THE IMPACT OF TRAINING ON FACULTY AWARENESS OF ONLINE INSTRUCTIONAL NEEDS OF STUDENTS WITH DISABILITIES

Helen Battisti, Ph.D.[1]; Christine S. Fryer, Ed.D.[2]; B. Lynn Hutchings, Ph.D., MFA[3]; Erin O'Hora, DHSc.[4]; Terri Peters, Ph.D.[5]; Patricia Richards, ABD[6]

Abstract

Background: Students with disabilities are attending college in increasing numbers [1]. Providing support for online instructors is paramount since course delivery in higher education increasingly utilizes online options. Advocates for the deaf recently filed Federal lawsuits against Harvard and MIT, stating that both universities violated antidiscrimination laws by failing to provide closed captioning in their online lectures, courses, podcasts and other educational materials [2]. Marywood University's Office of Disability Services surveyed University faculty in February 2015 to assess training and support needs. Results indicated low levels of preparedness in helping students with assistive technology, an overall need for additional training to appropriately accommodate students with disabilities and/or need of accommodation in online portions of classes, and a need for immediate action to ensure that online courses are accessible to all students.

Objective: To examine pre-post changes in faculty awareness and understanding of online instructional needs of students with disabilities following a half-day workshop.

Design: A quantitative population-based cohort study design examined the results of a pre- post-survey conducted for faculty to increase their preparedness to better serve and understand students with disabilities in online courses.

Results: Faculty completed a half-day instructional workshop. Pre-post workshop surveys (25 Likert items) found positive changes on the following items: 1) I am more likely to offer assistance to students with visible disabilities (15% agreed at pretest; 35% agreed at posttest); 2) I understand that my efforts related to accommodation and inclusion will affect student retention (75% agreed at pre; 100% agreed at post); 3) I am aware of the range and types of disabilities of my students (65% agreed at pre; 85% agreed at post); and 4) When dealing with people who have disabilities, I often feel unsure of how to interact with them (5% agreed at pretest; 30% at post).

Conclusions: Faculty teaching online classes may not be aware of students with disabilities in their course. When they are aware, they frequently are not sure of the most effective educational approaches. With identification and training, faculty can become more effective in teaching and retaining students with disabilities in their online courses.

Key words: students, disabilities, online learning, education

Introduction

Postsecondary education has experienced rapid changes in demographics, and students with disabilities are attending college in increasing numbers [1]. Universal Design for Instruction of Learning (UDI or UDL) is a paradigm for adult instruction in postsecondary education that expects faculty to anticipate students' diversity in the classroom and intentionally incorporate inclusive teaching practices [1]. Adopting these principles in order to create online course content allows faculty to reach out, not only to learners with disabilities, but also to learners who are increasingly using mobile devices to connect to campus and to each other [3]. Applying these principles to college instruction may provide tools for addressing disability access and other legitimate student needs in a proactive way that preserves the course integrity [1].

Students, including those with disabilities, are finding online learning a viable option to address learner variability, [4] and UDL gives all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone - not a single-size, one-fits-all solution, but rather flexible approaches that can be customized and adjusted for individual needs [5].

Faculty members who have incorporated UDL within their programs, such as virtual meetings and audio and video files, have provided students the ability to focus on key concepts while absorbing

this new information independently [6]. Finally, advocates for the deaf recently filed Federal lawsuits against Harvard and MIT saying both universities violated antidiscrimination laws by failing to provide closed captioning in their online lectures, courses, podcasts and other educational materials [2], underscoring the immediate need for colleges and universities to make online courses accessible to all students.

The Office of Disability Services at our University surveyed faculty in February 2015 to assess their need for training and support. Results indicated that faculty self-reported low levels of preparedness and an overall need for additional training to appropriately accommodate students who have disabilities and/or need accommodations in online portions of classes. Therefore, the purpose of this study was to examine pre-post changes in faculty awareness and understanding of online instructional needs of students with disabilities following a half-day workshop.

Methods

Participants Twenty individuals (19 females, 1 male) attended the three-hour workshop and agreed to participate in the study. Eighteen participants self-identified as Caucasian, one as African-American, and one as "other." Age ranged from 27 to 70, with a mean of 51.2. The majority of participants (n = 11) were full-time instructors (6 tenured, 4 pre-tenured, 1 clinical) or staff (n = 3); five were adjuncts/part-time instructors. Thirteen (65%) of the participants reported no prior experience teaching online courses, yet the majority (65%) expressed an expectation of teaching online in the future.

Instrument We developed a 28-item, 5-point Likert (5 = strongly agree; 4 = agree; 3 = neutral; 2 = disagree; 1 = strongly disagree) survey for the purposes of our study. Items were constructed based on literature on best practice for online teaching and prior data collected by our Office of Disabilities. A Cronbach alpha of .72 demonstrated an acceptable level of internal consistency.

Research Design and Data Analysis

We used a one-group pre-experimental research design to assess pre-post changes in faculty self-reported levels of preparedness in teaching students with disabilities following a three-hour workshop on online learning. Data were entered into SPSS 22. Pre- and post-test descriptive statistics (frequencies and percentages) were calculated for each of the 28 Likert items.

Procedure

All full-time and part-time faculty were invited via email to attend the three-hour workshop. Twenty faculty attended the workshop and completed the pre- and post surveys (paper and pencil) in person. First, a consent form was distributed and then collected. Then, we handed out the pre-test surveys and collected them prior to beginning the workshop. At the conclusion of the workshop, participants were instructed to complete the post-test surveys. Completed surveys were placed in envelopes and collected anonymously. To keep surveys anonymous, we gave participants an envelope with matching codes on the pre- and post-test surveys. Participation was voluntary.

Results

Frequencies and percentages were calculated to examine the pre-post changes on the survey following a three-hour workshop. The data indicated positive changes on the following items: 1) I am more likely to offer assistance to students with visible disabilities (3 (15%) agreed at pretest; 7 (35%) agreed at posttest); 2) I understand that my efforts related to accommodation and inclusion will affect student retention (15 (75%) agreed at pre; 20 (100%) agreed at post); 3) I am aware of the range and types of disabilities of my students (65% agreed at pre; 85% agreed at post); and 4) When dealing with people who have disabilities, I often feel unsure of how to interact with them (5% agreed at pretest; 30% at post).

Discussion

With postsecondary education experiencing rapid changes in the number of students with disabilities [1], there is an emerging need for faculty to obtain further training when preparing and instructing courses online. This study is foundational in examining the degree to which faculty perceive their preparedness to effectively teach and retain students with disabilities in the online classroom. Additionally, faculty may not be aware of the student with a disability if the disability is not visible or documented. However, with training and instruction, faculty are able to feel increasingly prepared to identify and modify their online classroom to better accommodate the student with disabilities. Uniquely designed online courses are necessary for both the online learner, and the faculty, for the enhancement of learning and engagement. A well-designed online course will also increase the retention rates of students with disabilities as they develop their connection to the course, the professor and their peers [3].

As the UDL paradigm shifts, it has the potential to "provide the student with multiple means of accessing the course based on three overarching principles: presentation; action and expression; and engagement and interactions." [7]. As technology advances and more students participate in online learning, additional research is recommended to determine universal best practices for online course design for students with disabilities as they relate to student engagement with the university, the course material, the instructor, and one another. Research is needed to better understand faculty preparedness for online course design and implementation. Additionally, follow-up investigation is needed to examine the effectiveness of improved accessibility for online courses as it relates to retention of students with disabilities.

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[1]Marywood University, United States, battisti@marywood.edu

[2]Marywood University, United States, triciarichards@maryu.marywood.edu

[3]Marywood University, United States, hutchings@marywood.edu

[4]Marywood University, United States, eohora@marywood.edu,

[5]Marywood University, United States, peters@marywood.edu

[6]Marywood University, United States, csfryer@marywood.edu