with disabilities based on the fact whether they are registered with Disabled student service office or not. Here I think narrative research methodology or case study method can help to understand the identity processes of students who grew up with an unapparent medical condition or who got diagnosed later in life.

Psychosocial/identity theories describe the processes by which students think

about who they are and how their own sense of self interfaces with the issues life places in their path (e.g., Chickering & Reisser, 1993). There is a complex relationship between individuals and their social environments and these environments shape individual behavior and identity. Thus identity development differs by gender, sexual orientation, heterosexual and LGBT identity development and disability. Over the past several years research has shown that there is much written and discussed in student development literature about the psychosocial development of female college student (Josselson in Torres, Howard-Hamilton, & Cooper, 1998), minority students that includes Hispanics, Native Americans, Blacks, Pacific Islanders and Asians - into the mainstream of higher education (Atkinson, Morten, & Sue, 1997 in Torres, Howard-Hamilton, & Cooper, 1998), and homosexual college students that includes Lesbian, Gay, Bisexual and Transgendered Students (Cass 1979 in Evans, Forney, Guido-DiBrito, 1998, Cass, 1997 in Torres, Howard-Hamilton, & Cooper, 1998), however there is little published research that examines the identity development of students with visible and invisible disabilities. Recently Gibson (2006), a psychologist has developed a Disability Identity Model that facilitates one's understanding for persons with life-long disabilities and their identity development by giving insight into perceptions and struggles they may experience. Gibson's Disability Identity Model is explained in three stages: Passive Awareness, Realization, and Acceptance. Identity development of individuals with disabilities can be fluid and not all individuals fit into a particular stage. Individuals may have reached Stage 3 – Acceptance, but may revert to Stage 2- Realization upon the occurrence of negative experiences and stereotypes. Analogies can be made between the identity development of racial minorities or students questioning their sexual orientation and the identity development of students with

disabilities. Although such analogies may not be absolutely correct, they can be useful until there is sufficient research on the development of students with disabilities. In this current study students participants especially with visual disabilities reveals that often experience social isolation and limited opportunities to engage in meaningful relationships with peers and faculty members. Thus it is important to examine how their identity development differs from that of students without disabilities. However this study and in a study conducted by Buggie-Hunt, Tabitha (2007), “Psychosocial and disability identity development among college students with disabilities” it was found important to foster healthy identity development of students with disabilities so that they get well adjusted in college, this will also help in diffusing disability and generating positive perceptions about people with disabilities. More research in the area of disability identity and the impact of visibility of disability is strongly indicated by the results of this study. It is important to study students with disabilities as a group.

## **5.2 Discussion**

The disabled students who participated in this study seemed comfortable in the environment and felt rather positive about themselves and their communication with others. These findings suggest that disabled students have perceptions of positive interactions with faculty, staff, and fellow students. Not only that, they seem to feel a part of the campus. This conclusion is further supported by positive perceptions regarding the transition services, nature of adjustment to college, campus involvement and with the technology that are seen as characteristic of the campus environment. However not all the disabled students have similar opinions regarding these campus climate items. This would suggest that not all disabled

students perceive the campus environment as favorably as other disabled students. One campus climate factor is the student-faculty relationship and that also require student self-disclosure of the disability. As reported by my interview participants and as supported by the literature, a student with a hidden disability such as dyslexia may not feel comfortable enough to approach their college professors and perhaps even disclose the disability. Self-disclosure is strictly on a need to know basis. These findings suggest that this aspect of student college experience engagement (faculty-student interaction) may be different from the student without a disability. These important underlying concepts in the literature may influence engagement or participation of students on campus.

Moreover, disabled students do not seem as involved in the participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.). 79% of students spend 1-5 hours per week on that. In this question there was no option of saying "0" hours so it is also possible that they may not spend any time on that.

The present study has a number of implications that helps in establishing welcoming campus environment for students with disabilities. First, university personnel should be aware of the comprehensive needs that includes social, educational, and communication needs of their disabled students. Establishing a supportive climate is important to disabled students' sense of self-esteem and increases the probability that they will not become demotivated. My interview analysis and results of some of the survey question reveals that some of the students feel socially alienated and thus lack social support within the university environment. However, building the necessary social skills of students with disabilities should be of equal priority to the

building of necessary academic skills. These necessary social skills which prepare students with disabilities to meet future challenges beyond the academic environment. Research shows that levels of acceptance and self-concept are moderately related. Students with disabilities not accepted by their peers in regular classrooms thus run the risk of developing low self-concept (Pijl & Frostad, 2010). Research studies have shown that participation in co-curricular activities is a critical element that contributes to student outcome of persistence and cognitive and intellectual development (Astin, 1993, Kuh, 1993, Pascarella and Terenzini, 1991). UTEP should encourage students with disabilities to participate in recreational activity as it helps decrease levels of stress, promote quality of life, a sense of belonging, and enhance self-esteem, an opportunity to interact with students with no disabilities thus inclusion of students with disability in university (Bryant, Banta, and Bradley, 1995). Here Disabled student service office should work with recreational sports department to remove the physical, attitudinal and administrative barriers that discourage students to participate in these activities. Apart from sports, UTEP should also encourage students to participate in campus life activities such as student leadership conferences, student organizations and other events like homecoming. One way to encourage students to participate in these events and activities is to include disability access statements such as "Disability accommodations available upon request". This can facilitate in creating a welcoming and inclusive learning campus environment (Strange and Banning, 2000). By encouraging students to participate in these events and activities their overall psychological and social needs will also be adequately addressed which may contribute to a student's adjustment to the campus environment overall.

### **5.2.1 Inclusion in Post-secondary Education**

Creating social connections with other students became a highly significant component to the design of the full-inclusion of students with disabilities. The results from interview shows that there are many students with disabilities at UTEP who feel isolated unless there is an effort made to get them connected to other students.

### **5.2.2 Peer Friendships/Socialization in High School vs. College**

My interview results show differences between high school and college in terms of development of friendships. According to one of the student participants in high school he has developed friendships with people who were with him for last four years and also attending the same social events such as high school games and sports competition. On the other hand, when he came to college he has classes, but all the classes were with different peers. As a result he hardly used to see same students throughout a year. Thus he could not develop close friendships and these relationships remain at the acquaintance level only.

### **5.2.3 Interaction Between Students with and without Disabilities**

Results from the interview and survey findings reveals the need for facilitating numerous, regular opportunities for students with disabilities to engage with other similar students within and outside the classroom. Research has shown that lack of informal social interactions between people with disabilities and people without disabilities can be barriers to social integration into higher education. Students with disabilities often feel lack of social acceptance and thus have lack of interaction with their nondisabled peers (Gresham, 1986).

Research has shown that students often like to associate with those students who have similar interests, similar age and common experiences to share. This association will help these students to get support from other fellow students, and can also serve as a coping mechanism in their college life. This interaction can happen via forming student organizations, support groups, learning community in residence halls, university courses where students usually congregate together. This interaction will also help non-student with disability to dispel the myths they may have about people with disabilities. Thus meaningful learning can happen. The students can interact, network and establish meaningful relationships.

An example of this at DSSO is the development of a community of students with disabilities called “Miner Diamonds”. This provides opportunities to students with disabilities to interact with other students with disabilities and that helps these students to reduce the feelings of isolation. Miner diamonds makes several student panel presentations on campus that helps to deconstruct disabilities. It was started in 2008 and it took time to encourage students to be members of this organization. . This organization has not only benefitted the students, university community but also the El Paso community as they make several presentations like for region IX Youth Leadership Forum.

To remove further social and institutional barriers and remove negative social stereotypes, it is also important to initiate a Disability Studies program that would deconstruct disability. Normalizing disability is not only a benefit to the individuals themselves, but to society as a whole. This Disability Studies program should incorporate historical, phenomenological, political, cultural, medical, sociological, technological, educational, social

construction of disability and legal perspectives in order to provide an enriched and coherent view of disability as part of universal human experience. Disability Studies focuses on disability as a social phenomenon, social construct, metaphor, and identity.

Apart from a Disability Studies program, it is also important to educate faculty, students and staff about disability issues. The training component should include not only legal requirements to accommodate students with disabilities, but it is also important to work on their negative attitudes of some faculty and staff. This can be achieved through organizing workshops and orientations for the professors that educate them about different disability conditions and the types of accommodations available. UTEP has sponsored four Disability Awareness weeks in the last three years, and as a part of the week invited guest speakers for students, professors, and the general public to attend. This week of activities is a step towards inclusion of students with disabilities, preventing negative stigma and negative attitudes and also ensuring acceptance of all.

#### **5.2.4 Involvement vs. Validation**

Tinto theory (1993) emphasizes the importance of *involvement*, meaning engagement in academic and extracurricular activities associated with a college, in influencing student persistence and success in college. Its central idea is that of "integration": it claims that whether a student persists or drops out is quite strongly predicted by their degree of academic integration, and social integration. These evolve over time, as integration and commitment interact, with dropouts depending on commitment at the time of the decision. These conclusions were reached, for the most part, based on research conducted with predominately



white, traditional-age students, in four-year institutions during years in which the majority of college students fit this profile.

In the current study while doing the qualitative data analysis, it emerged that the participants in the study who are non-traditional students have a different perception of the college environment than what many research studies on traditional aged students describe. Past research has defined that traditional students are younger (usually less than 24 years of age) and nontraditional students are older (usually 24 years of age or older) (Wynd and Bozman, 1996). The other research has also shown that although age may be considered as a factor for identification of whether a student is traditional or nontraditional, there are other important factors that must be considered such as a life changing event (Jenkins, 2009). Research has shown that it is difficult to define the nature of a life changing event as it varies from person to person. Some people may never experience a life changing event regardless of how old they are (Jenkins, 2009). It makes me think that disability may be a life changing event for students with disabilities. This makes them different from other students.

The vast majority of UTEP Students come from the El Paso area, and most are the first in their families to attend college. In my survey, 42.3% of students with disability are first in their family to go to college and 57.7% are not first in their family to go to college. 36.2% of students are in the category of 18-25, 23.8% of students are in the category of 26-35, 19.0% are in the category of 36-45, and 15.2% are in the category of 46-55 and 4.8% in the category of above 56. The disabled students in my sample are older than the several populations at UTEP.

The second concern focuses on the non-traditional commuter environment is also found at UTEP. There are only 3% of students who live on campus. Studies have shown that those students who live in their own home with family or live with their parents view the college environment very differently than traditional college students at residential colleges. This fact is also supported by the findings of my study. Except for Brian, all of my study interview participants live with their family, and as a result they are not academically and socially engaged. A majority of participants also described their social support as being outside the college environment. Most saw their family as their central social support system and saw their social relationships as part of their communities rather than the college environment. Except for two interview participant who work part-time, a majority of them do not work on-campus or off-campus.

Recently the primary critique of dominant theories of retention such as Tinto theory is their lack of relevancy for current student profile of students that is diverse in terms of racial/ethnicity, in terms of students changing profile (part time, parents, nontraditional age, working students, and students of color). One of the major criticisms of Tinto theory has been that it has largely ignored Chicano student specific issues. Rendon's Validation theory (1994) has emerged as a viable theory that can be employed to better understand the success of underserved students. Chicano student rely on familial support and extended social networks to persist and succeed in higher education, but Tinto, on the other hand, believes that college life is a time when student separate from their family and build a new social identity as they participate in campus life. As a result of changing student population some new theoretical

frameworks have emerged such as Rendon's theory of validation and Stanton-Salazar theory of social capital.

Rendon's theory of validation is particularly applicable to low-income, first-generation students enrolled in higher education (Rendon, 1994). Students labeled as "nontraditional" such as those at UTEP attend UTEP that is a Minority-Serving Institution (MSI). The overwhelming majority of UTEP Students come from the El Paso area, and most are the first in their families to attend college. The University's student population closely mirrors the demographics of the region, from which UTEP draws more than 90 percent of its Students. More than 70 percent are Mexican-American and another 9 percent are Mexican Nationals who commute across the international boundary from Cd. Juarez. More than 55% of the Fall 2009 freshman class reported that they are the first in their families to pursue a college degree (UTEP, Quality enhancement plan, 2006). UTEP is located in one of the four poorest cities in the nation with a medium household income of \$31,051 and 23.8% of population lives below the poverty line. Over 80% of UTEP students have financial responsibilities and must support themselves through college. UTEP's student demographics from two decades ago portray a university serving a minority of the region's population (UTEP, Quality enhancement plan, 2006). UTEP's focus on student success through validation is critical to the El Paso region.

"Traditional" students are those whose families have a history of college attendance, come from middle- and upper-class families, and typically feel confident about attending college. They have cultural capital as conversations, expectations and resources about college attendance are generally part of family life. On the other hand, non-traditional students who

are mostly part-time weigh the benefits of attending college versus working full time to help supplement the family income. The theoretical foundation for UTEP's student success plan is in validation theory that is validation through encouragement and affirmation.

Thus the success of non-traditional students is worth of exploration in light of some of the theoretical underpinnings and assumptions underlying discussions of student integration (Rendon, Jalomo, & Nora, 2002). Rendon argued against an over-emphasis on integration. Her research indicated that, for nontraditional students, validation may be a more important influence on student success than integration or involvement. She pointed out that integration is typically viewed as occurring naturally as students become involved in campus life through participation in college activities, living in residence halls, and taking classes.

In Rendon's view, students who are first generation learners, such as those at UTEP, had not grown up assuming they would also go to college, and were unlikely to become readily integrated into college environments without additional assistance. Validation, defined as "an enabling, confirming and supportive process initiated by in- and out-of-class agents" (Rendon, 1994, p. 44), could provide this needed support. Rendon (1994) suggests that students may not become involved or engaged in the educational experience unless the college or university makes a point of reaching out to them. More recently, some scholars have been raising questions about whether integration or involvement in college is the most important influence on retention for non-traditional and minority students (Rendon, Jalomo, & Nora, 2002). This is an especially compelling question in light of the fact that students today are more likely to be older, of color, attending part-time, and enrolled in community colleges. This is different than

were students of 10-30 years ago when much of the research on integration was conducted (Rendon, 1994). The role of faculty was highlighted as particularly important, while peers and family members were also central.

#### **5.2.5 Come to Class and Leave**

Research has shown that students at commuter institutions often have multiple life roles and thus have different priorities in life. Most of them see being in college as one of many commitments they need to maintain. When Sammy was asked what activities he participates on campus. He responded by saying: "I usually just come for classes, and just leave". He gave couple of reasons for that and one being that he considers coming to college for just studies. The other reason is age as a factor. According to him "I am 25 and most of the students are younger and they do not have that kind of maturity. I relate better with 35 or 40 year old age. The third reason he gave is his disability, as according to him his hearing and speech became an issue when trying to socialize on campus. He thinks that people don't understand his disability. This makes it hard for him to socialize and make friends on campus. Sammy comes under the category of nontraditional students due to his age factor, has a disability that may be a life altering circumstance for him and as a nontraditional student he has wife and a 8-year old son. Thus outside school life he has extracurricular obligations, such as family, which limit the time available for school. Education is not his primary activity.

Students with disabilities are recognizing the need for a college degree to further career goals and future earning potential. As a result, the number of college students with disabilities is increasing (Wilson & Getzel, 2001; Wolanin & Steele, 2004). Pressing missions of higher

education and a critical measure of student success is developing academic and intellectual competence among our students, as well as gaining skills to be successful individuals in society. Although the university is mainly concerned with furthering one's academic career, a large part of university life is also about gaining new social experiences. UTEP follows the ADA, and as a result students with disabilities have equal access and equal opportunity to participate in all aspects of university life. However providing equal access does not imply full inclusion of students with disabilities. Students with disabilities still face stigmatizing assumptions and prejudice and the post secondary environment can be unfriendly to students with disabilities (Wolanin & Steele, 2004; Wilson & Getzel, 2001).

Unlike inclusion of students with disabilities at Pre-K level, the inclusion of students with disabilities at university level is under-researched. Students with disabilities face other barriers, thus these challenges have resulted in them having unequal opportunities to learn in comparison to their peers. In order to take into account the holistic impact of college experiences on students with disabilities.

#### **5.2.6 Bronfenbrenner's (1979) ecological systems theory**

Bronfenbrenner's (1979) ecological systems theory (BEST model) provides a theoretical framework that is a model that emphasizes the interactions between students with disabilities and their surrounding environments. BEST framework provided a contextual map to help understand the many different factors contributing to their overall experience of university. Bronfenbrenner allows me to examine the immediate settings containing the students with disabilities, as well as the larger social contexts, both formal and informal, in which these

settings are embedded (Bronfenbrenner, 1977). An immediate context for these students include the family, college, peer group, and faculty and staff members (*microsystem*), whereas larger social contexts include are relationships and interactions such as between professor and disabled student service staff members (*mesosystem*), as well as the impact of these systems that impinge on their college experiences, such as government policies and the types of educational supports offered by university and other external environmental settings and social systems (*exosystem*). Broadest of all influences are those that include the various subsystems, cultural values, customs, and laws that impact learning. It includes influences such as economic, social, educational, legal, and political (*macrosystem*).

This current research has highlighted that key social barriers are still present for the inclusion of students with disabilities, leaving them disabled and unable to be on a level playing ground with their peers. The barriers are put up by the exosystem and macrosystem; this is through poor communication and a lack of faculty awareness about different disabilities and the needs of students with disabilities that hinder student's ability to successfully complete academic requirements. The problems faced were not because of students, but due to the rigidity of the exosystem and macrosystem. This also reflects the social environment that creates barriers. Family members who are part of students microsystem provides students support such as bringing students to campus every day and also offer emotional support that can nurture student learning.

*"I have found that many instructors really don't like to have disabled students in their classrooms. They are unsure as to how to treat us or they just think of us as a nuisance"*

*“Professor who lacks knowledge about his learning disabilities called ‘dyslexia’ that is not visible to others. As a result the professor is skeptical and made negative comments about him and his disability”*

*“Very limited access to ramps or areas where disabled students with Wheelchairs or walkers can access. People that cannot take stairs as me, sometimes elevators are broken down and some buildings don't have anything but stairs. There are major improvements that are needed for people with disabilities. Some instructors need to be more sensitive to the student having a disability and have an understanding that these students are also part of the student body and although needing special needs for their studies are people with feelings and can do an exceptional job to accomplish their education or work”*

*My biggest struggle on this campus is accessibility. Not all buildings have handicap accessibility or if they have access then it is quite lengthy as you need to walk all the way in the back. Apart from that they have stairs in front of buildings. If there are few stairs then I use them otherwise I use ramps also. In the classrooms, desk size is small also.*

There are students who do not have caring support of family and friends as a part of their microsystem.

*I don't have friends. I don't have anybody. I mean, I like to feel not so lonely, but I just don't know how to get there. But it's not all the peers fault, it's my fault, too, you know. Because I think, like, a lot of them are very nice and helpful, but, I just tend to shut everything out.*

*My only issue was my inability to connect with other nondisabled students due to my social lack of confidence. During my stance at UTEP, I fail to reach out to make friends and that affected me psychologically in my last semesters at UTEP. I became so depressed after my separation from my spouse, and because I didn't have many friends that created a big tool on my life until this day.....*

These instances highlight the social needs of this section of population.

As a part of mesosystem that is comprised of interconnections among two or more members in the immediate environment that influence learning (Bronfenbrenner, 1979).

Faculty who recruit support from non-disabled classmates to provide class notes to help students with disabilities during class facilitate student learning.



*How professors in his social work department have gone above and beyond to help him with the reading material in an enlarged print handout without having the student to ask her. This is something I had never experienced before*

The findings of this research suggest a need to provide better services and welcoming campus environment to students with disabilities so that they are included at university. This will help institution to improve the provision offered by institutions, but also to ensure that students with disabilities have a quality education. This research found two main areas of concern – communication and awareness of disability and one area of strength, that of a caring human nature provided by family members within the micro-system.

### **5.3 Conclusions about Findings**

#### **5.3.1 Students with Disabilities Perceptions about Academic Engagement**

Consistent with previous findings, students with disabilities indicated how institutional barriers such as faculty and peer attitudes had impacted their college experience. In general, students reported positive interactions with faculty, staff and non-disabled peers, with a few notable exceptions. Students in this study reported positive relationships with faculty and staff at the university. They indicated that most faculty were willing to provide accommodations, many even going beyond the recommendations for accommodations such as providing class handouts in enlarged format without making a request by the student with a loss of vision. However at the same time one student stated that he has hearing difficulty and sometimes he needs to make repeated requests to his professors to amplify their voices so he can hear the lecture better. Thus the data indicate that there is continued variability in faculty understanding of and response to disability-related needs. Participants in this study suggested

that some faculty members are better than others in their response to requests for accommodations and in the provision of such accommodations. These findings provide support for the assertion that faculty at postsecondary institutions could benefit from additional education and training related to disability issues such as on different accommodations, universal design, communicating with students with disabilities. It will be good to organize regular educational sessions for faculty and staff regarding the needs of students with disabilities. Hearing their stories will be vital to awareness and understanding. This will help in improving the campus climate.

Most of the interactions students have with faculty are formal and need- based interactions. They are short and to the point such as giving an accommodation letter. Even though the participants did suggest need for more communication with faculty members, often there is no initiative taken by the student to have informal meeting that could further provide support to students. One student mentioned “I often feel that it is difficult to approach a professor about my disability. It makes me uncomfortable. It would be productive to have support group meeting to help break the nerves when talking about a learning disability with others”. This shows that student lack self-advocacy skills

### **5.3.2 Students with Disabilities Perceptions about Social Engagement**

Consistent with previous research many of the students do experience social isolation. Social isolation may affect persistence for students with disabilities. In this case age seems to impact the factor that impacts social interaction between students with and without disabilities. To help the students with a disability assimilate into the campus social culture and

to build a support network, it is important to foster interactions between students with and without disabilities. This can be possible if more and more students with and without disabilities join the campus organizations that encourage membership for students with disabilities. The other way to help these students is by doing disability awareness on campus as suggested by one of the survey participant. This is also supported by Tinto interactionalist theory as he posits that increase in social and academic integration such as participating in co-curricular activities and interaction with faculty and peers are crucial to enable students to fulfill their academic goals. These activities also enhance student's commitment to individual goals and institutional commitment and thus subsequently increase the retention rates also. Building social skills of students with disabilities should be of equal priority to the building of necessary academic skills.

### **5.3.3 Students with Disabilities Perceptions about Physical Engagement**

The results of this study indicate that students with physical disabilities continue to face substantial barriers related to accessibility in the university setting. However since the campus is hilly and was originally designed before ADA was amended, not all buildings and areas are completely wheelchair-user friendly and physically accessible. Some of the buildings are old. Students identified difficulties accessing buildings, classrooms, bathrooms, and they cited a lack of automatic doors and ramps. The students also mentioned other physical barriers such as difficulty with elevators and lack of disabled parking areas and lack of inner campus transportation that is accessible for students with disabilities. Some students have difficulty in finding a disabled parking spot that is close to their classes. These findings suggest that there

are still many areas that remain inaccessible to students with disabilities. In addition, the results imply that continued issues of physical accessibility may contribute to students with disabilities feeling “different” from their non-disabled peers, since they are limited in the campus areas that they can explore and the services that they can use. It also takes longer to them to complete daily tasks and to operate in an academic setting. These physical barriers impact their academic and social engagement.

The participants also stated that they need to spend extra time and effort that prevent them from attending co-curricular activities such as college games, attending student organization meetings.

#### **5.3.4 Support**

Participants in this study also indicate that natural supports (i.e., family) and family ties played a large role in their success at the postsecondary level. Family support varied and it included taking care of student daughter, providing rides to and from campus every day, assisting with homework assignments, and financial and emotional support. In terms of financial support, one student discussed the role of the State in providing him tuition waivers. One student also discussed how spirituality provided them with significant support throughout their college experience. The research has shown that family ties are strong in Hispanic culture. These family ties are also strong with non-disabled Hispanic students. Another finding of the study is that the study is that some participants are afraid of being overprotected by their parents as that will limit their own independence.

Some students also stated the role of their friends and how they support them in their academic work. One student stated that his friend's proof-read his papers and others provide emotional support. However, not all the student's in this study have friends and some students lack social skills. Thus, there is a need to connect these students with other students by programs such as a peer mentoring programs. Providing a pro-social climate will facilitate growth. Keeping in mind the fact that UTEP is a commuter campus where only 3% students live on campus, it will be challenging for student affairs professionals to encourage students to participate in out-of-class opportunities.

The interview results also results show differences between high school and college in terms of development of friendships. According to one of the student participants in high school he developed friendships with people who were with him for four years and also attended the same social events such as school games and other social events. On the other hand when he came to college he has classes with different peers. As a result he hardly used to see same students throughout a year. Thus he could not develop close friendships and these relationships remain at the acquaintance level only.

In terms of student self-perception or identity, I conclude that some students in this study, for the most part, do not see themselves as disabled and other students have difficulty in disclosing disability to others. They are guarded. They disclose only to close friends and allies. When students are asked to elaborate on their answers, they admit that they have a set of characteristics that make them different from their peers like learning differences, but that they do not necessarily see these characteristics as being a disability.

As most of study participants live with their parents, thus they come to campus just for class and they go back home thus they have a very different way of looking college experience.

As most of the students interviewed do not work and are not involved in campus organizations or activities, they need more avenues to build their self-esteem.

At present, disability support services in colleges and universities are generally designed around fulfilling their legal requirements by providing an access only paradigm (minimal services required by law) rather than one of psychosocial support and/or encouragement (Wolanin & Steele, 2004). These services, therefore, tend to focus only on academic accommodation and largely neglect psychosocial needs or other support required by students, such as the case with students who are veterans or have multiple psychosocial issues going on. This observation raises the suggestion, if we know they have different needs, and then the universities need to create programs that foster student psychosocial development.

Professors in higher education are less likely to know much beyond the letter of the ADA law with regards to academic accommodations, unless they attend some educational sessions that focus on diversity that trains them about the needs of students with disabilities and how to interact with them. This training will help them to meet not only the letter of the law but also the intent of the law. This will facilitate true inclusion of students with disabilities.

Many K-12 teacher preparation programs require pre-service teachers to take at least one course in special education that prepares them for working with this special population. Formal training for addressing students with special needs in colleges and universities is left to university programs/centers that focus on providing faculty teaching strategies across the board. There is a shortage of resources for disability services in higher education and

professor's lack time for undertaking such trainings. Thus creative ways of training faculty and staff need to be explored. One such strategy has relied on emerging technology such as Internet as a way to reach out to population on a broader level. Texas A&M University has developed disability training network that provides regular trainings opportunities on different topics (such as on universal design, communicating with people with disabilities, student's rights and responsibilities, service animals) to professors to work with students with disabilities.

Research has shown that most disability services programs across the country have low staff to student ratios as well as limited budgets, emphasizing the minority nature of this population and why it is considered a forgotten population (Measel, 1999). These ratios are reflective of the general campus climate towards students with disabilities. Case in point, UTEP's Disabled student service office has only two staff members who are qualified to conduct student intakes and provide direct support services to students with disabilities. There are more than 400 registered students with disabilities therefore the current ratio is 1/200 students. Limiting services to addressing basic accommodations for students and not able to provide an integrated service delivery model which could include, counseling, establishing peer-to-peering programs, promoting self actualization, etc.

The researcher did cross-tabulation concerning gender, age, registered vs. non-registered students and ethnicity. The aim of doing cross-tabulation concerning gender was that to find out if perceptions of college students with disabilities vary based on gender factor. The researcher wanted to compare males vs. female responses in five different sections of survey that is whether males have better perception on transition services from high school to

college. Similarly in the section on adjustment to college, the researcher was interested in finding out if females adjust better to college or males due to differences in their interpersonal skills, social skills. Is there any difference in the college stress level experienced and managed by females vs. males. Do females receive more family support and other social support that facilitate their college life than males?

The aim of cross tabulation concerning age was to find out if younger students in the age group of 18-25 have positive perception or negative perception concerning transition services from high school to college. In the campus adjustment do younger students or older student have more difficulty in relating to other people and making friends? Do the younger students have better social skills than older students? In a section on communications/campus climate, do younger students or older students feels more socially isolated on campus? Do younger students or older students have more positive perception regarding relationship with faculty, peers and administrative personnel.

The aim of cross tabulation concerning registered vs. non-registered students was to find out if registered students receive more academic, social support from faculty, peers and others or non-registered students because they are registered so that means they have DSSO support and as they have already disclosed their disability so professors are more willing to help them.

The aim of cross tabulation concerning ethnicity was to find out if Hispanic student have responded more positively to survey questions like to questions on social isolation and faculty and peer relationships and social skills.



## **5.4 Recommendations for University**

UTEP should look into setting up a program to help veterans make the transition from combat to college as there is a huge increase in population. At this time we do not have such program at UTEP. There is a huge need for this program. The goal of this program should be to start several campus initiatives for enrolled and prospective student veterans and create a 'veteran-friendly' campus. Studies have shown that for many returning vets, the open environment of a college campus is a daunting atmosphere (DiRamio, Ackerman, Mitchell, 2008). Many veterans find the lack of structure disorienting and they don't quite know how to handle that.

### **5.4.1 Peer Mentoring**

Peer mentor programs served as a unique component to inclusion in postsecondary education. In a study on postsecondary education and employment for students with disabilities from the University of Hawaii, researchers found that peer mentors were an important part of helping students with disabilities become integrated into the campus community as they serves as a source of resource and provide support for students with disabilities. These peer mentors enable students with disabilities to meet new students and made social network that otherwise may be difficult for these students due to their own disabilities that makes it difficult to meet and make new friends (National Institute on Disability and Rehabilitation Research, 2000). Research has also shown that peer-mentor relationships provide both instrumental and emotional support (Blumberg & Daley, 2008). Instrumental support involves teaching how to do something as well as assistance in completing a difficult

task. On the other hand, emotional support may involve modeling, teaching problem solving strategies, and offering ways to express or manage difficult feelings (Hagner, 2000; Kram & Isabella, 1985). Students in these peer-assisted programs show improvements in self-concept, social skills, tolerance of human differences, and development of social relationships (Kamps, Kravits, Stolz, & Swaggart, 1998). This peer mentor program will help new incoming students to learn from peer mentors that as students with disability they can also build positive identity and they can also build competence by participating in different activities on campus. As a result they will have positive self-esteem and self-concept.

At UTEP, we do not have a peer mentor program but the results of the study shows the need of such program as students with disabilities feel socially alienated and this is especially the case with veterans. Thus UTEP should think of establishing peer mentor programs for students with disabilities. Examples of Peer Mentor Programs were found at Lehigh University, and Syracuse University.

At Lehigh, peer mentor assist first-year students with the transition from high school to university. The Peer Mentors are composed of upper class students who have a diagnosed learning disability or attention deficit disorder. First-year students are matched with a peer mentor by college and/or major and the reason behind this is that upper class students of the same major and/or college have most likely taken the same courses, the same professors, and have experienced the same challenges as the freshman with whom they have been matched.

It is also important for university personnel to be aware that students with disabilities have same goals for the college life as other students have. The university is not just a place to

get an education; students grow personally and socially and psychologically through their relationships with fellow students, campus staff, and faculty. Providing a pro-social climate will facilitate growth. Keeping in mind the fact that UTEP is a commuter campus where only 3% students live on campus it will be challenging for student affairs professionals to encourage students to participate in out-of-class opportunities.

One model transition program is called Project Excel, an effective demonstration of the Higher Education Transition Model at the University of Arkansas. This program provided a comprehensive transition experience for 12 high-achieving students with physical and learning disabilities. Program activities enabled students to develop friendships, successfully complete two college courses, and acquaint themselves with the university and surrounding community. The model includes psychosocial adjustment, academic development, and university and community orientation as essential considerations for students with disabilities as they enter and adjust to college life. The twelve students who participated in Project Excel received academic advising and personal counseling, enrolled in six hours of college credit, and participated in a wide range of social and recreational activities (Serebreni, Rumrill, Mullins, & Gordon, 1993).

## **5.5 Surprises**

An interesting finding in this study was that some of the study participants mentioned that they had better experience at UTEP as compared to El Paso community college (EPCC). The main reason is that these students are looking for independence that they could not find in high school and in community college, and they have found better support service provisions at

UTEP. They are also satisfied that UTEP. DSSO office has more dedicated staff. This finding is not consistent with previous research as previous research has shown that community colleges that are two-year institutions tend to provide more personalized services and a greater number of services to students with disabilities than four-year postsecondary institutions (National Center for the Study of Postsecondary Educational Supports, 2000). In particular, two-year schools have been found to typically provide comprehensive individualized support services such as wide academic accommodations, more assistive technology, counseling, tutoring, and assessment (Cocchi, 1999). Research has also shown that students in community college have also expressed more satisfaction in terms of support services and physical access and have reported fewer barriers than four-year college and university students (West et al., 1993).

### **Transfer from EPCC to UTEP**

The interview participants in the study shared their opinion regarding their college experience at UTEP vs EPCC that is El Paso community college. According to four participants they had quality college experience at UTEP than at EPCC.

*According to Rebecca,*

*I went to EPCC and their disability program is not as high or good as EPCC and this is not only felt by me but also felt by other two students. First reason is that it is more like a high school. They almost kind of baby you. Here it is so different now as I have no complaints. Here you are responsible for yourself and as far as the accommodations they are the same. There did not much understanding about LD. I was not aware of my condition when I got diagnosed here at UTEP than I understand why I had problem in learning.*

Alejandro mentioned that

*I did find differences with EPCC as they are smaller, offer same services. However they have everything in one building like financial aid, center for students with disabilities. One thing*

*that I like here at UTEP is that I can schedule all of my exams at DSSO in the beginning of semester, in EPCC they do not schedule in advance and when you go to take exams there they may be too crowded and you get distracted as a result while taking exams. I did not like their way of organizing tests proctoring. However I did not want to start at UTEP first because EPCC is smaller and have all the classes in one building.*

*According to Vivian,*

*I found at UTEP that administrators are more dedicated towards students with disabilities as they interact more with students and that encourages us to ask for necessary help. Apart from that even though we have everything at different place such as financial aid is in separate building, academic advising is in another building but I like it this way because this makes me independent.*

*According to Sammy,*

*I like UTEP better than EPCC as at EPCC you need to go physically to financial aid office every semester to get my tuition waiver processed. At UTEP, I just need to come to DSSO only one time and that is it.*

The other finding that surprised me is that students in this study rated interaction with faculty and faculty attitudes towards them to be higher than I expected, except in few situations. Previous research findings have shown that there is a lack of understanding on the part of instructors relative to disability issues (Hill, 1996; West et al., 1993). Junco (2002) also stated that negative attitudes of instructors may prevent students with disabilities from using self-advocacy skills. Malakpa (1997) listed the negative attitudes of faculty members as being the third most significant barrier to student success, after accessibility problems and lack of available supportive services. These negative attitudes towards students with disabilities are more prominent at larger universities where there is less connection among students and faculty.

## **5.6 Summary of Interview Findings**

Some things showed up in the interviews that did not show up in the survey. For instance, in terms of peer perception, in this study some of the students, especially veterans, mentioned that they feel isolated on campus. They find it hard to relate to fellow students who are not veterans and do not share similar life experiences. In the study, interview findings also suggest that students with disabilities also face many physical accessibility barriers and the participants discussed these physical barriers in detail. Interview participants also revealed the nature of their interactions with professors. Most of the interactions students have with faculty are formal and need-based interactions. In terms of student self-perception or identity, some students in this study, for the most part, do not see themselves as disabled and other students have difficulty in disclosing disability to others. As most of study participants live with their parents, thus they come to campus just for class and they go back home thus they have a very different way of looking college experience. Most of the students interviewed do not work and are not involved in campus organizations or activities; they show the need for more avenues to build their self-esteem.

## **5.7 Limitations of the Study**

Every empirical exploration irrespective of the fact how rigorous has strengths and weaknesses (Heppner et al., 2008). Thus it is important to recognize those limitations, and frame the study keeping in mind its strengths and weaknesses. This study did have some limitations. Since this study only examined undergraduate students who had disabilities, it is not representative of all students with disabilities at UTEP.

Another limitation of this study is limited generalizability. Generalizability suggests that findings can be applied to individuals or situations other than those in which the findings were obtained (Gall et al., 2003). Furthermore, all participants resided in the Southwest. Hence, had the study been conducted with different participants or at another institution, data analysis might yield another set of findings. At the same time, this limitation is also a contribution, as there a few, if any, research studies of disabled students on campuses like this one.

While it was possible to determine the demographics of those who responded to the survey, it was not possible to determine why non-responders who met the criteria for the study chose not to participate. Disabled student service office provides services to more than 400 students with disabilities. So, this study is limited only to the self-perceptions of those who responded to the survey. The investigation was based on participant self-reporting, and was limited by the time period during the academic year (September and October) that students were administered the survey. In addition, the investigation relied on the use of an on-line survey administration. As a result, it was dependent on the reliability of this technology, student access to a computer and the Internet availability at home. Not all the students have internet connection at home so they have to take the survey on campus. Most students come to campus for class and then leave. It is possible that they did not get time to take the survey. The respondents self-selected for study participation and a relatively high number of abandonment by study participants occurred. Out of total one seventy four students who attempted the survey, seventy interested potential participants entered the survey link, but did not proceed past the informed consent page. Thus total 104 students volunteered to complete the survey. Other potential participants filled the demographic information in the survey, but

left the survey within the next five section of the survey. One student indicated he was in a graduate program and so was not eligible to participate in the survey. With the use of survey methods the researcher is unable to account for the differences between response and non-response rate among participants. Thus, volunteer bias is plausible due to high non-response rates from participants in the sample. In terms of qualitative research study, the small sample size of 11 interviews and use of single interviews with the students is a further limitation. I wished the scope of my study was larger where I have opportunity to do more than one interviews with the participants, because it would have been interesting to broach additional topics with the participants. They seemed to have fascinating insights. Some participants were eager to talk more than others. When I plan to do another similar study on students with disabilities, I want to do more than one interview of these students with disabilities to do more in-depth investigation of their college experiences. Due to these limitations, any generalizations of study findings to students who do not reflect the demographic characteristics of the students with disabilities in this study must be made with caution.

## **5.8 Recommendations for Further Research**

A qualitative comparative study should be undertaken to find out the feelings/ perceptions of the faculty as well as student perceptions towards providing accommodations, regarding teaching students with disabilities and investigate what challenges they face and what information and support services faculty require providing accommodations. Information generated from this study can also help administrators in the overall understanding of the campus climate for this underrepresented group. In terms of student campus involvement, a



comparative study can also be made to determine campus involvement, adjustment to college and campus climate of general student population.

The overall findings of the study show that students are satisfied with the campus climate at UTEP. Thus there is the question is why they are more content than the research suggests. Do they really find this campus to be good in terms of taking care of their overall psycho-social development or is it role of Hispanic culture that makes it study participants to have lower expectations from the institution? A comparative study can also be done between UTEP that has Hispanic working class minority student population and a university that has predominantly white middle class population and to see the perception of students towards the faculty and peers, and staff.

In order to compare the difference between students with disabilities perception at 4-Year College and at community college, a comparative study can also be undertaken. This will show if culture plays a role in defining their perceptions towards other faculty and peers and in campus climate.

## **5.9 Enhancing the Current Study**

Several limitations arose within the survey that if I were to conduct this study again I would focus on with greater depth. If I get the opportunity I would like to redesign the survey question regarding student identification of disability in a way that can help me in analysis of data in terms of comparing the students with visible vs. invisible students with disabilities, and their college experiences. There are no known studies which compare the college adaptation of those with invisible disabilities to those with disabilities which are more visibly evident. Due to

this increase in number of students with invisible disability, studies have shown that perceived visibility of one's disability may impact a student's adaptation to college differently (i.e., due to factors such as discrimination and stigma associated with visible disability, fear of discovery for invisible disability, and/or the stress of repeatedly explaining why educational accommodations are needed for a disability that cannot be seen). I tried to compare students with apparent disability with non-apparent disability in this study, but I could not do as many students have multiple disabilities, (apparent and one non-apparent), so it is difficult to categorize them in either category. Survey monkey did not allow me to crosstab responses based on visible or invisible disability.

I would also rephrase the question on parking to get to know besides lift services and driving to campus what other modes of transportation are used by students to commute to campus. The main aim is to investigate the nature of transportation challenges they face as that impact their college experience. Students with disabilities may face challenges simply getting to and from school each day. The lack of reliable, accessible public transportation may pose a formidable barrier to education for students with disabilities.

Another aspect I would explore is regarding type of financial aid received by students. They are important areas of investigation. I also want to ask a specific a question on the type of financial aid received by students. In the study, about 25% of students mentioned that they are not receiving any scholarship or grants from anywhere and this does not look positive. If they don't qualify for any scholarship or financial aid and also does not work either as work-study or off campus than there are chances that they will take longer to complete college and as a result

accrue higher college expenses. Apart from that students with disabilities in general have huge medical costs. Thus they may have a huge financial burden associated with their health-care costs.

I also want to ask question in survey as to when they got diagnosed with disability as that has impact on nature of college experiences and their identity construction. This research can explore if there are any differences in disability identity construction between students who got diagnosed with disability early in their life vs. students who got diagnosed while participating in university life.

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## **7 APPENDICES**

## 7.1 Appendix A: IRB Approval Letter

**THE UNIVERSITY OF TEXAS AT EL PASO**  
Office of the Vice President for Research and Sponsored Projects  
**Institutional Review Board**

El Paso, Texas 79968-0587  
phone: 915 747-8841 fax: 915 747-5931

**FWA No: 00001224**

DATE: July 21, 2011

TO: Neelam Agarwal, M.A; MSW

FROM: University of Texas at El Paso IRB

STUDY TITLE: [254113-1] Beyond Accommodations: Perceptions of students with disabilities in a Hispanic serving institution

IRB REFERENCE #: 254113-1

SUBMISSION TYPE: New Project

ACTION: APPROVED

APPROVAL DATE: July 21, 2011

EXPIRATION DATE: July 21, 2012

REVIEW TYPE: Expedited Review

Thank you for your submission of New Project materials for this research study. University of Texas at El Paso IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a study design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This study has received Expedited Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the study and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the study via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All SERIOUS and UNEXPECTED adverse events must be reported to this office. Please use the appropriate adverse event forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

Please report all NON-COMPLIANCE issues or COMPLAINTS regarding this study to this office.

Please note that all research records must be retained for a minimum of three years after termination of the project.

Based on the risks, this project requires Continuing Review by this office on an annual basis. Please use the appropriate renewal forms for this procedure.

If you have any questions, please contact Athena Fester at (915) 747-8841 or [afester@utep.edu](mailto:afester@utep.edu). Please include your study title and reference number in all correspondence with this office.



## 7.2 Appendix B: Informed Consent Form

### University of Texas at El Paso (UTEP) Institutional Review Board Informed Consent Form for Research Involving Human Subjects

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**Protocol Title:** Beyond Accommodations: Perceptions of students with disabilities in a Hispanic serving institution

**Investigators:** Neelam Agarwal, doctoral candidate in the Department of Educational Leadership and also an Assistant Director at Disabled student service office at The University of Texas, El Paso.

I invite you to take part in a research study called Beyond Accommodations: Perceptions of students with disabilities in a Hispanic serving institution conducted in part to fulfill the requirements for completion of a doctoral degree. This study has been approved by the Institutional Review Board (IRB) at University of Texas, El Paso and is described below. Please take your time making a decision and feel free to discuss it with your friends and family. Before agreeing to take part in this research study, it is important that you read the consent for that describes the study. Please ask the study researcher to explain any words or information that you do not clearly understand.

This study is designed to explore student perceptions and experiences with regard to their transition to college, adjustment to college, campus involvement and communication/campus climate and other factors that may impact their daily life on this college campus. More specifically, the aim is to obtain first hand information on to what extent do ethnic background and disability kind influence academic achievement and persistence and psychosocial development and identity development of students with disabilities in a minority or Hispanic serving institution. In this study, first hand reports from numerous disabled students (that include both visible and invisible disability) will be able to provide sufficient information regarding constraints with regard to transition from high school to college, adjustment to college, campus involvement and communication, campus climate. The current research will attempt to identify predictors of college adjustment for students with both visible and invisible disabilities.

You are being asked to be in the study because you have voluntarily identified yourself as a student with a disability enrolled at UTEP. For this study, in the first phase, I will collect survey data; in the second phase, in-depth voluntary interview data through approach to qualitative research called case study research (i.e., the detailed account and analysis of one or more cases).

The survey will be implemented using electronic mail. SurveyMonkey.com, a web-based service company will be used to host the on-line survey and collect data. This survey will take you about 20 minutes to complete. Data collected during the administration of a questionnaire concerning these issues will be stored in a computer database with a security password. During the administration of a questionnaire concerning these issues, the computer software (Survey Monkey) assigns a numerical code to each participants email address in order to track duplicate responses.

In the second phase, in-depth interviews will be conducted. I will digitally record the interviews. The recordings will be transcribed. All audio tapes will be coded so that no personally identifying information is visible on them.

1



Approved on: 07/21/2011  
Expires on: 07/21/2012  
Study Number: Agarwal  
254113-1

If you decide to enroll in the interview portion of study, your involvement will last about 1-2 hours depending on your availability. Times will be scheduled at convenient times for you. Your participation in this study is on a volunteer basis. If you decide to participate, you will not lose benefits to which you are otherwise entitled. You may withdraw from the study at any time without penalty. Your part in this study is confidential. None of the information will identify you by name and only pseudonyms will be used. All records will be stored in Ms. Agarwal office (Union East, 106). Interviews will be transcribed verbatim.

The primary investigator may contact the interview participants for a follow-up interview if necessary to clarify your responses and /or ask additional follow-up questions. The investigator will digitally record the interviews. The recordings will be transcribed. This will assist the primary investigator to identify similarities and differences in participant responses. The digitally recorded interviews will be coded so that no personally identifying information is revealed to anyone except for the primary researcher. The digital media will be kept in a secured electronic file that will only be heard for research purposes by Ms. Agarwal.

However, there is no link between the student's identity and their corresponding answers, therefore the identity of each research participant are unknown and remain anonymous. When the study is completed and the data have been analyzed, the survey responses will be destroyed. The identity of the research participant will be kept confidential to the extent provided by law. The participant's responses will not appear on any of the results. No individual responses will be reported. Only the researchers involved in this study will have access to participant's research records.

The results of this research study may be presented at meetings or in publications; however, your identity will not be disclosed in those presentations should I decide on using recordings for professional conference presentations or educational purposes you are asked to sign on the appropriate signature line on this consent form.

While there are no know direct benefits to you for taking part in this study, it is hoped that this investigation will provide insights about current issues faced by college students with disabilities at UTEP. Your stories and experiences will help understand how services can be better provided to enhance positive experiences of other students with disabilities at UTEP.

At this time this study is not funded through internal nor external funds. Taking part in this research is entirely voluntary. Also, participants who volunteer to take part in this study will be eligible to participate in one of five \$25 gift cards from the university bookstore. Winner will be personally notified by the primary researcher upon completion of data collection.

Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you do not take part in the study, there will be no penalty.

If you choose to take part, you have the right to stop at any time. However, we encourage you to talk to study investigator so that she know why you are leaving the study. If there are any new findings during the study that may affect whether you want to continue to take part, you will be told about them.



If you have questions at any time, you may call or email Ms. Neelam Agarwal (747-7462), Disabled Student Service Office, email: [nagarwal@utep.edu](mailto:nagarwal@utep.edu).

If you have questions or concerns about your participation as a research subject, please contact the UTEP Institutional Review Board (IRB) at (915-747-8841) or [irb.orsp@utep.edu](mailto:irb.orsp@utep.edu).

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**Authorization Statement**

I have read each page of this letter about the study (or it was read to me). I know that being in this study is voluntary and I choose to be in this study. I know I can stop being in this study without penalty. I will get a copy of this consent form now and can get information on results of the study later if I wish.

*Participant Name:* \_\_\_\_\_ *Date:* \_\_\_\_\_

*Participant Signature:* \_\_\_\_\_ *Time:* \_\_\_\_\_

*Consent form explained/witnessed by:* \_\_\_\_\_

*Printed name:* \_\_\_\_\_ *Signature*  
*Time:* \_\_\_\_\_ *Date:* \_\_\_\_\_

I hereby give permission for the sections of the digital recordings of my interview made for this research study used for educational purposes/conference presentations.

*Participant Name:* \_\_\_\_\_ *Date:* \_\_\_\_\_

*Participant Signature:* \_\_\_\_\_ *Time:* \_\_\_\_\_



### **7.3 Appendix C: Perception of College Students with Disability Survey**

# Perceptions Of College Students with Disabilities

## 1. Informed Consent

You are invited to take part in a research study called "Beyond Accommodations: Perceptions of students with disabilities in a Hispanic serving institution" conducted in part to fulfill the requirements for completion of a doctoral degree. This study has been approved by the Institutional Review Board (IRB) at University of Texas, El Paso and is described below. This study is designed to explore student perceptions and experiences with regard to their transition to college, their adjustment to college, campus involvement and communication/campus climate and other factors that may impact daily life on this college campus.

More specifically, the aim is to obtain first hand information to what extent do ethnic background and disability influence academic achievement, persistence, psychosocial and identity development of students with disabilities in a Hispanic serving institution. In this study, first hand reports from numerous students with disabilities will provide information on the constraints with regard to transition from high school to college, adjustment to college, campus involvement and communication, and campus climate. The current research will attempt to identify predictors that leads to academic success for students with disabilities.

This study consists of two phases. The first phase is this Survey and the second phase will include one to one interviews conducted with students who wish to share their personal experiences with this researcher.

This survey will take an average of 30-35 minutes to complete. Your identity will be kept confidential to the extent provided by law.

At this time this study is not funded through internal nor external funds. Taking part in this research is entirely voluntary. Those who volunteer to take part in this study will be eligible to participate in one of five \$25 gift cards from the UTEP bookstore. After completing the survey, you will be led to a different page stating that you have the option to enter in a random drawing for one of five gift cards (Odds of winning gift card are dependent on survey response rate). If you would like to be placed in the drawing for a gift card you can choose to submit your e-mail information at the end of the survey. Individuals who enter the drawing will only be known to the investigators, your contact information will not be shared with anyone, and survey responses are not linked to contact information. All e-mail contact information will be kept on a password secure encrypted document stored separate from survey data. Contact information will only be used for the purpose of notifying gift card winners.

At the end of the survey also you will be asked if you would like to participate in a one to one interview with the study researcher. This is a voluntary interview. If you decide to enroll in the interview portion of study, your involvement will be about 1-2 hours depending on your availability. Times will be scheduled at convenient times for you. If you decide to participate, you will not lose benefits to which you are otherwise entitled. You may withdraw from the study at any time without penalty. Your part in this study is confidential. None of the information will identify you by name and only pseudonyms will be used. All records will be stored by Ms. Agarwal office. Interviews will be transcribed verbatim.

### \*1. Authorization Statement

**I have read the description of the study. My participation in the study is voluntary. If you would like to get a printed copy version of this informed consent form or if you would like information about the results of the study then please contact Neelam Agarwal, 915-747-7462 or email at [nagarwal@utep.edu](mailto:nagarwal@utep.edu).**



Yes, I agree to participate in this study and I know that the responses to the survey will not have any identifying information.

# Perceptions Of College Students with Disabilities

## 2. Demographic Information

### \*1. 1.1 What is your current classification in college?

- ☐ Freshman/first-year
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ Unclassified

### \*2. 1.2 How many total college credits have you earned?

- ☐ 0-15 credits
- ☐ 15-30 credits
- ☐ 30-45 credits
- ☐ 45-60 credits
- ☐ more than 60 credits

### \*3. 1.3 What is your current GPA?

- ☐ 3.5 or above
- ☐ 3.00-3.5
- ☐ 2.5-3.00
- ☐ Below 2.0

### \*4. 1.4 Are you a transfer student? (If yes, check all that apply).

- ☐ No
- ☐ Yes, EPCC
- ☐ Yes, Other Community College
- ☐ Yes, Other 4year University

### \*5. 1.5 Which best describes your student status?

- ☐ Full time student
- ☐ Part-time student

## Perceptions Of College Students with Disabilities

### \*6. 1.6 What is the name of your college?

- ☐ College of Business
- ☐ College of Education
- ☐ College of Engineering
- ☐ College of Health Sciences
- ☐ College of Liberal Arts
- ☐ School of Nursing
- ☐ College of Science

### 7. 1.7 What is your major?

### \*8. 1.8 What is your Gender?

- ☐ Male
- ☐ Female

### \*9. 1.9 What is your current age?

- ☐ 14-17
- ☐ 18-25
- ☐ 26-35
- ☐ 36-45
- ☐ 46-55
- ☐ 56+

### \*10. 1.10 What is your ethnicity?

- ☐ Hispanic
- ☐ Non-Hispanic

## Perceptions Of College Students with Disabilities

### \*11. 1.11 What is your race?

- ☐ African American
- ☐ White
- ☐ Asian American
- ☐ Native American
- ☐ Pacific Islander
- ☐ Other/multiracial

### \*12. 1. 12 Are you first in your family to attend college?

- ☐ Yes
- ☐ No

### \*13. 1. 13 What are your Primary disabilities? (Check 1 or 2).

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Physical disability      | <input type="checkbox"/> Learning disability | <input type="checkbox"/> Speech impairment                          |
| <input type="checkbox"/> Cognitive disability     | <input type="checkbox"/> Hearing Impairment  | <input type="checkbox"/> Chronic health impairments (e.g. diabetes) |
| <input type="checkbox"/> Psychological disability | <input type="checkbox"/> Visual impairment   |   |

Other (please specify)

### \*14. 1.14 Are you currently receiving services from Disabled students service office (DSSO)?

- ☐ Yes
- ☐ No

### 15. 1. 15 Please list the accommodations that you have received from DSSO? (Check all that apply).

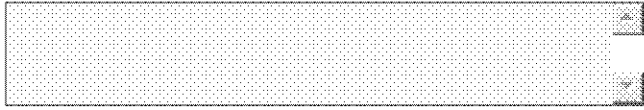
- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Note taker services    | <input type="checkbox"/> Extended time on assignments | <input type="checkbox"/> Reader/Scribe for my exams     |
| <input type="checkbox"/> Interpreter services   | <input type="checkbox"/> Quiet Location for exams     | <input type="checkbox"/> Books on CD                    |
| <input type="checkbox"/> Extended time on tests | <input type="checkbox"/> Assistive technology         | <input type="checkbox"/> Alternative format assignments |

Other (please specify) If you are not receiving any services then please say N/A



## Perceptions Of College Students with Disabilities

**16. 1.16 List any accomodations that you have not been able to receive from DSSO that would enhance your learning experiences at UTEP?**



**\*17. 1. 17 Are you a receipient of any Scholarships, or financial awards?(If yes, check all that apply).**

☐ No

☐ Yes, I am receiving financial aid (BOGG, PELL, SEOG, CALB. Yes, Financial support through Department of Assistive and Rehabilitative Services (DARS).

☐ Yes, Scholarships offered through UTEP, private foundations and national organizations for specific disabilities and businesses and local agencies.

☐ Other sources of financial support (i.e., federal loans, grant, personal; parent/family funds).

**\*18. 1. 18 What forms of transportation do you use to to commute to UTEP Campus?  
(Check all that apply)**

☐ Other

☐ Riding Sun Metro Para-transit shuttle the Lift

☐ Riding Shuttle service from LULAC Project Amistad (LPA)

☐ Drive to campus and use a disabled parking placard

☐ Depend on parents/relative, friend to drive me to and from campus

# Perceptions Of College Students with Disabilities

## 3. Transition to College

**\*1. Please choose the best answer for each area.**

	Strongly disagree	Disagree	I am unsure	Agree	Strongly agree
1.1 I was satisfied with the quality of the information about college disability-related services that I obtained from my high school counselor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2 I am satisfied with the availability of general campus information (brochures, letters, announcements, financial aid forms, applications etc) in alternate format (e.g., large-print, audio tape etc).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3 I was satisfied with my understanding of the UTEP admission process, including the special admissions process available to students with disabilities who are, or may otherwise be inadmissible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4 I was satisfied with my understanding of the steps needed to become a Disabled Students Service Office (DSSO) client (e.g., submitting documentation of disability, completing intake appointment etc).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.5 I was satisfied with my ability to anticipate the disability-related support services I required to be successful as a college student.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Perceptions Of College Students with Disabilities

## \*2. Please choose the best answer for each area.

	Strongly disagree	Disagree	I am unsure	Agree	Strongly Agree
1.1 I am satisfied that my DSSO intake counselor identified services that accommodate my disability related needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2 I am satisfied with my understanding of the steps I need to take to obtain DSSO services that my intake counselor identified.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3 I am satisfied with the information I obtained from my intake advisor regarding other campus and community organizations that provide disability-related services not offered by DSSO.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4 I am satisfied with the involvement I had in acquiring disability-related services to meet my needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.5 I am satisfied with the involvement DSSO had in providing disability-related services.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.6 I am satisfied with the amount of faculty involvement in providing disability related services.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.7 I am satisfied with the amount of time it took to receive DSSO services.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.8 I am satisfied with my ability to obtain accessible housing in either campus housing or in the community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.9 I am satisfied with the physical accessibility of the campus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Perceptions Of College Students with Disabilities

## 4. Adjustment to College/University

**\*1. Please choose the best answer for each area.**

	Strongly disagree	Disagree	I am unsure	Agree	Strongly agree
1.1 I feel I am adjusting well to college.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2 I feel that I have successfully taken responsibility for myself in college.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3 I am satisfied with my academic performance in college.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4 I have difficulty approaching new people and making new friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.5 I have developed meaningful interpersonal relationships in college.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.6 I possess the social skills necessary to relate well to others in college.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**\*2. Please choose the best answer for each area.**

	Strongly disagree	Disagree	I am unsure	Agree	Strongly agree
1.1 I often feel lonely and isolated from my peers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2 The number of extracurricular activities offered by the university is adequate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3 The stress I experience in college is often overwhelming.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4 I have found the correct balance between my social and academic life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Perceptions Of College Students with Disabilities

## 5. Campus Involvement

**\*1. About how many hours do you spend in a typical 7-day week doing each of the following?**

	1-5	6-10	11-15	16-20	21-25	26-30	More than 30 hours per week
1.1 Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2 Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3 Relaxing and socializing (watching TV, partying, etc.).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4 Providing care for dependents living with me (parents, siblings/children, spouse, etc.).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.5 Commuting to class (driving, walking, etc.).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**\*2. I am satisfied with my involvement in campus co-curricular activities (organizations, clubs, recreational and sporting events, fraternities, sororities, etc)**

**I am satisfied with my ability to:**

	Strongly disagree	Disagree	I am unsure	Agree	Strongly agree
Discover what activities are accessible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Find support for making interesting nonaccessible activities accessible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Find enough students interested in participating in currently accessible activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel welcomed by other participants in activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel welcomed by sponsors of activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Perceptions Of College Students with Disabilities

## 6. Communications/campus climate

**\*1. Please choose the best answer for each area.**

	Strongly disagree	Disagree	I am unsure	Agree	Strongly agree
1.1 My disability prevents me from having more contact with my professors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2 I feel that UTEP's faculty accept me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3 Professors are aware of the special needs of disabled students in their classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4 Professors have conveyed confidence in my ability to do well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.5 Administration is sensitive to the needs of disabled students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.6 Nondisabled students want to get to know disabled students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.7 I find myself lonely and lost on this campus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.8 I do not have much communication with nondisabled students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.9 Nondisabled students are genuinely friendly toward disabled students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.0 Disabled students do their best to establish friendly relationships with nondisabled persons.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1 Architectural barriers prevent my access to educational resources and/or buildings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2 I lack confidence in dealing with faculty and students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3 I communicate well with nondisabled students and faculty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.4 I feel I am well-adjusted to college.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Perceptions Of College Students with Disabilities

**\*2. Choose the best answer that represents the quality of your relationships with other students at UTEP.**

	Unfriendly	Unsupportive	Sense of alienation	Friendly	Supportive	Sense of belonging
1.1 Relationships with other students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**\*3. Choose the best answer that best represents the quality of your relationships with faculty at UTEP.**

	Unhelpful	Unsympathetic	Available	Helpful	Sympathetic
1.1 Relationships with faculty members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**\*4. Choose the best answer that best represents the quality of your relationships with administrative staff personnel at UTEP.**

	Unhelpful	Inconsiderate	Rigid	Helpful	Considerate	Flexible
1.1 Relationships with administrative personnel and offices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Perceptions Of College Students with Disabilities

## 7. Technology

**\*1. Please choose the best answer for each area.**

	Strongly disagree	Disagree	I am unsure	Agree	Strongly agree
1.1 Technology that helps enhance my learning opportunities are readily available to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2 Computer labs across campus have technology that accommodates my learning needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3 Computer labs that house technology available to me are open during hours I can access during the day.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4 Computer labs that house technology available to me are open during hours I can access during the evening and night hours.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.5 Computer lab staff are knowledgeable about assistive technology and tools I can access.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.6 UTEP has a technology lending lab so that I can take hardware home for days I can't get to campus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.7 Faculty have been understanding about the technology accommodations that I require to access information presented in my classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.8 Faculty have been instrumental in using alternative methods in their instruction for me to access content in the course.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.9 Workshops have been developed for UTEP students to learn about new technology tools available to enhance learning opportunities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## Perceptions Of College Students with Disabilities

**2. Please include any comments about your experiences at UTEP that were not covered in this survey and you consider important to improve services to students with disabilities.**



# Perceptions Of College Students with Disabilities

## 8. Thank you and University Bookstore Gift Card Entry

**1. Thank you for participating in this survey. Your responses will be very helpful and informing the researcher about the perceptions of college students with disabilities, improve service delivery from Disabled Student Service Office, outreach with freshman and transfer students and ease the transition of high school students with disabilities to UTEP.**

**Completion of the survey ends the first phase of the study.**

**For the second phase, if you would like to participate in the volunteer interview, please send me an email to [nagarwal@utep.edu](mailto:nagarwal@utep.edu) or phone 747-7462. Your participation is strictly voluntary and you can withdraw at any time before the dissertation is submitted for approval. No comments included in my dissertation study will be associated with your name. The digitally recorded interviews will be coded so that no personally identifying information is revealed to anyone except for the primary researcher. The interviews will take about 45 minutes to an hour to complete.**

**Confidentiality reminder: Your survey responses are not linked to contact information; your e-mail will only be used for the purpose of notifying gift card winners. If you do not wish to receive results or be entered to win one of five UTEP Bookstore gift cards please leave the boxes empty and click on the submit button at the bottom of this page.**

**If you are interested in entering the drawing for UTEP Bookstore gift cards please indicate your preferred e-mail address**

## 7.4 Appendix D: Interview Questions

Tell me about yourself. Describe yourself in terms of your family & cultural background. Based on your perceptions, what role does culture play in your identity as a college student at UTEP.

Tell me about your college experiences starting from your last year in high school to where you are now. Describe the types of support services and/or systems that you have accessed during your college experiences. Which ones have you relied on or/ rely on the most?

Do you see yourself as disabled? How significant is your disability in your life?

Describe the types of interactions you have with your peers? With UTEP staff? With your professors?

What types of activities do you participate in on Campus? Outside of UTEP?

How does technology assist you in meeting daily and or academic needs? What suggestions do you have for UTEP in supporting your learning /physical needs?

Have you experienced the differences from high school to college or from EPCC when you first started college such as in terms of support services and support systems?

Who or what is the biggest support for you while in college?

How have faculty and staff members, family and/or friends contributed to your experience in college?

(Probes: Please describe an experience where you found someone to be especially supportive.

Please describe an experience where you found someone to be especially not supportive.)

Are you receiving any accommodations from DSSO? If so, have they helped you to participate in campus life at UTEP?

Are you using technology to do your class assignments? Do you feel challenged with it? Are you able to access blackboard?

Have you shared or do you feel comfortable sharing your disability with your friends? Faculty? If no, why not?

Do you feel comfortable discussing your disability with faculty and staff? Have you experienced acceptance from faculty and friends? How has this helped you participate?

How do you define your culture? Name some key elements that help define your culture.

Did these elements have any impact on your college experience or success as a college student?

What activities are you a part of on campus? Are there any campus activities would you like to participate in but due to some reason you are not able to?

Overall, how do you feel about your experience at UTEP?

Is there anything that you want to add that has not been covered?

## 8 CURRICULUM VITA

Neelam Agarwal was born in New Delhi, India, and is the third child of Krishna Kumar and Kusum Agarwal. After graduating from a high school in New Delhi, India, Neelam graduated with Bachelors degree in Applied Psychology from Vivekanand College, The University of Delhi in 1994. As a student, she received a Received Certificate of merit for Securing first position in Under-graduation. When she graduated in 1996 with a Master's degree in Social Work from The University of Delhi, Neelam received a National Merit Scholarship from Govt. of India during Graduation Studies. She moved to U.S in 2001 and she graduated with a Master's degree in Rehabilitation Counseling from University of Arizona in 2004. Neelam is also a Certified Rehabilitation Counselor (CRC). Neelam has had the privilege and honor of serving UTEP students throughout her professional career. She is currently serving as an Assistant Director of Disabled Student service office. She has held a variety of positions in her career including:

### Professional Experience

2008- Present Assistant Director, Disabled Student Service Office

University of Texas at El Paso, El Paso, TX

2004-2008 Coordinator, Social Work, Field Work Instructor

Temple University, Philadelphia, PA

2004 Vocational Rehabilitation Counselor, Office of Vocational Rehabilitation

Commonwealth of Pennsylvania, Philadelphia, PA

2002-2003 Graduate Assistant, Department of Rehabilitation Counseling. University of Arizona, Tucson, AZ

2002-2003 Graduate Research Assistant, Dept. of Psychology. University of Arizona, Tucson,

AZ

1998-2001      Senior Counselor, Apollo Hospital Enterprise Limited (Delhi, India)  
1997-1998      Coordinator, UNICEF Projects Delhi, India  
1996-1997      Family Counselor, Love & Care, Delhi, India

Over the years, Neelam has actively participated in a number of professional organizations including the AHEAD - National Association on Higher Education and Disability. Neelam received the Association on Higher Education and Disability Professional Development Scholarship in 2011 and Cotton Memorial Scholarship in 2011 from The University of Texas, El Paso.

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This thesis/dissertation was typed by Neelam Agarwal.