

Disability Accommodations in Online Courses: The Graduate Student Experience

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Abstract

Research is beginning to demonstrate that online learning may afford students with disabilities enhanced opportunities for academic success. In this study, the authors interviewed 11 graduate students to determine their experiences with disability accommodations in online courses and their perceptions of the relationship between those accommodations and their academic success. Although study participants indicated that disabilities presented concentration and scheduling challenges, the flexibility of online learning as well as participants' skills at self-accommodation and self-advocacy were instrumental in students' academic success. The article offers a set of recommendations for students, instructors, and institutions related to supporting the success of students with disabilities in online courses.

Keywords: Online accommodations, students with disabilities, disability accommodations

Research is beginning to demonstrate that online learning may afford students with disabilities enhanced opportunities for academic success (Burgstahler, Corrigan, & McCarter, 2004; Collopy & Arnold, 2009; Kinash, Crichton, & Kim-Rupnow, 2004; Roberts, Crittenden, & Crittenden, 2011). Since students with disabilities may have difficulty concentrating, staying on task, and adhering to a schedule (Roberts et al., 2011), online settings (particularly those that are asynchronous) allow students to access courses anywhere, anytime, and any place and provide "the personalized time they need to think, process, and respond" (Collopy & Arnold, 2009, p. 85). In addition, assistive technology such as text enlargement for students with visual impairments may negate the need to disclose a disability when no other accommodations are necessary (Roberts et al., 2011). Online instructors who follow Universal Design for Learning (UDL) principles and practices also enhance the learning experience for students with and without disabilities (Kinash et al., 2004; 2004; Roberts et al., 2011).

But even in online learning environments, students with disabilities may become outpaced without assistive technologies (Barnard-Brak, Sulak, Tate, & Lechtenberger, 2010) or other accommodations. Often the role of self-advocate is new to postsecondary students with disabilities who have had accommodations provided and their parents as advocates prior to enrolling in college (Barnard-Brak et al., 2010; Barnard-Brak, Davis, Tate, & Sulak, 2009). College students with disabilities must request accommodations from their university (Barnard-Brak & Sulak, 2010), and it is rare for students with disabilities in online courses to request accommodations from their instructors (Phillips, Terras, Swinney, & Schneeweis, 2012; Roberts et al., 2011). When students with disabilities do approach faculty for accommodations, they discover that not all faculty understand their disability nor know the appropriate accommodations to meet the needs presented by the disability (Denhart, 2008; Getzel & Thoma, 2008). Roberts et al. (2011) found that the majority of students with disabilities in online

courses do not request accommodations. Even when students perceive their disabilities to negatively impact their academic performance, they may not know what accommodations to request, or the technology available in online courses (e.g., text enlargement) negates the need to request accommodations (Roberts et al., 2011).

Students with disabilities in face-to-face and online courses who have more positive attitudes toward requesting accommodations are more likely to do so (Barnard-Brak et al., 2009). Fear of being stigmatized or having work devalued prevents some students with disabilities from requesting accommodations (Denhart, 2008). Self-awareness and self-advocacy are vital skills that enable students with disabilities to request appropriate accommodations and to persist in the pursuit of educational goals (Denhart, 2008; Getzel & Thoma, 2008). Some self-aware students with disabilities self-accommodate using visual strategies (e.g., multicolor highlighting, drawing outlines), and others self-advocate to request traditional accommodations that include extra time on exams/papers, audio books, and note-takers (Denhart, 2008).

Denhart (2008) found that, when college students with disabilities request accommodations, they are often granted. Despite these accommodations, students with disabilities oftentimes feel that they experience a heavier workload and put in longer hours than their peers who are non-disabled. Yet students with disabilities sometimes feel the extra effort yields a product that is still inferior to the output of their peers who are not disabled. Some students with disabilities fear that a mediocre product reflects laziness when in fact the product was the result of hard work.

Phillips et al. (2012) examined the online accommodation experiences of faculty at one public university who taught undergraduate and/or graduate students. Only 23.5% of faculty said they made accommodations for students with verified disabilities and only 15.4% reported experience with making online accommodations for students who stated they had disabilities but had not been verified through Disability Services for Students (DSS). These low numbers were mainly due to students not requesting accommodations in online courses; in fact, it was faculty's perception that students chose to either accommodate their own learning needs, waited until they failed an assignment to make an accommodation request, or did not access any form of accommodation. Due to their limited experience at making online accommodations, the majority (54%) of faculty was unsure whether they had the knowledge, technology, and support to handle online accommodations, yet making appropriate accommodations for students was important to them. For those who had

experience making accommodations, they felt the most comfortable making "common" types of accommodations, such as extended testing time, assignment extensions, and copies of notes. Faculty's perception was that accommodating students with sensory disabilities would be more challenging, and they would need assistance to do so. Faculty recommended ongoing support and training for new and experienced instructors and for helping students be aware of resources and their own responsibilities.

Most of the literature on accommodations in higher education references undergraduate students in face-to-face courses. As this review section indicates, however, there is a growing body of research on accommodations in online courses. The authors intend for the current study to contribute to this expanding scope of research.

Method

Research Purpose and Question

As discussed above, a previous study by two of the current authors investigated faculty experiences providing disability accommodations in online courses (Phillips et al., 2012). Since the 2012 study found that few online teaching faculty received accommodation requests from students with disabilities, the authors wanted to better understand the experiences of students with disabilities in online courses. Of specific interest was gathering student comments on their beliefs about and experiences of requesting and receiving accommodations. Given the authors' particular access to graduate students, the current study gathered data related to the question, "What have been the experiences of graduate students with disabilities in receiving accommodations in online courses?"

Setting

The setting for the research was a moderately sized public university of 15,000 students located less than two hours from the Canadian border in one of the most rural states in the country. Within the university's nine schools and colleges, 220 fields of study are offered at the undergraduate and graduate levels. The university has been offering online courses for thirteen years, and as of Fall 2013 offered 30 online degrees (20 graduate and 10 undergraduate) and 13 online, graduate certificate programs. Four percent of the total student population is registered with Disability Services for Students, with 1% being graduate students and 3% undergraduate students.

The study was situated in the College of Education and Human Development (EHD), which was comprised of five departments: Teaching and Learning,

Counseling Psychology and Community Services, Educational Foundations and Research, Educational Leadership, and Kinesiology and Public Health Education. Three of these departments offered online courses at the graduate level and were selected for the study: Teaching and Learning, Counseling Psychology and Community Services, and Educational Foundations and Research. Within Teaching and Learning, three fully online master's degrees are offered in special education, elementary education, and early childhood education. Counseling Psychology and Community Services offers an online master's in counseling with a K-12 school emphasis.

Study Participants

After the project's approval by the Institutional Review Board, a research announcement was sent electronically to all students enrolled in the four online master's degree programs via the program directors. The Educational Foundations and Research department offered one graduate course online and the instructor sent the advertisement electronically to all students enrolled. The advertisement was sent to 172 students. The advertisement solicited students with disabilities who had taken at least one online course. Students who were interested in participating emailed the principal investigator for more information. Twelve students made contact. Students were initially screened via email to identify a diagnosed disability and to provide a list of online courses taken at the University. Eleven students met the criteria. If they had a diagnosed disability and had taken at least one online course, they were electronically sent an information sheet delineating the study's purpose and benefits, participant role, confidentiality, and contact information. If they consented to participate, students were asked to email the principal investigator to set up a time to be interviewed. All 11 students participated in the study. Each participant was mailed a \$25 gift card following the interview. Each interview transcript was assigned a code number (e.g., S1) to protect participants' confidentiality.

Data Collection

Data were collected across one semester by conducting one semi-structured interview with each of the 11 participants. Each interview was approximately one hour and was conducted using phone or video conferencing (i.e., Skype) since most of the participants lived at a distance from the university. Interviews were randomly divided amongst researchers resulting in a one-on-one grouping. Researchers took copious notes during each interview, then emailed the interview transcript to the participant for member validation.

Because the interviews were conducted across the three authors, a semi-structured interview guide was developed for consistency. Findings from the authors' 2012 study on faculty experiences with disability accommodations in online courses were the framework for developing the interview guide. The guide consisted of 27 questions equally distributed across three sections: Section 1. Participant Information; Section 2. Disability and Accommodations; and Section 3. Attitudes toward Accommodations and Receiving Accommodations. The Appendix contains the questions for each section.

To assist with usefulness, clarity, and sensitivity of the interview questions, the guide was audited by one participant-consultant prior to conducting the interviews. All recommendations made by this individual were accepted.

Data Analysis

To describe this natural phenomenon, data were inductively analyzed using a combination of strategies from Hill, Thompson, and William's (1997) *A Guide to Conducting Consensual Qualitative Research (CQR)* and Creswell's (2007) *Qualitative Inquiry & Research Design*. CQR is based on establishing thematic consensus amongst the team of researchers, then having one or two auditors check the consensus judgments of the primary research team. Creswell's (2007) approach involved discovering the underlying meaning of the experience through analysis of specific statements resulting in clusters of meaning (i.e., themes), while setting aside all prejudgments as one searches for all possible meanings. For this study, a three step data analysis process was used:

1. *Bracketing* (Creswell, 2007) was used to help the researchers set aside any preconceived experiences about students and disability accommodations. Each researcher was asked to respond to the following statement in writing: In order to produce a valid body of research, please identify any values, biases, or experiences about this topic that could influence how you collect, analyze, or report the data. Responses were shared and discussed amongst researchers. In the consensual discussions that ensued, researchers held each other accountable for potential bias in their analyses.
2. The process of *horizontalization* (Creswell, 2007) was employed for each question, which was to list significant statements from each participant. Next, Hill's et al. (1997) patterning strategy, *representativeness to the sample*,

was utilized to determine frequency of participants' responses relative to the whole sample. For each question, if all 11 participants answered the question with the same response or experience, a *general pattern* was formed. If five to 10 participants had similar experiences, this was a *typical pattern*. A *variant pattern* was established with three or four similar experiences across participants. Two researchers collectively completed this step for eight of the 11 transcripts. Their findings were sent to the remaining researcher to analyze the last three transcripts to test the stability of the findings (Hill et al., 1997). The team met to discuss the findings. No new patterns emerged with the inclusion of the final three transcripts, so data were considered stable. There was consensual agreement on the representativeness of the sample: three general patterns, 15 typical patterns, and 16 variant patterns.

3. Next, researchers independently analyzed general and typical patterns for clusters of meaning. Variant patterns were "dropped" at this stage of analysis because they were "not considered to be descriptive of the sample" (Hill et al., 1997, p. 551). Data were grouped by "meaning units" (Creswell, 2007) to identify themes that captured the essence of the participants' experiences. The research team met a second time to present and discuss themes. There was a high degree of consensus among researchers on individual themes. Ample time was spent converging these similar themes into three essence-capturing statements. An analytic schema is presented in Table 1.

Results

Participant Information

As can be seen in Table 2, the 11 participants were women who ranged in age from 22 to 55 and mostly resided in the Upper Midwest region of the United States. Nine were working toward a Master's of Science and two toward a Doctor of Philosophy. At the time of the study, participants had been taking graduate coursework for one to six-and-a-half years and had collectively taken 67 asynchronous and 30 synchronous online courses. Six of the 11 participants were registered with DSS. Three participants had psychological disorders, four had learning disabilities, two experienced chronic health conditions (i.e., diabetes, migraines), and two had attention deficit hyperactivity disorder (ADHD). The disabilities were diagnosed by

physicians and psychologists. Prior to enrollment at the university, only two participants had received accommodations for their disability.

Presentation of Themes

Upon completion of data analysis, three themes emerged. Below, each theme is presented along with supporting evidence.

Theme 1. Prior experiences with special education motivated participants to pursue a graduate degree. Nine of the 11 participants were enrolled in the Master's of Science in Special Education degree program (an entirely online program). For eight of them, they either had: (a) personal experiences with receiving (or not receiving) special education services for their disability, (b) a child or sibling with a disability who needed special education services, or (c) work experience in the field of special education. Participants used phrases such as "paying it forward" and "enjoys helping students." One noted she wanted to "give back" to students like her who had disabilities so they could receive special education services, because she never did.

Theme 2. Pre-enrollment fears of academic failure were minimized once in the program due to: (a) the flexibility afforded by online classes; (b) the willingness of instructors to provide accommodations; and (c) the personal efforts of students via self-accommodation. The leading fear amongst participants was "keeping up" due to the characteristics of their disability. Increased time needed to read materials was specifically noted. One participant explained how it took her three times longer to read in order to get the "materials registered in my brain." The increased time needed for reading and writing was a common fear for those with learning disabilities. For participants who had psychological disorders, lack of time was also a fear, mainly due to the inability to concentrate. As one participant illustrated:

I did have some concerns because when I was an undergrad I had to take a semester off because of my disability, and I knew that the stress of being in school would impact my disability. Just with the increased stress it impacts my ability to concentrate for a period of time and my ability to slow down my thoughts enough to do the school work.

Intriguingly, none of the participants mentioned that these fears delayed or derailed their scholarly pursuits. One participant offered her explanation for this:

Table 1

*Analytic Schema***General Patterns** (11 participants)

- 11 participants accepted responsibility for knowing their needs and communicating them to Disability Services for Students and/or instructors for necessary accommodations.
- 11 participants self-accommodated.
- 11 participants felt they were successful in their online courses.

Typical Patterns (5 to 10 participants)

- 8 participants who enrolled in the special education master's program had experience with the special education population resulting from personal, parental, and/or work experience.
- 5 participants stated online program met personal needs or preference.
- 9 participants were concerned about "keeping up" due to disability prior to starting program.
- 5 participants felt their disability does not impact ability to succeed.
- 6 participants felt their disability does impact ability to succeed.
- The 6 participants who asked instructors for accommodations had their requests granted. All 6 participants requested extra time on assignments.
- 5 participants said when they requested accommodations didn't vary across courses.
- 6 participants stated course content does not affect their need for accommodations.
- 7 participants requested accommodations before or early in the semester.
- 7 participants were open about their disabilities and comfortable asking for accommodations.
- 8 participants felt it was the instructors' responsibility to meet their needs by providing accommodations.
- 6 participants wanted instructors to be sensitive to their disabilities.
- 6 participants felt it was the university's responsibility to have disability policies/services for documenting disability and ensuring instructors are making accommodations.
- 6 participants felt their success was not affected by lack of/quality of accommodations.
- 8 participants felt understood by instructors and/or disability services for students.

Themes

1. Prior experiences with special education motivated participants to pursue a graduate degree.
2. Pre-enrollment fears of academic failure were minimized once in the program due to: (a) the flexibility afforded by online classes; (b) the willingness of instructors to provide accommodations; (c) the personal efforts of students via self-accommodation.
3. Successful online accommodations are a result of specific efforts made by students, instructors, and the institution.

I was filled with fear when starting, but along with that fear, I had a strong determination to succeed. I wanted to prove to myself that I could do it. It was a fear of failure, not keeping up, not being able to do it.

None of the participants mentioned fearing the technology aspect of an online course.

All 11 participants concluded they had been successful in their online courses, as personally measured by having a high GPA, earning the degree, learning, or getting a job. Although still successful, six said their disability did impact them. One participant reflected:

I'm an audio and visual learner and I can feel alone in the online classes. I feel like I 'bug' my instructors although I do not mean to. I feel this is because I do not see the instructor or my peers. By not seeing my peers face-to-face and interacting with them inside a classroom it causes me to feel intimidated. I do not mean to talk negative about online classes. I'm thankful for online, but it's not the route I would choose but it's allowed me to learn.

Six participants declared their disability through DSS, yet 10 participants received accommodations from

Table 2

Participant Information (N=11)

Age	22–55
Gender	Women (<i>n</i> =11)
Region of United States	Upper Midwest (<i>n</i> =10) West (<i>n</i> =1)
Graduate Academic Program	M.S. in Special Education (<i>n</i> =9) Ph.D. in Educational Leadership (<i>n</i> =1) Ph.D. in Teaching and Learning (<i>n</i> =1)
Years of Graduate Coursework	1 to 6.5
Number of Online Courses Taken	4 to 25 (67 asynchronous and 30 synchronous)
Registered with Disability Services for Students	Yes (<i>n</i> =6) No (<i>n</i> =5)
Categories of Disabilities	Psychological Disorders (<i>n</i> = 3) Learning Disabilities (<i>n</i> = 4) Chronic Health (diabetes, migraines) (<i>n</i> = 2) Attention Deficit Hyperactivity Disorder (<i>n</i> = 2)
Professional Who Diagnosed	Physician (<i>n</i> =5) Psychologist (<i>n</i> =6)
Accommodations for Disability Prior to Enrolling	No (<i>n</i> =9) Yes (<i>n</i> =2)

their instructors. The main reason for declaring was that it guaranteed accommodations to prevent failure. One student wanted to ensure her instructors knew she was not trying to “put something over” on them. Seven requested these accommodations early in the semester, with participants noting the importance of ongoing communication with instructors regarding extensions and clarifications. One participant shared:

My professors have been wonderful. I tell them the truth. I say that I didn't understand it or I'm not filling out the form quite right. It's strange...I understand something's missing but can't figure out what. I let them know that I have trouble keeping up with the reading.

The primary accommodation made by instructors was extended time on assignments (received by nine participants). Additionally, one participant requested study guides while another requested work samples to serve as models for assignments. Some students stated they did not need the same accommodations as when they were undergraduates because of the nature of online learning. For example, copies of notes and lectures were not needed because they could print material posted in the course management system, as well as listen to lectures multiple times. Alternative settings were also not needed because of being able to complete assignments within their home setting. Participants found most instructors willing to work with them and to be supportive. One even complimented the sustained efforts of her advisor for helping her throughout the process and for being her “go-to-person.”

The flexibility of asynchronous, online courses was influential for some participants' success. They found online courses to be "easier" because they could review the content multiple times, unlike a face-to-face course. Others operationalized flexibility by being able to: (a) lie down while doing lessons due to migraines, (b) do lessons when mood was more elevated so "missing class" was not an issue, and (c) "attend class" after supper which was more convenient for managing blood sugar. A participant made the following comparison between online and face-to-face delivery: "I would do much worse in face-to-face classes. I would have to get up and get to class at a certain time. Online meets my needs better and that course has modules that are clearly organized." One participant liked the convenience of online, but found it easier to "procrastinate." She also felt:

Being face-to-face and seeing them [instructors], they get a sense of who you are. In an online course it is hard to do. The connecting can be difficult in the online course with my struggle in writing. Your character is part of who you are and affects learning and grading.

Another participant did not feel there were a lot of services for online students and shared she did not know about DSS until the time of the interview. However, she admitted she probably would not make a contact because she questioned how "anonymous" it was with it being on her record. She wanted "to make it on her own without being labeled and wanted to avoid instructors thinking, 'Oh great, we have one of these students.'"

All participants self-accommodated in their online courses. Some participants sought assistance from individuals whom they knew personally to read to them or to edit writing. Others asserted themselves by seeking additional assistance from the instructor for clarification of nebulous content. Organizational systems were constructed for due dates. Some preferred hard copies of course materials to employ a highlighting strategy. Online tutorial services made available by the university were accessed. Lastly, some self-accommodated by simply being "up front" with instructors about their disability.

Theme 3. Successful online accommodations are a result of specific efforts made by students, instructors, and the institution. Participants were queried about perceived responsibilities of students with disabilities, instructors, and the university. To capture the essence, they perceived it as a joint effort. A 34-year-old student with dyslexia explained it like this:

I just know where I need the extra help, or time, and so I think it's the fair thing for me to do...to seek out the help. I don't think it's fair for me to struggle and get upset and flustered and go to a professor and try to get help when I could have helped myself at the beginning of the year by letting the school and the professors know that I have a disability and that maybe I will need extra help or will struggle because maybe then they'll think of other things. I'm doing a disservice all around to myself and professors if I don't seek out accommodations. In college, before accommodations I got a 2.78, after accommodations it went up to 3.9. Huge difference! And it's not like I'm asking for someone to do my work, all my accommodation is doing is giving me an extended time on tests so I can process the information.

Student responsibility. All participants felt it was their responsibility to be knowledgeable about disability-specific needs and to initiate communication with instructors and/or DSS about how their needs could be met through accommodations. Even with all participants reporting they self-accommodated, not one explicitly mentioned it as every student's responsibility. One participant explained, "My responsibility is to talk with my instructors and discuss my needs with them. They're not mind readers. And I need to put forth an effort and take ownership for my learning..." Another concluded, "Most fall on me because I am an adult and in charge of my own destiny." Although all participants accepted this responsibility for initiating the accommodation process, only seven were open about their disabilities and felt comfortable requesting accommodations. One participant explained how disclosure was dependent on the relationship with the instructor:

It varied because for the one course I had had the same instructor I had had before and I had a relationship with her and the other instructor I didn't know her. I guess I was more willing to share information with what was going on with the first instructor than with the other instructor. I was really vague and said there was some tough stuff going on and was just vague. [Why were you more vague with the second instructor?] I didn't know her and didn't know if she would judge me for sharing the full reason. [Why were you concerned about being judged?] Because it had happened to me in my undergraduate school and it wasn't in a special ed program. I had requested more time for assignments because they were changing my

anxiety medication and the instructor didn't understand and said I needed to try harder or find another place to study and the instructor wasn't going to give me more time.

For those who were not comfortable, their reasons included: (a) became "anxious" about requesting accommodations because of a history of not getting work done and concerned a "disposition form will be completed" on her, and (b) did not want to be "set apart from the others," and

(c) I like to think I'm above my disability. I don't want it to stop me or don't want other people to know. Maybe it's an embarrassment thing. I don't want pity or special treatment because of this. I want to go to someone if I need the help. I feel like I'm judging [How?] I'm judging everyone else who uses it.... Yeah, I don't want people to know because I don't want special treatment. It sounds weird because I ask for it [accommodation] from time to time. I don't want special favors. I want to struggle with it on my own. When I read something and I get it, the reward is huge. It's a confidence boost.

Instructor responsibility. Most of the participants (eight) believed it was the instructors' responsibility to meet their needs by providing accommodations. Participant comments included: "fulfill needs within reason," "ensure they are fair to all students," "read and follow the plan developed with DSS," "allow self-accommodations," "provide clear expectations about what instructors are willing to do," "allow assignments to be redone," and "work with students in the area of disability." Slightly over half (six participants) felt it was also the instructors' responsibility to perceive them as hard working and fulfilling the same obligations as other students. Supporting remarks were as follows: (a) "Not asking someone to do my work. Don't think of us as lazy;" (b) "I don't want to be perceived as one of those people or that I'm using my disability as a crutch... fulfilling the same obligations;" (c) "I didn't ask for this [disability];" (d) "Instructors' responsibility is to ensure that they are fair to all students and that they do not give an unfair advantage to any student." She felt receiving extra time on assignments/tests was fair because the "student is producing the same work;" (e) "...should not assume that if a student is requesting help they're lazy. See the student for who they are before seeing their disability. See what the student *can* do before seeing what they can't do;" and (f) "I think as long as the teachers know that every once in a

while students come along who need something extra, and they don't just think of us as lazy."

University responsibility. As for the institution, it was their responsibility to establish policies and procedures for communication and accountability purposes. Providing a disability service was essential for documenting disability and upholding the rights of students. One student declared, "I am blessed to have DSS in my academic life, and I feel they'll go the extra mile for me. They have; it's been amazing!" Some participants mentioned the university needed to "look critically at how to improve" and to ensure instructors are providing accommodations.

Summary

All participants felt they successfully completed their online courses, in spite of their pre-enrollment fears and disability-related challenges. All participants self-accommodated and almost all requested accommodations from instructors. Nevertheless, a little over half the participants felt their level of success was *not* affected by the quality of accommodations they received but was a result of their individual efforts. Most participants felt understood by instructors, and almost all were satisfied with their online learning experience.

Discussion

In contrast to an earlier study by two of the authors (Phillips et al., 2012) in which few faculty reported being asked by students to provide accommodations in online courses, this study of online graduate students with disabilities found that almost all participants (10 of 11) requested accommodations from their instructors. No doubt the particular characteristics of the participants contributed to this outcome, with 82% of students (n=9) seeking a master's degree in special education and eight of them having prior personal or work experience with special education. It may be that degree choice and a personal history with receiving or providing accommodations in pre-college educational experiences determines a comfort level with requesting accommodations in online college classrooms.

Consistent with Roberts et al. (2011), students in this study indicated that their disabilities presented concentration and scheduling challenges, but similar to Collopy and Arnold (2009), students asserted that online courses offered them the flexibility and individualized pacing to be academically successful. Most of the classes taken by students in this study were asynchronous online courses, as opposed to live web-cam facilitated courses. The flexible, self-directed nature of these asynchronous courses may

make them a more comfortable learning environment for students with disabilities, compared to the synchronous online courses.

Self-accommodation and self-advocacy stand out as important to the academic success of students with disabilities. The students in this study were adept at self-accommodation, felt comfortable requesting accommodations from instructors, and knew what type of accommodations would be most beneficial to request. This finding supports that of Barnard-Brak et al. (2009) who found that students who had positive attitudes toward accommodations felt comfortable requesting them. (In this study, only one student expressed concern that an accommodation request might result in stigmatization.) In addition, because of the increasingly ubiquitous and commonplace nature of online education, faculty are increasingly seeing students (with or without disabilities) who are skillful users of online technology and who know how technology and/or the online learning environment can best accommodate their needs, with or without the assistance of faculty.

Ultimately, however, the academic success of students with disabilities is a joint responsibility of online instructors, university systems, and the students themselves. This collaborative effort requires intentionality and should result in an educational environment which ensures that each group has the opportunity to develop and exercise their individual responsibilities. The students in this study articulated a number of recommendations for each group which can enhance the online experience for students with disabilities. The authors support and have themselves implemented some of these recommendations, and offer them here for the readers' consideration.

Recommendations for Students

Although this may be difficult for some students based on personality, background, or educational history, developing and exercising the skills of self-advocacy can be critical to the outcome of the online learning experience. In fact, one participant with a learning disability felt that to be an online student, "you must advocate for yourself." To keep pace with the rhythm of a course, it is helpful if students converse with instructors at the beginning of an educational term about course and instructor expectations, student disabilities and their impact on learning, needed accommodations, and any other issues of concern to the student. A participant illuminated the importance of communication because she felt "that if you have that communication at the beginning, you're more willing to reach out to them and them to you because you've made that connection already." Another suggested that

"every instructor is different, so be straightforward." If the course is asynchronous, students could request that this, and additional communications with instructors, take place via phone or by Skype (or some other video-conferencing system). However, a participant opposed the use of email because it was not as effective when discussing disability accommodations.

Recommendations for Instructors

Although non-contact with instructors may mean that there are no students with disabilities in the class or that students with disabilities are self-accommodating, it is important that instructors make every effort to be approachable and to create a learning environment which avoids barriers to accommodation requests. A study participant with Bipolar Disorder shared how an occasional contact from instructors to see how she was doing would have made her feel more comfortable asking questions and for extensions.

Syllabi should list clear due dates and assignment expectations and course assignment directions should all be in one place (on the syllabus and/or the course's online management system). One participant with dyslexia explained why detailed syllabi are important: "I think having the syllabus clear, in black and white as, and as simple as possible as far as due dates and expectations on a weekly basis, because that's like everyone's Bible; that's what everyone lives by." All syllabi should contain a disability disclaimer which, at minimum, provides contact information for the university's disability services center and which encourages contact with the course instructor.

Instructors need to ensure that students have mastered one level of material before moving on to more difficult material. Smaller, more frequent assignments should be required (rather than one or two larger assignments) so as to minimize the chance of "falling behind." Additionally, all assignments submission procedures should be in the same format. These aforementioned recommendations mainly focus on "consistency" in course management, which was paramount for one participant with ADHD.

Although study participants did not explicitly mention Universal Design for Learning (UDL), their recommendations reflect the principles and guidelines of UDL. As articulated by the National Center on Universal Design for Learning, "UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone--not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted for individual needs" (NCUDL, n.d.). UDL offers research-based guidelines for providing multiple means of represent-

ing content, multiple means for students to express and manage their learning, and multiples means to encourage student engagement with course content and the classroom community. The authors of this article recommend that online instructors become familiar with UDL guidelines and, with support from their institution's disability services department and feedback from students, begin a process of shaping their instructional design to reflect the guidelines. Instructors will find assistance with implementing UDL guidelines at the National Center on Universal Design for Learning website (www.udlcenter.org/aboutudl/udlguidelines) and at www.ualr.edu/pace/tenstepsud/ (a resource of the Disability Resource Center at the University of Arkansas at Little Rock).

Recommendations for Institutions

It is important that the institution's disability services center or department ensure that disability services are advertised across campus in a variety of ways and venues and across all online academic programs (including undergraduate, graduate, and certificate). In addition, the disability services unit should advertise all services, tools, programs, and technologies it has available to students. One study participant noted that if DSS had "advertised a little differently" she would have heard about them and looked in to services. Without this advertising, students may not know the extent of supports available to them. Moreover, one participant specified how the graduate school needs to "get the word out" so students know accommodations are available in graduate, online courses.

In addition to participant comments and recommendations, this study's authors recommend that academic departments engage in annual reviews of their compliance with UDL principles and practices (in both online and face-to-face courses) and offer routine training to instructors in UDL and accommodation tools, expectations, and resources. The authors also recommend that universities routinely and critically assess their institutional responsiveness to students with disabilities in the online environment. Such an assessment could involve a collaborative process with staff, student, and instructor participants.

Limitations and Future Research

This study offers additional insights about student experiences of online accommodations. It is limited, however, in that it addresses student experiences and perspectives at only one institution and the participant sample is small (only 11 students). In addition, the study sample consisted entirely of female graduate

students. The fact that these students with disabilities had already acquired undergraduate degrees and were successfully engaged in graduate education (with nine of them working on a degree in special education) indicates a level of motivation, self-direction, and comfort level with accommodation requests that may or may not be present in the general population of students with disabilities in postsecondary, online courses. Finally, the data collected are in need of validation since they are based on self-reports that may reflect socially-desirable responses.

Additional studies are needed in order to validate the findings of this project and to better understand the perspectives and needs of online students with disabilities. It would be particularly important to gather data from graduate students in disciplines other than special education and to also ensure the inclusion of male graduate students to determine any differences these factors may make on the accommodation experiences of students with disabilities in online classes.

Additional research would also be useful related to university "best practices" for institutional advertising, development, and implementation of disability services for online learning. Disability services staff rarely have the time or resources to conduct in-depth and routine evaluations of their services to faculty and students. Researchers with an interest in online learning could provide an invaluable service to their institutions and the students they serve by advancing the literature relative to successful institutional practices that ensure the academic success of all online learners.

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Appendix

Interview Guide

Section 1. Participant Information

1. Age
2. Please tell me the academic program you're in, the degree you're pursuing, and your current student status.
3. Why did you choose this degree?
4. How many years have you been taking classes?
5. How many online courses have you taken (including current courses)?
6. Were these online courses asynchronous or synchronous? How many of each?
7. Since this is an interview about online course accommodations related to your disability, could you please tell me the disability you will be discussing?
8. Who diagnosed your disability (physician, psychologist, etc.)?
9. Did you receive accommodations for your disability prior to your enrollment?

Section 2. Disability and Accommodations

1. Prior to starting this degree program, did you have any concerns related to your disability, about being in the program – either concerns about your abilities or concerns about getting support from instructors or the university?
2. Does your disability impact your ability to succeed in the online learning environment?
3. Have you declared your disability with DSS?
 - a. If yes, what was your reason for contacting them?
 - i. At what point in your program did you contact them?
 - ii. How much interaction do you have with DSS?
 - iii. What specific accommodations did you receive from DSS and were/are they helpful?
 - b. If no, what was your reason for not declaring your disability?
4. Have you requested accommodations for you disability from your instructors (and not via DSS)?
 - a. If yes, were your requests granted?
 - b. What have been the specific accommodations you received and have they been helpful?
 - c. If no, why have you not requested accommodations from them?
5. At what point in your courses have you generally requested accommodations from DSS or instructors?
 - a. Did this vary across courses or change over time?
6. Do you self-accommodate? If so, what are the accommodations?
7. Does course content affect your need for accommodation?
8. Are there any other ways you advocate for yourself in online courses (besides requesting accommodations)?
9. Have you utilized other campus services that have assisted you with your disability in order to be successful in your online courses? (Tech Support, Counseling Center, etc.)

Section 3. Attitudes Toward Accommodations and Receiving Accommodations

1. What is your attitude or belief about requesting accommodations for disabilities?
2. What do you perceive to be your responsibilities for accommodating your disability and the responsibilities of your instructors? What do you believe are the responsibilities of the university?
3. Have you taken face-to-face graduate classes (here or elsewhere)? If so, are there any similarities and differences between f2f and online classes in relation to receiving accommodations?
4. Do you have any recommendations to improve the online experience for students with disabilities?
5. Overall, are you satisfied with your online learning experience?
6. Do you feel you've been successful? How did you determine this?
7. Do you feel that your level of success was affected by the lack of accommodations or the quality of accommodations you received?
8. If you've made formal requests for accommodations, do you feel you were understood by DSS or the instructor and/or university services?
9. Is there anything else you would like me to know?