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*Improving Postsecondary Outcomes for Students with Disabilities:
Designing Professional Development for Faculty*

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Abstract

Improving Postsecondary Outcomes for Students with Disabilities: Designing Professional Development for Faculty

A college degree is a prerequisite for many challenging careers. Career outcomes for people with disabilities are significantly higher for those who attend college and earn a postsecondary degree than it is for those who do not. Students with disabilities in postsecondary institutions face numerous barriers to achieving the same level of success as other students. Increasing the knowledge and skills that faculty have in accommodating learners with disabilities has the potential to improve the postsecondary educational and career outcomes for people with disabilities. But, what do they need to know and how should the content be delivered? In the qualitative research study described in this paper, focus groups of students with disabilities as well as of postsecondary faculty members and administrators were used to identify the best content, style, schedule, and media choices for faculty development in this content area. The results of this study can be used by postsecondary institutions nationwide as they design professional development programs for postsecondary faculty and administrators.

Improving Postsecondary Outcomes for Students with Disabilities:
Designing Professional Development for Faculty

Most challenging careers require a college degree, even for entry-level positions. Civil rights legislation, society's changing attitudes about inclusion and medical breakthroughs are among the factors that have resulted in higher expectations, better precollege academic preparation, and greater numbers of young people with disabilities pursuing higher education (Henderson, 1993). In 1996, 6% of undergraduates in a nationally representative sample reported having a disability. Of these, 45.7% reported learning disabilities, 13.9% mobility or orthopedic impairments, 11.6% health impairments, 7.8% mental illness or emotional disturbances, 5.6% hearing impairments, 4.4% blindness and other visual impairments, and .9% speech or language impairments (National Center on Educational Statistics, 1999).

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 require that postsecondary institutions provide reasonable accommodations to assure equal access to program offerings for qualified students who disclose their disabilities and present appropriate documentation (Frank & Wade, 1993; McCusker, 1995; West et al., 1993; Waddell, 1999). However, even with legislation in place, students with disabilities continue to face barriers to higher education. Their postsecondary academic and employment outcomes are less positive than for those without disabilities. Students with disabilities are less likely than their counterparts without disabilities to stay enrolled, to successfully transition from two-year institutions to four-year schools, to earn postsecondary degrees or credentials, and to secure

employment (Horn & Bobbitt, 1999; McNeil, 2000; Wagner & Blackorby, 1996; Yelin & Katz, 1994a).

For individuals with disabilities, a university education is highly correlated with career success. In fact, for people with disabilities there is a stronger positive correlation between level of education and rate of employment than there is for the general population (Benz, Doren, & Yovanoff, 1998; Blackorby & Wagner, 1996; Stodden, 1998; Stodden & Dowrick, 2000). The employment rate is 16% for people with disabilities among those with less than a high school diploma, 30% for those who completed high school, 45% for those with some postsecondary education and 50% for people with at least four years of college (Yelin & Katz, 1994a, 1994b).

Effective self-advocacy skills on the part of students as well as responsive campus support services have a positive impact on the level of success experienced by students with disabilities. The attitudes and skills of instructors also impact the learning of all students, including those with disabilities (Fonosch & Schwab, 1981; Moore & Nye, 1986). Most postsecondary instructors have little or no specific training in teaching strategies. They also have little experience in teaching students with disabilities. Although faculty members are generally willing to provide accommodations, they are not always clear about what specific accommodations are appropriate, what their role is in making accommodations, what teaching strategies work best, and what campus resources are available for help (Aksamit, Leuenberger, & Morris, 1987; Burgstahler, in press; Dona & Edmister, 2001; Fonosch & Schwab; Hill, 1996; Houck, Asselin, Troutman, & Arrington, 1992; Leyser, 1989; Leyser, Vogel, Wyland, & Brulle, 1998; National Center for the Study of Postsecondary Educational Supports, 2000a; Thompson, Bethea, &

Turner, 1997). They have been found to be more willing to provide accommodations for students with physical and sensory impairments than they are for those with disabilities that are not obvious, such as learning and psychiatric impairments (Lehmann, Davies & Laurin, 2000; Leyser, 1989; Vogel, Leyser, Wyland, & Brulle, 1999).

Some instructors are concerned that accommodations might compromise the academic integrity of their courses (Nelson, Dodd, & Smith, 1990). They do not understand that appropriate accommodations are designed to assure equal opportunity, not unfair advantage to students with disabilities. Some instructors have mistaken beliefs about the abilities of individuals with disabilities to succeed in academic studies, even if reasonable accommodations are provided. Sometimes mistaken beliefs reflect a lack of knowledge about disabilities and of assistive technology that can overcome or reduce challenges imposed by physical, sensory, psychological, and cognitive impairments (Yuker, 1994). Prejudicial treatment can have a negative impact on the behavior of instructors and, ultimately, on the postsecondary outcomes for students with disabilities.

Faculty members report a need for training regarding legal issues, disability-related accommodations, communication with students who have disabilities, and resources. However, they suggest a wide variety of preferences for how the training should be delivered, including on-site, printed, and Internet-based options (Burgstahler, in press; Burgstahler, 2002; Burgstahler, Duclos, & Turcotte, 1999; Dona & Edmister, 2001; Leyser et al., 1998; Leyser, Vogel, Wyland, & Brulle, 2000; Vogel et al., 1999).

Although students are generally pleased with their academic accommodations, some students, especially those with learning disabilities, report having difficulty acquiring accommodations and of maintaining confidentiality of disability-related

information (Burgstahler, et al., 1999; Hill, 1996; National Center for the Study of Postsecondary Educational Supports, 2000b). Some are reluctant to disclose their disabilities because of the negative attitudes of instructors; once they do, they are concerned that instructors will not respect their privacy. Students report a desire for improved communication with instructors about disability- and accommodation-related issues. Students with disabilities report that many faculty members need education regarding the rights and accommodation needs of students with disabilities, effective communication with students who have disabilities, and campus resources (Burgstahler et al.; Frank & Wade, 1993; National Center for the Study of Postsecondary Educational Supports).

In short, both faculty members and students report that instructors and administrators need training to help them better understand their legal obligations to provide academic accommodations, strategies for communicating with and teaching students with disabilities, and resources to help them provide accommodations for their students with disabilities. However, to date, no comprehensive research study has been undertaken to clearly identify the specific content and formats that would be most effective in helping postsecondary faculty and administrators develop the requisite knowledge and skills to fully include students with disabilities in academic programs.

Two of the best sources of information on faculty and administrator training needs are students with disabilities and members of the faculty and administration. Students with disabilities, as the consumers of education, need their instructors to be familiar with their rights, abilities, and needs. Faculty members and administrators are more likely to participate in and benefit from professional development offerings if their needs are met

in terms of both content and format. Suggestions from these stakeholders are useful to individuals who are designing professional development options for faculty and administrators.

Research Questions

The following research questions were established for this study.

1. What knowledge and skills are most important for postsecondary faculty to acquire in order for them to fully include students with disabilities in their courses?
2. For what types of disabilities and for what types of courses/activities is it most difficult for faculty to provide accommodations?
3. What are the best format alternatives for professional development of postsecondary faculty for working with students with disabilities?

Method

Focus groups were conducted in order to collect the opinions of key stakeholders and serve as a needs assessment for the development of materials and methods to help faculty members and administrators better accommodate students with disabilities in higher education environments (Buttram, 1990; Jacobi, 1991; Krueger & Casey, 2000; Morse, 1997; Patton, 1987). Participants in the focus groups in this study were members of the populations most knowledgeable about the need for and most directly impacted by the professional development being designed – students with disabilities, and members of the faculty and administration (Mertens, 1998; Patton). Focus groups are particularly appropriate for this type of qualitative research, in part because the candid discussions

generated can help us understand both what people think and why they think the way they do (Krueger & King, 1998; Morgan, 1988, 1997, 1998). Focus groups can be used to generate a theoretical framework, to confirm or challenge hypotheses, and to inform policy and practice in fairly quick and simple ways (Krueger, & Casey, 2000).

“Participants can qualify their responses or identify certain contingencies associated with their answers. Thus, responses have a certain ecological validity not found in traditional survey research” (Stewart & Shamdasani, 1990, p.12). In addition, focus groups are appropriate when trying to understand differences in perspectives between groups of people and it is desirable that these ideas to emerge from the group rather than from individuals (Krueger, & Casey). The focus groups in this study targeted two homogeneous groups – students with disabilities and faculty/administrators. The shared characteristics of participants in each homogenous group helped to build saturation of opinions and perspectives (Morgan, 198).

Procedures and Participants

DO-IT Prof, funded by the U.S. Department of Education (grant #P33A990042), is an innovative collaborative project organized by the University of Washington's Disabilities, Opportunities, Internetworking and Technology (DO-IT) program. The DO-IT Prof project designed and delivered professional development options for faculty and administrators to increase their knowledge and skills in supporting students with disabilities. The DO-IT Prof team was comprised of faculty, disabled student services officers, and administrators at postsecondary institutions from twenty-three states. Focus groups were conducted at twelve DO-IT Prof team postsecondary institutions. The participating institutions form a diverse group and include research universities, liberal

arts institutions, community colleges, and technical colleges; the faculty, staff, and students with disabilities participating in the focus groups reflect this diversity. Twenty four students with disabilities and 45 faculty members and administrators participated in a total of 10 focus groups.

DO-IT Prof staff developed moderator guides and distributed them to the project team members in order to assure consistency in the recruitment process, the group structure, the role of the moderator, and the conduct of the focus groups. The moderators were given a script with specific questions. They followed the principles of non-directedness as they solicited the views of group members (Debus, 1990; Morse, 1997).

Each focus group was approximately 90 minutes long. Focus group discussions were recorded in three ways. Eighteen were audiotaped. One was videotaped and three were recorded with hand-written notes. Facilitators also submitted focus group summaries to the research staff. Research staff transcribed all spoken utterances on the tapes that were submitted. Less than ten percent of the tapes had small portions of content that were unusable due to poor sound quality and/or difficulty differentiating voices.

Twelve focus groups of faculty and administrators were conducted at 12 institutions. Forty-one faculty and four staff members participated. A diverse range of institution types was represented, including four two-year and eight four-year institutions and eight urban institutions, one rural institution, and four suburban institutions. Disciplines represented by participants included humanities, life and physical sciences, social sciences, allied health fields, fine arts, and mathematics. Participant level of effort devoted to teaching and research varied greatly. The focus groups of faculty and administrators examined participant experiences working with students who have

disabilities, their knowledge of and level of satisfaction with student services, their previous experiences in receiving training in this area, and their recommendations for effective professional development content and methods.

Seven student focus groups were conducted at seven institutions. A total of 24 students with disabilities participated. A diverse range of institution types was represented, including three suburban institutions and five urban institutions; and two two-year institutions and four four-year institutions. Disabilities represented among the focus group participants included blindness, paraplegia, traumatic brain injury, learning disabilities, Cerebral Palsy, deafness, Attention Deficit Hyperactivity Disorder, and psychiatric disability. The focus groups of students with disabilities examined their experiences in receiving accommodations on their campuses, their experiences working with instructors, and their impressions of how faculty members could become better prepared to fully include students with disabilities in their courses.

Data Analysis

Focus group interview data were analyzed using a qualitative approach. Both traditional and computer-assisted methods were employed. Themes related to the research questions were identified from the participants' utterances (Lincoln & Guba, 1985; Mertens, 1998; Morse, 1997). However, some unexpected and relevant issues emerged from reviewing raw data before the analysis was complete (Krueger, 1998). Several levels of analysis reflecting the recursive nature of dialogue were used to process the transcripts and summaries of the focus groups (Krueger; Stewart & Shamdasani, 1990).

The first step in the data analysis was to manipulate the large amounts of raw data into manageable sets. Care was taken to avoid imposing prior assumptions when beginning to analyze and categorize sections of the transcripts. One researcher read through and summarized the written notes and transcripts provided by focus group facilitators before embarking on a more rigorous computer-assisted process. Examples of specific statements were included to substantiate generalized comments. The summary prepared from the focus group data also helped researchers focus the analysis on specific topics. Revisions were made as refined and new categories emerged during the analysis process.

NUD*IST (Non-numerical Unstructured Data: Indexing Searching Theorizing), a software tool that supports the development of hierarchical categories of coding, was used as a tool to code the transcripts (Richards & Richards, 1995). With NUD*IST it is easy to create new categories, delete old categories, re-organize existing categories and re-index sections of transcripts (Weitzman & Miles, 1994). Computer analysis was conducted because it fosters a consistent and systematic strategy which can be verified by other parties and allows for regrouping and revisiting data sets efficiently (Krueger, 1998). Computer-aided analysis uses less time than conventional cutting, sorting, and pasting of interview data and facilitates the processing of large amounts of data used by multiple researchers in analytical processes (Ford, Oberski, & Higgins, 2000).

At the start of the analysis process researchers agreed on categories and coded all utterances until saturation of categories. Existing themes were used to organize the coding of several transcripts. These coding and category concepts served as the initial codebook. At meetings the research staff compared their independent coding of the same

transcripts and entered named categories or nodes into NUD*IST. By using inter-rater validation tests of randomly selected sections, the confidence level of data categorization was 83% for three independent raters and the fourth tester. A methodology of grounded theory and progressive focusing was used to analyze the raw data (LeCompte, Preissle, & Tesch, 1993; LeCompte & Schensul, 1999). Emergent categories were used to code the transcripts, focussing on content relevant to the research questions.

The codebook was developed by starting with the main themes identified when the transcripts were summarized – problems, solutions, and the origins of these. "Problems" were classified as to whether they were related to the student, the faculty, or the institution. "Proposed solutions" were suggested actions to be implemented by the student, implemented by the faculty, or undertaken by institutional support services. The types of problems and types of proposed solutions were categorized as "knowledge" (e.g., lack of awareness, inadequate information), "attitude" (e.g., open-mindedness, negative perspectives), "skills" (e.g., ability to communicate or offer accommodation) and "other". For issues stemming from the institution/system, the categories were "action" (e.g., doing what is required to meet a need), "resources" (e.g., money, time, materials, or technology), and "processes" (e.g., applications, documentation, communication). Second level categories overlapped the skills, knowledge and attitude areas as well as identified "other" areas that did not fit within existing categories. From these categories emerged specific application areas such as the provision of adaptive technology and other accommodations, development of guidelines, communications from disabled student services, perceptions of equity, understanding of rights and responsibilities, and instructional strategies.

Researchers were able to also consider who said what. For example, they could compare a faculty member's comment with a student's comment, both related to accommodations for learning disabilities. It became evident through these comparisons that student and faculty had shared concerns around the credibility of and appropriate accommodations for learning disabilities. Coding relating to disability type, discipline type, and technology were used across the other categories to capture these themes more completely.

Limitations of the Study

Sample selection for focus group participation was primarily one of convenience. Project team members recruited focus group participants through departmental notices, postings on electronic discussion lists, and personal and professional contacts. Participants were often, but not always, people known to the disabled student services offices. Since participants were not randomly selected their responses may not be representative of students with disabilities and faculty and administrators on any given campus. Students, faculty and staff who were positively motivated to do something about the perceived problems may have been more likely to participate, resulting in a biased response (Kirk & Miller, 1986). Although all participants were assured that their responses would be aggregated with others in a non-identifiable form, some participants may have refrained from disclosing some opinions for fear of repercussion or identification within the institution (LeCompte & Schensul, 1999).

Results and Discussion

The results and discussion are organized around three broad areas of interest in the current study: experiences of faculty and students with disabilities, content needs of faculty and administrators, and professional development delivery preferences of faculty and administrators. In each of these three topic areas, the results of the faculty focus groups and the student focus groups will be reported separately and then these results will be discussed together.

Experiences Teaching Students with Disabilities

Faculty, administrators, and students shared their experiences, including the types of disabilities for which it is most difficult for instructors to provide accommodations.

Results of Faculty/Administrator Focus Groups

Faculty members had especially positive stories to tell about students who were open about their disabilities with their professors and classmates, knew what accommodations they needed, and were motivated to achieve academic success. They reported negative experiences with disabled students to be rare, but, when asked about difficulties they had experienced, many could cite examples. They reported being quite willing to make minor accommodations but they had more resistance if accommodations required more extensive efforts.

Faculty members reported an easier time working with students who had "obvious" disabilities (e.g., sensory and mobility impairments) with straightforward accommodations. Students with learning disabilities, psychiatric disabilities, health problems, and other "invisible" disabilities pose the most challenges to instructors. Concrete and obvious accommodations such as sign language interpreters for deaf students and audiotapes for blind students were described as more comfortable

accommodations when compared to extended exam time and other accommodations for students with learning disabilities.

Several faculty members were dissatisfied with documentation provided by disabled student services offices regarding specific learning disabilities. They could not always translate the information provided into implementation strategies. They were also not always in agreement with students and campus support services about what is "reasonable".

"I know that we are legally obligated to provide accommodation 'within reason'. I think it is the 'within reason' that is ambiguous. For some of us in the math department, should we be waiving all math requirements for someone who has a math handicap?"

Some faculty members expressed frustration when students do not identify themselves as having disabilities, yet they clearly need disability-related supports. The following faculty member's statement addresses the issue of disclosure of disability:

"I can't really think of negative experiences except with disabled students that I've encountered who were struggling with learning disabilities who were unwilling to come down to disabled student services to talk to somebody...I guess my greatest negativity in dealing with students with disabilities is their unwillingness to be identified once they get to college."

They also reported frustration when students identify themselves as having disabilities but are unable to describe accommodations that work well for them.

Students who display an "entitled" or otherwise negative attitude are considered especially difficult to work with; some faculty members resist providing accommodations

for these students because they believe that they misuse their diagnoses. It was also frustrating for faculty members to continue to provide support and flexibility when a student was not achieving.

"...the only really negative experience I've had was with a student with Attention Deficit Disorder who even when given accommodations never finished anything and I eventually got suspicious of just what he was doing with all the work because he really couldn't complete anything in any given period of time. I thought, well, this is a more extensive problem; perhaps with another name ultimately."

Concerns regarding accommodations for students with hearing or speech impairments were not mentioned often. However, faculty members reported difficulties in teaching when a sign language interpreter could not keep up or if communication technology was out of service.

A few faculty members expressed dissatisfaction with disabled student services, such as unreliable interpreters, poor notetakers and inaccurate film captioning. Frustration was expressed regarding poor quality interpreting services. The slow process of putting books on tape was also noted as a frustration when working with students who need this accommodation. Members of the faculty and administration also reported concern about lack of available specialized software or laboratory equipment for students with disabilities. They considered such access essential to academic and career success of people with disabilities.

Faculty members expressed frustration about being able to see the need to remove physical barriers to lectures rooms, fieldwork, or lab work, but not be in a position to

implement solutions themselves and/or not knowing how to arrange to have barriers removed. For example, a table fixed to the ground might create an obvious barrier for a specific student, but an instructor might not know how to proceed in getting it removed or modified. They also reported situations where a simple structural modification could take an entire term to complete.

Some faculty members mentioned that their academic training emphasized research and content expertise more than pedagogy. They said that their lack of teacher training in this area contributes to making it difficult to know how to adapt their lessons to various learning needs. In addition to not having basic skills in instructional strategies, they also reported a lack of specific training and expertise in disability and accommodations.

Results of Student Focus Groups

Most students in this study reported mostly positive experiences with instructors regarding disability accommodations. Most students reported being willing to take an active role in advocating for their own needs, but felt frustrated that the student support system was not as responsive as it could be. They also felt the need for better coordination between instructional staff, teaching assistants, disabled student services staff, and themselves. Some also stated that other students as well as faculty need more education about disabilities.

The most common complaints from students in focus groups were about instructors' lack of understanding about learning disabilities and breaches of confidentiality in class. Students reported difficulty in getting reasonable accommodations for learning disabilities in a wide range of courses. Two said:

"If you try to get extra time on quizzes, you miss lecture[s]."

"A lot of these courses deal with writing and the grading is very subjective. So, if you make too much noise what kind of grade [will] you get at the end of it? It's not straight multiple choice tests, its essay exams with very subjective testing."

Students told about instructors telling them that they're "abusing" their disability, questioning their ability to be successful in school, and blaming them for problems they encountered as a result of their disabilities. Students expressed fear in disclosing both their disabilities and their accommodation needs. One said,

"A lot of Profs think it's [learning disability] an excuse; they don't understand you need extra time."

When asked by the focus group moderator, *"Any problems with accommodations that you've experienced?"* one student said, *"For me, it's just my own fear."* The moderator asked, *"Your own fear of asking for accommodations?"* The student responded, *"Yeah, because of certain teachers that I've had that when I would go up to them and ask and they would just kind of blow me off."*

Students noted breaching confidentiality as a major concern.

"A bad experience is when a professor brings it up in front of the whole class. It is disrespectful. I've had LD [learning disability] since the second grade, so I am used to it. I gave the letter to the professor in the hallway before class. He sat down in front of class and then read the letter out loud, looking at me, in front of this class of 35-40 people."

Some students reported a shortage of adaptive computing resources. With appropriate technology students felt capable and independent but without access to

technology some students felt they would be unprepared for employment. As reported by one student:

"It's a great equalizer. Almost anybody can do things equally well with computers regardless of disabilities, provided they have just the right software."

Discussion

Faculty members in the current study are more willing to make some types of accommodations than others, especially those that are straightforward and easy to implement, as was found in previous work (Aksamit et al., 1987; Leyser, et al., 1998; Vogel, et al., 1999). Faculty and student responses in the current study suggest that accommodations for students with learning disabilities are often seen by instructors as arbitrary and an "unfair advantage." This result is consistent with previous research that reported accommodations for learning disabilities and emotional/psychiatric disabilities as more problematic for instructors than those for physical and sensory impairments (Lehmann, et al., 2000; National Center for the Study of Postsecondary Educational Supports, 2000b; Leyser, 1989; Nelson et al., 1990; Vogel et al., 1999). This finding is of particular concern since students with learning disabilities form the largest and fastest growing group of students with disabilities on postsecondary campuses (National Center on Educational Statistics, 1999).

Faculty members are frustrated when students who apparently have disabilities do not identify themselves as having disabilities and when students do not (and perhaps cannot) tell them which accommodations work well for them; students express concern that faculty members are unaware or insensitive to the needs and rights of students with disabilities and the need for confidentiality regarding their disabilities. Other research has

identified similar problems regarding self-disclosure (National Center for the Study of Postsecondary Educational Supports, 2000b; West et al., 1993), supporting the need for students with disabilities to develop self-advocacy skills (Dodd, Fischer, Hermanson, & Nelson, 1990), for faculty members to become more aware of these issues, and for improved coordination between students, staff, and faculty. The need for high quality, consistent implementation of services such as note taking, sign language interpreters and other support services is reported by students, faculty, and administrators in this study and in previous work (Dona & Edmister, 2001; Leyser et al., 1998; National Center for the Study of Postsecondary Educational Supports, 2000b).

Professional Development Content Needs of Faculty

Faculty members, administrators, and students reported knowledge and skills that they consider to be most important for postsecondary faculty to acquire in order for them to fully include students with disabilities in their courses.

Results of Faculty/Administrator Focus Groups

Faculty members requested information about different types of disabilities, legal rights and obligations, clarification of campus policies, accommodation strategies, and campus resources for students with disabilities and for faculty. The focus groups revealed two needs related to their understanding of the disabilities of their students – they expressed a need to understand 1) the impact of a specific disability and 2) the necessary accommodations for it. For example, a faculty member might understand what deafness is, but still not understand how to accommodate students who are deaf.

They expressed a preference for information that is evidence-based, clear, and related to how the student can successfully perform in class. It was recommended that

training include general information as well as guidance on how and where to get more information. Faculty members requested technical information that focuses on accommodation strategies for specific disabilities, particularly "invisible" disabilities, information on how to handle medical and other emergencies, and insights into student perspectives. A faculty member with some experience accommodating students noted that it is important to know that accommodating a student usually entails incremental, not comprehensive, changes to the course and teaching methods. Participants expressed discomfort in approaching students with disabilities. The need for more clarity regarding confidentiality was also expressed by faculty participants in focus groups. Specifically, faculty members said:

"Another negative aspect would be we don't know their disability until later, after we have struggled with things... a lot of times a student will come in and ask for accommodations and we will work with them and don't know until later that we could have helped them in a different way."

"It would help to know more about the rules around what we can and cannot say or ask- I am worried about making mistakes."

Faculty members also wanted to learn effective teaching methods. They said that they want to know the basics of good pedagogy; they want to know how to teach effectively and present materials in a way that is accessible to a diverse group of students. They recommended that the relationship between good pedagogy and academic accommodations needs to be explored and made explicit. One faculty member explained:

"Regular curriculum teachers don't necessarily get an opportunity to take special education or learn about learning differences in a course."

Faculty members reported that they have little knowledge about related laws and find them vague and unclear, expressed an interest and need for more clarification on legal issues, and suggested that training opportunities educate faculty about their legal obligations to provide reasonable accommodations.

Faculty members and administrators reported feeling ethical tensions when providing accommodations to students with disabilities and suggested that training should address perceptions of classroom inequity while providing accommodations to students with disabilities.

Results of Student Focus Groups

Student responses suggest that disability etiquette and a generally positive attitude on the part of faculty are needed more than technical information about specific accommodations. Students described instructors who accommodated positively by acting respectfully, providing individual assistance, and displaying flexibility. They suggested that faculty members need to learn a range of accommodation strategies since accommodations are not one-size-fits-all, even for students with the same disability.

Some students felt that it was important for instructors to know relevant content about specific types of disabilities. Students felt that the needs of blind, deaf and physically disabled students were clearer to faculty than less obvious disabilities and that training should cover the more confusing disabilities and accommodations. As two students reported:

“Profs should be better prepared about LD [learning disability].”

"I cannot put enough emphasis on having faculty sensitized to invisible disabilities because things like psychiatric and learning disabilities are not well understood."

Students were concerned that even though there are legal obligations for institutions to provide accommodations, these obligations are not consistently met. Some students thought that this was a result of lack of knowledge or enforcement; others considered it a lack of willingness to learn. One student summarized:

"You know, the ones that want to do it are doing it (accommodating) and if they don't want to they don't – the real question is how do you get them to want to do it?"

Some students wondered why faculty members do not approach them. Several focus group participants stated that they prefer that instructors ask them about accommodations and not treat their disability like a "taboo" topic while still maintaining confidentiality.

"Etiquette - that's where I was going. It knows how to ask."

"Asking. I mean half of the time they don't ask. Even if they want to, they don't."

Although these situations could be a result of faculty respect for confidentiality, some students felt it was related to general awkwardness as well as a lack of knowledge about basic disability protocol.

"I just think that professors don't always understand why. This (accommodation) isn't really something I want; it's something I have to have. It's not that I'm trying to get out of doing the work that everybody else has to do, or that I'm trying to find the easy way to do something."

These comments suggest that both confidentiality guidelines and effective communication strategies are important to include in faculty development programs.

Discussion

Faculty members in the current study felt frustrated with their lack of knowledge about legal, disability, accommodation, communication, and resource topics. In other research, instructors felt at a loss when faced with a disability issue they were not prepared to deal with, but they reported being willing to learn (Dona & Edmister, 2001). Instructors in this study and others have expressed a need for more information about legal issues, support services, disabilities, and accommodations (Aksamit et al., 1987; Leyser et al., 1998, 2000). The issue of faculty attitude that was brought up by students in the current study was also raised by other researchers who found that faculty flexibility was a key to successful accommodation experiences (Leyser et al, 1998; Vogel et al., 1999) and students with disabilities were especially concerned about instructors who saw disability as a personal failing or incompetence (Lehmann, Davies & Laurin, 2000). The fact that participants expressed difficulty in approaching students with disabilities suggests effective communication strategies as a potential topic for training.

Issues raised by students, faculty and administrators in this study were consistent with previous research that found that faculty need to learn effective teaching strategies that can help all students learn, not just those with disabilities (National Center for the Study of Postsecondary Educational Supports, 2000b; Nelson et al., 1990). Faculty suggestions that ethical issues related to accommodations be included in professional development are consistent with previous work (Leyser et al., 2000; Vogel et al., 1999).

Participants in the current study reported technology as a tool that should be harnessed to ensure students with disabilities keep up with non-disabled peers and have full access to educational opportunities. As the Internet becomes a more critical part of the learning experience, universal design and Web accessibility become an urgent issue (Burgstahler, 2002; Waddell, 1999). While accommodations for a specific disability might require the use of specialized technology, there were also concerns about access to standard computers and equipment. The value of assistive technology and problems in gaining adequate access to technology was also highlighted in previous research (National Center for the Study of Postsecondary Educational Supports, 2000b). Human resources as well as technology are needed to support the academic studies of students with disabilities.

Delivery Preferences for Professional Development of Faculty

Focus group participants reported the best venues and format alternatives for the delivery of professional development regarding the inclusion of students with disabilities in courses.

Results of Faculty/Administrator Focus Groups

Some faculty members reported that professional development opportunities available at their institutions were offered at inconvenient times or only as printed materials. Some stated a preference for in-person training.

"The problem is that's another stack of papers and another binder on my shelf that I have no chance to read. That's why I'm not sure that's the best means, and I think workshops and roundtables in a condensed time are useful."

"I like getting together. I like the dialog, brainstorming."

The types of opportunities that faculty members found particularly useful included student panels and presentations, presentations or workshops incorporated into regular departmental meetings, and workshops with active participation. Faculty had strong, yet diverse, opinions about the length of the training; they complained about training that is too long or too short. They suggested that some faculty members are more interested than others and that someone in each department could take a lead role and receive more advanced training than others. As one faculty member explained:

"There may be some people in your division that may have a particular interest and be willing to serve as a kind liaison to help distribute information, to answer questions, to provide information. Sometimes faculty members may not go out of their way to go beyond their building but to walk down the hall is easier."

Some participants pointed out advantages of on-line materials. Two faculty members stated:

"I love the idea of a web site and I think a web site could include what was discussed earlier— a glossary of disabilities and accommodations."

"A very searchable web site. Or a well-indexed reference book because if I came up against a specific problem and I could identify it I would probably go to that book."

In total, faculty and administrators suggested the following methods for delivery of professional development: department-specific workshops; participatory, hands-on workshops with case studies; short activities/presentations as part of larger meetings; longer seminars on specific topics; peer-to-peer training from faculty colleagues; one-to-

one support from the disabled student services organization; printed reference materials and notebooks; videotaped presentations; and Web resources.

Results of Student Focus Groups

Student participants did not provide specific details about how best to train instructors but they were clear that the content of professional development should result in the provision of better accommodations. Some students thought that information should be given to instructors in mandatory workshops because “it’s the instructors who would be likely to not attend that are the problem.”

Discussion

Workshops that are short and cover specific topics are preferred by some faculty. Additionally, almost all faculty members still want print and on-line reference materials to consult as needed. Online courses, videotaped instruction and longer on-site courses are suggested as options for people with specific interests or needs. Individual, just-in-time support should be available as well. Previous research also supports the need for varied delivery methods (Leyser et al., 1998).

Including students with disabilities in panels and in other ways where they interact with faculty members is supported by previous findings that instructors have a more positive relationship with students with disabilities as they have more contact and their level of comfort and willingness to provide accommodations is increased (Aksamit et al., 1987; Fonosch & Schwab, 1981; Leyser, et al., 1998). Faculty members are often very busy, have varied schedules, and have different perceived needs regarding the content that is most important.

Recommendations

The analysis of focus group data suggests that content of faculty development programs should include:

1. Information about learning theories, and different learning and teaching strategies and styles.
2. Research-based content regarding definitions of disabilities and related accommodations, especially regarding learning disabilities, psychiatric impairments, and other invisible disabilities.
3. Clarification of legal issues related to providing accommodations for students with disabilities.
4. Effective ways to communicate with students without violating confidentiality.
5. How to harness technology and provide alternative access to learning and assessment activities.
6. How to make their Web pages accessible for students with disabilities.
7. Clear information about campus support services for disabled students and how to get more information about other campus resources.
8. Guidance on how to voice concerns around the performance of support service providers such as sign language interpreters.

Regarding delivery of professional development to faculty and administrators:

1. Multiple delivery options (e.g., shorter and larger on-site training, on-line training, videotapes, printed materials) should be made available with similar content so that faculty can select option(s) most suited to their needs.

2. Short training sessions should be incorporated into departmental and other regular meetings.
3. Content should be available online and/or in text reference format for independent reference.
4. One-to-one support and technical assistance should be provided to faculty members as specific situations arise.

Questions for Further Research

The results of this study suggest the following questions for future research.

- What issues emerge with the increasing use of technology in postsecondary education regarding how faculty can interact with and accommodate students with disabilities?
- What strategies can faculty use to better instruct and evaluate students with learning disabilities?
- What training could be provided to students with disabilities and to the general student body to support the academic success of students with disabilities?
- What are the special needs of new instructors and teaching assistants in working with students with disabilities that could be addressed through professional development?
- What professional development for science and engineering faculty could address the challenges of students with disabilities in these programs?
- How can professional development of faculty be institutionalized on postsecondary campuses?

- How can Internet-based distance learning courses and other special academic options be made accessible to students with disabilities.
- How can cooperation of various campus units that support access for disabled students be encouraged and how can they work together to maximize efficiency and minimize redundancy?

Conclusions

Focus groups were conducted to identify what faculty members and administrators need to know to support students with disabilities in postsecondary education as well as their preferred formats for professional development in this content area. The most problematic accommodations for faculty to provide are those for students with "invisible" disabilities such as learning and psychological disabilities. Although they had a better understanding of providing access for students with physical and sensory disabilities, there were still frustrations in getting satisfactory support services, physical access, and alternate formats of materials. Although faculty members perceive that they understand confidentiality, students report breaches of confidentiality as a major concern, suggesting this issue as an important topic to be covered in training.

Since faculty members and administrators have preferences that vary widely, a variety of training models should be provided in order to reach all of them. Short presentations as part of an existing meeting of new faculty or department members, longer seminars and participatory workshops with case studies, peer-to-peer training, on-line self-paced training, reference books and Web sites, videotaped presentations, and short printed materials should all be considered. Trainers should, whenever possible,

include students and professionals with disabilities in the development and delivery of the professional development.

The DO-IT Prof project at the University of Washington has created and is now disseminating a range of programs to improve the knowledge and skills of postsecondary faculty and administrators in order to make them better prepared to fully include students with disabilities in academic programs on their campuses. Content and strategies were based on findings of the current study as well as previous research. For more information, visit The Faculty Room at www.washington.edu/doiit/facultyroom/.

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