

Assessing Faculty Perspectives About Teaching and Working with Students with Disabilities

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Abstract

This study presents a unique assessment of faculty perspectives about teaching and working with students with disabilities against the backdrop of the Individuals with Disabilities Education Act (IDEA) and the Americans with Disabilities Act (ADA). A randomized sample of 127 faculty from a large Midwest comprehensive university completed the survey, *Faculty Perspectives about Teaching and Working with Students with Disabilities*, an instrument the authors created and based on selected items from the *Patterns of Adaptive Learning Scales* (PALS) (Midgley et al., 2000) and *The Accommodation of University Students with Disabilities Inventory* (AUSDI) (Wolman, McCrink, Rodriguez, & Harris-Looby, 2004). Results confirmed the survey's potential utility throughout the academy. Essential findings presented in this article regard faculty's (a) general approach to teaching and (b) specific attitudes and behaviors about accommodating students with disabilities. Follow-up discussion points out the efficiency of administering the survey and its applicability to other university settings. Implications for survey replication, faculty professional development, and subsequent and corroborating research are included.

Keywords: *efficacy, attitudes, perceptions, professional development, Americans with Disabilities Act*

Postsecondary students with disabilities often encounter challenges (Houck, Asselin, Troutman, & Arrington, 1992; Ryan, 2007), including the need to self-advocate with respective universities' administrative offices responsible for their accommodations. Whereas the administrative office is the gatekeeper through which students must pass, actual faculty members are the ones with whom students need to interact the most in order to gain access to knowledge and have fair opportunities to demonstrate their learning. This process, however, appears to not achieve the ideal outcome of degree completion when considering graduation rates among individuals with disabilities. Walker (1980) put forth such a portrayal of the higher education landscape more than 30 years ago: "Support services can make it possible for the [disabled] student to enter the postsecondary setting physically, but only faculty can provide access to knowledge and ways of knowing" (p. 54). The current outplay is no different, as Grieve, Webne-Behrman, Couilou, and Sieben-Schneider (2014) reported in their analysis of the 2009 National Center for Education Statistics dataset: "While postsecondary students who disclosed a disability comprise 11 percent of the total postsecondary population, graduation statistics indicate the

college students with disabilities are underrepresented in students who earn a degree" (p. 19).

Throughout the postsecondary education literature, students have reported experiences with faculty they considered as non-accommodating and unapproachable, or well-intentioned in their responses to accounting for students' disabilities, albeit downplaying the need for accommodation within their respective courses (e.g., Quinlan, Bates, & Angell, 2012). When students encounter such difficulties with faculty, they may withdraw from a university or be less likely to seek accommodations in future courses, thereby damaging their chances of completing their degrees and/or pursuing certain types of careers (Hill, 1996). Such a deleterious outcome should be a rally call for higher education to ascertain faculty members' dispositions toward embracing this subpopulation of college students and respond with professional development opportunities aimed at thwarting any negativity.

The quest is both timely and necessary given the ever increasing number of high school students with disabilities projected to enroll in college programs. Calculating specific numbers and percentages of such students can be tricky due to the construction of data parameters the federal government uses to document

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college students' disabilities, mainly through its National Longitudinal Transition Study (NLTS). For example, in their quantitative analysis about the number and demographic characteristics of students with Autism in Science, Technology, Engineering, and Mathematics (STEM) programs documented in the NLTS, Shattuck et al. (2014) warned that "readers should interpret [our] findings of statistical significance with caution" (p. 4). Yet, at the same time, NLTS's overall data portray the significant presence of students with disabilities in postsecondary settings, as Hamblet (2014) pointed out:

Data from a longitudinal study in 2011 examining students with disabilities' post-high school outcomes indicated that 15.5% of those who were enrolled at 4-year institutions were identified as having LD [learning disability]. ADHD [attention deficit hyperactive disorder] was not listed as a disability category, but it may have been included in the 19.5% of students who were identified as having "other health impairments." (p. 53)

Concurrent discussions in the postsecondary education literature indicate the likelihood of these rates increasing in the years to come, as Cook, Hayden, Wilczenski, and Poynton (2015) pointed out: "The idea of students with ID [intellectual disabilities] accessing PSE [postsecondary education] is gaining popularity among institutions of higher education and the students themselves" (p. 52).

Prior to enrolling in colleges and universities, students with disabilities would have accessed K-12 accommodations through either the Individuals with Disabilities Education Act (IDEA) or Section 504 of the Rehabilitation Act of 1973. As a federal law, IDEA governs all special education and related services for students with federal-identified disabilities (i.e., Autism, specific learning disability, speech or language impairments, emotional disturbance, traumatic brain injury, visual impairment, hearing impairment, and other health impairments) that impede educational performance, as summed up in Section 601(d) of the Act (2004):

To ensure that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for *further education* (emphasis added), employment, and independent living, [and] to ensure that the rights of children with disabilities and parents of such children are protected. (n.p.)

In contrast, Section 504 is a civil rights law, one that prohibits discrimination on the basis of disabling conditions, as the Council for Exceptional Children (2002) posted:

This statute does not require the federal government to provide additional funding for students identified with special needs. Schools must provide these children with reasonable accommodations comparable to those provided to their peers. Section 504 does provide for enforcement of the mandate: A school that is found by the Office of Civil Rights to be out of compliance with Section 504 may lose its federal financing. (p.1)

Regardless of the means by which students with disabilities accessed accommodations in K-12 settings, "it is crucial that students become knowledgeable about their rights and responsibilities in postsecondary education because, although protections exist, the student has considerably more responsibility to request and design their own accommodations" (Leuchovius, 2003, p. 1).

Titles II and III of the Americans with Disabilities Act (ADA) define the scope of accommodations to which postsecondary students are entitled. Like Section 504 of the Rehabilitation Act of 1973, ADA is a civil rights law and its Titles II and III apply to schools that receive any form of federal funding, including universities, community colleges, and vocational schools (Leuchovius, 2003). Such institutions must ensure that their programs and extracurricular activities are accessible to students with disabilities. Upon receipt of imposed and required documentation from a student that verifies disability status and/or prior accommodations in a K-12 setting, the college or university must ensue with "reasonable accommodations" for which it is afforded much power and control in interpreting (see Vickers, 2010). Specific to the present study, "reasonable accommodations" for courses within higher education may not fundamentally alter programs of study or overall content and objectives (Eckes & Ochoa, 2005).

Faculty members may not be familiar with the nuances associated with ADA, but are nevertheless important figures for universities who must comply with ADA and determine the manner in which its intent is fulfilled in their specific courses (Scott & Gregg, 2000). Even if the university's compliance officer (i.e., Office of Students with Disabilities) provides a legal accommodation letter outlining a specific student's ADA entitlement, such communication often lacks enough detail to help each faculty member personalize his/her course in accord with each student's specific disability.

In the absence of a clear understanding of what “reasonable accommodation” means, an essential criterion for ADA services in the postsecondary setting, and specific directions for day-to-day instruction, faculty may default to limited ways of fulfilling their responsibilities, such as providing extended time on tests.

Discussions about faculty attitudes regarding ADA accommodations for students exist within the literature. In such scholarship, authors have noted faculty willingness to help students (e.g., Nelson, Dodd, & Smith, 1990), but with limits. For example, Lindstrom (2007) reported that faculty typically only employ one or two types of accommodations, a limit that might stem from a dearth of literature that would otherwise inform them of alternative and expanded approaches for helping students with disabilities. Other scholars have noted faculty unwillingness to explore innovative or technological accommodations beyond simplistic ones because of the work or time involved in implementing them (e.g., Utschig, Moon, Todd, & Bozzrog, 2011).

Differences in faculty attitudes are also linked to specific academic disciplines and types of disability. Some researchers have found that faculty have lower expectations of students with learning disabilities and view them as having limited options in terms of majors and career goals (Houck et al., 1992; Scott & Gregg, 2000). Faculty in Arts and Sciences and in Business have been found to be less willing to accommodate students and less familiar with the laws than faculty in Colleges of Education (Leyser, Vogel, Wyland, & Brulle, 1998; Nelson et al., 1990), which could be particularly problematic for students intending to pursue studies in the sciences or in business. In addition, faculty have been found more willing to accommodate students with vision and hearing impairments or a physical disability, than for students who disclose that they have learning and/or emotional-behavior disabilities (Leyser, 1989; Wolman et al., 2004). We remind the reader that attention deficit hyperactive disorders (ADHD) are typically classified as a learning disability or other health impairment (see Hamblet, 2014).

In sum, one could argue that faculty dispositions toward students with documented disabilities and/or their professional opinions about accommodations in higher education might enhance or diminish the true spirit of the aforementioned Acts. If such a perception is legitimate, methods for assessing faculty perspectives should ensue so as to inform the fulfillment of ADA. Ignoring faculty dispositions would only perpetuate trite accommodation provisions that may not be realistic for students with disabilities. We responded to the need with the design of a unique survey that

could quickly and proactively assess faculty dispositions about accommodating students with disabilities, a tool that could then best inform faculty professional development.

Method

In order to secure a robust number of responders necessary for piloting this survey and providing meaningful results to the academy, we used a randomization table to identify 600 of 1409 tenure-track and tenured faculty and lecturers at a Midwest comprehensive university. We first informed potential participants about our study and their selection to participate via a postcard notice. We then followed up with an email communication that sought their consent to accept our invitation and included a link to our online survey. A total of 127 faculty members representative of each college on the campus completed the survey (21% response rate), the majority of whom (56%) had been teaching at the postsecondary level for more than seven years (See Table 1).

Specifically, each consenting participant completed the instrument *Faculty Perspectives about Teaching and Working with Students with Disabilities* that the principal author compiled for the present study and administered through the online platform Qualtrics (see the Appendix). The survey was designed to provide an efficient method for gathering information about faculty attitudes and experiences with students with disabilities, as well as general information about their approaches to teaching. Each respondent anonymously completed the survey during a one-week period of time during which we made it available. Thus, certain participants might have responded to questions based on accommodation matters they were addressing at the time of survey administration. Most of the participants (66%) completed the survey in less than ten minutes.

As noted in the Appendix, the survey contained two groups of 5-point Likert-scale items used in prior research, as well as additional questions to assess faculty experiences and practices with students with disabilities. For the first group of Likert-scale questions, the principal author purposefully selected 16 items from three subscales of the *Patterns of Adaptive Learning Scales* (PALS) (Midgley et al., 2000): (1) teaching efficacy, (2) performance approach to teaching, and (3) mastery approach to teaching. Example selected statements relevant for the present study included: (1) “I am good at helping all the students in my class make significant improvement” (teaching efficacy subscale) and (2) “I consider how much students have improved when I give them final grades” (mastery ap-

proach to teaching subscale). Participants responded to these items on a scale from (1) strongly disagree to (5) strongly agree. Midgley et al. (2000) previously confirmed that the Cronbach's alphas reported for these subscale items ranged from 0.69 to 0.74.

For the second group of Likert-scale items, the principal author compiled six items from previously published and validated measures to gather information about faculty attitudes and assumptions toward students with disabilities. The first source included two items from the *Accommodation of University Students with Disabilities Inventory* (AUSDI) (Wolman et al., 2004) subscale regarding assumptions about students (e.g., "Many students with disabilities expect special treatment."). The second source included items adapted from Houck et al.'s (1992) survey that assessed faculty attitudes (e.g., "As an instructor, I think special course accommodations for students with disabilities are unfair to other students in the class."). The principal author also crafted two additional survey questions using specific language from the ADA (1990) relative to higher education settings: (1) "Students with physical or mental disabilities should be able to fully participate in all aspects of university life" and (2) "Faculty should make academic adjustments for students with disabilities" (see Table 3, items number 1 and 2).

Although beneficial to understanding faculty perspectives and attitudes, the above selected items cannot fully portray faculty strengths and shortcomings regarding accommodations for students with disabilities. We supplemented our original questions with items that would paint a more complete picture and allow for potential correlations to be noted and accounted for when determining professional development implications. Our questions included items related to a recent experience with a student with a disability (e.g., "Did you have a conversation with the student about how you could accommodate his/her needs?") and items related to resource use and training (e.g., "Have you ever taken a course or seminar, or pursued professional development opportunities about disability accommodations for students in higher education?").

We specifically wanted to collect anecdotal qualitative data as a final open-ended prompt for the survey. Our review of the literature did not yield any previous studies about faculty self-describing their primary roles as either compliant with administrative directives and/or ADA about student accommodations. Therefore, we asked respondents to describe what they consider to be their most essential role in providing students with disabilities access to a postsecondary education. Self-reported information from one open-ended question cannot be considered rigorous qualitative data. Yet,

as Creswell and Clark (2007) suggested, this type of qualitative data can be used to more broadly interpret selected quantitative data. We report how our collected anecdotal qualitative data was beneficial in better understanding our quantitative findings.

Results

We present the results in three sections. In the first section, we provide descriptive data about the faculty participants' responses to questions regarding their (a) general approach to teaching and (b) specific attitudes and behaviors about accommodating students with disabilities. In the second section, we report the results of group difference analyses to determine the present-day relevance of Nelson et al.'s (1990) finding that faculty willingness to accommodate students is based on certain academic disciplines. Narration of these first two sections includes summative table information along with additional commentary. In the final section, we summarize the open-ended comments collected as a final survey prompt, insights that further corroborate the quantitative data and that offer additional insights necessary for informing future replications of the present survey study and professional development implications it exposes.

Descriptive Results

Table 2 contains the descriptive results for responses to the PALS items. Overall, participants demonstrated moderately high levels of mastery approach for teaching ($M = 3.38$, $SD = 0.74$) and teaching efficacy ($M = 3.43$, $SD = 0.60$), and lower levels of performance approach ($M = 2.18$, $SD = 0.64$) on the PALS items. Though PALS is more commonly used in K-12 settings, our participants had slightly lower averages on all three subscales than those found in prior research using these subscales with elementary and middle school teachers (Midgley, Anderman, & Hicks, 1995). Educators prepared for K-12 teaching might have somewhat higher efficacy due to possible coursework that would have prepared them for teaching a diverse population of students. Regardless, the overall pattern of results is consistent with prior studies in that instructors generally reported higher mastery than performance goals, and that mastery and efficacy averages tended to be about the same. Similar to findings in K-12 studies, present findings indicated that the participants generally focused on learning (as opposed to performance) and were reasonably confident in the power they have to reach all students, regardless of disability.

The individual Likert-scale items produced mixed results (see Table 3). At least 64% of the participants endorsed the two ADA-inspired items: (1) "Students with physical or mental disabilities should be able to fully participate in all aspects of university life," and (2) "Faculty should make academic adjustments for students with disabilities." Furthermore, 80% disagreed with the statement that accommodations for students with disabilities are unfair to other students. Respondents provided a high N of neutral responses (upwards of 33%) for statements regarding their awareness of how students with disabilities navigate disclosure options in higher education settings (e.g., "Students with disabilities are reluctant to disclose their disabilities.").

The majority of participants (89%) indicated having a student with a known (reported) disability in a recent class, and nearly all of those participants stated that students typically bind their accommodation requests to those outlined for them by their university's office responsible for fulfilling ADA disability services. For example, when asked to think about a recent student who requested accommodations, most of our participants said the student requested extended time and/or a quiet/alternative location (see Table 4). The focus on solely using extended time seemed commonplace, as only 25% of the participants reported having ever adapted an assessment tool (e.g., test) using any method other than extended time for a student with a documented disability. This finding suggests that our participants considered extended time and quiet location as adequate accommodations and did not implement other types, comparable to Lindstrom's (2007) review of empirical research about faculty members' accommodations for students with disabilities.

Only 24% of the survey participants reported ever having training or professional development about accommodating students with disabilities. The percentage was much higher (53%) among participants in the College of Education.

Group Differences

There were no differences on any constructs or individual questions within the Likert-scale items based on years of teaching, and only a few significant differences on those items between participants of the different colleges for which there was a large enough sample to note such differences. For example, consistent with the differences found in prior research (Nelson et al., 1990), participants within the College of Education were more likely to report that they provided several activities for students in class than faculty in three of the other colleges ($F(4,120) = 4.99, p = 0.001$).

However, significant group differences emerged on certain essential items when dividing the groups into tertiles based on the teaching efficacy subscale from PALS. Participants in the lowest efficacy group made up one-third of the sample but made up the majority of the 12 participants who disagreed that faculty should make academic adjustments (9 of the 12) and who were concerned that other students perceive accommodations as unfair (10 of the 12). In fact, there were significant mean differences between the efficacy groups across all four of the ADA- and fairness-related items in the second group of Likert-scale questions (Table 5).

Anecdotal Qualitative Data

At the end of the survey, instructors had the option to answer an open-ended question about their most essential role in providing accommodations for students with disabilities within their courses. Seventy-four percent of them accepted the invitation. As previously mentioned, our intent in collecting such anecdotal qualitative data was to further interpret the primary quantitative data. Given the legal nature of ADA, we had anticipated that our participants would most likely respond to our posed questions from a "what-I-am-required-to-do" stance with possibly skewed, if not contradictory, interpretations of ADA. Thus, we had hoped that the final open-ended prompt would elicit more personal ethos statements exceeding the legalities of ADA. We knew such insights would be necessary for the professional development implications we predicted the survey results would affirm as necessary within the academy.

Relative to the aforementioned quantitative data, the following anecdotal qualitative responses are noteworthy. First, while some of the responses referred only to following ADA-based "rules," such as, "Meeting the accommodations requested," or complained about the difficulty of accommodating learners' needs (e.g., "Finding time to rewrite an exam is difficult and the task is very time consuming."), most of the comments exceeded discussion about ADA mandates. Certain faculty, while acknowledging and adhering to students' ADA accommodations, asserted that their advocacy for students' success was broader than simply following through with prescribed accommodations, such as one business professor who stated: "I see my role as a facilitator of their success." A second common theme regarded availability, ensuring that students with disabilities have optimal contact with professors in order to, as one respondent summed, "[make] sure the students understand the instructor is available and willing to help them succeed in the courses I teach."

Most admirable were student-first statements of advocacy and individualization, such as one education professor's quest to "try and make students feel safe in disclosing their need for accommodations." Embedded in several of the frequent references to advocacy and referrals for support were purposeful statements about the need to focus more on students' abilities versus their disability labels. Likewise, faculty noted the benefits students gain when professors employ an individualized approach (e.g., "Working with students on a case-by-case basis really helps;" "View each student and his/her needs individually"). Overall, the comments reflect a willingness to work with students with disabilities and recognition that faculty play a critical role in access to education for these students, an ethos worthy of acknowledging when remedying any ADA shortcomings and/or expanding the scope of accommodations it requires within the academy.

Discussion and Implications

The overall results of the present study suggest that faculty have experience with students with disabilities, particularly learning disabilities, and are willing to engage with such students and accommodate their needs beyond being required to do so, per the ADA. Yet, at the same time, most faculty participants reported only accommodating students with extended time on tests, and many were unsure whether students are reluctant to disclose their disabilities (see Table 3). In addition, a subgroup of participants had a negative perception of accommodations as unfair. All of these results highlight the utility of a survey instrument like ours to justify the need for targeted, evidence-based professional development opportunities for faculty.

Limited Accommodations

Our respondents alluded to documentation they received from their campus office responsible for ADA disability services as the official source specifying and stressing the accommodations of extended time for test completion and test administration in alternative, quieter locations. Despite the more all-encompassing purpose of accommodations they espoused and committed themselves to fulfilling, as noted in the anecdotal qualitative comments, many did not indicate utilizing other ways and means for accommodating students. It was evident that they warranted professional development that would tap into their positive regard for students with disabilities and offer more in-depth, alternative ways of accommodating students' disabilities in more beneficial ways. For example, at no time did our participants mention pre-instruction/post-instruction,

essay, or project assignment accommodations, let alone in-class accommodations for discussion with peers and instructors. Here again, our survey tool's utility is noteworthy; replications of our study might expose different professional development needs.

We specifically point out that the limited accommodations mentioned by our respondents across several survey items may not adequately address the needs of students with mental health disabilities. The literature (e.g., Collins & Mowbray, 2005; Souma, Rickerson, & Burgstahler, 2012) is not silent about the presence of mental health intervention needs among college students. The ADA is not bound to disabilities or areas of accommodations that are strictly learning-based. Students with depression, anxiety, and other internal/external mental health disabilities are entitled to request ADA accommodations. It would appear as if our participants' ethos would welcome such a conversation, but such a predication could only be verified in follow-up professional development opportunities.

Low Efficacy Correlation with Negative Perceptions

We must also account for certain differences in attitudes connected with teacher efficacy that the survey exposed. Faculty who reported low efficacy were less likely to endorse ADA-related items and more likely to point to accommodations as being unfair. For this particular group of participants, follow-up professional development opportunities would have to account for how teacher efficacy impacts instructional practice. Previous research at the K-12 level has indicated that teachers with low efficacy tend to have negative attitudes about students and give up quickly on those who have difficulty learning (Brownell & Pajares, 1999). In the postsecondary education literature, Park, Roberts, and Stodden (2012) found that faculty who have received professional development, via a summer institute, reported greater self-efficacy and greater willingness to work with students with disabilities after learning some specific strategies. Such a response to the professional development needs of certain faculty would be appropriate given our results.

Survey Replication

Our brief (10 minute completion time) survey tool allows higher education institutions to quickly assess instructors' awareness about ADA accommodations for students with disabilities and their efficacy in implementing them. Its utility further allows colleges and universities to target a specific group of instructors or multiple/all groups of faculty. Additionally, the survey utilizes a combination of previously validated survey subscales and unique items that offer the potential for

collecting informative data for postsecondary institutions, as reported in the present study. Options exist for individual colleges and universities to personalize the unique items for their own institutional data collection needs.

Other institutions choosing to administer the survey need to consider to whom it should be administered (e.g., tenured and tenure-track faculty; lecturers), as well as when and how to administer the survey. We recommend administering it to all types of instructors, as all are likely to encounter students with disabilities and impact those students' experiences. We administered the survey in the middle of a fall semester, which was late enough to allow faculty to settle into the semester and have some experience with students needing accommodations that semester, but early enough to not conflict with the busy end of semester. We received a robust response within one week of administering the survey. Future replications with similar prompt responses would allow for immediate remediation of any global, campus-wide ADA shortcomings before the end of a given semester.

We further opted for and recommend an online format for administering the survey. Our data were immediately available for ongoing monitoring and was outputted in a format that we could quickly analyze. Given that one outcome of administering this survey would be the identification of professional development needs that could immediately impact students' accommodations, this type of quick assessment was essential in moving forward with a professional development plan. Replicating our survey may yield comparable or varying results to the ones we received. Regardless of the outcome, the overarching data will pinpoint among whom increased faculty efficacy needs to occur through professional development opportunities and among whom other interventions and training would be appropriate.

Limitations

While our survey results helped guide thinking and planning regarding professional development, as designed, we recognize that further revision of the survey instrument and additional types of studies or conversations could provide even more depth and value to this process. The survey instrument contains some newly-worded items that should be further validated with a larger sample and items that may raise concerns about inconsistency in wording (e.g., asking about all students with disabilities versus asking about only students with learning disabilities). Therefore, some slight wording changes may be needed to improve clarity and focus.

Our brief survey instrument also contains limited opportunities for faculty to share their unique insights, experiences, and classroom practices. Follow-up studies could include more open-ended questions or interviews, which would improve the usefulness of the data gathered and could potentially enhance the validity of the findings.

Perhaps most importantly, the survey results provide a somewhat limited snapshot of the views of those faculty members who were willing to respond and therefore may have excluded other voices that should be included in this process. For example, faculty members who have strong negative views about inclusion may have ignored or avoided our requests altogether, and their perspectives would be important to consider and address through professional development opportunities. In addition, students with disabilities and disability services staff were not included in our study at all, and their experiences are necessary to consider in any plan to improve equity and access for students with disabilities.

Professional Development

Recent scholarship related to our study concurs with our recommendation to consider professional development as a viable and first choice response to increased enrollments of students with disabilities. For example, Longtin (2014) challenged colleges and universities who admit students on the Autism Spectrum (ASD) to provide professional development for faculty who will instruct these students:

Many college and universities have centers for teaching and learning that could provide a venue for faculty and staff development in ASD. Suggested topics include recognizing the behaviors of students [with ASD], the process of referral to the disabilities office, the role of executive function in academic success, and the social challenges of ASD. A broader in-service training that consists of a series of workshops could be open to administrators, students, and staff, and members of the faculty. (p. 69)

Specific to our research site, all faculty could benefit from high-quality professional development opportunities through which they could learn about and apply accommodations beyond ones for test taking.

Numerous general resources exist for planning high-quality, evidence-based professional development for teachers, and they include recommendations for examining student needs, evaluating teacher knowledge and skills, and building community while planning

and implementing these opportunities (Maryland State Department of Education, 2008; National Education Association, 2006). Specific to professional development in response to this survey instrument, representatives from disability services and faculty development offices should consider both the quantitative results and the write-in responses as a way to understand faculty prior knowledge, experiences, and attitudes so they can plan training that is responsive to those factors. They may wish to invite students with disabilities and faculty participants into the planning conversations to further explore student needs and to allow for dialogue about the survey responses as well as other concerns and questions. Together, these various parties could determine the format, location, content, and depth of professional development opportunities as well as strategies for drawing faculty members to the training. On some campuses, and with some groups of faculty, brief presentations at a faculty meeting or webinars may be the best or only options. In other situations, full-day or multi-day intensive training options during the summer could yield large benefits (as in Park et al., 2012).

The impact of high-quality professional development for faculty could be quite far-reaching, with long-term benefits for students with disabilities. Park et al. (2012) found that professional development increased teacher efficacy, and other research suggests teacher efficacy influences willingness to try new ideas in class (Ross & Bruce, 2007). Previous research at the K-12 level of students' perceptions of their classroom environment indicated direct links from teacher-student interactions to student efficacy and performance (Fast et al., 2010). We depict this complete and optimal pathway from instructor professional development to student performance in Figure 1. It illustrates what is possible when change is supported and encouraged through purposeful professional development opportunities for faculty.

We welcome additional efforts for replicating our survey administration and/or complementary research. Specifically, a more robust qualitative component that includes individual and/or group interviews could elicit rich data about faculty beliefs beyond the anecdotal data collected from one anonymous, open-ended question at the close of our survey tool. These inquiries into faculty experiences, perspectives, and practices could spur an essential connection that improves the experience of both faculty and students with disabilities.

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About the Authors

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Table 1

Participant Characteristics

Participant Characteristics	
Years teaching in higher education	
< 3 years	16%
3 to 7 years	28%
> 7 years	56%
College	
Arts and Sciences	58%
Business	3%
Education	15%
Health and Human Services	19%
Technology	6%

Table 2

Means and Standard Deviation of the PALS Subscales

PALS Subscales	M	SD
Teaching Efficacy	3.43	0.60
Mastery Approach to Teaching	3.38	0.74
Performance Approach to Teaching	2.18	0.64

Table 3

Endorsement of ADA and Additional Items

	Strongly Agree %	Agree %	Neutral %	Disagree %	Strongly Disagree %
1. Students with physical or mental disabilities should be able to fully participate in all aspects of university life. ^a	42.5	45.7	4.7	6.3	0.8
2. Faculty should make academic adjustments for students with disabilities. ^a	27.0	37.3	26.2	7.1	2.4
3. Having interpreters in my class could be distracting for other students and/or myself.	2.4	13.4	19.7	37.8	26.8
4. Students with disabilities are reluctant to disclose their disabilities.	7.9	42.1	33.3	15.1	1.6
5. As an instructor, I think special course accommodations for students with disabilities are unfair to other students in the class.	1.6	4.0	10.3	50.8	33.3
6. I am concerned that other students in my class might think special course accommodations for students with disabilities are unfair.	1.6	7.9	20.5	44.1	26.0
7. Students with learning disabilities are able to perform as well as other students at the university.	21.3	44.9	25.2	7.1	1.6
8. Many students with disabilities expect special treatment.	0.8	11.9	29.4	42.1	15.9

^aSurvey item wording based on specific ADA language; interpretation by participants is unknown.

Table 4

Experiences with Students with Disabilities

	N	%
Regarding a recent student with a disability, I:		
Had a conversation with student	111	98%
Had enough information to accommodate the student	88	78%
Contacted the disability office about the student	24	21%
In general, students with disabilities:		
Request the same or fewer accommodations than disability letter specifies	102	90%
Ever adapted assessment other than extended time	28	25%

Table 5

Differences Between Efficacy Groups

Survey Item	Highest Efficacy Group (n=38)		Lowest Efficacy Group (n=44)		F
	M	SD	M	SD	
Students with physical or mental disabilities should be able to fully participate in all aspects of university life.	4.45	0.89	3.98	0.90	3.29*
Faculty should make academic adjustments for students with disabilities.	4.11	0.98	3.45	1.15	4.83*
Having interpreters in my class could be distracting for other students and/or myself.	2.00	1.04	2.52	1.15	2.47
Students with disabilities are reluctant to disclose their disabilities.	3.45	0.89	3.43	0.87	0.33
As an instructor, I think special course accommodations for students with disabilities are unfair to other students in the class.	1.61	0.64	2.07	0.86	3.37*
I am concerned that other students in my class might think special course accommodations for students with disabilities are unfair.	1.89	0.83	2.50	1.15	5.00*
Students with learning disabilities are able to perform as well as other students at the university.	3.97	0.97	3.52	0.98	2.83
Many students with disabilities expect special treatment.	2.21	1.02	2.59	0.90	1.83

Note. * $p < 0.05$

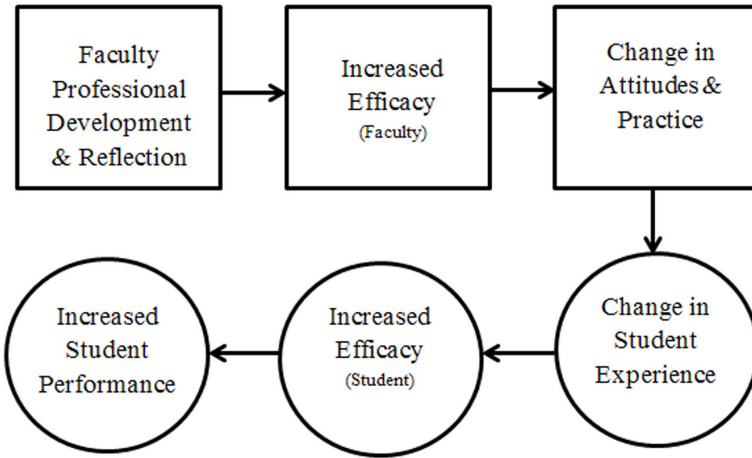


Figure 1. A model of the path from faculty professional development to improved student outcomes.

Appendix

Faculty Perspectives about Teaching and Working with Students with Disabilities

1. How long have you been teaching at the university/post-secondary level?

- Less than 3 years
- 3 to 7 years
- More than 7 years

2. Which college do you teach in at the university?

- College of Arts and Sciences
- College of Business
- College of Education
- College of Health and Human Services
- College of Technology

3. Please respond to the following statements using the scale below by circling a response based on your typical teaching style for an undergraduate class.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I give special privileges to students who do the best work.	SA	A	N	D	SD
If I try really hard, I can get through to even the most difficult student.	SA	A	N	D	SD
I make a special effort to recognize students' individual progress, even if they are not getting high grades.	SA	A	N	D	SD
Factors beyond my control have a greater influence on my students' achievement than I do.	SA	A	N	D	SD
I am good at helping all the students in my classes make significant improvement.	SA	A	N	D	SD
I display the work of the highest achieving students as an example.	SA	A	N	D	SD
During class, I often provide several different activities so that students can choose among them.	SA	A	N	D	SD
I consider how much students have improved when I give them final grades.	SA	A	N	D	SD
I help students understand how their performance compares to others.	SA	A	N	D	SD
Some students are not going to make a lot of progress this semester, no matter what I do.	SA	A	N	D	SD
I encourage students to compete with each other.	SA	A	N	D	SD
I point out those students who do well as a model for the other students.	SA	A	N	D	SD
I am certain that I am making a difference in the lives of my students.	SA	A	N	D	SD
There is little I can do to ensure that all my students make significant progress this semester.	SA	A	N	D	SD
I give a wide range of assignments, matched to students' needs and skill level.	SA	A	N	D	SD
I can deal with almost any learning problem.	SA	A	N	D	SD

5. Have you ever taken a course or seminar, or pursued professional development opportunities about disability accommodations for students in higher education?

- Yes. Please specify where: _____
- No

6. Have you ever encouraged a student to seek services at the university office responsible for students' disability accommodations ?

- Yes
- No

7. Have you had a student present you with documentation from the university office responsible for students' disability accommodations, indicating her/his need for accommodations?

- Yes
- No [skip to question 10]

Think of one recent student who requested accommodations (with documentation) as you answer the following five questions.

a. What types of disabilities did your student have? [Check all that apply.]

- Vision impairment/Blindness
- Hearing impairment/Deafness
- Autism
- Intellectual disability
- Specific learning disability
- Emotional-behavior impairment (such as anxiety or depression)
- Physical impairment (such as being wheelchair bound)
- Orthopedic impairment
- Traumatic brain injury
- Other physical impairment
- Other health impairment (such as diabetes)
- Other: _____
- Do not know

b. Indicate the types of accommodations recommended in the letter from the university office responsible for students' disability accommodations about this student. [Check all that apply.]

- Extended time on tests
- Extended time for assignments
- Alternative forms of test (e.g., multiple choice instead of essay)
- Interpreter (such as a sign language interpreter)
- Note taker in class
- Oral exams/Reader for exams
- Quiet location for exams
- Excused absences or tardiness
- Lecture notes provided by you
- Other: _____

c. Did you have a conversation with the student about how you could accommodate her/his needs?

- Yes. Please check any of the following that apply in your case:
- You recommended accommodations beyond what the letter from the university office responsible for students' disability accommodations suggested.
- You questioned the helpfulness or practicality of the accommodations in the letter.

- The student asked how he/she could tailor accommodations to best meet your course expectation.
- No

d. Did you feel as though you had enough information and/or resources to accommodate the student’s needs?

- Yes.
- No. Please explain:

e. Did you contact the staff at the university office responsible for students’ disability accommodations to discuss the student’s accommodation plan?

- Yes
- No

8. Please check the box below that best completes this sentence based on your experience:

It has generally been my experience that students with disabilities request...

- ...more accommodations than their accommodation letters specify.
- ...fewer accommodations than their accommodation letters specify.
- ...the same accommodations that their accommodation letters specify.

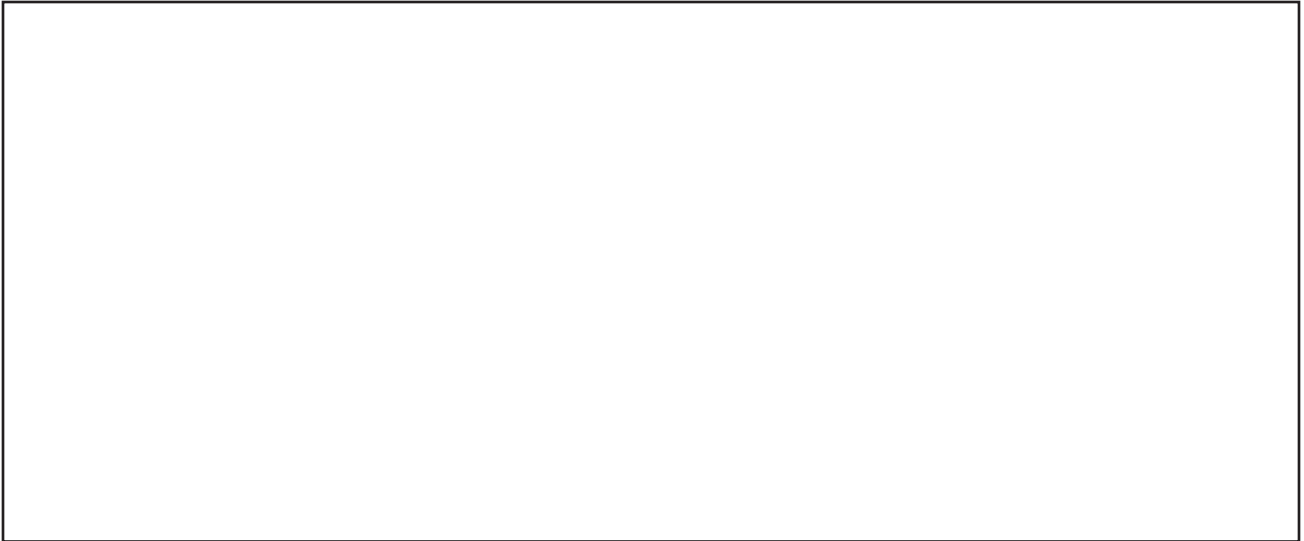
9. Have you ever adapted assessments (tests, homework, etc.) – other than extended time -- for a student with a documented disability?

- Yes. [Please explain in the box below]
- No.

10. Please respond to the following statements using the scale below by circling one response.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Students with physical or mental disabilities should be able to fully participate in all aspects of university life.	SA	A	N	D	SD
Faculty should make academic adjustments for students with disabilities.	SA	A	N	D	SD
Having interpreters in my class could be distracting for other students and/or myself.	SA	A	N	D	SD
Students with disabilities are reluctant to disclose their disabilities.	SA	A	N	D	SD
As an instructor, I think special course accommodations for students with disabilities are unfair to other students in the class.	SA	A	N	D	SD
I am concerned that other students in my class might think special course accommodations for students with disabilities are unfair.	SA	A	N	D	SD
Students with learning disabilities are able to perform as well as other students at the university.	SA	A	N	D	SD
Many students with disabilities expect special treatment.	SA	A	N	D	SD

11. Describe what you consider to be your most essential role in providing accommodations for students with disabilities.

A large, empty rectangular box with a thin black border, intended for the respondent to write their answer to question 11.