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Priorities and Understanding of Faculty Members Regarding College Students with Disabilities

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As a result of legal protections and the effects of inclusive reforms (e.g., improved academic skills, heightened expectations), more students with disabilities are entering higher education than ever before. The priorities and understanding of university faculty members directly shape the educational experiences and success of the rapidly growing group of college students with disabilities. Previous research in this area has focused primarily on faculty members' knowledge of legal issues, general attitudes toward students with disabilities attending college, and willingness to make accommodations. This study expands the extant knowledge base by examining the priorities and understanding of 307 faculty members at an 8-campus university system regarding university students with disabilities in the following areas: *Legal*, *Accommodations-Willingness*, *Accommodations-Policy*, *Universal Design for Instruction*, *Disability Characteristics*, and *Disability Etiquette*. Participants' ratings indicated that (a) accommodation policies and disability etiquette were viewed as highly important and were being addressed satisfactorily; (b) issues related to law, Universal Design for Instruction, and disability characteristics were important but were not being addressed satisfactorily; and (c) issues related to willingness to provide accommodations were neither highly important nor being addressed satisfactorily. Implications for faculty training are discussed.

More students with documented disabilities are entering higher education than ever before. The proportion of college freshmen with disabilities more than tripled from 1978 to 1998, rising from less than 3% to approximately 9% (HEATH Resource Center, 1999). It should be noted that this number almost certainly underestimates the prevalence of students with disabilities in higher education, because many students do not choose to self-identify their disabilities. Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990 mandated the rights of students with disabilities to attend institutions of higher education. Once students with disabilities enroll in higher education, a successful college experience is associated with far-reaching social and economic benefits. For example, a college graduate with a disability is three to five times more likely to be employed than a person with a disability who never attended college (United States Department of Labor, Employment, and Training Administration, 2004). As such, access to colleges and universities is not only a legal and moral imperative, but it also represents a significant opportunity for people with disabilities to improve their lives.

Fortunately, many people with disabilities are not only attending postsecondary institutions, but are increasingly succeeding in them. As a whole, their academic performance, retention rates, and graduation rates more closely resemble those of their non-disabled peers than ever before (Stodden, Whelley, Chang, & Harding, 2000). Although significant advancement has been made in providing access for and including students with disabilities in higher education settings, these students still comprise a subgroup that faces an array of institutional and personal barriers. Despite marked enrollment increases, people with disabilities attend postsecondary education at a lower rate than the non-disabled population (Wehman, 2005). Furthermore, they drop out of higher education at a higher rate than students without disabilities (Murray, Goldstein, Nourse, & Edgar, 2000) and those who do graduate take longer to complete their degree programs than students without disabilities (Brinckerhoff, Shaw, & McGuire, 1992). One factor that could help to explain the struggle that many students with disabilities face in higher education is the relationship and related interactions that they have with university faculty. Students with disabilities have indicated that faculty and administrators do not understand the issues they face in pursuing a college education (Cook, Gerber, & Murphy, 2000). For example, Rumrill, Koch, Murphy, and Jannarone (2002) reported that college graduates with disabilities rated their former faculty advisors as having low to moderate knowledge regarding issues related to their disabilities.

The success of any college student, particularly in the academic realm, is to some degree determined by the type and quality of interactions that he or she has with his or her instructors. As those who provide academic instruction and help to determine campus climate, the priorities and behaviors of college faculty are important determinants of the quality of higher education experiences for students with disabilities. A number of priorities and behaviors of college faculty members may impact the post-secondary success of students with disabilities, including knowledge of

relevant law, willingness to provide accommodations, use of effective instructional practices, knowledge of disability characteristics, and use of appropriate disability etiquette.

Legal Knowledge

The Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) prohibit postsecondary institutions from subjecting students with disabilities to discriminatory acts. However, postsecondary institutions report difficulty in providing college students with disabilities accommodations that meet the requirements of federal law (Brickerhoff et al., 1992; Burns, Armistead, & Keys, 1990; Heyward, Lawton, & Associates, 1995), which might stem from faculty members not knowing the law. Thompson, Bethea, and Turner (1997) reported that less than 18% of faculty members surveyed indicated that they were familiar with Section 504 of the Rehabilitation Act, and only 50% said that they were familiar with the ADA (see also Dona & Edmister, 2001). Most faculty members did not realize that they need only provide accommodations when requested, and they had little understanding of what made a reasonable accommodation "reasonable," as stated in the law. Additionally, the majority of faculty members were unaware that students with disabilities did not have to disclose diagnostic information to them in order to receive accommodations. However, Benham (1997) surveyed 200 faculty members randomly selected from three universities and found that they had "a basic knowledge" (p. 124) of the ADA. These studies often used legal terminology in their surveys, and it is possible that faculty members' understanding of the spirit or intent of the laws was not accurately assessed because of the phrasing of survey items. Further research appears needed to further investigate faculty members' understanding of the spirit of relevant laws in contemporary post-secondary institutions.

Accommodations

Because traditional modes of instruction (e.g., lecture) and testing (e.g., timed essays and multiple choice exams) in postsecondary institutions do not accord with the learning characteristics and needs of many students with disabilities, faculty members are required to make reasonable accommodations for students with disabilities. Overall, faculty members have expressed a willingness to provide various teaching accommodations in their classrooms (e.g., Bourke, Strehorn, & Silver, 2000; Leyser, Vogel, Wyland, & Brulle, 1998; Matthews, Anderson, & Skolnick, 1987). However, it appears that many faculty members may misunderstand fundamental issues regarding reasonable accommodations. For example, Cook, Hennessey, Cook, and Rumrill (in press) reported university faculty often perceived accommodations as providing an unfair advantage to students with disabilities.

Despite their generally positive attitudes, faculty have been less willing to provide certain accommodations such as allowing exclusive extra credit, overlooking misspellings or incorrect grammar, permitting course substitutions, and allowing students to turn in tape recorded assignments (e.g., Matthews et al., 1987; Satcher, 1992). It appears that faculty are willing to provide accommodations for students with disabilities only to the extent that they do not lower the academic standards of their courses or entail too much effort on the part of the faculty member (e.g., Matthews et al.; Satcher; Sweener, Kundert, May, & Quinn, 2002). It appears, then, that there are two issues that merit further investigation: (a) faculty members' understanding of policies related to providing reasonable accommodations and (b) more definitive determination of which accommodations faculty members are, and are not, willing to provide.

Universal Design for Instruction

Universal Design for Instruction (UDI) is an approach to teaching that is characterized by the proactive design and use of inclusive instructional strategies that benefit a wide range of learners and minimize the need for individual accommodations (Scott, McGuire, & Foley, 2003). The nine guiding principles of UDI are equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, size and space for approach, community of learners, and instructional climate (Scott, McGuire, & Shaw, 2001). For example, course material is provided in an electronic format so that students can access it using text to speech software or Braille readers. College students with disabilities have reported that they enjoy and benefit from their instructors implementing UDI principles (McGuire & Scott, 2006). However, we could not identify any studies examining the degree to which faculty members were incorporating UDI in their instruction or whether they believe it is important to do so.

Understanding Disability Characteristics

Having a basic understanding of specific disabilities and the characteristics of those disabling conditions may alleviate the insecurity that some faculty feel when teaching and interacting with students with disabilities. Without a basic understanding of a student's disability, faculty members may believe that students with disabilities are trying to take advantage of

or cheat the system (Williams & Ceci, 1999). Benham (1997) reported that faculty had "at least a basic knowledge … of characteristics of specific disabilities" (p. 129). Akasmit, Morris, and Leuenberger, (1987) found that university faculty members had a limited amount of knowledge about the nature and needs of students with disabilities. In addition to these surveys being dated, neither article reported descriptive statistics regarding their findings that faculty members had a limited amount of knowledge of disability characteristics. Further research seems warranted to more adequately describe the knowledge of contemporary university faculty members regarding specific disabilities.

Disability Etiquette

Students with disabilities should be able to feel comfortable in university classrooms, without having others stereotype them and without worrying that their confidentiality will be breached. Because faculty fulfill leadership roles that shape classroom and campus climate, it seems particularly important that faculty members not hold stereotypes about students with disabilities (e.g., that students with certain disabilities are all courageous or all lazy), use respectful language (i.e., person-first language), and protect students' confidentiality. Despite the importance of this issue, a search of the literature revealed no studies examining faculty members' beliefs in or use of appropriate disability etiquette.

Importance and Prevalence of Faculty Members' Beliefs and Behaviors

Schumm and Vaughn (1991) identified a gap between the beliefs, skills, and practices of K-12 teachers when it comes to working with students with disabilities. That is, teachers reported very positive attitudes towards the inclusion of students with disabilities and indicated having some skill in making accommodations for these students; however, they reported that they did not actually make accommodations for these students at the same levels as their beliefs and skills. As such, it appears that meaningful differences may exist between educators' beliefs and their actual practices. Accordingly, in relation to educating college students with disabilities, it is important to examine not only the degree to which faculty members believe that the issues reviewed above are important, but also the degree to which the issues are being addressed on their campus.

Research Questions

The study is guided by two primary research questions concerning the priorities and practices of university faculty regarding college students with disabilities.

1. What high-importance issues do faculty members feel are being addressed satisfactorily? (i.e., what are the strengths?)
2. What high-importance issues do faculty members feel are not being addressed satisfactorily? (i.e., what are the weaknesses?)

Method

We used survey methodology to examine which issues regarding college students with disabilities faculty perceived as most important and which issues they saw being adequately addressed at their institution.

Participants

We invited all 2,168 faculty and instructors at a large 8-campus university system in the Midwestern United States to participate in the study. The demographic characteristics of the 307 respondents (14% return rate) are described in Table 1. The Human Resources Department at the university, which e-mailed invitations to participate in the survey to all faculty members (n = 2,168) at the 8-campus system, provided data on the ethnicity, gender, and academic rank of faculty members to whom they sent invitations to participate. The ethnicity of respondents was remarkably similar to that of the target population. Whereas 89% of the target population was white (non-Hispanic), 87% of survey respondents were white. Four percent of all faculty members at the 8-campus system were African American compared to 3% of survey respondents. Females were over-represented among survey participants. Whereas 50% of the target population was female, 66% of survey participants were women. Regarding academic rank, instructors, adjuncts, and lecturers were under-represented among survey respondents. Whereas individuals with these ranks comprise 52% of university faculty, they represented 34% of survey respondents. Assistant, associate, and full professors comprised 24%, 14%, and 10% respectively of the faculty within the eight campuses and 34%, 22%, and 10% respectively of survey participants.

Table 1
Participant Demographic Information

Variable	*n*	%
Gender		
Female	157	66
Male	80	34
Race/Ethnicity		
White	212	87
Hispanic	5	2
Asian/Pacific Islander	10	4
African American	7	3
Other	9	4
College		
Architecture	2	1
Arts and Sciences	106	45
Business	11	5
Communication and Information	19	8
Education	34	14
Fine and Professional Arts	43	18
Nursing	12	5
Technology	10	4
Other	1	0
Rank		
Instructor/Lecturer	84	34
Assistant Professor	82	34
Associate Professor	53	22
Full Professor	24	10
Status		
Non-tenure Track	103	43
Tenure Track (non- tenured)	58	24
Tenured	80	33

Note. Percentages are based on total number of faculty members who responded to each demographic item.

Survey Instrument

Existing literature was used to generate a potential pool of questions. The six broad areas covered in the survey—legal issues, UDI, characteristics of specific disabilities, accommodations-willingness, accommodations -policy, and disability etiquette—reflect issues related to postsecondary faculty members teaching students with disabilities that (a) appear to influence the experiences and outcomes of postsecondary students with disabilities and (b) have not been researched or are in need of further research, as indicated by the review of literature.

Specific issues that were discussed in previous literature as influencing or potentially influencing the outcomes and/or experiences of postsecondary students with disabilities (either empirically, theoretically, or conceptually) were used as the basis for generating specific items in each of the broad areas. Items were written in a format to facilitate survey completion (Dillman, 2000). According to Dillman, questions and answer categories that are vague have a greater potential for measurement error. Accordingly, items were clear (e.g., avoided confusing legal terminology), positively phrased statements of faculty members' understanding and willingness to perform specific behaviors, and response options were also succinct and clear (e.g., strongly disagree, disagree, agree, and strongly agree).

The survey is constructed with 38 statements followed by two rating scales regarding respondents' perceived importance and agreement with the statements. Faculty rate the degree to which they feel that each statement reflects an idea or behavior that they personally feel is important on a four point Likert-type scale (where 1 = very unimportant, 2 = unimportant, 3 = important, and 4 = very important). Then respondents rate the degree to which they agree the statement represents the general climate or practices at their university, again using a 4 point Likert-type scale (where 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree). This dual questioning allows identification of the high importance issues for faculty as well as identification of which high important issues are and are not currently being addressed at their institution.

To enhance content validity, the first stage of pretesting involved two professors who are knowledgeable about and experienced with the education of students with disabilities in higher

education settings reviewing the survey and giving feedback (Sallant & Dillman, 1996; Dillman, 2000). In the second stage of pretesting, a small group of colleagues was given the survey exactly as it would be administered, in this case via the internet. The respondents were asked to evaluate the cognitive and motivational qualities of the survey (Dillman, 2000). The third and final stage of pretesting involved a graduate student in education, who was unfamiliar with the survey, editing the instrument for errors and potentially confusing statements that may have been missed by those too close to the content (Dillman).

The survey, *Faculty Priorities and Understanding Regarding College Students with Disabilities Scale*, ultimately contained 38 statements followed by two rating scales regarding respondents' perceived importance and agreement with the statements. Faculty were asked to rate on a four point Likert-type scale the degree to which they felt that each statement reflects an idea or behavior that they personally felt is important (where 1 = very unimportant, 2 = unimportant, 3 = important, and 4 = very important) and to also rate the degree to which they agreed the statement represents the general climate or practices at their university, again using a 4 point Likert-type scale (where 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree). This dual questioning allowed identification of the high importance issues for faculty as well as identification of which high important issues are and are not currently being addressed at their institution.

Procedure

Following the procedures of the Tailored Design Method adapted for e-mail (rather than mail) (Dillman, 2000), there were three points of contact between the researcher and the respondents. The first contact was the initial e-mail soliciting respondents to follow the link to the online questionnaire and participate by completing the survey. One week after the initial e-mail there was a follow-up e-mail that thanked participants who did respond and asked those who had not responded to please follow the link and complete the survey. Two weeks after the initial e-mail there was a final e-mail, again thanking those who had responded and telling those who had not responded that the survey would close in one week and that their responses were very important. Each e-mail included a link to the survey that was posted at the Zoomerang website. To enhance return rate, all correspondence with the respondents conveyed the relatively low cost for participating, the ease of completing the online survey, protection of their confidentiality, and the social usefulness and importance of their responses in building a research agenda in this very important area (Dillman, 2000).

Analysis

This exploratory study used descriptive statistics to examine what issues faculty members consider important and agree are being addressed at their institution. The proportion of participants who rated the importance of an item as "important" (rating of 3) or "very important" (rating of 4) constituted the importance score for each item. Similarly, the proportion of participants who rated their agreement with an item as a 3 (agree) or 4 (strongly agree) constituted the agreement score for each item. We established cutoff points of 75% to separate high importance and high agreement items from and low importance and low agreement items. We selected these cutoff points because they represent the point at which the clear majority of respondents felt an item was important or agreed that the issue was being addressed at their campus.

Results

Internal Reliability of Survey

Internal reliability was estimated by calculating Cronbach alphas separately for importance and agreement ratings for each of the six themes, as well as for the entire scale. Results indicate that Cronbach alpha coefficients ranged from .76 to .97 for importance ratings of the six themes (.95 total scale importance rating), and from .72 to .94 for agreement ratings on the six themes (.96 for total scale agreement ratings). See Table 2 for Cronbach alpha coefficients for all themes.

High-importance and High-agreement Items

Thirty four items (89% of all items) were categorized as "high-importance" items, indicating that at least 75% of respondents rated the item as important or very important. Of those items, a total of 16 items (42.1% of total scale) were rated as both high-importance and high-agreement. See Table 3 for a listing of high-importance and high-agreement items. The items that received both high-importance and high-agreement ratings represent issues that the majority of faculty members feels are important and are being addressed or implemented satisfactorily at their university. Seven of the 10 items were under the theme of *Accommodations-Policy*, four of the five items under the theme *Disability Etiquette*, two of the five items under the theme *Accommodations-Willingness*, two of the seven items under the theme *UDI*, and one of the four items under the theme *Legal* were high-importance and high-agreement items. *Disability Characteristics* is the only theme for which

Table 2
Estimates of Internal Reliability for Survey Themes

Theme	Number of items	Cronbach alpha	
		Importance	Agreement
Legal	4	.77	.72
Accommodations-Policy	10	.89	.90
Accommodations-Willingness	5	.79	.79
Disability Etiquette	5	.76	.77
Disability Characteristics	7	.97	.94
Universal Design for Instruction	7	.82	.87

no item was rated as both high-importance and high-agreement.

High-importance and Low-agreement Items

The items that received a high-importance rating and a low-agreement rating represent those items that the majority of faculty members feel are important but are not being addressed or implemented satisfactorily at their university. There were a total of 18 items (47% of total scale) that were rated as high-importance but low-agreement. All seven items under the theme *Disability Characteristics*, five of the seven items under the theme *UDI*, three of the four items under *Legal*, two of the 10 items under *Accommodations-Policy*, and one of the five items under the theme *Disability Etiquette* were high-importance and low-agreement items. *Accommodations-Willingness* was the only theme with no high-importance and low-agreement items. Table 4 lists the high-importance and low-agreement ratings.

Low-importance and Low-agreement Items

Respondents rated only four survey items, one of the ten items in *Accommodations-Policy* (10%) and three of the five items in *Accommodations-Willingness*, as both low-importance and low-agreement (see Table 5).

Discussion

We investigated beliefs of faculty members at an 8-campus university system about the importance of specific issues related to college students with disabilities and the extent to which they agreed that the issues were being addressed at their campuses using a researcher-developed, online survey.

Faculty Members' Priorities and Understanding

We grouped the items into three separate categories: high-importance and high-agreement ("high/high"), high-importance and low-agreement ("high/low"), and low-importance and low-agreement ("low/low"). The high/high items can be thought of as "success stories," in that a decided majority ($\geq$ 75%) of faculty members felt that these are important issues that are being satisfactorily addressed at their institutions. The high/low items can be viewed as important weaknesses that most faculty members feel are important, but many feel are not being addressed satisfactorily. High/low items seem to be prime areas to target for change, as faculty members feel they are high priority concerns in need of improvement. Alternatively, efforts to bring about change related to low/low items may be particularly difficult. Although faculty members do not feel that these issues are being addressed, they do not feel that the items are highly important and, therefore, may not believe that they need to be addressed.

High importance and high agreement themes. The theme with the greatest proportion of high/high items was *Disability Etiquette* (four of five items). It is possible that the predominantly positive attitudes faculty members have reported towards students with disabilities attending college (e.g., Akasmit et al., 1987; Rao, 2004) have lead to university instructors valuing and engaging in respectful interactions with students with disabilities. The high importance and agreement that faculty members expressed toward Di*sability Etiquette* could also be due to political correctness. That is, ratings in this area may have been influenced by what faculty members believed was desirable or expected. The only item in the *Disability Etiquette* theme that was not rated high/high was related to the use of person-first language. Agreement on this item was very low (41% agreement index) and it barely met the criteria for being a high importance item (importance index of 76%). These relatively low ratings may be a reflection of person-first language is seldom used or considered outside of disability-related fields.

High/high items comprised the majority of one other theme, *Accommodations-Policy* (seven of ten items). It appears that faculty members felt that understanding what reasonable accommodations are, that they are required, that they don't change the

Table 3
High-importance[a] and High-agreement[b] Items

Item	Theme	Importance Index	Agreement Index
2. Faculty members understand that students with disabilities must have physical access to buildings on campus.	Legal	97%	90%
5. Faculty members understand that students must self-disclose their disabling condition to Student Disability Services before they receive accommodations.	Accomm.-Policy	94%	81%
6. Faculty members understand that they are required to provide reasonable accommodations for students with documented disabilities.	Accomm.-Policy	98%	92%
7. Faculty members understand that reasonable accommodations are determined on a case by case basis.	Accomm.-Policy	97%	81%
8. Faculty members understand that reasonable accommodations do not alter their course content or objectives.	Accomm.-Policy	95%	78%
10. Faculty members understand that reasonable accommodations do not require them to lower their academic standards.	Accomm.-Policy	97%	75%
11. Faculty members understand that reasonable accommodations enable students with disabilities to have the same opportunities as their non-disabled peers.	Accomm.-Policy	96%	78%
13. Faculty members at KSU understand why accommodations for students with disabilities are necessary.	Accomm.-Policy	97%	82%
14. Faculty members are willing to make accommodations for students with disabilities regarding note-taking (e.g., providing note takers, providing copies of notes, tape record lectures).	Accomm.-Willingness	97%	85%
15. Faculty members are willing to make accommodations for students with disabilities regarding test taking (e.g., providing extended time on tests, alternate venues for tests, rephrasing of questions by proctor, alternate formats for tests).	Accomm.-Willingness	98%	84%
29. Faculty members have high expectations of success for all students	UDI	97%	80%
21. Faculty members understand that students with disabilities are individuals just like all other students and do not share common personality traits as a function of disability.	Disability-Etiquette	97%	84%
23. Faculty members do not hold overgeneralized stereotypes about students with disabilities (e.g., disability is a constantly frustrating tragedy, all students with disabilities are brave and courageous, all students with learning disabilities are lazy).	Disability-Etiquette	95%	75%
24. Faculty members are careful to protect the confidentiality of students with disabilities.	Disability-Etiquette	99%	85%
25. Faculty members include a statement about the rights of students with disabilities on all course syllabi.	Disability-Etiquette	97%	94%

Note. [a] Importance Index $\geq$ 75%, [b] Agreement Index $\geq$ 75%.

academic content of one's course, and that they give students with disabilities the same opportunities as their non-disabled peers is (a) important and (b) reflective of the general philosophy of their colleagues. Participants' positive responses are consistent with previous findings that faculty members favor the general idea of providing accommodations for college students with disabilities (Bourke et al., 2000; Matthews et al., 1987).

Only 73% of respondents agreed with the *Accommodations-Policy* item, "Faculty members at my institution understand that reasonable accommodations do not give students with disabilities an unfair advantage"—making it a high/low item. The

relatively lower agreement on this item corresponds with previous findings that some faculty members view accommodations as providing an unfair advantage to college students with disabilities (e.g., Cook et al., 2006). Faculty members agreed with the other high/low item in the *Accommodations-Policy* theme, "Faculty members at my institution know what to do when a student is unhappy with the accommodations provided to him or her," at a much lower rate (38% agreement index). This is the only item in the theme that asks if faculty members know what to do in a particular situation, rather than if they understand a concept, which may have influenced agreement ratings. Faculty members rated one item under *Accommodations-Policy*

Table 4
High-importance[a] and Low-agreement[b] Items

Item	Theme	Importance Index	Agreement Index
1. Faculty members understand the educational access provisions of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.	Legal	95%	66%
3. Faculty members understand the process that students undergo to document their disabilities.	Legal	87%	50%
4. Faculty members understand that students with disabilities are not required to disclose diagnostic and treatment information to course instructors.	Legal	94%	65%
9. Faculty members understand that reasonable accommodations do not give students with disabilities an unfair advantage.	Accomm.-Policy	96%	73%
12. Faculty members know what to do when a student is unhappy with the accommodations provided to him or her.	Accomm.-Policy	91%	38%
19. Faculty members are familiar with assistive technology that can facilitate learning.	UDI	93%	32%
26. Faculty members provide lecture and course material in a wide variety of formats and media.	UDI	82%	46%
27. Faculty members present course content that can be understood by students with diverse learning styles and abilities.	UDI	89%	58%
28. Faculty members present course content in a well-organized, sequential manner that is paced to account for variations in students' learning styles and abilities.	UDI	90%	64%
31. Faculty members design courses that promote interaction and communication among students and between students and instructors	UDI	91%	66%
22. Faculty members use person first language (e.g., "person with a disability" rather than "disabled person") when speaking about a person with a disability.	Disability-Etiquette	76%	41%
32. Faculty members know the characteristics and learning needs of students with learning disabilities.	Disability Characteristics	91%	33%
34. Faculty members know the characteristics and learning needs of students with Attention Deficit/Hyperactivity Disorder (ADHD).	Disability Characteristics	87%	29%
35. Faculty members know the characteristics and learning needs of students with psychiatric disabilities.	Disability Characteristics	88%	24%
36. Faculty members know the characteristics and learning needs of students who have hearing impairments or who are deaf.	Disability Characteristics	93%	49%
37. Faculty members know the characteristics and learning needs of students who have visual impairments or who are blind.	Disability Characteristics	93%	47%
38. Faculty members know the characteristics and learning needs of students with chronic illness.	Disability Characteristics	89%	32%

Note. [a] Importance Index $\geq$ 75%, [b] Agreement Index $\leq$ 75%.

Table 5
Low-importance[a] and Low-agreement[b] Items

Item	Theme	Importance Index	Agreement Index
20. Faculty members' academic freedom permits them to decide how they will provide accommodations for students with disabilities in their courses.	Accomm-Policy	71%	42%
16. Faculty members are willing to allow students with disabilities to complete alternate or extra credit assignments.	Accomm-Willingness	67%	41%
17. Faculty members are willing to make accommodations for students with disabilities regarding grading assignments, tests, and papers (e.g., giving partial credit for process even when the final answer is wrong, not grading misspellings, incorrect grammar and punctuation, allowing a proofreader to review work before submission, allowing the use of calculators or dictionaries).	Accomm-Willingness	70%	41%
18. Faculty members are willing to allow course substitutions or waivers for students with disabilities	Accomm-Willingness	59%	35%

Note. [a] Importance Index $\leq$ 75%, [b] Agreement Index $\leq$ 75%.

as low/low: "Faculty members' academic freedom permits them to decide how they will provide accommodations for students with disabilities in their courses." It is possible that many faculty members believed erroneously that they are required to implement the accommodations as stated on the student's accommodation letter and assumed that their academic freedom is not a consideration in the process of determining what is a reasonable accommodation.

High importance and low agreement themes. Three themes were comprised predominantly of high-importance and low-agreement items: *Disability Characteristics, Legal,* and *UDI.* All seven items under the theme *Disability Characteristics* were rated high-importance and low-agreement. Faculty members apparently felt that it is important to understand the characteristics of all types of disabilities but perceived that this knowledge is not currently prevalent at their university. These findings corroborate previous research reporting that faculty members feel they lack disability-specific information (Houck, Asselin, Troutman, & Arrington, 1992). It is noteworthy that the importance and agreement ratings tended to be higher for more obvious disabilities and lower for less obvious, or hidden, disabilities. For example, Importance/Agreement index scores for hearing impairments, visual impairments, and orthopedic disabilities (i.e., obvious disabilities) were 93/49, 93/47, and 91/41, respectively. Alternatively, Importance/Agreement index scores for learning disabilities, chronic illnesses, psychiatric disabilities, and ADHD (i.e., hidden disabilities) were 91/33, 89/32, 88/24, and 87/29, respectively. This finding is consistent with the report of Cook et al. (2006) that many faculty members perceived their some of the colleagues as not fully believing that "invisible" disabilities are real or merit accommodations.

Another theme that appears to represent an unmet need at the participating campuses is *Legal*. Three of four items under the theme *Legal* were rated high/low. It appears that faculty members feel that it is important to understand the legal mandates but believe that they do not collectively understand the general tenets of relevant laws. These results support previous findings that faculty members possess little understanding of disability law (Benham, 1997; Dona & Edminster, 2001; Thompson, 1997). The one legal item rated high/high focused on physical access on campus. Physical access is quite possibly the most widely publicized and implemented aspect of ADA (Thomas, 2000), and faculty members may be more familiar with the need and mandate for physical access than other aspects of disability law.

The majority of items (five of seven) related to *Universal Design for Instruction* were also rated as high/low. Generally speaking, faculty members' tendencies to rate these items as highly important may be due to the attraction of instructional concepts that potentially benefit students with and without disabilities. The items in this theme were phrased generally, without technical terminology, or even the phrase "Universal Design for Instruction," which may have added to the appeal of the approaches to survey respondents. However, most faculty members do not have training in UDI or in pedagogy in general (Salzber et al., 2002), so it is not surprising that respondents indicated that UDI is not widely implemented. The two items with the lowest agreement index scores noted specific techniques (i.e., "Faculty members are familiar with assistive technology that can facilitate learning" [agreement index of 32%] and "Faculty members provide lecture and course material in a wide variety of formats and media" [agreement index of 46%]), perhaps indicating that university faculty members are

not skilled at implementing specific instructional practices associated with UDI. Alternatively, the two high/high items in the UDI theme appear to be the most general (i.e., "Faculty members have high expectations of success for all students" and "Faculty members ensure that the learning environment enables all students access to the course content").

Low importance and low agreement themes. Faculty members rated the majority of items under one theme, *Accommodations-Willingness*, as low-importance and low-agreement (three of five items). That faculty members rated alternate or extra credit assignments, partial credit for process or allowing a proofreader, and course substitutions or waivers as neither highly important nor as occurring frequently is consistent with previous research (see also Bourke et al., 2000; Sweener et al., 2002). Accommodations tend not to be allowed by faculty members when they are either too time consuming (Bourke et al.) or when they are perceived as changing the nature of the course (Matthews et al., 1987; Nelson, Dodd, & Smith, 1990). It is possible that faculty members felt negatively about these accommodations because they are relatively difficult to implement, perceived as altering the nature of the course, or both. In contrast, faculty members rated two accommodations, extra time on tests and recording lectures, as both highly important and occurring with frequency. Both of these accommodations are relatively easy to apply and are unlikely to alter the fundamental aspects of a course.

Implications and Recommendations

The primary implications of this study for practice lie in generating recommendations for improving the outcomes of college students with disabilities. Across survey items, there was a pervasive gap between respondents' importance and agreement ratings. That is, the understanding of participants and their colleagues about critical issues related to college students with disabilities did not match the importance they placed on the same issues. The discrepancy between where respondents feel that they should be with respect to working with students with disabilities and where they actually are is most pronounced in the themes comprised of predominantly high/low items (i.e., *Disability Characteristics*, *Legal*, and *UDI*). These high/low areas appear well suited for targeted intervention, in that faculty members believe they are important but recognize that their collective understanding is relatively low. Indeed, they coincide with recommendations for faculty training made by directors of Offices of Disability Services (Salzberg et al., 2002).

It appears that faculty members' understanding of issues tended to decrease as the specificity of the items increased. For example, 90% of respondents agreed with the rather general statement that faculty members understand that students with disabilities must have physical access to buildings on campus. Alternatively, only 38% of participants agreed that faculty members know what to do in the specific instance of when a student is unhappy with the accommodations being provided. As such, we recommend that training and information disseminated to faculty members regarding college students with disabilities address specific issues about which faculty members do not have adequate understanding, rather than focusing solely on changing attitudes or on general, conceptual issues. Faculty members clearly need specific knowledge in areas such as disability characteristics, disability law, and instructional techniques to reduce the gap between their priorities and their understanding.

Although it seems logical that the high/low themes and items be the primary focus of training and information dissemination at participating campuses, it is also critical that the high/high strengths be maintained. In order to accomplish this, training should also provide attention to issues related to disability etiquette and policies regarding accommodations. Further investigation into low/low items appears needed before being featured in training and information. The majority of low/low items consisted of accommodations that faculty members are not generally willing to grant students. In fact, if these accommodations violate the academic integrity of their course, faculty members have a right to not implement them. Focusing training and providing information on issues that faculty have not expressed a desire to learn and may not be legally required to enact is likely an inefficient and counter-productive use of scarce resources.

The *Faculty Priorities and Understanding Regarding College Students with Disabilities Scale* is a unique instrument, in that it measures both faculty members' priorities and understanding toward critical issues regarding college students with disabilities. The instrument also expands the literature base by examining faculty members' priorities and understanding of important areas not investigated by previous research (i.e., disability etiquette, UDI, and knowledge of disability characteristics). Thus, the scale can be used by institutions of higher education to examine and compare comprehensively the priorities and beliefs of their faculty members related to working with students with disabilities.

It will be important that future researchers using the survey increase return rate. For example, return rate might be enhanced by university administrators communicating to faculty members the importance, ease, and safety of responding to the survey before the survey is distributed. Future researchers might also consider rephrasing items, deleting items, or adding

items to improve the reliability of the *Legal*, *Accommodations-Willingness*, and *Disability Etiquette* themes. We suggest that researchers perform a confirmatory factor analysis to empirically test the themes that were derived rationally from the previous literature. Future researchers may also be able to assess the validity of the *Faculty Priorities and Understanding Regarding College Students with Disabilities Scale* by examining the degree to which participants' responses correspond with observations of faculty behavior and/or the perceptions of students with disabilities. Involving a larger and nationally representative sample would allow for a variety of interesting comparisons regarding the priorities and understanding of faculty members across different types of institutions (e.g., two-year vs. four-year institutions) and geographical locations (e.g., North-East vs. South-West).

Limitations

It is important that the findings of this investigation be considered in the context of a number of limitations. All campuses involved in the survey were located in the mid-western United States. The findings may not generalize to other locations or populations. Additionally, the response rate to the survey was 14%. It is possible that important differences exist between those who chose to respond and those who did not. The low return rate may have been due to at least two factors. Return rates are typically lower for internet surveys than traditional mail surveys (Shermis & Lombard, 1999) and may be especially problematic for professional respondents. For example, McKinley, Rogers, and MacLean (2003) reported a return rate of 2.2% for an online survey conducted with physicians. Additionally, not long before the survey was e-mailed, the university had experienced a number of e-mail viruses and had issued a warning not to go to links provided in e-mails from unfamiliar senders. Many faculty members, then, may have decided not to click on the link to access the survey for fear it was a virus. Findings are self-reports of personal beliefs and of the current state of practices at the university. Although the straightforward nature of the questions supports the face validity of the scale, respondents might not be accurate in their reports of what is occurring and what they believe is important (e.g., they might be giving politically correct responses). Another important limitation to the study is that the Cronbach alpha coefficients of some of the themes on the survey instrument fell slightly below .80, which is generally considered to denote adequate reliability (Nunnally & Bernstein, 1994). Nunnally and Bernstein suggested that reliability coefficients ranging from .70 to .79 be considered modest. Accordingly, findings regarding the *Legal, Accommodations-Willingness,* and *Disability Etiquette* themes should be interpreted cautiously.

Conclusion

Three hundred and seven faculty members from eight post-secondary campuses in the Midwest indicated that accommodations policies and disability etiquette were predominantly highly important and were being addressed satisfactorily; that issues related to law, Universal Design for Instruction, and disability characteristics tended to be viewed as important but were not addressed satisfactorily; and that issues related to willingness to provide accommodations were generally perceived as neither highly important nor being addressed satisfactorily.

People with disabilities have made remarkable strides in contemporary society (Shapiro, 1994). Among those achievements is increased access to post-secondary education. Succeeding at colleges and universities entails a number of meaningful advantages to people with disabilities (United States Department of Labor, Employment, and Training Administration, 2004). As such, it is critical that university faculty members make every reasonable effort to provide students with disabilities opportunities to succeed. The first step in accomplishing this goal is assessing faculty members' priorities and understanding of critical issues, which we have done for an eight-campus system in this research. The next steps are formulating an action agenda to address the issues raised and providing the resources, organizational support, and effort to implement the recommendations.

References

Akasmit, D., Morris, M., & Leuenberger, J. (1987). Preparation of student services professionals and faculty for serving learning-disabled college students. *Journal of College Student Personnel, 28,* 53-59.

Benham, N. E. (1997). Faculty attitudes and knowledge regarding specific disabilities and the Americans with Disabilities Act. *College Student Journal, 31,* 124-129.

Bourke, A. B., Strehorn, K. C., & Silver, P. (2000). Faculty members' provisions of instructional accommodations to students with LD. *Journal of Learning Disabilities, 33,* 26-32.

Brinckerhoff, L., Shaw, S., & McGuire, J. (1992). Promoting access, accommodations, and independence for college students with learning disabilities. *Journal of Learning Disabilities, 25,* 417-429.

Burns, J., Armistead, L., & Keyes, R. (1990). Developing a transition program for students with handicapping conditions. *Community/Junior College Quarterly of Research and Practice, 14,* 319-330.

Cook, B. G., Gerber, M. M., & Murphy, J. (2000). Backlash against inclusion of students with learning disabilities in higher education: Implications for transitions to post-secondary environments. *Work: A Journal of Prevention, Assessment, & Rehabilitation, 14,* 31-40.

Cook, L., Hennessey, M., Cook, B. G., & Rumrill, P. D. (in press). Perspectives of university faculty members and service providers regarding the increased enrollment of students with learning disabilities. *Learning Disabilities: A Multidisciplinary Journal, 15*(1).

Dillman, D. A. (2000). *Mail and internet surveys. The tailored design method* (2nd ed.). New York: Wiley.

Dona, J., & Edmister, J. H. (2001). An examination of community college faculty members' knowledge of the Americans with Disabilities Act of 1990 at the fifteen community colleges in Mississippi. *Journal of Postsecondary Education and Disability, 14,* 91-103.

HEATH Resource Center.(1999). *1999 college freshmen with disabilities: A biennial statistical profile*. Washington, DC: Author.

Heyward, Lawton, & Associates. (1995). Faculty members and service providers: The unhappy alliance. *Disability Accommodations Digest, 4*(3/4), 1-3.

Houck, C. K., Asselin, S. B., Troutman, G. C., & Arrington, J. A. (1992). Students with learning disabilities in the university environment: A study of faculty and student perceptions. *Journal of Learning Disabilities, 25,* 678-684.

Leyser, Y., Vogel, S., Wyland, S., & Brulle, A. (1998). Faculty attitudes and practices regarding students with disabilities: Two decades after implementation of Section 504. *Journal of Postsecondary Education and Disability, 13,* 5-19.

Matthews, P. R., Anderson, D. W., & Skolnick, B.D. (1987). Faculty attitudes toward accommodations for college students with learning disabilities. *Learning Disabilities Focus, 3,* 46-52.

McGuire, J. M., & Scott, S. S. (2006). An approach for inclusive college teaching: Universal design for instruction. *Learning Disabilities: A Multidisciplinary Journal, 14,* 21-32.

McKinley, T., Rogers, R., & Maclean, R. (2003). Collecting data from physicians via web-based surveys: Recommendations for improving response rates. *The Internet Journal of Medical Informatics, 1,* 11-23.

Murray, C., Goldstein, D. E., Nourse, S., & Edgar, E. (2000). The postsecondary school attendance and completion rates of high school graduates with learning disabilities. *Learning Disabilities Research and Practice, 15,* 119-127.

Nelson, J. R., Dodd, J. M., & Smith, D. J. (1990) Faculty willingness to accommodate students with learning disabilities: A comparison among academic divisions. *Journal of Learning Disabilities, 23,* 185-189.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill.

Rao, S. (2004). Faculty attitudes and students with disabilities in higher education: A literature review. *College Student Journal, 38,* 191-199.

Rumrill, P., Koch, L., Murphy, P., & Jannarone, A. (2002). Technology transfer concerns of college graduates with disabilities: Profiles in transition from higher education to competitive careers. *Work: A Journal of Prevention, Assessment, & Rehabilitation, 13*(1), 43-49.

Salant, P., & Dillman, D. A. (1994). *How to conduct your own survey.* New York: Wiley.

Salzberg, C. L., Peterson, L., Debrand, C. C., Blair, R. J., Carsey, A. C., & Johnson, A. S. (2002). Opinions of disability service directors on faculty training: The need, content, issues, formats, media, and activities. *Journal of Postsecondary Education and Disability, 15,* 101-114.

Satcher, J. (1992). Community college faculty comfort with providing accommodations for students with learning disabilities. *College Student Journal, 26,* 518-524.

Schumm, J. S., & Vaughn, S. (1991) Making adaptations for mainstreamed students: General classroom teachers' perspectives. *Remedial and Special Education, 12,* 18-27.

Scott, S., McGuire, J. M., & Foley, T. E. (2003). Universal design for instruction: A framework for anticipating and responding to disability and other diverse learning needs in the college classroom. *Equity and Excellence in Education, 36,* 40-49.

Scott, S. S., McGuire, J. M., & Shaw, S. F. (2001). *Principles of universal design for instruction.* Storrs, CT: University of Connecticut, Center on Postsecondary Education and Disability.

Shermis, M. D., & Lombard D. (1999). A comparison of survey data collected by regular mail and electronic mail questionnaires. *Journal and Business and Psychology, 14,* 341-354.

Sweener, K., Kundert, D., May, D., & Quinn, K. (2002). Comfort with accommodations at the community college level. *Journal of Developmental Education, 25,* 12-18.

Stodden, R., Whelley, T., Harding, T., & Chang, C. (2000). *Current status of educational support*

provisions to students with disabilities in postsecondary education. National Center for Postsecondary Education Supports, Center on Disability Studies, University of Hawaii.

Thomas, S. B. (2000). College students and disability law. *Journal of Special Education, 33*, 248-257.

Thompson, A. R., Bethea, L., & Turner, J. (1997). Faculty knowledge of disability laws in higher education: A survey. *Rehabilitation Counseling Bulletin, 40*, 166-181.

United States Department of Labor, Employment, and Training Administration. (2004).

Wehman, P. (2005). *Life beyond the classroom: Transition strategies for young people with disabilities* (4th ed.). Baltimore: Paul H. Brookes.

Williams, W. M., & Ceci, S. J. (1999, August 6). Accommodating learning disabilities can bestow advantages. *The Chronicle of Higher Education*, B4-B5.

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