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Retention of Students with Disabilities in Higher Education

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As the population of students with disabilities enrolling in two and four-year colleges continues to increase, so does the concern for student retention and persistence to graduation. Data from the National Center for Educational Statistics (2011) indicates that 707,000 students with disabilities enrolled in 3,680 two-year and four-year postsecondary institutions in 2008-2009. Of this total, institutional data indicates the disability categories with the highest incidence of reports included specific learning disabilities (31%), Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD) (18%), and mental illness (15%) (see Table 4 of NCES, 2011, for complete data).

This increase in enrollment may be due, in part, to the demand for more college graduates in the workplace as well as legislation that prohibits discrimination in postsecondary education institutions. As these students transition from high school to college, they are faced with many challenges which begin with whether or not to self-disclose their disability in order to receive accommodations. Accommodations for this specific student population are typically administered through the Office of Disability Support Services at each college in conjunction with the individual student's professor(s).

In contrast, some universities such as Landmark College in Putney, Vermont and New York colleges such as Sage and Excelsior have taken a different approach to address the needs of this special population by providing transition and/or degree programs specifically designed for students who learn differently. These programs not only provide an academic education but also teach students with disabilities how to advocate for themselves and thrive in postsecondary education (Marklein, 2011).

Most higher education institutions, however, are limited in the accommodations and services they can provide to students with disabilities as a result of funding and staffing limitations. As a result, administrators are challenged to identify, implement, and assess retention strategies that will increase the potential for students with disabilities to persist to graduation.

It is important to note that retention rates in higher education typically refer to percentage measurements of freshmen who re-enroll the following year as sophomores at the same institution. The term can also apply to upperclassmen and graduate students who re-enroll in subsequent semesters and persist to graduation. Retention rates are important as they represent primary measures of institutional academic quality and student success (Texas Guaranteed Student Loan Corporation, 1999).

The following literature review will identify and explore some of the retention strategies identified for students with disabilities in higher education. The paper concludes with recommendations for leaders in higher education.

Wessel, R.D., Jones, J.A., Markle, L., & Westfall, C. (2009). Retention and graduation of students with disabilities: Facilitating student success. *Journal of Postsecondary Education and Disability*, 21(3), 116-125.

A longitudinal study by Wessel, Jones, Markle and Westfall (2009) focused on the retention and graduation rates of undergraduate students without disabilities as compared to those students with varying degrees of disabilities at one public Midwestern doctoral granting college. The sample population included students without disabilities (n=11,144), students with non-apparent disabilities including cognitive, psychological, or health disabilities (n=92), and students with apparent disabilities including physical impairments (n=81). Within this sample,

46% of students were male, 54% were female, and 9% were minorities. The study began in summer 1994 and continued over an 8 year time span to track students from their entry term through graduation. The researchers selected the lengthy time span based on their assumption that students with disabilities would take longer to complete graduation requirements than those students without disabilities (Wessel et al., 2009).

The purpose of the study was to determine if there were any differences in the two groups of students with disabilities when compared to the students without disabilities in the areas of academic aptitude, retention, attrition, and graduation rates. Students with disabilities were verified by the college's Office of Disability Support Services (ODSS) each year. Retention and graduation data for each student were collected at designated annual intervals from the college's databases during the study. In addition, the accuracy of the data utilized in the study was confirmed by two individuals associated with the college who were authorized to use the databases.

Quantitative data were analyzed using a variety of statistical methods that included ANOVA factorial analysis, chi square test of association, and the Cox and logistic regression models. Results identified a small segment of the population (1%) who were only pursuing a two year degree, and they were dropped from the study thereby reducing the sample size to 11,184 total. Comparable retention and graduation rates were experienced by students with disabilities (apparent and non-apparent) and students without disabilities during the eight year study timeframe except for a two year period identified in year four and year five of the study. Significant differences were seen in year four as students with non-apparent disabilities experienced a lower graduation rate and the lowest retention rate when compared to the other two student groups (with apparent disabilities and without disabilities). Another significant

difference was seen in year five as the graduation rate for students with apparent disabilities dropped below the rates of the other two student groups. However, the overall mean number of years required for degree completion for the 5,558 students who completed a four year degree by the end of the study was 4.45. This included students without disabilities at 4.44 years, students with non-apparent disabilities at 4.67 years, and students with apparent disabilities at 4.61 years.

In addition, the researchers concluded that gender and academic aptitude had a greater impact on retention and graduation rates than disability as evident by female students requiring less time to graduate while those with higher academic aptitude also took less time to graduate and had lower attrition rates. Furthermore, even though the study did not attempt to measure the effectiveness of the ODSS, the researchers provided a lengthy discussion about interventions provided for students with disabilities to help them succeed in higher education institutions.

Wessel et al. (2009) pointed out the limitations of the study as including the fact that the research took place at one college and cautioned about generalizing the results to other colleges/universities. They also suggested replication of the study as a means to identify any common themes among higher education institutions.

The breadth of research methodology was appropriate for this longitudinal study as the sample equaled the college's population and utilized the college's retention and graduation database to separate students into categories of apparent disabilities, non-apparent disabilities, and no disabilities for comparison purposes. A wide variety of statistical techniques were used to analyze student data and adequately answer the three research questions.

Vogel, S.A., Leyser, Y., Burgstahler, S., Sligar, S. R., & Zecker, S. G. (2006). Faculty knowledge and practices regarding students with disabilities in three contrasting

institutions of higher education. *Journal of Postsecondary Education and Disability*, 18(2), 109-123.

This mixed methods research study explored survey results from faculty at three institutions of higher education in the United States, which included a community college (CC), private university (PU), and state university (SU) within the same urban geographical region. The purpose of the study was to identify differences, based on institution type, among faculty regarding legal mandates, policies, procedures, practices, and topics of interest as related to the provision of accommodations for students with disabilities. Data gained from the research could then be used to develop applicable institutional training, strategies, and activities for increasing retention and success of students with disabilities.

A cover letter, survey, and return envelope were mailed via campus mail to a total of 4,995 faculty members at the three institutions and a reminder postcard followed two weeks later. The overall combined faculty response rate was 27.7%. The survey instrument included 35 items divided into five sections and used a six-point Likert scale. It is important to note the survey's high degree of internal consistency was .90 as indicated by the Cronbach alpha coefficient of internal consistency reliability.

A quantitative analysis was used for the frequency data recorded in the sections pertaining to demographics and suggested professional development topics. For the sections measuring self-assessment of teaching knowledge, experience with students with disabilities, and familiarity with the office of disability services (ODS) as well as the section on willingness to provide teaching and exam accommodations, descriptive statistics and three-way ANOVAs were utilized. In addition, responses to three open-ended questions were analyzed with NVivo software which aided in identifying cross-categorical themes.

Faculty at all three institutions of higher education indicated a high degree of willingness to provide accommodations as well as a low degree of knowledge about Section 504 (Vogel, Leyser, Burgstahler, Sligar, & Zecker, 2006). Self-reported data from PU faculty indicated they were more knowledgeable about ODS, legislation, accommodations, and disabilities in general than the faculty at the CC or SU. At the same time, CC faculty reported higher incidences of inclusion of accommodation statements in their syllabi as well as formal class announcements to encourage students with disabilities to voice their needs than did PU or SU faculty. Vogel et al. (2006) suggested this difference was due to more incentives and opportunities for training at the CC level, which is often categorized as more service-oriented then PU or SU. In this study, the percentage of students with disabilities was 2.0% at the CC, 1.8% at the PU, and 1.0% at the SU.

This research study found faculty were most interested in professional development about teaching accommodations and ODS although SU faculty had the lowest level of interest in training topics overall. For training to be most effective and beneficial, researchers suggested institutions of higher education survey their own faculty to determine applicable topics as well as consideration of universal design in instruction. Providing training and information online were additional options recommended to meet the needs of diverse faculty and teaching assistants.

The study's limitations included three schools, self-reported data, a response rate of 27.7%, and lack of input from administration, staff, and students with disabilities. Researchers suggested future studies could utilize online or phone surveys to include a larger sample of higher education institutions in an effort to determine if these results were indicative of the institution type or specific institution.

The research design in this exploratory study seemed too broad in its attempt to survey 4,995 faculty members at three separate institutions with a five-part questionnaire (35 questions)

and three open-ended questions which were distributed via campus mail. Although the survey instrument had been modified by the researchers, there was no indication of field testing prior to administration, and the overall response rate was low with only 27.7% of faculty responding.

The methods of analysis seemed appropriate as quantitative data utilized frequencies, descriptive statistics, and three way analyses of variance (ANOVAs) while qualitative data was analyzed using NVivo software. In addition, the use of cross-case analysis added relevance to the data collected as links were identified between comments, themes, and questions which were imperative in answering the study's five research questions.

Orr, A.C., & Goodman, N. (2010). People like me don't go to college: The legacy of a learning disability. *Journal of Ethnographic & Qualitative Research*, 4(4), 213-225.

This ethnographic study explored the experiences of 14 students with learning disabilities at one Midwestern university. The purpose of the study was to identify the strengths and weaknesses of the participants as well as common themes in their experiences during K-12 as well as in higher education. Information gained from the study could potentially help faculty in mentoring, teaching, and retaining students with disabilities.

A purposive sampling approach was used to recruit participants via on-campus advertisements as well as through the campus organization for students with disabilities. The sample included diversity in program of study, college status, gender, and ethnicity. The 14 participants selected initially self-reported their learning disability, and six of these participants also indicated a dual diagnosis that included attention deficit disorder.

Data collection followed a three-phase interview process developed by Schuman (1982) which included semi-structured interviews with audio recordings (as cited by Orr & Goodman,

2010). Interviews progressed from past experiences to present experiences with the third interview focusing on reflection of personal experiences. Recordings were transcribed and then analyzed using a multiple phase process developed by Marshall and Rossman in 2006 which involved categorizing data and thematic coding of transcripts, according to Orr and Goodman (2010). In addition, the researchers used Creswell's components of "prolonged time, member-checking, and presentation of discrepant information" (p. 216-217) to ensure validity.

Orr and Goodman (2010) identified five themes which emerged from the series of interviews with the 14 students with learning disabilities. Those themes included the following:

1) the emotional legacy of learning differently; 2) the importance of interpersonal relationships and social connectivity; 3) the student-owned characteristics and strategies for success; 4) the barriers to success; and 5) the issue of diagnosis, disclosure, and identity. (p. 217)

Discussion of the research data focused on the first two items in an effort to provide recommendations for faculty. All but one of the 14 participants reported low self-esteem and self-confidence as a result of their learning disability and educational experiences. Orr and Goodman (2010) attributed the participants' success to personal relationships with family, friends, and educators who provided continuous support and encouragement. These support mechanisms correlated to Bernard's resilience theory and the importance of environmental supports.

Orr and Goodman (2010) suggested faculty embrace students with disabilities by understanding their unique needs both inside and outside of the classroom. Faculty should be available to meet with students, willing to provide accommodations, and encouraged to serve as

sponsors of campus organizations. Faculty can provide a vital support system for students with disabilities from matriculation to graduation.

Orr and Goodman (2010) identified several limitations of this study which included the following: small sample size, participants were from one university, and disabilities were self-reported versus official documentation. In addition, the study relied on the participants' recall of events while additional information from family members and/or teachers could have validated or extended the data. Future research could focus on a longitudinal study from matriculation to graduation to measure changes in self-confidence and self-efficacy during the college experience for students with disabilities.

The research method/design seemed appropriate for an ethnographic study as a purposive sampling was selected from one university and included 14 students representing diversity in terms of gender, age, ethnicity and program of study. According to Orr and Goodman (2010), the three-phase interview process provided prolonged time for validity as evident by "saturation as participant narratives started to repeat in terms of major themes and common experiences" (p. 215). The analysis of these themes and experiences was completed following the multiple phase approach developed by Marshall and Rossman in 2006 (Orr & Goodman, 2010).

Kurth, M., & Mellard, D. (2006). Student perceptions of the accommodation process in postsecondary education. *Journal of Postsecondary Education and Disability*, 19(1), 71-84.

This mixed methods research study utilized surveys and focus groups to obtain data from students with disabilities enrolled in 15 community and technical colleges in three different states. By measuring perceptions about the accommodation process and its effectiveness for this

student population, the researchers hoped the findings would ultimately aid campus offices such as Disability Support Services (DSS) as well as faculty and staff to select accommodations based on individual "students' contextual and functional needs" (Kurth & Mellard, 2006, p. 71) rather than their disability type.

A target population for this study was defined, and the sample set of students with disabilities (n=108) was selected by each college's DSS staff based on the percentage of enrolled students with disabilities, race, and ethnicity at each college. Participants received a \$40 stipend for completion of the focus interview and questionnaire. Participants were gender balanced (49% male and 51% female) and primarily white (75%) with 65% self-reporting one disability. The disability categories reported most often included learning disabilities (39%) and orthopedic/mobility problems (23%).

The four part survey provided quantitative data about the accommodation process while the qualitative interviews aimed to identify perceptions of and barriers to the accommodation process. The researchers field tested the survey and focus group questions at four colleges prior to official administration and adjusted survey instruments based on data collected and results received. The surveys were officially administered in three phases over a three-year period from fall 1998 through fall 2001. Participants first completed focus group interviews, which were approximately two hours in length with groups ranging in size from 3-11 people. Then participants completed the survey on site or returned it by mail at a later date.

Descriptive statistics and analysis of variance were used to analyze survey data while videotapes of focus groups were transcribed, coded, and analyzed to identify common themes. For the accommodation process, survey results indicated participants expressed the greatest level of satisfaction with the degree to which their disability was kept confidential with a mean score

of 4.34 (SD= .888) and the lowest level of satisfaction with the way they were treated during discussions regarding their personal disability with a mean score of 4.04 (SD=.935). Even though ordinal rankings for all satisfactions statements were equal for groups 25 years and older as compared to those less than 25 years old, those 25 years and older were less satisfied overall with accommodations and the process. In addition, students were most satisfied with the effectiveness of the accommodations. Note takers and extended time on tests were the accommodations cited as used most often, and they were rated 87.5% and 85.7% respectively in terms of effectiveness.

Kurth and Mellard (2006) identified four themes from focus groups which included: "a sense of belonging, access to academic information, supports for independence, and labeling disabilities as they relate to discrimination" (p.80). Additional findings from the study indicated that while DSS provided accommodations as required by law, the specific accommodations may not have been effective in all contexts. Furthermore, the accommodations provided were not evaluated or reviewed at periodic intervals but often prescribed for entire semesters or academic years. The difference between the requirements for personal accommodations and the barriers in university policies and procedures validate the need for universal design and systematic change. As a result, systematic change will only occur on college campuses with an increase in disability education and awareness, the incorporation of universal design concepts, and the consideration of "students' contextual and functional needs" when providing accommodations (Kurth & Mellard, 2006, p. 71).

The researchers' use of a mixed methods design for this study provided in-depth information from the 108 participants through a four-part survey and focus group interviews.

Both the survey and focus group questions were field tested prior to actual administration. The

focus group interviews were conducted first and averaged two hours in length. Participants were then immediately asked to complete the questionnaire. The sequence of the research activities raises questions about the possibility of creating bias from the focus group interviews which could have been reflected on the participants' surveys as well as the possibility of respondent fatigue based on the length of time involved to complete the interviews and surveys at one time. Additional questions of consistency in procedures are raised as interviews and surveys were administered at multiple campus sites, and some students were allowed to complete and return surveys via mail while some students only participated in either the interview or survey but not both.

Coding was used for statistical analysis of data along with descriptive statistics and analysis of variance. Kurth and Mellard (2006) limited their discussion of the research findings to two sections of the student survey and the four themes which emerged from the focus group interviews which supported their initial hypothesis regarding accommodation processes that focused on disability types rather than students' contextual and functional needs.

Huger, M. (2009). The retention of college students with learning disabilities. (Doctoral dissertation). Retrieved from ProQuest Digital Dissertations database. (Publication No. AAT 3344873)

Utilizing a primary database from the U.S. Department of Education's National Center for Education Statistics (NCES) Beginning Postsecondary Students Longitudinal Study (BPS), Huger (2009) studied the traits and retention actions of students with learning disabilities at four-year higher education institutions in the United States and Puerto Rico. The theoretical framework for the study was based on Tinto's (1975, 1982, 1993) model of institutional

departure (as cited in Huger, 2009). In addition, Huger's literature review identified a lack of generalizable results as they relate to the retention of students with disabilities at four year colleges and universities in the U.S. The deficit in generalizable data was further compounded by variations in the accepted definition of learning disabilities as well as the presence of comorbid conditions.

Huger (2009) provided detailed information regarding the historical, legal, and medical frameworks of learning disabilities to aid in understanding the breadth and depth of the study. In addition, discussion of medical and social models illustrated different viewpoints for determining the choice of accommodations and their implementation. This study incorporated the social model by looking at the academic and social integration of students with and without learning disabilities at four year institutions of higher education through a secondary data analysis of NCES's BPS dataset for 2004-2006. This subset included 19,000 freshmen. Data were analyzed using the Data Analysis System software which provided descriptive and inferential statistics as well as logistic regression analysis for the "variables of academic integration, social integration, disability status, disability type, and retention" (p. 115).

Huger (2009) reported three major findings, which included the following: "ethnicity was not homogenous across disability status, students with disabilities had low dropout rates, and students with learning disabilities did not show lower social integration despite high academic integration" (p. vi-vii). It is important to note that Huger found that 75.2% of students with disabilities (as compared to 68.80% of students without disabilities) were retained and graduated during the study's time frame of 2004-2006. Results of the study add to the body of literature and provide college administrators with insight regarding the characteristics of the population and

information to assess the effectiveness of designated programs and services in relation to retention of students with disabilities.

In looking at the limitations of the study, Huger (2009) noted that the students' disability or non-disability status was self-reported. In addition, she was employed as the Associate Director of Disability Services at Georgetown University Law Center at the time of the study and served as the primary contact for all students with disabilities. As a result, she readily admitted that her interactions with students influenced her perception of students with disabilities. Furthermore, it is interesting to note that the study was exempt from review by The George Washington University's Internal Review Board (IRB) since no human interaction was involved, and the NCES data were presented in percentage and standard error formats which did not allow for identification of specific individuals.

Huger (2009) presented detailed lists of practice improvement suggestions for high school faculty, college administrators, and staff in disability support offices on college campuses. Her improvement suggestions focus on academic preparation and transition to college which empower providers with the tools to develop and strengthen students with disabilities' self-concept and self-determination which are essential for their persistence and success in higher education institutions.

Huger's (2009) research methods, design, and conclusions were consistent with those of non-experimental research and the reliance on a secondary data analysis of a large-scale dataset. Quantitative data were analyzed using descriptive and inferential statistics as well as logistic regression to examine academic and social integration and persistence of students with and without learning disabilities at four-year higher education institutions. Huger's research demonstrated both internal and external validity and only raised this reader's concern regarding

the accuracy of self-reporting (or lack thereof) by the students with and without learning disabilities.

Discussion

This literature review presents a limited scope of the challenges and issues facing students with disabilities in higher education institutions and the factors that influence their retention. Research in this area has typically focused on single or small groups of institutions due to the confines of self-disclosure of the disability, lack of data collection and analysis by offices of disability support services, and the increasing incidences of comorbid diagnoses (e.g., attention deficit hyperactivity disorder and learning disability). Even though data are available on the number of students with disabilities in postsecondary education, the need for a cohesive database for retention and graduation statistics is apparent.

While institutions of higher education must adhere to ADA guidelines, particularly as stipulated by Title II and Section 504 of the Rehabilitation Act, services and accommodations can only be provided to those students who choose to self-disclose their disability to college administrators, faculty, and/or staff. As students transition from high school to college, they are required to become self-advocates and interact directly with institutional offices of disability support services. Kurth and Mellard (2006) found that postsecondary students with disabilities reported a high degree of satisfaction with the way in which their disability was kept confidential but a low level of satisfaction with the way they were treated during their personal disability discussions. These findings correlate with the research by Orr and Goodman (2010) who indicated that students with disabilities have an "emotional legacy of learning differently as well as issues with diagnosis, disclosure, and identity" (p. 217). This, in turn, reinforces the need for offices of disability support services to develop relationships with students and consider their

contextual and functional needs when determining services rather than merely considering their disability type (Kurth & Mellard, 2006). This idea was further supported by Huger (2009) who advocated for utilizing a social model for determining accommodations that sought management solutions from the environment and society.

Another key component in the education of postsecondary students with disabilities is faculty. Vogel et al. (2006) found that faculty at three institutions of higher education (public, private, and a community college) expressed a high degree of willingness to provide accommodations for this population of students but a low degree of knowledge regarding Section 504. In addition, faculty at the private university were the most knowledgeable about the accommodation process, but the community college faculty were the most willing to encourage students to self-disclose their disability and regularly included accommodation information in syllabi. It is important to note that the percentage of students with disabilities at these three institutions ranged from 1.0% to 2.0% of the total student population with the state university having the largest population. However, the faculty at the state university reported the least interest in professional development topics overall which prompted the researchers to suggest surveying faculty to determine topics of interest for future training.

Faculty relationships with students were identified as an essential component of support systems for students with disabilities in ethnographic research by Orr and Goodman (2010). Interpersonal relationships and social connectivity emerged as a theme in this study as participants expressed the need for faculty support and availability both inside and outside the classroom. This research also facilitates the idea of a supportive environment that provides connections both academically and socially for students with disabilities in an effort to increase their probability for retention and graduation.

One particular academic support, Universal Design for Learning (UDL), was frequently cited in the literature as a strategy to help all learners, including those students with and without learning disabilities, to increase their potential for success in the classroom (Huger, 2009; Kurth & Mellard, 2006; Marklein, 2011; Orr & Goodman, 2010; Vogel et al., 2006). UDL takes the same basic universal design principles which have been successful in the built environment and applies them to the learning environment through multiple means of representation, engagement, and expression (Rose, Harbour, Johnston, Daley, & Abarbanell, 2006). In addition, the UDL concept seeks to provide accessible information and pedagogy for all learners and requires a high degree of faculty support in instructional planning and implementation. Implementation of UDL is further enhanced through the use of nine principles of Universal Design for Instruction (UDI) which provide faculty with a basic framework for course design (McGuire & Scott, 2006). The overall goal of UDL utilizes a social model approach which seeks environmental solutions for diverse learners by addressing the needs of different learning styles and subsequently decreasing the need for individual accommodations. The success of UDL in higher education has been limited due to a number of factors, which include the lack of research on validity and reliability of the model as well as faculty limitations of time, budget, and training (McGuire & Scott, 2006; Rose et al., 2006).

While the literature on retention and graduation rates for students with disabilities is limited, this literature review provided some contradictions to previous studies in this area. For example, in 1996 deFur, Getzel, and Trossi indicated "the likelihood of earning a degree is decreased by the presence of a disability" (as cited in Wessel et al., 2000, p. 116). However, the longitudinal study conducted by Wessel et al. (2009) at one college included 11,317 students and found that comparable retention and graduation rates were experienced by students with and

without disabilities. The mean number of years required for degree completion by all participants in the study was 4.45. That average reflected students without disabilities at 4.44 years, students with apparent disabilities at 4.61 years, and students with non-apparent disabilities at 4.67 years. In addition, these research results suggest gender and academic aptitude had a greater impact on retention than disability. It is important to note that the study lacked any assessment of disability support services.

Additional retention data is found in research by Huger (2009) during the 2004-2006 time period which included four-year postsecondary institutions in the U.S. and Puerto Rico. She found that 75.2% of students with disabilities (as compared to 68.80% of students without disabilities) were retained and graduated during this designated time frame. In addition, the attrition rate for students with disabilities during this same period was 5% as compared to 12.7% for students without disabilities. It is important to note that the data subset for this study included 19,000 undergraduate students who were entering college for the first time at four-year U.S. institutions. While the sample generated for this study was comprised of students who selfreported as having no learning disabilities or having learning disabilities, no sample size was provided for either student group sample due to the limitations of NCES's Data Analysis Software which only provided percentages and standard errors in order to protect individual student data (Huger, 2009). These results, in particular, provide retention and attrition rates that are generalizable to other four-year colleges and universities and fill a gap that had previously been identified in research for this student population. This research has essentially provided college administrators with a national retention rate for students with disabilities which has the potential to enhance programs and services provided by offices of disability support services.

Though limited in scope, this literature review looked at a mixture of qualitative and quantitative studies for the population of students with disabilities in postsecondary education.

Overall, the research studies illustrated the interrelatedness of the offices of disability support services and faculty in providing a supportive environment for students with disabilities as well as the need to go beyond the requirements of law to meet the individual needs of each student.

Leadership Implications

Leaders in higher education today face challenges in the areas of education, evaluation, and examination as they work with administrators, faculty, and students to improve the disability services and support systems which are offered on college campuses. By educating administrators, faculty, staff, and students about ADA requirements for students with disabilities, leaders have an opportunity to reduce the stigma and stereotypes associated with disabilities and create a centralized infrastructure for student support. Knowledge of ADA requirements should be readily available to faculty throughout the year, whether through online modules or periodic professional development workshops, in an effort to increase their knowledge and skills for accommodating students with disabilities through curriculum and instruction. Leaders could also initiate training on the concept of universal design to aid faculty members in meeting the needs of students with apparent and non-apparent disabilities as well as the general student population.

In addition, leaders should periodically evaluate university policies and procedures to ensure correct implementation as well as a design which encourages students with disabilities to self-disclose and seek appropriate accommodations through the office of disability support services. Staff in this office should strive to go beyond ADA requirements to fully meet the individual needs of each student. Leaders should encourage this office to re-evaluate and improve the services provided to students and design student assessments for accommodations as

they are provided. This feedback could be incorporated into a university database for students with disabilities that could aid in future improvements.

Because each university is unique, leaders could benefit from survey data that examines the knowledge, attitudes, and quantifiable needs of faculty, staff, and students in relation to disabilities and services provided. Analyses of survey results could be used to develop additional programs, services, or workshops for specific university populations. Other feasible options include partnering with community health agencies, seeking additional funding sources for counseling programs, and providing on-campus support groups for students with disabilities. The success of such initiatives is, of course, limited to the willingness of the students with disabilities to self-identify, seek accommodations, and become self-advocates.

We, as a society, also need to change our mindset. Smith (lecture, April 26, 2012) indicated that society views people who are dependent as weak and those who are interdependent, such as the elderly or people with disabilities, as less valuable to society. He advocated for justice for all people, especially those with disabilities, through increased awareness, understanding, and opportunities for this population.

This mindset is critical to university leaders who need to be transformational leaders in this process. In order for the system of serving students with disabilities to change, leaders need to be willing to look beyond the law and do what is right and necessary to help these individuals succeed not only in college but also throughout life by empowering them with the knowledge and skill sets that extend beyond college into the workplace. As a result, this will empower students with disabilities to become change agents themselves.

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