

Improving the Campus Climate for Students with Disabilities Through the Use of Online Training

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As one strategy to improve the campus climate for students with disabilities, the Project Opportunity and Access online training program was evaluated for its ability to change the attitudes of faculty and student affairs staff. The Attitudes Towards Disabled Persons Scale was used to measure attitudes towards individuals with disabilities. Because previous contact has been shown to be related to attitudes, eight items from the Contact with Disabled Persons Scale were included in the demographics questionnaire. An ANCOVA revealed that attitudes were significantly better for those individuals who took the training program, although gender appeared to be a mediating variable. Based on these findings, online training may provide a cost-effective means for improving the campus climate for students with disabilities.

Despite their increasing presence on campuses (Henderson, 1999), students with disabilities could be considered a “forgotten minority” of student affairs practice in higher education. Students with disabili-

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ties encounter stereotypes and prejudices that are similar to those faced by individuals from other underrepresented groups (Katz, Huss, & Bailey, 1998; Livneh, 1988; Pounds, 1987), yet the research on the development and retention of students with disabilities is quite scarce. The information that is available reveals that students with disabilities are less likely to complete their degrees than students without disabilities (Durlak, Rose, & Bursuck, 1994; Merchant & Gajar, 1997). If parallels can be drawn to the lessons learned from studies of other targeted populations (e.g., Pounds, 1987; Walters, 1996; Wright, 1987), making campus environments more welcoming could help to insure the success of students with disabilities. As one strategy to improve the climate for these students, we examined whether an online training program can improve the attitudes of faculty and student affairs staff members.

Attitudes Toward Individuals with Disabilities

Attitudes are learned predispositions that elicit consistent responses towards a person or group (Gething & Wheeler, 1992). Attitudes include a component of affect, a component of cognitions, and a component of behavior, all of which are believed to be interconnected. Leon Festinger's (1957) theory of cognitive dissonance originally introduced the notion that, because affect, cognitions, and behaviors are interconnected, changing attitudes can ultimately alter people's behaviors. Festinger believed, and later research demonstrated (see Canary & Seibold, 1984), that behavioral change occurs when individuals move towards cognitive stability through a consistency between attitudes and behaviors. Consequently, efforts at attitudinal change have typically involved different types of training and experiences to increase dissonance, thereby presenting the possibility for positive behavioral change (Berrol, 1984; Brooks & Bransford, 1971; Ibrahim & Herr, 1982).

In regard to students with disabilities, campus climates may reflect the generally negative attitudes held by individuals without disabilities in society (Hahn, 1988; Katz, Huss, & Bailey; Livneh, 1988). Oddly enough, even workers in helping roles with individuals with disabilities (e.g., rehabilitation nurses, school teachers) tend to harbor negative attitudes, which in turn have been shown to lead to negative reha-

bilitation (Gething, LaCour, & Wheeler, 1994; Tucker, 1980; White & Olson, 1998) and educational outcomes (Katz, Huss, & Bailey, 1988; Liberty, 1992). The effects of the negative attitudes of faculty and staff can be equally profound. A prejudicial climate may prevent students with disabilities from enacting self-advocacy skills (such as expressing academic strengths and weaknesses to faculty), understanding their academic needs, and asking for accommodations (Nutter & Ringgenberg, 1993). Such skills are necessary for students with disabilities to complete a college degree successfully (Durlak, Rose, & Bursuck, 1994; Merchant & Gajar, 1997).

Training and Technology

Therefore, the academic environment should become more welcoming if faculty and staff can be helped to improve their attitudes towards students with disabilities. Attitudes can be improved through new information that may lead to cognitive dissonance, which offers the opportunity for behavioral change. By providing information about this population, training programs have been shown to improve the attitudes of individuals without disabilities in service areas such as nursing and rehabilitation (Brooks & Bransford, 1971; Gething & Wheeler, 1992). Interpersonal interactions with individuals with disabilities have also been found to be important in creating more positive attitudes (Yuker, 1988). Furthermore, training programs that include the components of information *and* contact lead to more positive attitudinal change than training programs that include only one of these components (Berrol, 1984; Ibrahim & Herr, 1982).

Contact was a consideration to this study in two ways. Research shows that, in the case of individuals in low-demand interactions with students with disabilities (such as student affairs workers), contact with individuals from this population can improve attitudes (Berrol, 1984; Ibrahim & Herr, 1982). Therefore, it was important to control for previous experiences in order to gauge in the impact of the training on participants. To insure the effectiveness of the experience, however, contact needed to be a part of the training program. In this instance, to make the information more “personable”, the program included video vignettes of students with disabilities discussing their educational experiences. Certainly, much is lost when video is used instead

of direct contact with individuals. Still, unfounded fears from direct contact with students with disabilities on the part of trainees may actually limit the effectiveness of these types of encounters (Livneh, 1988). Given the additional demands of the online format and the research on training, the use of video was a way to provide limited contact to improve the overall experience.

Even though educating faculty and staff in working with students with disabilities may be all that is necessary for them to work more effectively with those students (Merchant & Gajar, 1997), the support for such efforts through offices of disability services for students in higher education tends to be minimal, as these offices are typically understaffed and underfunded (Measel, 1999). One solution may lie in technology. In fact, colleges and universities may be able to borrow advancements in the use of technology from the corporate sector, which has taken advantage of online training for its cost-effective and practical benefits (Coleman, 2001; Connors, 2001; Hall & Brown, 2000). Additionally, emerging technology has been used in many domains of student affairs practice, such as assessment, adaptive technologies, and even to train others on the use of technology (Salter, 2001; Upcraft & Terenzini, 1999). Few interventions have used computer-based strategies to educate faculty and staff who work with students with disabilities, however.

As one notable exception to this deficiency, Herbert, McAfee, Wolfe, and Salter (1999) developed the Project Opportunity and Access (POA) online training program to improve faculty and staff *knowledge* in working with students with disabilities. The POA training was developed as part of a federally funded project focusing on students with disabilities in higher education. The training includes information about laws that impact working with students in higher education, accommodations procedures, information on resources for working with students with disabilities, and video vignettes of students with disabilities describing their experiences in higher education. In terms of disability legislation, the POA training covers Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990. The training periodically reviews information by quizzing the participant using multiple-choice and true-false questions. Furthermore, participants are given scenarios to which they

must respond based on the information learned (for example, one scenario deals with whether a student denied a teaching assistantship would be able to file a grievance under the ADA). The video vignettes of students with disabilities focus on students' experiences with accommodations, campus climate, and attitudes. The training takes roughly an hour; and participants may pause, exit the training, and restart where they ended.

Gender, Attitudes and Technology

Before moving forward, it is important to note that gender appears to be a relevant variable to understanding both attitudes toward people with disabilities and the use of technology. Generally, women have more positive attitudes than men toward individuals with disabilities (Yuker, 1994; Yuker & Block, 1986). One possible reason for the gender disparity in attitudes could be that women rely on a more "care-oriented" approach to interpersonal interactions (Gilligan & Attanucci, 1988). In contrast to their attitudes toward people with disabilities, women seem *less* positively disposed to the Internet and technology than men (Salter, 2001). Recognizing that trends shift quickly in this area, Cyberatlas (2002) recently reported that the worldwide Internet population is predominantly male and that historically, computer-based occupations have been dominated by men. Therefore, accessing training through the Internet, as was the case in this study, may be a more familiar tactic for men due to their increased activity online.

Research Questions

Based on the apparent need to determine cost-effective means to improve the climate for students with disabilities, two research questions were examined in this study (Junco, 2002). First, does participation in an online training program also change the attitudes of faculty and student affairs professionals, after taking previous contact with individuals with disabilities into account? Second, in light of previous research, what role does gender play in attitudinal change, as achieved through the use of technology?

Method

Participants

The 113 participants in this study were faculty and student affairs staff of a Carnegie classification Masters College and University II in the Northeastern United States. At the time of the current study, there were 238.08 Full Time Equivalent (FTE) faculty members, 168.73 FTE staff, and 76.9581 FTE administrators, which corresponded to a 23.3% overall participation rate. Of the sample, 75 were faculty members from a variety of disciplines, 26 were staff members, and 10 were administrators. The mean age of the participants was 44.52 with a standard deviation of 10.03, and a range of 23–65. The sample contained 52 men and 59 women. The ethnic backgrounds of participants included 2 who were Native American, 5 who were African American, 4 who were Latino, 4 who were Asian American, and 94 who were White. Six individuals reported having a disability, and none of the participants reported that she/he had previously performed the POA training program. Of note, all these individuals had a high probability of working with students with disabilities based on their job functions (e.g., faculty, enrollment services, student support services, residence life, admissions). Participants did not receive compensation for their involvement.

Instrumentation

Demographics Questionnaire

The demographics questionnaire was designed to collect information on gender, age, ethnicity, disability status, position (faculty, staff, or administration), office/unit name, a rating of the participant's comfort with using the Internet on a 1–10 scale, and whether the individual had performed the POA online training program. Eight additional items on this questionnaire were adapted from the Contact with Disabled Persons Scale (CDP; Yunker & Hurley, 1987). CPD items are scaled: 1 = never, 2 = once or twice, 3 = a few times, 4 = often, 5 = very often. The summative scores on CPD items were used as a measure of each participant's prior contact with individuals with disabilities.

ATPD

The Attitudes Towards Disabled Persons Scale Form O (ATDP; Yunker, Block, & Campbell, 1960) was used as a measure of attitudes towards

individuals with disabilities. The ATDP is a twenty-item scale that asks individuals to rate their agreement to statements using a 6-point Likert-type scale that ranges from +3 (“I agree very much”) to -3 (“I disagree very much”). As one of the few, accepted measures of attitudes in this area, the psychometric properties of previous ATDP results seemed acceptable for the purposes of this study. Scores on the ATDP have shown acceptable split half reliabilities ranging from .78 to .81 and alpha estimates ranging from .79 to .89. (Antonak, 1981; Yucker, 1994; Yucker & Block, 1986). ATDP scores have shown moderate to high correlations with other measures of attitudes towards individuals with disabilities, such as the Interaction with Disabled Person Scale (Gething, 1994). ATDP scores also appeared to correlate positively with indicators of mental hygiene ideology and attitudes towards mainstreaming individuals with disabilities and negatively with measures of prejudice and social restrictiveness (Yucker & Hurley, 1987).

Procedure

This study was conducted completely online. Participants were initially recruited by sending personalized emails to each faculty and student affairs staff member found in the faculty and staff directory and by sending a mass email to the university staff email list. Reminder emails were sent at 7, 9, 14, and 16 days after the original email, in keeping with recommendations by Crawford, Couper, and Lamias (2001). When logging onto the study Web site, a participant selected a username and a password, in the event they wanted to log off and resume the training at a later time. After reading and acknowledging the informed consent form, the participants completed the online demographics questionnaire. The Web site was then programmed for random assignment of individuals to one of the two groups. Individuals in the first group took the ATDP before the completing the POA training, and individuals in the second group took the ATDP after the training.

Data Analysis

Because research has shown that contact with individuals with disabilities tend to make attitudes more positive (Antonak, 1981; Yucker & Hurley, 1987), it was important to account for previous contact in the analyses. Hence, analysis of covariance (ANCOVA) was used for

the analyses of training effects on attitudes as measured by the ATDP and for gender differences in attitudinal change. As the covariate, contact with individuals with disabilities was measured by the eight questions from the CDP included on the demographic questionnaire.

Results

Cronbach's alphas were viewed as acceptable for both the ATDP scores (.67) and CDP scores (.87) that were obtained in this study. Scores on the ATDP and the CDP showed a correlation of .246. Using CDP scores as a covariate, the ANCOVA revealed a modest statistically significant difference in ATDP scores between individuals who took the ATDP before the training ($M = 86.06$) and those individuals who took it afterwards ($M = 88.76$), ($F(2, 99) = 3.957, p = .022, \eta^2 = .074$). Because higher scores on the ATDP indicate a more positive attitude towards individuals with disabilities, and assuming equivalency between the groups due to random assignment, these results showed that an online training program appeared effective in changing the attitudes of the faculty and staff in this sample.

The results of a second ANCOVA, using gender as a second independent variable and contact as the covariate, showed that there were significant differences (corrected model: $F(4, 97) = 3.047, p \text{ value} = .021, \eta^2 = .112$). In the post hoc comparisons of the adjusted means ($\alpha = .05$), three trends were noted. First, in the group that did not have the training before completing the ATDP, women's attitudes ($M = 87.55$) appeared significantly better than men's ($M = 84.44$) attitudes toward persons with disabilities. In the group that completed the POA training, men's ATDP scores ($M = 91.85$) were significantly higher than women's ($M = 86.13$). Furthermore, the difference in men's scores who had the training was significantly higher than men who had not. The effect of training on women was not significant.

Discussion

The findings showed that indeed, an online training program may also be used as an effective tool in changing faculty and staff attitudes towards students with disabilities. These results appeared consistent with previous findings that training in working with individuals with

disabilities can change cognitions and attitudes towards those individuals (Berrol, 1984; Ibrahim & Herr, 1982). In that regard, the video vignettes may have served an important purpose in simulating contact with individuals with disabilities, a factor that has been shown to lead to more positive attitudes (Biordi & Oermann, 1993; Yuker, 1988, 1994; Yuker & Hurley, 1987). Interestingly, male faculty and staff, who tended to have more negative attitudes without training, seemed to experience the largest impact from participating in the training.

Limitations

Several design factors may have limited the generalizability of the results of this study. The data were collected at only one type of institution, which may or may not have been representative of the climates of all higher education institutions. The ATDP is an older instrument that has not been updated in 42 years, and hence, may not reflect the current terminology used in disability research. Even though all the individuals who were invited to participate had access to the appropriate technologies, the online format may have prevented involvement by individuals who were not comfortable with this approach to training. Finally, even though an a priori power assessment suggested that 80 participants would have been sufficient, the effect size for this study was small.

Implications to Student Affairs

The population of students with disabilities in higher education is expected to grow in the coming years due to advances in the legal and technological domains (Henderson, 1999). Hence, improving the attitudes of faculty and student affairs staff will continue to be important. If the creation of welcoming environments for students with disabilities improves their retention rate, provision of a training program for faculty and staff, such as the POA online training, could be one possible cost-effective strategy for meeting this goal. Besides, in addition to attitudinal change, such training provides much needed information on disabilities and disability law.

The power of online training to affect a domain as subtle as attitudes suggests that online training can be used for a broader array of applications than is currently being used. For instance, students from eth-

nic minority backgrounds or who are gay, lesbian, bisexual, or transgendered also face unwelcoming environments in institutions of higher education. Online training in working with students from a variety of historically underrepresented groups could improve campus environments for those students, making it more supportive of their retention. Furthermore, the inclusion of video vignettes, as was done in the POA training, may enhance attitudinal change without the challenges of putting actual students in contact with trainees.

The results related to gender were somewhat provocative, given previous research on both attitudes toward individuals with disabilities and the use of technology. To be fair, the women in this sample began with more positive attitudes than men, hence men may have gained more from online training because they had more to gain. The work demands on women and men at this particular institution may also have differed in regard to students with disabilities, which may have impacted on their perceptions of the training. Furthermore, the men in the sample may have been more comfortable with technology, which may have also contributed to the pronounced training effect. Whatever the case, continued research on the interactions between gender and both technology and attitudes will need be conducted if online training programs are used in student services.

Summary

Although it may be easy to view students with disabilities as a forgotten minority within higher education, this study has shown that an online training experience may improve the attitudes of faculty and staff who work with this population. Specifically, attitudes can be changed through a cost-effective online training program that can be tailored to specific universities. This finding bodes well for universities that struggle to fund their student affairs programs, particularly their offices for disability services for students. Universities now have an option to improve the environment for the increasing numbers of students with disabilities on their campuses.

Students enroll in college, in part, to develop and mature into productive members of society. Part of this developmental process relies

on the relatively unfettered freedom to explore one's own personality and psychological makeup. The ability to exercise this free exploration may lead to a richer experience for students and for society at large. Unfortunately, this type of exploration becomes stunted when individuals are focused on the fact that they might not "fit in." Hence, the creation of a welcoming environment for students with disabilities will enhance the ability of universities to recruit, retain, and graduate students with disabilities now and into the future. Hopefully, these strategies can be broadened to encompass individuals from a variety of backgrounds and serve to make universities more inclusive and community-oriented.

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