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**A Case Study of Perspectives Pertaining to Academic Accommodations
for Postsecondary Students with Learning Disabilities**

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for Postsecondary Students with Learning Disabilities**

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A Case Study of Perspectives Pertaining to Academic Accommodations for Postsecondary Students with Learning Disabilities

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Increasing numbers of students with learning disabilities (LD) are entering into postsecondary education and seeking accommodations through the university's disability service office. The academic success of students with LD is contingent on the provision of accommodations by instructors, which allows for an equal educational opportunity. To investigate the use of academic accommodations by postsecondary students with LD, the perspectives of postsecondary students with LD and instructors were obtained pertaining to the practice of using accommodations, the utility of accommodations, facilitators and barriers to the use of accommodations, and how an understanding of disability law contributes to the use of accommodations. Utilizing a mixed-methods research design, using a single university as a case study, the present study triangulated data from three sources: (a) the university's disabilities service office student database, disaggregated for students with LD; (b) the university's disabilities service office student and instructor surveys, disaggregated for students with LD and instructors who met inclusion criteria; and (c) interviews with students with LD and instructors. Data analysis revealed that perceptions and attitudes held by post secondary students with LD and instructors as well as peers without disabilities influences the ability of students with LD to use accommodations. Finding also indicated that increased self-advocacy and knowledge of disability law have the potential to positively impact the practice of accommodations.

Furthermore, disability service procedures and instructors' willingness and ability to accommodate students have the potential to facilitate or hinder the use of accommodations by students with LD. Implications for practitioners, future research, and limitations are discussed.

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Chapter One: Introduction

More students with learning disabilities (LD) are identifying postsecondary education as a realistic goal. Access to postsecondary education and the quality of services available have improved greatly over the past two decades leading more students with LD to further their education. Such students are starting to understand the importance of attending postsecondary institutions, which can increase their future employment potential and earnings (Madaus & Shaw, 2010).

Students with LD are typically characterized as individuals who manifest academic difficulties associated with their disability. Misconceptions surrounding the academic potential of students with LD damages such students self-believe and motivation to continue schooling past secondary. Although research has proven that students with LD hold the same potential for academic success as peers without disabilities (Sparks & Lovett, 2009), negative perceptions still exist.

Even professionals, responsible for ensuring the academic success of students with LD, still hold the notion that education past high school is an impossibility for such students because they do not poses the capability to achieve at such an advanced level of education. One student with LD recalled her high school transition council telling her she would only fail if she attempted to obtain an education at a four-year university, that her ability to learn was caped by her LD, and at best she could do well at a vocational school. That student went on to earn not only a bachelor's degree but also a master's and eventually her doctorate.

Times have changed and the potential of students with LD is being revealed through research. More students with LD are attempting degree seeking postsecondary educational programs. However, students with LD with equivalent intelligence to peers without disabilities are only enrolling in four-year institutions at half the rate and those who do attend are less likely than peers without disabilities to graduate (Horowitz, Rawe, & Whittaker, 2017). The present study revealed factors that influence the enrollment and academic success of students with LD in postsecondary education.

POSTSECONDARY EDUCATION

Postsecondary education is education that exceeds high school and encompasses institutes of higher education, including colleges and universities (Merriam-Webster, 2017). In the United States, postsecondary education involves programs of the academic, technical, career, and professional development nature. Over 4,000 2-year and 4-year postsecondary institutions exist in the United States, and they vastly differ in their educational mission and offer a broad range of learning experiences to students (The Condition of Education, 2017).

Postsecondary institutions are tasked with the expectation and responsibility to meet the growing needs of students (Morris, 2017), who represent a diversity of individuals (The Condition of Education, 2017). Postsecondary student enrollment reached seventeen million undergraduate students nationwide in 2015; a reported 11% of those students had a disability (Raue & Lewis, 2011). It is projected that undergraduate enrollment will increase an additional 14% by the year 2026 (The Condition of Education, 2017), which will increase the number of students with disabilities (SWD).

Disability is defined as “a physical or mental condition that causes functional limitation that substantially limits one or more major life activities, including mobility, communication, and learning” (Raue & Lewis, 2011, p. 1). The largest group of SWD enrolled (31%) in postsecondary education is comprised of students with learning disabilities (LD). A learning disability is a cognitive disability that affects a student’s thinking and learning (Brinckerhoff, McGuire, & Shaw, 2002). Over 85% of institutions reported they served students with LD, more than any other disability group (Raue & Lewis, 2011). An estimated 61% of students with LD are enrolling in postsecondary education (National Longitudinal Transition Study-2 [NLTS-2]; Sanford, Newman, Wagner, Cameto, Knokey, & Shaver, 2011).

POSTSECONDARY DISABILITY LEGISLATION

Students with disabilities go through their public education under the protection of the Individuals with Disabilities Education Act (IDEA, 2004). IDEA requires states to provide students with disabilities free appropriate public education (FAPE) in the least restricted environment (LRE). However, this is only mandated for students with disabilities still enrolled in public schooling. Once students exit or age-out of secondary education they are no longer entitled to the same educational protections (Brinckerhoff et al., 2002). However, two pieces of disability legislation exist, providing protection to postsecondary SWD.

Section 504

Section 504 of the Rehabilitation Act of 1973 (Section 504), Pub. L. No. 93-112, 87 Stat. 394 (1973), is a civil rights law whose purpose is to eliminate discrimination of a person on the basis of a disability, by any federally funded program or activity (Madaus & Shaw, 2004). The act specifically defines an individual with a disability as a handicapped person with a “physical or mental impairment, which substantially limits one or more major life activities” (Rehabilitation Act of 1973, 104.3j). Section 504 is comprised of seven subsections, with particular importance to postsecondary education being Subpart E (Madaus & Shaw, 2004). It indicates that services provided to individuals with disabilities:

are not required to produce the identical results or level of achievement for handicapped and nonhandicapped persons, but must afford handicapped persons equal opportunity to obtain the same results, to gain the same benefit, or to reach the same level of achievement. (Rehabilitation Act of 1973, 104.42)

In addition, these individuals must be able to meet admissions criteria established by the institution in order to participate in postsecondary education and, if essential requirements are met, the individual cannot be denied admission based on their disability (Madaus & Shaw, 2004). Regulations of Subpart E also mention that academic adjustments and auxiliary aids are to be provided to ensure SWD gain equal access to postsecondary education (Rehabilitation Act of 1973).

Americans with Disabilities Act

The Americans with Disabilities Act of 1990 (ADA), Pub. L. No. 101-336, 104 Stat. 328 (1990), as amended 2008, resembles Section 504 in that it too prohibits discrimination of individuals with disabilities and ensures equal opportunity in postsecondary education, but expands responsibility to all institutions, regardless of federal funding. ADA uses the same qualification measures as Section 504 to define individuals with disabilities and mandates the provision of reasonable academic adjustments by postsecondary institutions (Americans with Disabilities Act, 1990).

Disability Services

Postsecondary institutions typically comply with the law by establishing a disability service office that affords SWD the right to seek support through their institution's disability service office. As increased numbers of SWD enter into postsecondary education, more disability service personnel are required to ensure SWD receive equal educational experiences and opportunities (Dukes & Shaw, 1999). By 2009, nearly 90% of all postsecondary institutions were providing services for SWD (Raue & Lewis, 2011). The Association on Higher Education and Disabilities (AHEAD) released its *Code of Ethics* (1996) for postsecondary disability service providers. It states "as professionals, we are responsible for upholding, supporting, and advancing these ideas [principles] whenever possible" (p. 1). The following are the guiding principles that AHEAD encourages postsecondary disability service personnel to uphold:

committed to facilitating the highest levels of educational excellence and potential quality of life for postsecondary students with disabilities, strive to achieve and

maintain the highest levels of competence and integrity in all areas of assistance to adult students with disabilities. This support is guided by the consistent use of objective, professional judgment in all areas, especially when addressing the confidential nature of the student's disability, continually participate in professional activities and educational opportunities designed to strengthen the personal, educational, and vocational quality of life for students with disabilities, carry out their responsibilities in accordance with AHEAD professional standards and policy guidelines for adult students with disabilities. When certified, licensed, or affiliated with other professionals or organizations, they comply with those professional guidelines as well, and actively engaged in supporting and clarifying institutional, state, provincial, and federal laws, policies, and procedures applicable to the service delivery to students with disabilities. Compliance implies that professionals will not condone or participate in any unethical or illegal acts discussed within these guidelines. (p. 1)

STUDENTS WITH LEARNING DISABILITIES

Specific learning disorder is the umbrella term used by the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association [APA], 2013) to denote a developmental disorder that impedes the individual's ability to learn and use essential academic skills. These required academic skills include reading, writing, and mathematics with specific diagnoses of dyslexia, dysgraphia, and dyscalculia (APA, 2013). Under the Individuals with Disabilities Education Act 2004 (IDEA), students are diagnosed under the category of specific

learning disabilities (SLD). The term learning disabilities is used to embrace SLD of dyslexia, dysgraphia, and dyscalculia as well as auditory processing disorder (APD), language processing disorders (LPD), non-verbal learning disabilities, and visual perceptual/visual motor deficit (“Types of Learning Disabilities,” 2017). For an individual to receive a LD diagnosis, his or her academic difficulties must not be the result of an intellectual disability (ID), environmental factors, lack of adequate instruction, a neurological condition or other disorder, or be due to limited proficiency of the English language (APA, 2013).

Specific Learning Disabilities

Dyslexia, the most prevalent type of SLD, is the term used to describe a SLD in reading. Common characteristics of students who have dyslexia include problems with decoding words, fluency, vocabulary recognition, and comprehension, as well as spelling and written expression struggles (Cortiella & Horowitz, 2014). Dysgraphia is the term used to describe SLD in writing and refers to both the quality of writing and the act of writing. It is often seen in students with dyslexia. Common characteristics of students who have dysgraphia include difficulties with the organization of thoughts, syntax, and grammar. There also tends to be large distinction between written performance and verbal demonstration of understanding (Cortiella & Horowitz, 2014). The term dyscalculia is used to describe a SLD in mathematics. Common characteristics of students who have dyscalculia include difficulties with math calculations and trouble with problem-solving strategies and mental math (Cortiella & Horowitz, 2014).

Defining Postsecondary Students with Learning Disabilities

Defining students with LD at the postsecondary level defers back to operational definitions developed to define primary grade students with LD. No definition has been developed to specifically define postsecondary students with LD, as previous definitions hold support amongst professionals as being sufficiently applicable to adults with LD. Postsecondary institutions have the responsibility to establish eligibility criteria for students with LD under Section 504 and ADA. These laws do not specifically define LD, therefore professionals at postsecondary institutions must adopt a definition of LD as the basis of developing their own operational definition and determine which students are entitled to equal educational access (Brinckerhoff et al., 2002). The most accepted definition at the postsecondary level is that of the National Joint Committee on Learning Disabilities (NJCLD). Their definition states:

Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability.

Although learning disabilities may occur concomitantly with other disabilities (for example, sensory impairment, intellectual disabilities, emotional disturbance), or with extrinsic influences (such as cultural or linguistic differences, insufficient or

inappropriate instruction), they are not the result of those conditions or influences. (Brinckerhoff et al., 2002, p. 113)

To assist postsecondary professional in identifying students with LD a comprehensive evaluation of eleven definitions of LD was performed. Seven elements were identified: (a) exists throughout lifespan; (b) intraindividual difference (i.e., “differences in performance within an individual”; Brinckerhoff et al., 2002, p. 111); (c) dysfunction of central nervous system; (d) difficulty with learning processes; (e) academic, conceptual, or language problems; (f) other conditions as problems (i.e., social, spatial orientation, motor abilities); and (g) coexistence with other disabilities (i.e., comorbidity). Intraindividual differences was noted as more acceptable in describing postsecondary students with LD because an aptitude-achievement discrepancy model is problematic in that such students have learned compensation strategies and diagnostic instruments are not normed for adults or scaled past high school (Brinckerhoff et al., 2002).

THEORETICAL FRAMEWORK

The theoretical framework that guided this study is based on the interrelationship between the Environmental Model of Disability and the Functional Model of Disability. The Environmental Model theorizes that disability is attributed to one’s environment, while the Functional Model posits that one’s function affects the determination of disability (Smart, 2016). Thus, disability can be understood as the interaction between environmental elements and one’s ability to function within the environment (Institute of Medicine, 1997). Learning disabilities are often environmentally defined, only being

noticeably present in environments where certain types of functioning are required (Smart, 2016). This study is focused on students with LD and their use of accommodations to function within the environment of postsecondary education.

The Environment Model states that the environment is comprised of social, physical, and intrapersonal (i.e., the way one thinks, believes, and their expectancies; Institute of Medicine, 1997) elements (Smart, 2016). For individuals with disabilities the environment can create barriers that hinder or limit their access and opportunity for participation. The physical environment is designed on assumptions of non-disability characteristics creating barriers for those with disabilities. Consequences of the social environment are barriers created by societal attitudes towards individuals with disabilities including disability stigma, discrimination, and prejudice (Smart, 2016).

Additional factors within one's environment that affect disability include education (e.g., postsecondary institutes), independence, and assistive technology (AT). As defined by Assistive Technology Industry Association ("What is AT," 2017), AT is "any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve functional capabilities of persons with disabilities" (para. 2). Further, AT are "products, equipment, and systems that enhance learning, working, and daily living for persons with disabilities" ("What is AT," 2017, para. 1). One way individuals with disabilities are increasing their functioning and finding independence and access is with AT (Smart, 2016). The stronger the AT the greater the individuals support and functioning within the environment (Institute of Medicine, 1997). Individuals with a disability experience greater functional limitations in environments with lesser

degree of support (e.g., support from disability services or from accommodations; Institute of Medicine, 1997).

Similar to examples provided by Institute of Medicine (1997) in postsecondary educational environments the provision of services and accommodations are contingent on students with disabilities ability to communication (e.g., self-advocate). Only one-fourth of postsecondary students with LD disclose that they have a disability, therefore many students with LD are not accessing needed supports of postsecondary institutions to be successful (Horowitz et al., 2017). The ability of students with LD to communicate their specific needs for accommodations is dependent on their self-regulation (i.e., cognitive process with which individuals control and monitor their learning and progress and make adjustments as necessary to achieve academically; individuals transform thought into purposeful action; Gajowski, 2014) and self-advocacy skills (Horowitz et al., 2017). Advocacy by definition is pleading the cause for another (Merriam-Webster, 2017) and thus self-advocacy involves pleading a cause on one's own behalf.

This study was built on the concept that accommodations provide students with LD the potential to function at the level required for academic success in the environment of postsecondary institutions. In order to acquire needed accommodations, students with LD must be able to effectively self-advocate. Accommodations then allow students with LD to have equal access to postsecondary educational opportunities.

Academic Accommodations

Accommodations provide SWD the ability to access course content and be educationally independent. Once students disclose that they have a disability,

postsecondary institution are required to provide reasonable accommodations. First, accommodations can take the form of appropriate academic adjustments or modifications, which provide SWD equal opportunity to participate and learn through changes to tasks, environment, or instruction (“Reasonable Accommodations Explained,” 2017). Some common accommodations include extended time, alternative courses, and modified testing. Second, accommodations can be provided as auxiliary aids or services such as adaptive equipment, electron or alternative formats of materials, interpreters, or note-takers. Finally, accommodations may include necessary changes to the application process to guarantee SWD equal opportunity when applying for program enrollment, and permit them to complete the vital functions of the program and equally benefit and access any advantages of the program (“Reasonable Accommodations Explained,” 2017).

Academic accommodations are those that directly affect SWD within and outside the classroom (i.e., extended testing time, priority registration,) where as non-academic accommodations are accessibility accommodations and include housing accommodations, animals on campus, dietary access and accommodations (“Access & Accommodations,” 2017).

Instructors

Instructors or faculty are individuals who directly affect the quality of postsecondary education students receive. They are the primary resource on which postsecondary success revolves around. These individuals determine course content, set performance standards, and define career preparation quality as well as provide approved accommodations to SWD (The Condition of Education, 2017). The Condition of

Education (2017) places instructors under the category of faculty, which also includes all types of professors and lecturers. With more than 1.5 million faculty at postsecondary institutions (The Condition of Education, 2017), SWD are likely to participate in vastly different experiences across postsecondary courses and instructors.

Rights and Responsibilities

Both SWD and instructors have rights and responsibilities pertaining to accommodations. First, SWD have the right to (a) receive appropriate academic accommodations, (b) maintain confidentiality regarding their disability and accommodations, and (c) obtain equal treatment and dignity, regardless of their disability. Second, SWD are responsible for (a) self-disclosure of their disability to their institution's disability service office in order to request and receive approval for accommodations, (b) presentation of an accommodation letter to instructors and requesting approved accommodations, (c) engagement in informal conversations with instructors regarding the provision of accommodations, and (d) completion of all essential components of courses as well as all obligations to the completing of their program of study. Next, instructors have the right to (a) advanced notice of a SWD's necessity for accommodations, (b) SWD's course work or performance to the same academic standards as all students, and (c) academic choice in the design and implantation of their course(s). Finally, instructors also have the responsibility to (a) provide approved classroom and testing accommodations to SWD, (b) facilitate the delivery of alternative formats of materials, and (c) facilitate the use peer note-takers ("Rights and Responsibilities," 2016).

Facilitators and Barriers

Accommodations facilitate learning for SWD by allowing them the provision of an alternative way to complete or accomplish course content or requirements and to be fairly assessed. They should not provide an unfair advantage to SWD, but instead should make it possible for the student to achieve by reducing or eliminating barriers related to a student's disability. Accommodations essentially provide SWD equal opportunity to participate in courses and programs by effectively meeting their disability-related needs. Students with similar disabilities may not all benefit to the same degree from the accommodations; thus accommodations must be individually-specific, that is, determined and analyzed for each student's appropriateness in affording success (The Condition of Education, 2017).

PURPOSE OF RESEARCH STUDY

Students with LD comprise the largest group of SWD at the postsecondary level and therefore were the focus of examination. This study extended three areas of previous research: (a) perspectives pertaining to accommodations at the postsecondary level; (b) perceived facilitators and barriers pertaining to accommodations at the postsecondary level; and (c) level of knowledge about disability law pertaining to accommodations at the postsecondary level. Perspectives of postsecondary students with LD and instructors pertaining to accommodations at the postsecondary level have been researched, as well as perspectives of disability service providers pertaining to disability documentation and accommodations for students with LD (Banerjee, Madaus, & Gelbar, 2015; Hatzes, Reiff, & Bramel, 2002). This study compared perspectives between postsecondary professionals

(i.e., instructors) and recipients (i.e., students with LD) at the same university to more thoroughly understand the use of accommodations by postsecondary students with LD.

First, previous research has surveyed postsecondary students with LD on their comfort level with asking for accommodations (Sweener, Kundert, May, & Quinn, 2002) and interviewed students with LD about the importance of accommodations (Skinner, 2004), finding students had a neutral comfort level (Sweener et al., 2002) and believed accommodations were of critical importance to their academic success (Skinner, 2004). Instructors have been surveyed about their ease or difficulty providing accommodations (Bourke, Strehorn, & Silver, 2000), their comfort level in providing accommodations (Sweener et al., 2002), and their disposition on providing accommodation (Murray, Flannery, & Wren, 2008; Skinner, 2007) to students with LD. Findings revealed when instructors had higher levels of understanding about students with LD and accommodations they could more easily provide accommodation (Bourke et al., 2000), overall instructors had a neutral comfort level (Sweener et al., 2002), and instructors had an overall positive willingness to provide accommodations to students with LD (Murray et al., 2008; Skinner, 2007). This study extended this line of research by interviewing postsecondary professionals and students with LD about their level of understanding and perceptions towards the use of accommodation.

Next, previous research has investigated facilitators and barriers pertaining to postsecondary accommodations. Cawthon and Cole (2010) surveyed students with LD about what barriers they faced in accessing accommodations or services, while Denhart (2008) interviewed students with LD about their needs to overcome barriers. Majority of

barriers indicated by students related to instructors (Cawthon & Cole, 2010) and students indicated they were better able to learn when their needs were met (Denhart, 2008). This study investigated the perceptions of postsecondary students with LD as well as included the perceptions of instructors pertaining to not only barriers but facilitators to the use of accommodations.

Finally, previous research has been conducted to study both students' with LD and instructors' level of knowledge about disability law pertaining to accommodations at the postsecondary level (Murray et al., 2008; Skinner, 2004; West, Novak, & Mueller, 2016). Skinner (2004) found postsecondary students with LD were uninformed of their rights or responsibilities (i.e., self-initiation of the accommodation process) under ADA or Section 504. West, Novak, and Mueller (2016) found instructors lacked confidence in their knowledge of ADA Section 504 and Murray, Flannery, and Wren (2008) found staff were unfamiliar with ADA and Section 504. This study extended this field of research to understand how such knowledge or lack of knowledge, by students with LD and instructors, impacts students' LD use of accommodations.

This study compared the perspectives of students with LD and instructors pertaining to academic accommodations and participants' understanding of disability law that mandates the provision of accommodations. The following research questions guided this dissertation study:

1. What do postsecondary professionals and students with LD understand about the use of accommodations?

2. What perceptions do postsecondary professionals and students with LD have about the utility of accommodations?
3. What do postsecondary professionals and students with LD perceive as facilitators of and barriers to the use of accommodations?
4. How does disability service personnel, instructors, and students with LD understanding of the disability law contribute to the use of accommodations?

Chapter Two: Related Literature

Postsecondary education has expanded over the past decade, with increased numbers of degree-granting institutions. Within institutions a broad range of programs exist for which undergraduate students seek a bachelor's degree (The Condition of Education, 2017). Within the enrollment, of millions of students, are students with disabilities (SWD), seeking the same educational opportunities as their peers without disabilities. The largest group of SWD, in postsecondary education, is students with learning disabilities (LD; The Condition of Education, 2017). Although all students are entitled to rights under the law, specific legislation mandates educational protections for SWD. If SWD decide to disclose their disability, they then have the right to request services and accommodations for which instructors are required to provide.

IMPACT OF DISABILITY LEGISLATION ON POSTSECONDARY EDUCATION

Two key pieces of federal legislation mandate protection of SWD at the postsecondary level, Section 504 of the Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act of 1990 (ADA). Katsiyannis, Zhang, Landmark, and Reber (2009) outlined these legislative mandates as well as provided relevant litigation and discussed practical considerations on the participation of students with disabilities in postsecondary education. Furthermore, Madaus and Shaw (2006b) summarized the ripple effect of IDEA 2004 on postsecondary SWD receiving services. Lastly, The Respond, Innovate, Succeed and Empower (RISE) Act of 2016 was established to increase SWD achievement in postsecondary education.

Section 504

Postsecondary campuses that receive federal financial assistance are required to comply with Section 504 provisions. These provisions mandate that postsecondary institutions not discriminate against SWD, that they take action to eliminate potential barriers, adopt grievance procedures, provide remediation for violations, and self-evaluate. Subpart E addresses accessibility and academic adjustments for SWD. It ensures equal access and opportunities as well as prohibits exclusion of qualified individuals in regards to admission, education and postsecondary experiences (Katsiyannis et al., 2009; Madaus & Shaw, 2004).

Under Section 504, postsecondary institutions are required to provide SWD modifications to academic requirements as necessary to ensure equal opportunity. “Modifications may include changes in the length of time permitted for the completion of degree requirements, substitution of specific courses required for the completion of degree requirements, and adaptation of the manner in which specific courses are conducted” (Rehabilitation Act of 1973, 104.44). Institutions may not prohibit any necessary accommodation, for which without would limit the student’s participation in the educational program or activity. Additionally, institutions must provide auxiliary aids that are necessary for achievement and provide appropriate methods for evaluating academic achievement (i.e., results accurately represent students’ achievement level) of SWD. However, postsecondary institutions are not required to provide services or aids of the personal nature nor are they required to provide modifications to academic

requirements that are determined to be essential to instruction, certification, or licensing (Katsiyannis et al., 2009; Rehabilitation Act of 1973).

Americans with Disabilities Act

Institutions, such as postsecondary campuses, are required to provide services and accommodations (i.e., reasonable academic adjustments or modifications) to SWD under ADA. This act protects from the discrimination on the basis of one's disability and ensures full and equal educational opportunity in institutional endeavors. However, institutions do not have to provide modifications that fundamentally change the nature of program requirements (Hamblet, 2017, Katsiyannis et al., 2009). It is left up to the institution to establish the standards for disability documentation from professionals. The cost of which is not required to be covered by the institution and therefore is typically left to the individual. Once documentation is obtained the institution is responsible for the cost of needed accommodations (i.e., adjustments or modification) and such must be provided in a timely manner (Katsiyannis et al., 2009).

Litigation

Outside of the two key pieces of federal legislation, several legal cases influential. Two primary issues were pertinent in hearings pertaining to SWD and postsecondary education. First, who qualifies as an individual with a disability? Second, what represents reasonable academic adjustments?

An Individual with a Disability

Defining who is an individual with a disability is subjective. Understanding the language used in laws is challenging and allows for rulings based on different standards of interpretation. Specifically, distinguishing students with actual learning disabilities (LD) from those claiming to have a disability, in order to access the perceived advantage of using accommodations, is a difficult undertaking. Four court cases are significant in regards to this issue. First, in *Price v. National Board of Medical Examiners* (1997) the plaintiff was deemed not to have a disability because their ability exceeded that of the average persons' in the general population. Yet, no comparison was made between actual performance and potential performance or ability to that of peers in similar programs. On the contrary, in *Pazer v. New York State Board of Law Examiners* (1994) the court ruled in favor of the plaintiff because the discrepancy between actual performance and potential performance, even though performance exceeded the average persons'.

Likewise, in *Rothberg v. Law School Admission Council, Inc.* (2004) the court ruled in favor of the plaintiff finding that the student's ability was "substantially limited" when compared to that of the average person's. Finally, the *Bartlett v. New York State Board of Law Examiner* (1997) case stands out because in deciding the determination of disability or not, the court embraced the Equal Employment Opportunity Commission standards (Equal Employment Provisions of the Americans with Disabilities Act, 1991). The court ruled that although the plaintiff's reading ability was that of the average persons', compared to other similar college students the plaintiff's abilities were below typical and therefore was entitled to accommodations (Katsiyannis et al., 2009).

To obtain protection under Section 504 a student with a disability must also be “otherwise qualified.” That is, they meet the requirements of the program either with or without the use of accommodations. Three notable court cases addressed this issue. First, *Southeastern Community College v. Davis* (1979) in which the court ruled in favor of the college and declared institutions may establish and maintain program standards and deny admission if a student’s disability interferes with required reasonable qualifications. Second, in *Doe v. New York University* (1981) the court ruled in favor of the university and held that denial of admission based on the risk potential of a student’s disability was not a violation of Section 504. In contrast, in *Pushkin v. Regents of the University of Colorado* (1981) the court ruled in favor of the plaintiff citing discrimination on the basis of possible risk reaction of others violated Section 504. Deciding whether a student with a disability is “otherwise qualified” should be established on whether the student can or cannot meet program standards and not based on stereotyping (Katsiyannis et al., 2009).

Appropriate Academic Adjustments

After it is identified as who qualifies as an individual with a disability, it is determined what represents appropriate academic adjustments. Laws were established to ensure that students with disabilities are offered equal opportunities in the participation of demonstrating their skills, knowledge, and abilities. As stated above, the law indicates that appropriate academic adjustments granted cannot fundamentally change the nature of program for which the student sought to participate. This was established in *Alexander v. Choate* (1985) and was further upheld and confirmed in *Wynne v. Tufts* (1991), *Guckenberger v. Boston University* (1997), and *Zukle v. Regents of the University of*

California (1999). In all four cases the court ruled in favor of the defendant, citing that the accommodation would have allowed the academic standard of the program.

Furthermore, in *Alexander*, the court defined “otherwise qualified” as including “the ability to meet a standard or participate in a program with reasonable modifications or accommodations” (Katsiyannis et al., 2009, p. 40). In *Wynne*, the court reiterated that although institutions have discretion in deciding academic accommodations to provide, it is still their obligation to afford reasonable accommodations and should follow careful steps in the decision-making process (Katsiyannis et al., 2009).

Impact of IDEA 2004

Although postsecondary education for SWD is not covered under IDEA, like ADA and Section 504, certain regulations impact the way postsecondary institutions provide disability services. Four areas have implications on postsecondary education: (a) documentation; (b) summary of performance; (c) transition services; and (d) learning disabilities (Madaus & Shaw, 2006b).

First, the law does not state what represents acceptable documentation and Individualized Education Program (IEP) teams have the right to opt not to reevaluate a SWD prior to their graduation from secondary schooling. Postsecondary institutions require verification of disability through documentation, thus they are challenged with assessing outdated documentation (Madaus & Shaw, 2006b).

Next, students with disabilities now receive a summary of performance (SOP) prior to their exit from secondary education. If the SOP is well developed it can benefit disability service providers by offering a list of modifications and accommodations, and

their effectiveness at the secondary level, which might be useful at the postsecondary level. If the SOP is poorly developed then it will likely be irrelevant to postsecondary disability service providers. Note, the vastly different setting of secondary and postsecondary leaves no guarantee that such modifications or accommodations will be appropriate (Madaus & Shaw, 2006b).

Third, IDEA 2004 does not require transition services to be effective before the student turns 16, which means many SWD will not be suitably prepared to transition into postsecondary education. This regulation could impact their long-term access and success at the postsecondary level. Finally, the changes to the criteria for learning disability (LD) eligibility will impact documentation for such students. Postsecondary institutions are legally allowed to mandate that students with LD be formally reevaluated to determine eligibility and the expense will be on that of the student's family. At the high cost of such evaluations many SWD will not be able to obtain new documentation and ultimately not receive access to disability service (Madaus & Shaw, 2006b).

The RISE Act

The final piece of legislation to impact postsecondary education for students with disabilities was The RISE Act. It was introduced in 2016 in an effort to help SWD succeed in postsecondary education. It amends the Higher Education Opportunity Act (HEOA) of 2008. The RISE Act focuses on the critical issues of information, accommodations, and training ("The RISE Act," 2017).

First, the RISE Act provides information related to disability services in a central location, making it easier for SWD to know and access available services in

postsecondary education. Information pertaining to disability services can be difficult to locate and frequently requires individuals to contact an institution directly to obtain. Second, the RISE Act requires postsecondary institutions to accept forms of disability documentation including an IEP, a 504 plan, a psychological evaluation, or a notice from a doctor when a student is seeking accommodations. This is in response to the problem of SWD struggling to navigate the postsecondary education system and being faced with novel, sometimes costly, requirements to acquire accommodations. Finally, many postsecondary faculty lack training and sufficient support to understand and address the needs of SWD. The RISE Act provides funding that will provide training to faculty to learn more about postsecondary SWD and their needs (“The RISE Act,” 2017).

Summary

Legislation pertaining to disability education profoundly impacts the quality of postsecondary education SWD receive. They specifically influence what qualifies a student as a SWD and specify what constitutes appropriate academic accommodations. They undeniably have the potential to alter SWD, especially those with LD, access to an equal postsecondary education.

POSTSECONDARY DISABILITY SERVICES

To meet disability law compliance, the majority of postsecondary institutions have established an office for SWD to receive services (e.g., disability support service [DSS], services for students with disabilities [SSD]; Katsiyannis et al., 2009).

Postsecondary students with LD who decide to disclose that they have a disability will do

so to their institution's disability service office. Postsecondary educational institutions have the responsibility of assisting all SWD in increasing competence in functional academic abilities (Madaus & Shaw, 2004; Katsiyannis et al., 2009). Such offices provide SWD the vital services they need to be educationally successful including ensuring students receive appropriate academic adjustments and auxiliary aids. However, many SWD are entering postsecondary education without sufficient knowledge about disability services and do not recognize that it is their responsibility for contacting disability services and monitoring their educational performance (Katsiyannis et al., 2009).

Disability service offices also support faculty in providing SWD access to learning. They do so by conveying information on legal responsibilities and assisting faculty with the delivery of accommodations. Faculty can greatly benefit in supporting SWD with the legal and procedural knowledge they acquire from disability services (Katsiyannis et al., 2009).

ACCOMMODATIONS FOR POSTSECONDARY STUDENTS WITH DISABILITIES

Accommodations, offered by disability services, provide postsecondary SWD the ability to achieve at their potential. Five recent studies have investigated the relationship between postsecondary SWD and accommodations. Four studies revealed perspectives of SWD towards the accommodation process (Kurth & Mellard, 2006), receiving accommodations (Barnard-Brak, Lechtenberger, & Lan, 2010; Timmerman & Mulvihill, 2015), and satisfaction with and effectiveness of accommodations (Kurth & Mellard, 2006; Reinschmiedt, Buono, Sprong, Upton, & Dallas, 2013). Kurth and Mellard (2006) also discovered personal themes revealed by SWD. The final study did a secondary data

analysis of the National Longitudinal Transition Study-2 (NLTS-2; Sanford et al., 2011) to identify “factors related to receipt of accommodations and services by postsecondary students with disabilities” (Newman & Madaus, 2015, p. 208).

Accommodation Process

The accommodations process refers to the steps SWD must take in order to be approved and obtain accommodations (e.g., testing, meeting with disability services, requesting accommodation from instructors). Kurth and Mellard (2006) believed an accommodation process that emphasizes disability types instead of students’ functional and contextual needs leads to inappropriate and ineffective accommodations. Through dissemination of surveys and focus groups conducted with SWD Kurth and Mellard obtained student perspectives. The survey obtained students’ *satisfaction with aspects of the accommodation process, perceived importance of factors in selecting accommodations, and perspective on effectiveness of accommodation*. Students were satisfied with all aspects of accommodation process (i.e., all mean scores > 4.0 on a 1-5 scale). The highest rating was for “confidentiality of disability” and the lowest rating was for “the way other people discuss the student’s disability with them.” For factors important to SWD in selecting accommodations mean scores ranged from 2.8-4.69. The factors students found most important were “effectiveness of accommodation,” “availability of accommodation,” “increased independence,” “ease of use,” “disability,” and “appropriateness for different tasks.” The one factor that scored below a three rating was “currently or previously used by a student.”

Receiving Accommodations

Receiving accommodations is the practice of acquiring one's accommodations in order to achieve academic success. Barnard-Brak, Lechtenberger, and Lan (2010) investigated perspectives on disclosing one's disability and strategies used in seeking accommodations. Five SWD attending a university were interviewed to gain in-depth contextual information on perceptions and experiences deemed salient. Findings revealed four central themes, *the accommodation process*, *scripting*, *making peace not war*, and *downplaying a disability status*. First, students perceived *the accommodation process* as satisfactory, recalling moments when faculty were considerate in regards to their disability and academic needs. In addition, some negative encounters with faculty were indicated, both in disclosing information pertaining to one's disability and in seeking accommodations. Although, faculty could be outstanding in providing accommodations, while others not so much, it was noted that faculty tended to lack understanding about disabilities. Second, a salient method students used to disclose their disability was *scripting* in which students planned out how to discuss their disability with faculty. Third, *making peace not war* referred to negotiating with faculty reluctant to provide accommodations. It was also revealed that students were apprehensive to report faculty non-compliance, preferring to handle situations privately. Finally, students preferred to *downplay their disability status*. Students stated, if at all possible, they would not disclose about their disability or would minimize the significance of their disability in an attempt to pass as a non-disability person.

Timmerman and Mulvihill (2015) explored and analyzed the function of academic accommodations on enhancing SWD educational success. They observed and interviewed two undergraduate students with disabilities in order to understand their perceptions and experiences using accommodations. Observations provided insight into how students functioned within the classroom environment, interacted with peers and instructors, and how they used their accommodations. The interviews provided the perceptions of students in regards to receiving their accommodations. Findings revealed three overarching themes, *time as a major obstacle*, *positive attitude*, and *perception of accommodations*. First, *time as a major obstacle* was a factor in the “increased amount of time needed to accomplish tasks,” “allotting substantially more time to reading assignments,” and “receiving accommodations such as notes and materials in a comprehensible format.” Second, *positive attitude* was apparent throughout interviews. Both students demonstrated self-advocacy and strong will to ask for what they need and be persistent. The last theme, *perception of accommodations*, denoted “appreciation for accommodations in assisting to overcome obstacles.” Peer perception was also evident in that some peers saw accommodations as a way to make class easier, and many didn’t understand why students at the postsecondary level would need accommodations. Both students perceived most professors as respectful and helpful in regards to providing accommodations. Although, it was reported that some professors were less accepting and skeptic but would still comply with providing accommodations.

Accommodation Satisfaction and Effectiveness

In order for accommodations to make the intended impact on one's education they must be effective and provide satisfaction. Reinschmiedt, Buono, Sprong, Upton, and Dallas (2013) addressed postsecondary SWD satisfaction with receiving educational accommodations through disability services, as part of their survey study. Students completed a portion of the *academic support service domain, satisfaction with services received*, of The Disability Related Service Needs and Satisfaction questionnaire. Mean satisfaction scores for sixteen accommodation types were calculated. Findings revealed mean scores for all accommodation types ranged between 3.13 (classroom accommodations) and 3.57 (assistive reading technology), meaning SWD were overall reasonably satisfied with all accommodations. It was also found that students with specific learning disabilities (SLD) had the lowest overall mean satisfactory scores of any disability type.

Kurth and Mellard (2006) also surveyed SWD about accommodations they found most effective. Those found most effective were 'note takers,' 'extended time on test,' 'adaptive technology,' and 'moving to different location in classroom,' The accommodations found least effective were 'taped text/notes,' 'mental health counseling services,' and 'copy of notes ahead of class' (however only one student reported use).

Personal Themes

As SWD voice their opinions, a better understanding of their reality becomes apparent. Kurth and Mellard (2006) discovered five themes that emerged from the focus groups of SWD. First was a *sense of belonging*; students wanted to feel accepted by their

school. Second, students wanted *access to academic information* as easily and readily as peers. Student reported instructors were unknowledgeable as to how to make accommodation for SWD or resisted students' use of accommodations and sometimes accommodations were inadequate. Third, students wanted supports that enabled independence (i.e., *supports for independence*). The fourth theme was *labeling and discrimination*. Students did not want to be labeled or discriminated against due to their disability or use of accommodation. Lastly, students expressed *self-determination*. Students communicated a "willingness and confidence in their ability to overcome the difficulties and achieve their academic goals" (p. 81).

Receipt of Accommodations and Services

SWD are the receipts of accommodations and services at the postsecondary level. Newman and Madaus (2015) ran a regression analyses "to explore the independent relationship of student characteristics and school experiences with receipt of disability-specific postsecondary accommodations, modifications, and supports" (p. 212). First, Newman and Madaus found that approximately 70% of the SWD were students with LD and that overall only 15%-25% of SWD had received accommodations or disability-specific services at their postsecondary institution. Furthermore, results indicated that students with LD were less likely than most other disability groups (i.e., hearing, visual, physical, autism, deaf-blind, ADHD, or multiple disabilities) to receive accommodations or support; the exception being students with speech and language disorders. The only demographic characteristic found to be significant was household income (i.e., a student's family socio-economic status [SES]). Students from households with an annual

income of more than 50,000 were more likely to receive services and accommodations than students from households with an annual income of less than 25,000. Finally, Newman and Madaus found that SWD who received secondary training on the “transition planning process were more likely to get postsecondary help” (p. 215), especially when the training “specially identified postsecondary accommodations as a needed support” (p. 215). No other characteristic or experience was significantly related to “receipt of postsecondary accommodations and other disability-specific services” (p.215).

Summary

Majority of postsecondary SWD are not receiving accommodations or service and those that do are challenged with using accommodations to receive an appropriate education. Although, they have mostly positive experiences and satisfaction with accommodations, they still have negative associations including not being understood, obstacles in receiving accommodations, and not wanting to be recognized as a student with a disability. Postsecondary students with SLD being the least satisfied with accommodations they receive. Additional research has explored the relationship between postsecondary students with LD and accommodations.

POSTSECONDARY STUDENTS WITH LEARNING DISABILITIES

Students with LD only attend four-year postsecondary institutions at half the rate of non-disability peers and are less likely to graduate when they do attend. As students with LD make the transition into postsecondary educational environments they are responsible for being proactive in seeking out needed supports and accommodations by

disclosing they have a disability (Horowitz, 2017). Factors that effect students with LD ability to function successfully in postsecondary educational environments, besides the use of accommodations, include self-advocating, the decision to disclose one's disability, the impact of one's diagnosis on performance and their experiences as a student with LD.

Self-Advocacy

Self-advocating involves students with LD understanding their needs and learning style and being able to explain them to ask and receive accommodations. Further, students with LD who use accommodations along with self-regulation skills (i.e., set goals, organize how to accomplish goals, and monitor and adjust behavior and cognitions) increase their likelihood of being academically successful. Such skills can be taught, supported, and practiced in postsecondary institutions and result in students remaining in school (Horowitz, 2017).

Postsecondary SWD have the right to an appropriate accommodated education. However, to ensure such experience occurs SWD must be assertive in requesting needed accommodations. Self-advocacy can decrease postsecondary SWD likelihood of dropping out of school and enable them to become more independent adults (Roessler, Brown, & Rumrill, 1998).

An intervention study of self-advocacy training for postsecondary SWD showed that when specifically taught self-advocacy skills SWD significantly increased self-advocacy behaviors. Through a series of seven lessons, which specially taught the 17 self-advocacy behaviors, SWD showed positive effects for acquisition, generalization,

and maintenance (Roessler et al., 1998). As presented in the article the following figure displays the lessons and target self-advocacy behaviors (Roessler et al., 1998, p. 4-5).

Figure 2.1: Target Self-advocacy Behaviors

1. **Introduction:** greeting, name, and reference to the class they were taking
2. **Disclosure:** statement of disability, presented in functional terms
3. **Solution:** previous accommodation(s) used, benefit, and statement of desire to use similar accommodations in this class
4. **Resources:** explanation of sources for accommodations and what the student will do to implement them
5. **Agreement:** a question as to the acceptability of accommodations and arrangements and a statement of affirmation
6. **Summary:** restatement of accommodations, what the student will do, and what the professor's role of responsibility will be
7. **Closure:** general positive statement and expression of appreciation

For students with LD essential components to self-advocacy include a sound understanding of their academic strengths and limitations as well as how accommodations facilitate their learning. Strengthening students' with LD knowledge and skills necessary for successful self-advocacy can increase their probability of postsecondary program completion (Skinner, 1998). Self-advocacy is only relevant if students with LD decide to disclose that they have a disability in order to receive accommodations and services.

Disability Disclosure

Only 24% of postsecondary students with LD are disclosing that they have a disability. A main reason is postsecondary students with LD hold the misconception that they no longer have LD. Almost 70% of students with LD did not disclose to their

institution for this reason. Only 7% said they still considered themselves to have LD but chose not to disclose. Reasons behind the lack of disclosure include: (a) wanting to establish a non-disability identity status; (b) not wanting to be perceived as unintelligent or lazy; (c) fear of negative reactions from instructors because they lack knowledge of students with disabilities and disability law; (d) not realizing the importance of accommodations to academic success; (e) lack of knowledge about available disability services; and (f) lack of paperwork needed to receive accommodations (Horowitz, 2017).

Diagnoses and Performance

Students with LD who decide to disclose about their disability can then be understood in the context of their diagnosis and performance. Sparks and Lovett (2009) described students with LD at the postsecondary level in their article *College Students with Diagnoses: Who Are They and How Do They Perform*. They did a review of literature pertaining to postsecondary students with LD to determine criteria used to classify student participants as LD and to determine cognitive and achievement characteristics of such students. Sparks and Lovett analyzed articles matching their inclusion criteria, plus effect size for test scores were calculated, comparing students with LD to students with no disability. First, they found that postsecondary students with LD who participated in studies were classified under twenty-three different criteria. Of studies that reported classification criteria, the most common method was test score discrepancy, specifically IQ-achievement discrepancy. Other significant methods included participants receiving services through an office for disability services and classified according to an organizations definition (e.g., National Joint Committee on

Learning Disabilities). Next, of the studies that reported a cognitive ability measure (i.e., intelligence test), findings revealed postsecondary students with LD had weighted mean scores for *Full Scale IQ*, *Verbal IQ*, and *Performance IQ* all in the average range.

Findings on academic achievement test indicated that postsecondary students with LD had average mean scores for reading, writing, spelling, and mathematic measures, with many students' mean scores exceeding the 50th percentile. Finally, effects sizes showed a negative effect of LD status. Verbal IQ and Performance IQ showed small negative effects, while Full Scale IQ showed moderate negative effects. Large negative effects were shown for reading comprehension, reading, and spelling and very large negative effects were found for word recognition and spelling skills.

Comparison to Students without Disabilities

To further understand the experience of students with LD than can be compared to students without disabilities. A recent study by McGregor, Langenfeld, Van Horne, Oleson, Anson, and Jacobson (2016) investigated the university experiences of postsecondary students with LD. By comparing students with LD to students with no disability they were able to capture the effect of having LD on the university experience. Notable findings were students with LD and those with no disability had no difference on *goals for their university experience*, yet students with LD faced greater *difficulty with assignments*, greater *skill-based obstacles to success*, more *faculty contact outside the classroom*, and overall less *satisfaction with their university experience*. It was also found that students with LD had greater *engagement in class*. However, all effects were small. They also found variation between students with LD who received accommodations and

those who did not. Again, effects were small but did show those students with LD who received accommodations had less *difficulty with assignments* and more *faculty contact outside the classroom*.

Heiman and Precel (2003) compared students with LD to students without LD on *academic studies, learning strategies, coping during examination, and factors that encourage success*. For *academic studies*, the highest percentage of students with LD reported difficulty with mathematics/sciences and the lowest percentage reported difficulty in foreign language. Students without LD reported the same however, more students without LD reported difficulty with mathematics/sciences (72% vs. 62%) and less for foreign language (4% vs. 30%). The highest percentage of students in both groups reported difficulties were due to the amount of content to study and memorize; percentage was higher for students without LD (54% vs. 41%). Students with LD also found difficulties to be due to writing problems (36%). On the contrary, the highest percentage of students with LD reported no difficulty with mathematics/sciences (51%) and humanities/social sciences (52%) while the highest percentage of students without LD reported no difficulty with humanities/social sciences (72%). Both groups of students had low percentage of students report no difficulty with foreign language (No LD, 4%; LD 6%). Both groups of students had the highest percentage of students report no difficulty was due to content being interesting; percentage was higher for students without LD (79% vs. 57%). More students with LD than without LD also reported no difficulties was due to less reading required (14% vs. 4%). Next, for *learning strategies*, both groups of students used writing strategies most often but students without LD did so

more frequently (57% vs. 44%). The same was true for repeatedly studying material to memorize (35% vs. 30%). To help students understand content, both groups of students reread material (No LD, 36%; LD, 39%) and wrote notes (No LD, 44%; LD, 38%) most frequently. In addition, students with LD also preferred oral explanations (17% vs. 1%) while students without LD preferred written examples (26% vs. 8%). Then, for *coping during examination*, both groups of students most frequently had thoughts about the difficulty of content but students with LD did so more often (49% vs. 39%). Both groups of students had the lowest percent on problems concentrating however, students with LD did so more frequently (11% vs. 2%). Both groups of students had feelings of emotional stress very frequently but again, students with LD did so more often though (88% vs. 77%). The biggest difference was students without LD more often had physical complaints (23% vs. 5%). While almost no students without LD reported special conditions or past experiences helped during exams, almost all students with LD reported special conditions to be helpful (92%). Both groups of students found external factors (No LD, 42%; LD, 53%) and exam being too difficult (No LD, 51%; LD, 54%) to impede success. The highest percentage of students in both groups reported relation helped to overcome stress (No LD, 40%; LD, 36%). Differences occurred for special conditions and mastery of material to mitigate stress. However, more students with LD preferred special conditions (16% vs. 2%) while more students without LD found mastery of material (33% vs. 21%) to help with stress. Finally, for *factors that encourage success*, both groups of students rated the highest factors to be a good tutor, studying with

no break, high levels of motivation, and staying calm. In addition, students without LD also rated written summaries to help beneficial.

Summary

Postsecondary students with LD want the same university experience as all students do but have more difficulty finding success. They have the potential ability to succeed but show lower achievement compared to students with no disabilities. One factor is the lack of disability disclosure by students with LD in order to receive needed accommodations.

ACCOMMODATIONS FOR POSTSECONDARY STUDENTS WITH LEARNING DISABILITIES

Once a student has been determined eligible for disabilities services, as having a LD, the next step is to determine appropriate academic accommodations. Previous literature has addressed the accommodation decision-making and selection process (Lindstrom, 2007; Scott, 1994; Weis, Dean, & Osborne, 2016) and the relationship between university accommodations and academic success for postsecondary students with LD (Keim, McWhirter, & Bernstein, 1996). Further, Holmes and Silvestri (2012) examined the use of assistive technology (AT) by postsecondary students with LD.

Decision-making and Selection Process

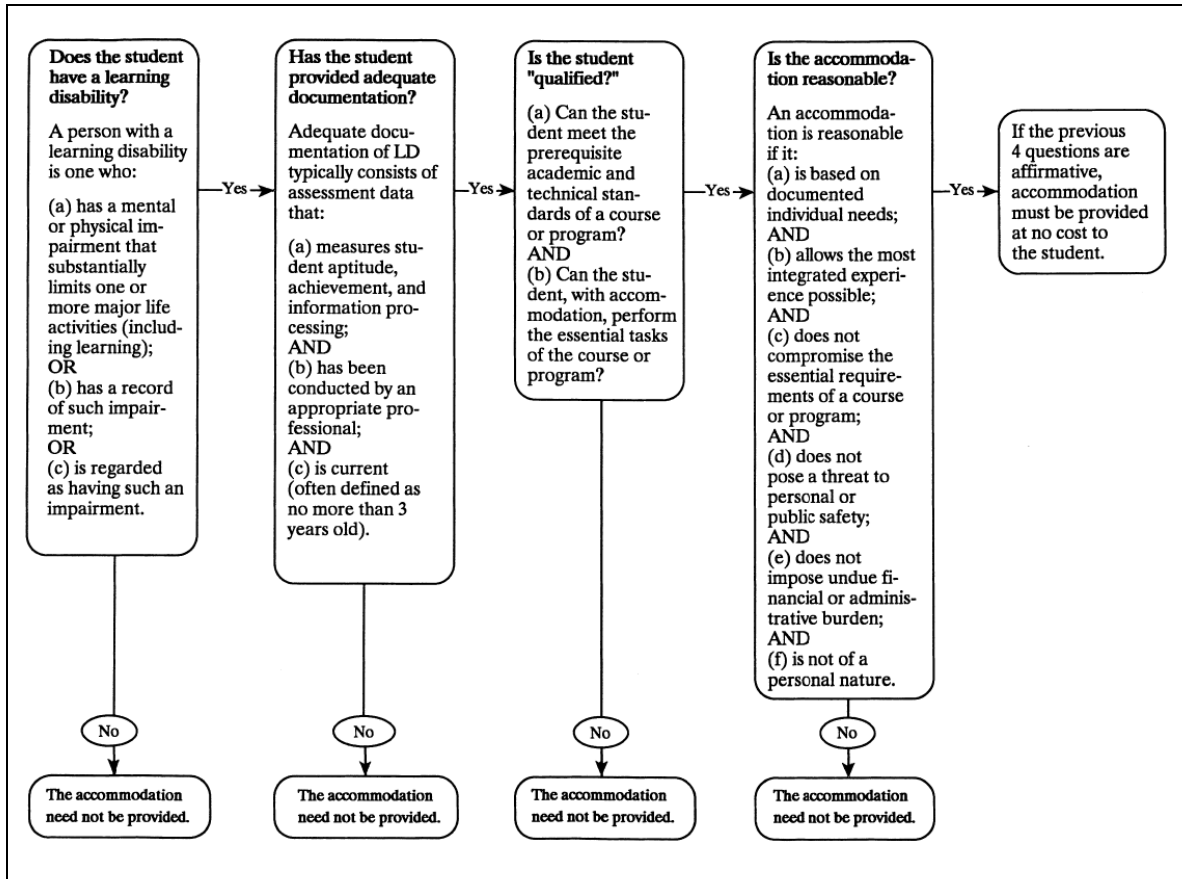
While a heavy emphasis is on recommendations based on evaluation, such documentation is not the sole manner by which professionals approve accommodations (Hatzes et al., 2002). Hatzes, Reiff, and Bramel (2002) found, in their survey of service provides of postsecondary students with LD, that the most frequent support for specific

accommodations came from a combination of documentation, professional judgment, and discussion with student. A report by Scott (1994), *Determining Reasonable Academic Adjustments for College Students with Learning Disabilities*, not only outlines the implications of disability law for students with LD, it provides guidelines for considering academic adjustment request. Next, Lindstrom (2007) published an article, *Determining Appropriate Accommodations for Postsecondary Students with Reading and Written Expression Disorders*, which provided an overview of research related to the effectiveness of accommodations and important considerations in selecting accommodations for students with language-based learning disabilities (LBLD; i.e., a specific disability in reading or writing). Finally, Weis, Dean, and Osborne (2016) published an article, *Accommodation Decision Making for Postsecondary Students with Learning Disabilities: Individually Tailored or Ones Size Fits All*, in which they examined what accommodations were recommended and how recommendations were supported by data for students with LD.

Determining Reasonable Adjustments

Students with LD require academic adjustments to ensure they receive meaningful access to postsecondary education. However, because of the board nature and obscure language of disability law little guidance is provided on how to determine reasonable academic adjustments (Scott, 1994). Scott offers an approach for weighing request for academic adjustments for postsecondary students with LD. The following flowchart provides a way to guide professionals' judgment while keeping the basic principles of disability law during decision-making process (Scott, 1994, p. 409).

Figure 2.2: Accommodation Decision Chart for College Students with LD



Selecting Accommodations

Selecting the appropriate accommodations can ensure better outcomes for students with LD. Lindstrom (2007) offered important considerations when selecting accommodations. First, Service providers should ensure accommodations recommended and the task or contexts for which they will be applied align as best as possible. This alignment, between cognitive and linguistic abilities and accommodations, enhances the prospect of effectiveness. Second, accommodations should be determined on an individual basis and based off the functional impact of the student’s disability on the

environment. She also stated it is critical to gather necessary background information on the student's prior use of accommodations. Next, use evaluation data acquired from formalized assessments, such as from a psychologist, to inform selection of accommodations. Finally, use professional clinical judgment. That is, obtain the critical knowledge necessary to appropriately identify accurate accommodations.

Weis and colleagues (2016) also examined the percentage of students with LD that met objective criteria for which supported clinicians' recommendations for accommodations. They determined that students met several different criteria that were the basis of clinician's accommodation decision: (a) history of learning difficulties (i.e., academic failure, special education placement, previous requirement of accommodations); (b) a current diagnosis of LD from a qualified professional; (c) ability-achievement discrepancy; (d) qualified based on DSM-IV or DSM-5 criteria; or (e) cognitive processing or fluency deficits. Majority of students received accommodations based off recommendations centered on a history of reading or writing difficulties in prior schooling or current diagnosis of a reading disability, while relatively few met DSM criteria or had fluency or cognitive processing deficits.

Approved Accommodations

Many accommodations are available that can be approved for SWD. Lindstrom (2007) discovered that limited empirical research had been conducted to support the effectiveness of different accommodations for postsecondary students with LBLD. She did find that the most common reading associated accommodation was 'extended time for assessments,' although only selected research supported its benefit in allowing additional

processing time of text. Other commonly selected accommodations for this population were ‘read-aloud assistance’ such as books on tape, ‘use of optical character recognition combined with speech synthesis systems,’ ‘reader for exams and class assignments,’ ‘alternative media’ such as readers or e-text, and ‘alternative technology’ such as text-to-speech or screen readers. However, research remains unclear on the effectiveness of these accommodations (Lindstrom, 2007). Even less research has been devoted to accommodations for writing. Lindstrom found the most common writing associated accommodations were ‘systems of assistive technology’ (AT), which were found effective in assisting students with proofreading, spelling, grammar, and steps in the writing process as well as transcribe text. Systems of reported AT devices included speech recognition, synthesis technology, voice recognition software, abbreviation expanders in word processors, proofreading assistance programs, and outlining software. Non-assistive technology accommodations often selected were “additional time to complete writing assignments or assessments,” “note-taking assistance,” and “oral examination,”

Weis and colleagues (2016) documented data on college students who had or were once identified as having LD to determine what accommodations were being recommended by clinicians. They divided accommodation into three categories, *testing accommodations*, *instructional accommodations*, and *modifications*. The top *testing accommodations* included “additional time,” “use of technology,” “access to a reader,” and “separate room for testing;” and the top *instructional accommodations* included “access to professors’ notes,” “special tutoring,” “recorded books,” and “preferential

seating.” Although the following *modifications* were included as accommodations by clinicians, Weis and college separated them out based on their different impact on learning. Modifications were broken up by *assignments/exams* and *grading*. Top modified *assignments/exams* included “simplified directions,” “modifications to assignments” (unspecified), “alternative formats,” and “shortened assignments”; top modified *grading* consisted of “resubmission without penalty,” “retaking of assessments without penalty,” and “different grading scale.” They also reiterate the lack of research on the actual effectiveness of common accommodations.

Accommodations and Academic Success

Accommodations have been noted to be essential in the academic success of students with LD. Keim, McWhirter, and Bernstein (1996) conducted a study of postsecondary students with LD on the relationship between accommodations and academic achievement. *Grade point average (GPA; i.e., a measure of academic achievement)* was used as the dependent variable and *advisement (i.e., a meeting with disability service personnel)*, *computer laboratory (i.e., a form of assistive technology)*, *tutoring*, and *testing accommodations* were used as independent variables. Each independent variable was measured based on a three level utilization scale (i.e., none, low, and high). First, student with LD who utilized low levels of *advisement* had greater GPAs than those students who utilized no *advisement* and those that had utilized high *advisement*. Second, students with LD who “utilized the *computer laboratory* at high levels had the highest” GPAs (p. 506). Neither *testing accommodations* nor *tutoring* had a significant relationship to GPA.

Assistive Technology

Many students with LD are approved for accommodations that are considered assistive technology (AT). AT is frequently provided to postsecondary student with LD to circumvent academic deficits they encounter (Holmes & Silvestri, 2012). Such devices (i.e., products, software, equipment, items, systems) help strengthen the functional capabilities of students with disabilities (“What is AT,” 2017). Holmes and Silvestri (2012) outlined AT service delivery practices, described the most regularly used AT, and discussed prior research on the effectiveness of AT to evade academic deficits.

In most postsecondary institutions the provision of AT is organized by the disability service office. One of two models of service delivery is typically utilized, the *distribution location model* or the *central location model*. The *distribution location model* allows students to access AT throughout the campus environment. On the contrary, the *central location model* permits students to use AT at a primarily site. Although both models have strengths, the *distribution location model* follows the principles of Universal Design for Learning (UDL; i.e., a way to provide multiple means of representation, action and expression, and engagement; CAST, 2011) and facilitates the incorporation of students with LD within postsecondary environments while research shows the *central location model* is more efficient at service delivery and has higher levels of student success and satisfaction, the *distribution location model* is the dominate model used across postsecondary institutions (Holmes & Silvestri, 2012).

According to Holmes and Silvestri (2012) the most frequently used forms of AT on postsecondary campuses include ‘audio books,’ ‘portable word processor,’ ‘word

prediction with speech output,’ ‘text-to-speech,’ ‘voice recognition,’ and ‘screen reader without optical character recognition’ (OCR). The most frequently used AT for reading are ‘text-to-speech,’ ‘OCR,’ and ‘speech synthesis systems’ and for writing are ‘speech/voice recognition,’ ‘word prediction software,’ and ‘outlining/mind mapping software.’

Holmes and Silvestri (2012) reviewed prior research on AT to understand its efficiency to remediate academic deficits at the postsecondary level. They found a dearth of research investigating the efficacy of AT. The primary source of any indication of effectiveness has come from student testimonies. The minimal research conducted, in the early 1990s, did show the use of word processing by students with LD improved their GPA, aided in their recognition of spelling errors, and increased their rate of course completion to one comparable to peers without disabilities. Further, two studies examining text-to-speech software did show positive results (Holmes & Silvestri, 2009; Raskind & Higgins, 1995). Due to the extremely limited research on the effectiveness of AT for students with LD, an advancement of understanding is hindered (Holmes & Silvestri, 2012).

Summary

It is evident the research on accommodations for students with LD is limited. There was great variability in how accommodations were selected by service providers with much of the process placed on professional judgment. Certain accommodations were recommended across all students with LD but with no empirical data to support their true

effectiveness in equalizing students learning to that of their peers. Further, there is not much data to support the impact of accommodations on students' with LD GPA.

PERCEPTIONS BY POSTSECONDARY DISABILITY SERVICE PERSONNEL

Disability service personnel are the individuals who assist students with LD to acquire accommodations. Their perspective can impact the practice of students with LD using accommodations. Several studies, since the early 1990s, have investigated the perceptions of disability service personnel pertaining to students with LD and increased enrollment (Cook, Hennessey, Cook, & Rumrill, 2007), student characteristics and academic success (Hicks-Coolick & Kurtz, 1997), transition services (Janiga & Costenbader, 2002), and service providers' practices (Yost, Shaw, Cullen, & Bigaj, 1994).

Cook, Hennessey, Cook, and Rumrill (2007) conducted a focus group of postsecondary professionals, disability service providers and faculty, to understand how they perceived the increase enrollment of students with LD at the university level. Disability service providers noted problems related to the process of determining accommodation and students receiving them. First, they expressed annoyance that "in order to protect the confidentiality of students with disabilities, they were unable to provide in-depth information on students' conditions or needs, or to engage faculty in open discussions" (p. 208). Second, Cook and colleagues believed "it was impossible to optimally individualize the letter of accommodations given their limited staffing and the number of students with LD" (p. 209). They also found the lack of self-advocacy by students with LD particularly problematic because such skills were necessary.

Hicks-Coolick and Kurtz (1997) interviewed directors of LD support services to understand characteristics of postsecondary students with LD that contribute to their academic success. Directors revealed three interrelated factors differentiated successful students with LD from those unsuccessful. First, *motivation* is a significant factor in the achievement of students with LD. Motivation is comprised of students who are goal oriented, determined, have perseverance, are self-disciplined, and have a willingness to work hard. Second, *preparation* is a crucial factor. Successful students have a sound academic background (i.e., postsecondary preparation during secondary schooling), knowledge of study skills, compensation techniques, and of their learning style, and have time management skills. Finally, successful students with LD *self-advocate*. Directors indicated that these students have self-awareness and self-acceptance, have knowledge of policies, laws, and recourses, and have assertiveness and problem-solving skills.

Janiga and Costenbader (2002) surveyed postsecondary disability service coordinators to understand their perception of high school transition services for students with LD. Overall coordinators had satisfaction with transition services. Positive aspects indicated were most students had “current assessment” prior to enrollment and students generally “enrolled in degree programs for which they had a high likelihood of success.” However, coordinators were dissatisfied with students’ “self-advocacy skills,” how well students had been “informed of available postsecondary services,” and “documentation received by students on specific accommodations they needed.” Many coordinators “believed that there were large numbers of students with LD who failed to seek out service” (p. 467). Coordinators also provided suggestions to improve transition services

for students with LD. The most notable include: (a) improving students' self-advocacy skills; (b) increasing students' self-understanding of their disability and needs; (c) increasing students' knowledge on laws; (d) providing more quality assessment (i.e., adequate documentation); and (e) increasing students' use of AT.

Yost, Shaw, Cullen, and Bigaj (1994) sent disability service providers a questionnaire to complete. Questions were related to the frequency at which service providers utilized certain practices. Notable results include two-thirds responded that *working towards independence* was a goal, while the remainder said it was not a priority. The topic practice used amongst service providers was *tutoring in a specific subject area*. Other highly utilized practices were *addressing self-advocacy skills* and *note-taking modifications* (e.g., note taker, recording lecture, etc.). In addition, questions obtained attitudes of service providers related to students with LD. According to over 90% of service providers, postsecondary students with LD should be *able to describe needed accommodations* and *describe learning disability* to instructors.

PERCEPTIONS BY POSTSECONDARY INSTRUCTORS

Postsecondary instructors play a critical role in the learning and success of SWD. The perceptions they hold towards SWD can impact the acquisition of accommodations for such students. It is the responsibility of the student to acquire their accommodation letter and present it to their instructor. In doing so, they made the decision to disclose they have a disability and seek needed accommodations from their instructor. At that point receiving an equal learning experience is left in the hands of the instructor to provide the requested accommodations. Some research has focused on understanding the

attitudes instructors have towards SWD in regards to accommodations and their knowledge of disability laws and policies. Furthermore, studies have investigated instructors' perceptions of students with LD including provisions of accommodations, course alternatives, knowledge level, and advocacy stance.

Students with Disabilities

Three studies investigated instructors' perceptions related to SWD. First, Leyser, Vogel, Wyland, and Brulle (1998) surveyed faculty about their attitudes and practices towards SWD as well as examined faculty knowledge pertaining to disability, services, and disability legislation. They also made comparison to faculty surveyed a decade before. Second, Sniatecki, Perry, and Snell (2015) surveyed faculty to determine their attitudes concerning college SWD and their knowledge about services for SWD and provisions of accommodations. Finally, West, Novak, and Mueller (2016) surveyed instructors to discover their attitudes regarding inclusive instructional practices and their perceived importance of such practices. Furthermore, West and colleagues examined how confident instructors were on their knowledge of disability laws and policies.

Attitude and Knowledge

Leyser and colleagues (1998) were interested in faculty attitudes and practices towards SWD. First, over 80% of faculty reported having *limited contact with SWD in higher education*. However, about half of faculty reported most contact was with students with LD. Almost half of faculty reported *limited knowledge and skills for making requested [providing] accommodations*. Yet, almost 90% of faculty were *willing to*

provide accommodations. About half of faculty were *unfamiliar with campus resources and services for SWD* and over 80% said they had *limited or no contact with services providers*. Furthermore, over 80% of faculty said they had *limited or no training in the area of disability*. When asked about areas they would like more training, few faculty reported an interest. Only 20% had an interest in legal issues, while just over 30% indicated an interest in programs and services and test accommodation, and about 40% wanted training on classroom accommodations. Faculty also reported wanting additional information pertaining to disabilities and services and reported a need for SWD to be trained and encouraged to contact instructors prior to the course beginning.

When Sniatecki and colleagues (2015) surveyed faculty to assess their attitudes and knowledge regarding SWD they found faculty, in general, held positive attitudes about SWD. Although, they tended to have more positive attitudes towards students with physical disabilities over students with LD. Faculty also had strong beliefs that SWD had *potential to be successful and competitive*, again favoring students with physical disabilities over LD. It was also found that some faculty, though a relatively small proportion, had negative attitudes related to the *provision of accommodations* and that most faculty are uncertain as to *how students qualify for accommodations*. Faculty overall demonstrated they lacked *knowledge pertaining to policies and procedures for SWD*, specifically they reported having uncertainty about *how ADA applies to SWD* and majority of faculty had misconceptions about *disability service for SWD*. The survey also revealed faculty believed they were *sensitive to SWD needs* and had strong *interest in being provided professional development related to assisting SWD*. Overall, their

findings suggested that faculty would benefit from trainings and additional information pertaining to accommodations and disability services for SWD.

West and colleagues (2016) surveyed instructors, all housed in the College of Education. Six subscales of attitudes (i.e., perceived value in a practice) and actions (i.e., enact a practice) were analyzed and an effect size across attitude and action gap (i.e., difference between rated attitude and action) was calculated. They found *accommodations* had low overall means for both attitudes and action and *multiple means of presentation* had somewhat low overall means for both, while the standard deviations for both subscales were large. The other four subscales, *inclusive lecture strategies*, *campus resources*, *inclusive assessment*, and *accessible course materials*, all had higher means with lower standard deviations. Three subscales had negative effect sizes, indicating stronger orientation to attitude versus action. They include *multiple means of presentation*, *accommodations*, and *inclusive assessment*. Two subscales had strong positive effects sizes, *inclusive lecture strategies* and *accessible course materials*, indicating stronger orientation to action versus attitude. *Campus resources* had a low positive effect indicating that attitude and action were relatively equal.

Disability Law and Policies

West and colleagues (2016) also surveyed instructors to determine their confidence in their knowledge of disability law and policies and perceived responsibilities related to SWD. Their survey consisted of questions starting with “I am confident in.” A little under half of instructors responded they were not confident in their *understanding of ADA*, *universal design*, and the *legal definition of disability*, while over

half answered they were not confident in their *understanding of Section 504*. Majority of instructors said they had confidence in their *knowledge to provide adequate accommodations to SWD* and confidence in their *responsibilities as an instructor to facilitate such accommodations*.

Leyser and colleagues (1998) asked faculty about their familiarity with disability legislation. They found that 40% of faculty had *no familiarity with ADA* and about 25% had limited, while almost 70% had *no familiarity with Section 504* and about 15% had limited.

Decade Comparison

Over time faculty experiences and knowledge can change, in this instance in terms of SWD and students with LD. Leyser and colleagues (1998) compared responses of College of Education faculty to those of faculty from about 10 years earlier. More faculty in 1985 reported having experience with SWD in higher education (87% vs. 48%) but more reported experience with students with LD in 1996 (62% vs. 33%). More faculty in 1996 had training related to disabilities (60% vs. 45%) but faculty from 1985 reported being more familiar with disability laws (85% vs. 57%).

Students with Learning Disabilities

Several studies were conducted looking more specifically at students with LD and instructors' perceptions. Three studies from the 90s examined faculty perspectives towards students with LD and willingness to provide accommodations to students with LD (Houck, Asselin, Troutman, & Arrington, 1992; Nelson, Dodd, & Smith, 1990;

Vogel, Leyser, Wyland, & Brulle, 1999). More recently five studies have investigated instructor knowledge and perspectives pertaining to students with LD and the provision of accommodations for such students (Bourke et al., 2000; Cook et al., 2007; Murray et al., 2008; Skinner, 2007; Sweeney et al., 2002).

Provision of Accommodations

The provision of accommodations refers to instructors providing accommodations requested by students. Nelson, Dodd, and Smith (1990) send a questionnaire to over a hundred faculty from a university's College of Education, Arts and Sciences, and Business departments to compare the willingness of faculty to accommodate students with LD across the three divisions. The questionnaire divided accommodations into four categories: instructional, assignments, examination, and special assistance. Across all types of accommodations faculty in the College of Education had the highest percentage of willingness to provide, except for one. Both faculty in Business and Arts and Sciences were more willing to *analyze the process as well as the final solution* (e.g., math problem). Almost all faculty had a willingness to *allow students to tape-record classroom lectures*. All faculty in College of Education were willing to *allow students the use of proofreaders to assist in correction of grammar and punctuation*, while only about three-fourths of other faculty were. Other accommodations faculty were pretty willing to provide (i.e., over 75%) were *provide detailed syllabus, allow student extra exam time, allow student to dictate exam answers to proctor, allow student to respond orally to essay questions, allow student to use basic calculator on exam, and allow proofreader to assist in reconstructing student's first draft of written assignment*. Low percentage (i.e., 50% or

less) of faculty were willing to *allow students alternative assignments, allow student extra credit when not an option for other students, and allow misspellings, incorrect punctuation, and poor grammar, without penalty*. Business faculty tended to have the lowest willingness to provide assignment and examination accommodations, while Arts and Sciences faculty had the lowest willingness to provide special assistance accommodations.

Houck, Asselin, Troutman, and Arrington (1992) interviewed faculty and student with and without LD to understand perceptions towards students with LD. Faculty perspectives that were notable regarding accommodations include their tendency to agree with *professors are willing to make course-related accommodations for learning disabilities, such as note takers and taped lectures and oral and untimed test and special course-related accommodations provided to students with learning disabilities are fair to other class members*.

Vogel, Leyser, Wyland, and Brulle (1999) surveyed faculty about their attitudes and willingness to provide accommodations to students with LD. Their findings revealed faculty were most willing to *allow students to tape-record lecture*. Other accommodations that a high majority of faculty said they were willing to provide were *clarify/review lecture or assignments and comment of drafts of papers*. Just over half of faculty had a willingness to *assist in preparing for exams and provide copy of lecture outline*. Less than half of faculty had a willingness to *allow students to complete assignment in alternative format*. When asked about exam accommodations a high majority of faculty were willing to *allow exams proctored in a supervised location other*

than classroom, allow students additional time to complete exam, allow word processor during exam, and allow spell checker during exam. Low levels of faculty willingness were found for *provide paraphrased test questions* and *provide alternative format of exam*. When asked about the fairness of providing accommodations to students with LD, 68% of faculty indicated teaching accommodations were very fair while 63% of faculty said exam accommodations were very fair. Very few said accommodations were not fair.

Bourke, Strehorn, and Silver (2000) surveyed faculty members to determine their ease or difficulty implementing accommodations. Findings revealed, as faculty have greater belief that *accommodations help students with LD succeed*, they also had higher *understanding the necessity of accommodations* and it was easier for them to provide the accommodations of ‘alternative exams’ and ‘additional completion time for assignments.’ Additionally, as faculty were more knowledge about *understanding the need for accommodations* the easier it was for them to provide ‘alternative exams’ and ‘additional completion time for assignments.’ It was also found when faculty had higher levels of *perceived support*, from either the Learning Disabilities Support System (LDSS) or their own department, the higher their reported *understanding the need for accommodations*, *accommodations help students with LD succeed*, and *sufficiency for implementing accommodations*, as well as higher ease providing ‘alternative exams,’ ‘untimed exams,’ ‘proctored exams,’ ‘additional completion time for assignments,’ or ‘copies of notes or outlines.’

Sweener, Kundert, May, and Quinn (2002) surveyed instructional faculty at a community college. Overall, faculty reported a neutral level of *comfort providing*

accommodations. However, majority faculty indicated a willingness to provide such accommodations as ‘tape recorded lectures,’ ‘notetakers,’ ‘additional time to complete assignments,’ ‘use of calculators or spelling dictionaries during class or tests,’ and ‘take exams in different rooms.’

Skinner (2007) surveyed faculty members about their disposition on the provision of accommodations. They found for *willingness to provide examination accommodations* faculty were willing to provide ‘extended time,’ ‘alternative location,’ ‘calculator,’ and ‘laptop computer,’ For the other types of *examination accommodations*, ‘alternative formats,’ ‘writing mechanics,’ ‘reader,’ and ‘scribe,’ faculty responded neutral. Findings showed for *willingness to provide instructional accommodations* faculty were willing to provide ‘tape recorders,’ ‘note takers,’ ‘laptop,’ and ‘early syllabus,’ Faculty were neutral on providing ‘instructors notes,’ ‘extended deadlines,’ and ‘alternative assignments’ while they were unwilling to provide ‘extra credit.’

Likewise, Murray and colleagues (2008) surveyed staff members about their disposition on the provision of accommodations. Their findings for *willingness to provide accommodations* indicated that majority of staff were willing to “provide various types of accommodations,” “spend extra time with students,” “make appropriate accommodations,” “read paperwork and forms to students,” and “remind students of scheduled appointments.” Although, a large percent of staff responded that they “did not have sufficient knowledge to make accommodations.” Only about half of staff members indicated a willingness to “prepare tape-recorded versions of paperwork and forms.”

As stated earlier, Cook and colleagues (2007) asked faculty (as well as disability service providers) to discuss their perceptions towards students with LD in postsecondary education. Significant themes emerged were related to instruction, accommodations, characteristics of students with LD, and disclosure. First, participants indicated they *lacked knowledge of individualized instructional techniques such as those of Universal Design for Learning (UDL) and that instructing students with LD would probably not increase their understanding and utilization of effective instructional techniques.* Faculty discussed several techniques perceived to benefit students with LD. They emphasized attempting to *make instruction simple and intuitive*, which they also believed applied to students without disabilities. *Individualized instruction* and *focusing on work relevant to students* were also conveyed. Overall, faculty suggested such instructional techniques were positively impacting students with LD. Yet, they indicated effective instructional practices were not the norm of faculty across the university and that barriers prevented students with LD from receiving effective instruction. Pertaining to accommodations, some faculty viewed *accommodation letters as irrelevant*. Some faculty revealed that not all instructors provided accommodations even when officially requested by a student and that they felt other faculty perceived students with LD as “unfairly taken advantage of the system by receiving accommodations” (p. 209). They believed this was due to lack of information. However, participants indicated that *accommodations did not inequitably benefit students with LD*. It was also revealed that dialogue between instructor and student was critical to students receiving classroom accommodations.

Course Alternatives

One accommodation that can be approved for students with LD is course alternatives (i.e., replacement courses for required courses). Skinner (2007) also surveyed faculty to determine their agreement with *allowing students to take alternative courses to fulfill mathematics and foreign language requirements* and found that all types of faculty were neutral on this issue. However, Murray and colleagues (2008) asked staff if *substitute courses* would be appropriate and over 70% indicated agreement.

Knowledge and Advocacy

Faculty knowledge pertaining to students with LD can influence the overall practice of students using accommodations as well as their stance towards advocacy. Faculty in the study conducted by Houck and colleagues (1992) also indicated their agreement with *professors would like additional information on: university referral procedures, university support services, and nature and needs of college students with learning disabilities*. Notable statements that faculty indicated uncertain include *having a learning disability limits the selection of an academic major* and *students with learning disabilities are able to compete academically at the university*. One statement faculty tended to disagree with was *the presence of a learning disability limits students' involvement in the nonacademic aspects of campus life*. Of faculty who provided suggestions for students with LD over half stated, "students should let the professor know about the disability" (p. 682).

Faculty from Cook and colleagues' (2007) study frequently stated *students with LD lacked aptitude or skills*. They also indicated *students with LD tend to not disclose*

information about their disability and they *lack self-advocacy skills*. Instructors felt students with LD didn't want to associate or self-identify as a student with LD or didn't want the instructor to know. Participants generally thought non-disclosure was out of necessity and provided recommendations for increasing disclosure rates, such as students having a better understanding of their rights.

In addition to identifying staff members' willingness to provide accommodations Murray and colleagues (2008) found staff members' *general knowledge* about students with LD, *willingness to advocate* for student with LD, and *knowledge of services* for students with LD, as well as *interest in professional development*. Finding for *general knowledge* indicated that staff perceived themselves as "knowledgeable about students with LD" and that "students with LD have potential to be successful and competitive." Staff also felt they were "sensitive to students' with LD needs" but were "uncertain how students qualify as LD." Finally, staff responded that they were "unfamiliar with Section 504 and ADA." Majority of staff specified they were "willing to advocate for students with LD." Specifically, would direct students on processes and procedures, assist students in securing accommodations, and help students solve problems. Approximately half of the staff reported they were "knowledgeable about services for students with LD" but had "no foundation for making such judgment as to when a student is eligible to receive services." Almost half of staff responded they were not "knowledgeable on how to find supplementary support services." Finally, majority of staff indicated "additional information on referral processes and procedures" would be beneficial and indicated an interest in "attending a training to learn more about students with LD."

Summary

Postsecondary instructors, for the most part, have positive attitudes and decent knowledge about SWD and their capabilities, specifically students with LD. They tend to recognize the importance of accommodations but are inadequate on their understanding of qualification and provision of accommodations. Instructors showed willingness to provide certain accommodations for both exams and in class but research lacks on how effective implementation of accommodations actual is. There is also a lack of knowledge by instructors on how laws and policies play a role in postsecondary education for SWD. Instructors could use a more complete understanding of SWD, specifically student with LD, and how accommodations serve them.

PERCEPTIONS BY POSTSECONDARY STUDENTS WITH LEARNING DISABILITIES

One of the most impactful aspects of students with LD using accommodations is the perception of students with LD themselves. Previous research has investigated the perspectives of students with LD at the postsecondary level (Cawthon & Cole, 2010; Denhart, 2008; Garner, 2008; Hartman-Hall & Haaga, 2002; Houck et al., 1992; May & Stone, 2010; Orr & Goodman, 2010; Quinlan, Bates, & Angell, 2012; Skinner, 2004; Sweeney et al., 2002). Most studies collected data by conducting interviews with students with LD (Denhart, 2008; Garner, 2008; Houck et al., 1992; Quinlan et al., 2012; Orr & Goodman, 2010; Skinner, 2004). Other studies used questionnaires (May & Stone, 2010), surveys (Cawthon & Cole, 2010;) or assessments (Hartman-Hall & Haaga, 2002) to acquire information from students with LD. Findings from the studies pertained to shared experiences, self-perceptions and comparison of perspectives, accommodation process,

perspectives of facilitators and barriers to receiving accommodations and facilitators and barriers in achieving a postsecondary education.

Shared Experiences

Many students with LD have similar postsecondary experiences. Denhart (2008) revealed five experiences shared by students with LD. First, most students spoke of *working harder than nonlabeled others*. That is, they indicated taking significantly longer than peers without disabilities to complete the same assignments. Next, students indicated the *workload* (i.e., excessive working beyond that of peers) *was unrecognized* [by professors] and that the excessive workload did not generate commensurate products. The last two shared experiences were *viewing the college LD specialist as crucial to success*, specialist could build empowerment and recognize students' perspectives and workload, and *having rapport with others labeled LD*. Students reported communication between students with LD flowed easily.

Orr and Goodman (2010) interviewed students with LD and found five themes of experiences shared by participants. The most mentioned experience was *the emotional legacy of learning differently*. Specifically, “the lasting impact of a learning disability on participants' emotions, identities, and self-concepts” (p. 217). Next, all participants indicated *the importance of interpersonal relationships and social connectivity* (i.e., close connections with family, friends, and teachers, involvement in extracurricular activities). The last three themes, although emerged, had low frequency. They include *student-owned characteristics and strategies for success, barriers to success, and issues of diagnosis, disclosure, and identity* (not discussed in article).

Perspectives

The perspectives that students with LD hold of themselves can impact their willingness and ability to seek and obtain accommodations. Furthermore, the perspectives of students without LD can impact students' with LD use of accommodations.

Self-perception

Hartman-Hall and Haaga (2002) conducted a study to understand postsecondary students' with LD perceptions of themselves and their willingness to seek services. The authors collected their data through the use of the Personal Characteristics Rating Scale (PCRS; Dunn, 1995), the Self-Perception Profile for College Students (SPPCS; Neemann & Harter, 1986), the Self-Perceptions of One's Learning Disability (SPLD; Heyman, 1999), and written and audio hypothetical situations. Looking at students' self-perceptions, on the PCRS, which rates students' *perception of academic and social skills* (higher scores indicated greater skill level), participants had an average score of 246 out of 370, approximately a 66. The SPPCS was broken into four parts, all with a max score of four (lower scores indicated lower self-perceptions on competence and adequacy). All averages were above two (*global self-worth, 2.9; intellectual ability, 2.9; scholastic competence, 2.6; social acceptance, 3.0*). On the SPLD, which measures "the degree to which students perceive their LDs as circumscribed, modifiable, and nonstigmatizing vs. global, not subject to change, and stigmatizing" (p. 266), participants had an average score of 18.4 out of 24, which indicated perception were closer to *seeing ones' LD as circumscribed, modifiable, and nonstigmatizing*.

Comparison of Perspectives

Houck and colleagues (1992) interviewed student with and without LD, in addition to faculty, to understand perceptions about students with LD. Overall, no significant differences were found between students with LD and students without LD. A difference did appear for *special course-related accommodations provided to students with learning disabilities are fair to other class members*, with students with LD indicating agreement and students without LD indicating uncertainty. Both student groups tended to disagree with *having a learning disability limits the selection of an academic major* and *the presence of a learning disability limits students' involvement in the nonacademic aspects of campus life*. Students without LD had uncertainty to remaining statements. Compared to instructors, students with LD had less agreement with *professors are willing to make course-related accommodations for learning disabilities, such as note takers and taped lectures* and *professors are willing to make course-related accommodations for learning disabilities, such as alternate or extra-credit assignments*. However, students had stronger agreement with *students with learning disabilities are able to complete a degree program at the university compared*. Approximately 75% of students with LD responded that their greatest concern was about university environment. Statements included, “lack of understanding of learning disability and what students with learning disabilities must deal with,” “nondisabled students’ lack of understanding for the need of special accommodations,” and “professors’ unwillingness to make accommodations” (p. 682).

May and Stone (2010) asked postsecondary students with and without LD to complete a questionnaire about stereotypes regarding postsecondary students with LD. Responses were separated into categories. Categories were formed based on student responses indicating misconceptions towards students LD. The first category, *low intelligence* (i.e., students with LD have intellectual disability or are incapable of learning), was indicated by 52% of students with LD but only 38% of student without LD. Next, *compensation possible* (i.e., students with LD have more difficulty learning or are slower so require aid to reach full potential) and *process deficit* both had low and close frequency of responses from students with and without LD, all under 15%. *Nonspecific insurmountable condition* (i.e., “low expectations for students with LD,” p. 489), the fourth category, was only indicated by 3% of students with LD but 22% of students without LD. The fifth category, *working the system* (i.e., students with LD are lazy or taking advantage of the system by using accommodations), had low response frequency by both groups but still indicated by students with LD considerably higher (13% vs. 5%). The final category, *other*, included idiosyncratic responses such as students with LD lacked knowledge. May and Stone also asked participants about their perspective of theory of intelligence (i.e., entity, incremental, neither). Both students with LD and students without LD had similar response frequency for incremental (55% vs. 50%) but differed on entity (42% vs. 28%) and neither (3% vs. 22%). Almost a fourth of students without LD indicated neither theory of intelligence while almost all students with LD indicated one of the theories.

Accommodations Process

As stated earlier, the accommodations process are the steps students go through to be approved for and obtain accommodations. Denhart (2008) also asked students about their perception of “the accommodation process including testing.” She found five themes that emerged. First, students reported both *positive and negative experiences being tested*. Negative remarks revealed students felt physical and emotional pain such as cognitive exhaustion. The second emerged theme was students were *surprised at being labeled LD*. Some students attributed being lazy or stupid as to why they experienced academic difficulties. The last three themes that emerged were the *validation of intellect by being labeled LD, not receiving adequate information from the testing process, and reluctance to use accommodation*. Reasons indicated, as to why students were reluctant, included not feeling like they deserve accommodations, that using them was slacking or a failure, scared to ask for them, and not wanting to appear different or inferior. Also several students indicated that by using accommodations they felt the work accomplished with them was devalued.

Receiving Accommodations

Once students are approved for accommodations comes the act of actually receiving them. Sweeney and colleagues (2002) not only examined instructors’ comfort with providing accommodations they also surveyed students with LD to determine their comfort with asking for accommodations. Overall, students were at a neutral comfort level but were generally comfortable asking for ‘additional time to complete assignments,’ ‘proctor to rephrase question,’ ‘lecture notes,’ and ‘extra credit

assignments.’ Accommodations students felt more uncomfortable asking for where ‘videotaped lectures,’ ‘alternative testing forms,’ ‘oral rather than written exams,’ and ‘partial credit on wrong answers.’ The comfort level students had with asking for accommodations impacted how well they gained access to their education.

One of the themes identified by Skinner (2004) was *importance of accommodations and course alternatives*. He found all students received accommodations and most received at least one course alternative. Responses from all students revealed the critical importance of accommodations to students’ academic success. Many indicated accommodations and course alternatives were the difference between their success and failure.

Hartman-Hall and Haaga (2002) explored postsecondary students’ with LD willingness to seek assistance. Overall, students with LD were willing to seek assistance from academic services (5.1 out of 6.9). Students were more likely to seek accommodations when “performance goals,” instead of “task-focused goals,” were emphasized. They were the most willing to seek services after reading about “positive professor reactions” and least willing after reading about “negative professor reactions” (i.e., reading a hypothetical situation that “depicted a student with LD asking for assistance or accommodations in an academic setting,” p. 266).

Facilitating Learning

Factors related to students with LD receiving accommodations can facilitate their learning. Quinlan, Bates, and Angell (2012) identified three accommodation approaches instructors took. Two of which, *formal accommodations* and *accommodations for all*,

benefited students access to their education. They found when instructors took a *formal accommodation* approach they provided any and all necessary accommodations students with LD required. They understood their obligation as an instructor to identify what accommodations students needed and grant them. Students interviewed stated times when such instructors provided accommodation they forgot about. Instructors also took an *accommodations for all* approach. These instructors believed all students, not solely students with LD, could benefit from accommodations. They created classroom environments that recognized all students' unique learning needs and enabled all students to use needed accommodations to be educationally successful.

Denhart (2008) asked students what their perception was as to “their accommodation needs to overcome barriers.” Students indicated five types of needs. They included *self-understanding* such as their different way of thinking, *traditional accommodations*, *writing assistance*, *organizational strategies*, and *visual strategies*. When these needs were met students were better able to learn.

Barriers to Learning

While certain factors facilitate learning, barriers to accessing accommodations can hinder students learning. Quinlan and colleagues (2012) also identified that instructors took a *non-accommodation* approach. These instructors disregarded or denied the existence of students' LD and refused to grant accommodations. Although it was rare in interview data, when encountered by students it was intimidating and negatively impactful. Furthermore, even though the *formal accommodation* approach facilitated students learning, it negatively impacted the extent to which some students sought out

their accommodations because it required them to disclose their disability to the instructor.

Cawthon and Cole (2010) asked students to respond about opportunities and barriers they faced in accessing accommodation or services as a student with LD. They found only about a third of students had “interacted with faculty about their LD.” Most students responded the interaction was to *provide their accommodation letter* while very few students responded it was to *discuss strategies for studying* or *informed of disability*. Next they found, less than half of students had “interacted with Office of Disabilities (OSD) about their LD,” majority responding *met in order to receive accommodations*. They also found that only a fifth of students “experienced obstacle(s) to obtaining accommodations or services for their LD.” The top obstacle was *professors unwilling to accommodate*. Students also responded with *general school difficulties (i.e., work was hard)*, *professors were hard to schedule with*, *difficulty setting up extended tests*, *not aware services were available*, and *difficulty in getting/paying for an evaluation*.

Facilitators and Barriers to Postsecondary Education

Certain factors can lead to better outcomes by students with LD at the postsecondary level while those same factors also have the potential to interfere with students’ education. Denhart (2008) found that all the students they interviewed mentioned having a *healthy cognitive difference* instead of emphasizing their disability. Such positive self-perceptions facilitated their education. On the other hand, Denhart also found all but one student spoke of how they were *misunderstood by faculty*, which negatively impacted education. Skinner (2004) interviewed students with LD to find out

what they perceived as what is needed to be successful at the postsecondary level. Seven out of the eight themes identified have potential to increase or decrease students' success.

Secondary School Transition

The transition from secondary to postsecondary school can be daunting but it is especially impactful for students with LD. Garner (2008) interview three students with LD who graduated from postsecondary education to learn their perceptions pertaining to postsecondary academic success. The first themes related to secondary school preparation and transition. First, *more rigorous classes* (i.e., general curriculum classes) *would have better prepared them*. Other secondary school themes that would have been beneficial included *using a planner to manage schedules and assignments, researching colleges by services for students with LD, and more collaboration between general and special education teachers*.

Knowledge about Disability and Services

The more knowledge students have about their disability and the services available to them the more academic success they are likely to experience. However, when they lack such knowledge it can be detrimental to their success (Skinner, 2004). Skinner (2004) found that majority of students discussed *knowledge of disability and concomitant accommodations*; the increase of disability knowledge and the adoption of strategies allowed them to evade problems. Students indicated as they became aware of their learning limitations or weaknesses developed strategies to compensate or minimize them. Skinner also concluded that such lack of awareness (i.e., strengths and weaknesses

and compensation strategies) led to higher likelihood for academic failure. This knowledge of disability was partially due to the *explanation of psychoeducational evaluation* students received. Skinner found over half the students discussed follow-ups to their psychoeducational evaluation. Most of which indicated they did not receive a detailed explanations of their results. When time and effort is not devoted to explaining to students about their psychoeducational evaluation they are likely to enter college lacking knowledge about their disability and are more likely to experience educational failure (Skinner, 2004).

Cawthon and Cole (2010) included in their survey a question to understand the “level of knowledge students with LD had concerning their disability” and “knowledge about specific services or accommodations.” They found over majority of students could *identify their LD and when they had been diagnosed*. However, well over half were unsure as to *how the diagnosis was made*. They also found overall students lacked basic knowledge about services and accommodations coming into postsecondary education from secondary. Almost half of students responded *they received no guidance on who to contact in the OSD office, what accommodations or services they may need, how to document their disability, or how to discuss their most recent evaluation*. Students also responded that during their K-21 school they *didn’t know they had an IEP or 504 plan* (i.e., about 90%) even though they responded they had received accommodations for which would have required one or the other. Further, out of students who identified having an IEP or 504 plan, majority *didn’t recall the content on their IEP or 504 plan or information discussed within transition meetings*.

Knowledge about Disability Law

Knowledge pertaining to disability law can also impact the postsecondary experience of students with LD. Skinner (2004) also asked students about their *knowledge of disability law*. He found all students were unaware of their individual rights or responsibilities (i.e., self-initiation of the accommodation process) under ADA or Section 504. Such nonexistent knowledge of legal rights and responsibilities limited students' abilities to find success. It was also linked to students' inability to self-advocate.

Self-advocacy

The next theme Skinner (2004) found was *importance of self-advocacy*. Self-advocacy can influence the use of accommodations by students with LD. A little over half the students interviewed commented on their ability to self-advocate; all in regards to interacting with instructors for assistance. All expressed confidence in such ability to self-advocate their accommodation needs to instructors. With a few exceptions, most students reported that instructors were receptive to such request. Self-advocacy depends on students understanding of their disability and awareness of their legal rights along with competence communicating rights and needs to those in positions of power (Skinner, 1998). Garner (2008) also revealed a theme related to postsecondary education and self-advocacy. Participants stated *students must be their own self-advocates*. They indicated students with LD need confidence in their abilities and understanding of their academic strengths and learning weaknesses.

Access Barriers

When barriers exist they can hinder the educational attainment of students with LD. Denhart (2008) asked students what barriers they experienced in accessing their higher education (postsecondary). Over half of the students mentioned difficulty with *organizing concepts for reading and writing*. Multiple sources of organizational difficulty were cited including trouble “narrowing lengthy text” and “selecting significant information needed to write papers.” The second barrier reported by over half of the students was difficulty with *oral and written comprehension*. Next, some students reported *verbal communication* challenges. Finally, about half of the students reported *having a different way of thinking than nonlabeled peers* as a barrier.

Additional Perceptions

Students with LD perceived additional factors to impact their education. The last three themes identified by Skinner (2004) were *importance of support systems*, *importance of perseverance*, and *goal setting*. All of the students interviewed emphasized support from family and friends as well as college personnel like instructors and service providers was vital to their success. Next, all but a few students mentioned hard work was a key factor in their academic success. It took students with LD more hours to accomplish the same academic task as peers without disabilities. Finally, most students spoke of the importance of setting goals and planning out how to accomplish challenges.

Garner (2008) also found *pursued academic excellence* as a theme. This included participants “seeking peers with shared common goals for success when services were not accessible,” “participating in study groups,” “taking advantage of resource and

tutoring services,” and “working hard.” The last themes for postsecondary success that emerged were *sit in the front of class* and *get to know the professor*.

Summary

Students with LD at the postsecondary level have potential for academic success. They experience both facilitators and barriers such as receiving accommodations, which affect the quality of education they receive. Receiving accommodations is vital to students with LD achieving their learning potential because they provide the student equal access to course content. They also must work harder and put in more effort than their peers without disabilities. They need to understand their disability, recognizing their strengths and limitations, and be knowledgeable about their rights and responsibilities under the law. Such knowledge allows students with LD to self-advocate, develop strategies to compensate challenges, and be ultimately successful.

Instructors also influence the academic success of students with LD. Most instructors facilitate learning by providing required accommodations and being generally positive towards students. However, some instructors don't recognize LD and deny students their needed accommodations, which decreasing students' potential for success.

Chapter Three: Method

The field of postsecondary education and students with learning disabilities (LD) has advanced with growing numbers of institutions offering comprehensive services to students with LD. This advancement has allowed more students with LD to attend postsecondary institutions. Laws such as the ADA and Section 504 have enhanced the integration and participation of such students in postsecondary environments (Brinckerhoff et al., 2002).

As students with LD enter into postsecondary education, they are becoming their own advocates and taking control of gaining needed services and accommodations. Accommodations are powerful in assisting students with LD to gain meaningful access to their education. The selection of accommodations should be based on considering an individual's with LD disability-specific needs in the context of the postsecondary environment. The provision of accommodations will vary based on the postsecondary institutions for which students with LD participate. Disability service providers are responsible for supporting students with LD by providing approval for accommodations and monitoring students use of accommodations (Brinckerhoff et al., 2002).

This study was conducted to gain an understanding of different perspectives pertaining to academic accommodations for postsecondary students with LD and the laws that mandate the provision of accommodations. Perspectives were obtained from students with LD and instructors through data collected from different sources (i.e., student database, surveys, interviews). The researcher conducted a mixed-methods investigation

that was guided by a theoretical framework build on the connection between the Environmental Model of Disability and the Functional Model of Disability.

This chapter describes participants and study setting, the research methodology, data collection and analyses procedures, study credibility, and the craft of qualitative research. The research questions that guided this study were as follows: (a) What do postsecondary professionals (i.e., instructors) and students with LD understand about the use of accommodations? (b) What perceptions do postsecondary professionals and students with LD have about the utility of academic accommodations? (c) What do postsecondary professionals and students with LD perceive as facilitators of and barriers to the use of accommodations? and (d) How does disability service personnel, instructors, and students with LD understanding of the disability law contribute to the use of accommodations?

Setting

This study was conducted at a large, urban public research and teaching university. The university has an undergraduate enrollment of nearly 40,000 students and employs approximately 3,000 teaching staff. It is ranked within the top 20 universities nationally, offering over 100 different undergraduate degree programs and over 150 undergraduate fields of study across almost 20 colleges and schools. The university has a disability service office that staffs approximately 10 individuals and serves close to 3,000 undergraduate students, 7% of the student population. Of those students registered with the disability service office, 301 have a primary diagnosis (i.e. first diagnostic category) of LD, approximately 15% of all students registered.

Participants

Student Database

Based on data obtained from the university's disability service office student database, 301 students had a primary diagnosis of LD. Of those students 222, were solely diagnosed with LD while 79 had comorbidity with at least one other disability. The highest comorbidity was with ADHD followed by psychological disorder. While comorbidity with ASD was high, medical, and TBI comorbidities were low. See Table 3.1 for student information obtained from student database.

Table 3.1: Student Database

Students	Rate	Percentage
Students with LD only	222	73.75%
Students with comorbidity	79	26.24%
Attention Deficient Hyperactivity Disorder (ADHD)	59	74.68%
Autism Spectrum Disorder (ASD)	1	1.26%
Medical	3	3.79%
Psychological Disorders	30	37.97%
Traumatic Brain Injury (TBI)	2	2.53%

Note. LD = students with learning disabilities

Surveys

Students with LD and instructors completed university-developed surveys. A total of approximately 2300 students with disabilities received the student survey. One hundred forty-eight (6.43%) students completed it from 10 different disability categories. Sixteen of those students had LD (8.47%) but one was a graduate student and excluded, leaving fifteen student responses to be analyzed. Response rate for students with LD was the fourth highest, behind psychological disorders, ADHD, and medical condition.

Table 3.2: Survey Response Rates by Disability Category

Disability Category	Rate	Percentage
Autism	3	1.59%
ADHD	36	19.05%
Brain Injury	5	2.65%
Deaf/Hard of Hearing	11	5.82%
Learning Disability	16	8.47%
Medical Condition	19	10.05%
Mobility/Physical Disability	9	4.76%
Temporary Disability	5	2.65%
Psychological/Mental Health Disability	77	40.74%
Visual Disability	8	4.23%

Note. ADHD = attention deficit hyperactivity disorder

Of the 15 undergraduate students with LD, who completed the student survey, 10 students identified as only LD while five indicated a secondary disability. The highest being ADHD. Majority of students were lower classman (i.e., freshmen and sophomores) with the highest rate being freshman. An equal number of sophomores, juniors, and seniors completed the survey. Students represented six different colleges/schools on campus. The highest rate of students was from the College of Liberal Arts. All other colleges/schools had rates less than 5 students. Majority of students had been registered with disability services less than a year followed by 1 – 2 years. See Tables 3.3 for student characteristics obtained from survey data.

Table 3.3: Surveyed Students' Characteristics

Characteristics	Rate	Percentage
Students with LD only	10	66.67%
Students with comorbidity	5	33.33%
Attention Deficient Hyperactivity Disorder (ADHD)	3	20%
Autism Spectrum Disorder (ASD)	1	6.67%
Medical	1	6.67%
Classification		
Freshman	6	40%
Sophomore	3	20%
Junior	3	20%
Senior	3	20%
College/School		
Cockrell School of Engineering	2	13.33%
College of Education	1	6.67%
College of Liberal Arts	6	40%
College of Natural Sciences	3	20%
McCombs School of Business	2	13.33%
Moody College of Communication	1	6.67%
Length of time registered with disability services		
> 1 year	9	60%
1 – 2 years	4	26.67%
2 – 3 years	1	6.67%
3 – 4 years	1	6.67%

An unknown number of instructors received the instructor survey because it is sent out from the disability service office to deans/faculty chairs that then forward it on to their department. One hundred fifty-three faculty/staff completed it but only 142 were included for data analysis. The 11 that were excluded were done so because the individuals who responded did not meet inclusion criteria. Of the instructors who completed the survey, majority were faculty instructors (i.e., full-time), a small number were adjunct instructors (i.e., part-time), and the remainder were lecturers. Instructors represented 12 Colleges/Schools on campus. The highest rate of instructors was those

appointed in the College of Natural Sciences. The next highest was College of Liberal Arts, followed closely by McCombs School of Business, then Cockrell School of Engineering, and Moody School of Communication. Slightly more than half of instructors had more than 10 years of experience working for the university with few having less than a year of experience. See Tables 3.4 for instructor characteristics obtained from survey data.

Table 3.4: Surveyed Instructors' Characteristics

Characteristics	Rate	Percentage
Role		
Adjunct Instructor	8	5.63%
Faculty Instructor	91	64.08%
Lecturer	43	30.28%
College/School of appointment		
Cockrell School of Engineering	16	11.27%
College of Education	1	0.70%
College of Fine Arts	4	2.82%
College of Liberal Arts	28	19.72%
College of Natural Sciences	35	24.65%
College of Pharmacy	6	4.23%
Division of Continuing Education	1	0.70%
Jackson School of Geoscience	3	2.11%
LBJ School of Public Affairs	5	3.52%
McCombs School of Business	24	16.90%
Moody School of Communication	10	7.04%
School of Nursing	8	5.63%
No Response	2	1.41%
Years of employment		
Less than 1 year	8	5.63%
1 – 5 years	35	24.65%
6 – 10 years	27	19.01%
More than 10 years	72	50.70%

Interviews

Prior research supports reasonable quantities for interview studies, with studies of similar foci, ranging from two to 20 participants with an average of nine participants

(Barnard-Brak et al., 2010; Cook et al., 2017; Denhart, 2008; Garner, 2008; Hadley, 2007; Quinlan et al., 2012; Skinner, 2004; Timmerman & Mulvihill, 2015). Likewise, with prior case study research of similar foci, participants ranged from three to 99 interviewees with an average of 48 (Banks, 2014; Garrison-Wade, 2012; Jones & Goble, 2012; Lindstrom, Downey-McCarthy, Kerewsky, & Flannery, 2009). Table 3.5 provides support for participant quantity. Patton (2002) stated, “there are no rules for sample size in qualitative inquiry” (p. 244) and indicated a smaller sample size leads to a more in-depth investigation while a larger sample size leads to an investigation seeking breadth. He further stated that a small but diverse number of participants is valuable for obtaining in-depth rich information and data yields two important findings: (a) “high-quality, detailed description of each case, useful for documenting uniquenesses;” and (b) “important shared patterns” (p. 235).

Table 3.5: Participant Quantity

Study (author, year)	Participants	Participant Quantity
*Banks (2014)	SWD	3
Barnard-Brak, Lechtenberger, & Lan (2010)	SWD	5
Cook, Hennessey, Cook, & Rumrill (2017)	Faculty	6
	DSP	2
	Academic Tutor	1
Denhart (2008)	SWLD	11
Garner (2008)	SWLD	3
*Garrison-Wade (2012)	SWD	59
	DSP	6
Hadley (2007)	SWLD	10
Hicks-Coolick & Kurtz (1997)	DSP	9
*Jones & Goble (2012)	University Personnel	4
	SWD	4
	Parents	3
	DSP	1
	Mentors (i.e., SWOD)	12
*Lindstrom, Downey-McCarthy, Kerewsky, & Flannery (2009)	Faculty, Staff & Administrators	38
	Vocational Rehabilitation Councilors & Administrators	37
	SWD	7
	Other Stakeholders	17
Quinlan, Bates, & Angell (2012)	SWLD	10
Skinner (2004)	SWLD	20
Timmerman & Mulvihill (2015)	SWD	2

Note. *Indicates Case Studies; SWD = students with disabilities; NA = not applicable; SWLD = students with learning disabilities; DSP = disability service personnel; SWOD = students without disabilities.

Each group of individuals met the following inclusion criteria for participation in the study. See Table 3.6 for a list of inclusion and exclusion criteria.

Table 3.6: Inclusion and Exclusion Criteria

Participant Group	Inclusion	Exclusion
Students	<ul style="list-style-type: none"> Has current undergraduate standing Has learning disability as primary diagnosis Is registered with the universities disability service office Has received approved academic accommodations at the postsecondary level for at least one academic year Is at least 18 years of age Provides consent to participate in study 	<ul style="list-style-type: none"> Has a graduate standing Has a primary diagnosis other than learning disability Has not received approved academic accommodations at the postsecondary level for at least one academic year Is younger than 18 years old
Instructors	<ul style="list-style-type: none"> Is currently serving as an instructor (i.e., faculty instructor, adjunct instructor, clinical instructor, lecturer, or professor) teaching undergraduate courses Has received at least one request from a student with LD for the provision of academic accommodations Provides consent to participate in study 	<ul style="list-style-type: none"> Is an instructor who teaches graduate courses only Is an Assistant Teacher (TA) Serves as Faculty Dean or Faculty Chair without an instructor position
Disability Service Personnel	<ul style="list-style-type: none"> Is currently employed in the university's disability service office, directly working with students with learning disabilities pertaining to the provision of accommodations Has experience working with postsecondary students with learning disabilities and their use of academic accommodations Provides consent to participate in study 	<ul style="list-style-type: none"> Student employees Clerical Staff

Interview participants consisted of students with LD and instructors. Target participation was $n = 10 - 15$ for each participant group. The university's disability service office personnel were requested to participate, with a target number of $n = 3-5$, but declined all interviews of personnel, citing lack of time and abundance of requests.

Ten students participated in interviews and all were full time students of the university. Only one participant was male, the rest were female. Students ranged in age from 18 – 22 with majority being in the 18 – 20 age range. Majority of students were Caucasian with an additional two being Caucasian mixed ethnicity. Eight different majors were represented, with Special Education and Nursing each being represented by two students. Half of students were classified as sophomores while only one senior and one freshman participated. Three students were transfer students and had experience with accommodations at a different postsecondary campus. Majority of students had used accommodations at the postsecondary level for approximately 1.5 years (including the freshman student who had used accommodations for a year prior at a community college). Half of students indicated only a diagnosis of LD, while two students stated they specially had dyslexia and two students stated they were also diagnosed with ADHD. The final student stated they were diagnoses with dyslexia and ADHD. Students were diagnosed between the years of first grade and their junior year of high school. Two student were diagnosed during their kindergarten through second grade years (one in first grade, one in second grade), four students were diagnosed between third and fifth grade (two in third grade, two in fifth grade), zero student received a diagnoses while in middle school (i.e., grades six through eighth), and four students received a diagnosis while in high school (one freshman year, one sophomore year, two juniors year).

Table 3.7: Interviewed Students' Demographics

Characteristic	Rate	Percentage
Gender		
Male	1	10%
Female	9	90%
Age		
18-20	7	70%
21-22	3	30%
Ethnicity		
Caucasian	7	70%
Hispanic	1	10%
Caucasian/Hispanic	1	10%
Caucasian/Korean	1	10%
Major		
General Education	1	10%
Special Education	2	20%
Nursing	2	20%
Youth & Community Studies	1	10%
Journalism	1	10%
Psychology	1	10%
History	1	10%
Public Relations	1	10%
Classification		
Freshman	1	10%
Sophomore	5	50%
Junior	3	30%
Senior	1	10%
Years using accommodations at postsecondary level		
1.5	6	60%
2.5	3	30%
3.5	1	10%
Diagnosis		
LD	5	50%
LD (Dyslexia)	2	20%
LD/ADHD	2	20%
Dyslexia/ADHD	1	10%
Grade of Diagnosis		
K – 2	2	20%
3 – 5	4	40%
6 – 8	0	0%
9 – 12	4	40%

Note. LD = students with learning disabilities; ADHD = attention deficit hyperactivity disorder

Twelve instructors participated in interviews and all were full time employees of the university and held a doctorate. Reasons, for instructors who were contacted but did not participate, were they did not meet inclusion criteria, they did not have time to

participate, or they never responded to recruitment. For those that participated, twice as many were females versus males. Instructors ranged in age from 30s to 60s and represented five ethnic backgrounds, majority being Caucasian. Ten different departments were represented, with Communication Sciences and Disorders and Kinesiology and Health Education each being represented by two instructors. Ten out of 12 instructors stated they were professors, the last two stated they were lecturers. Three instructors stated they were also clinical instructors. In addition, three were also directors of a center on campus and one was a retired dean. Years of experiences ranged from 1 year to 40 years. The highest range was 21 – 30 years with four instructors and majority of instructors having more than 10 years of experience.

Table 3.8: Interviewed Instructors' Demographics

Characteristic	Rate	Percentage
Gender		
Male	4	33.33%
Female	8	66.67%
Age		
30s	3	25%
40s	3	25%
50s	2	16.67%
60s	4	33.33%
Ethnicity		
African-American	1	8.33%
Asian	2	16.67%
Caucasian	7	58.33%
Hispanic	1	8.33%
Indian	1	8.33%
Department		
Art History	1	8.33%
Adult Health	1	8.33%
Communication Sciences & Disorders	2	16.67%
Curriculum & Instruction	1	8.33%
Educational Psychology	1	8.33%
Kinesiology & Health Education	2	16.67%
Mechanical Engineering	1	8.33%
Neurology	1	8.33%
Nursing	1	8.33%
Pharmacy	1	8.33%
Title		
Lecturer	2	16.67%
Professor	10	83.33%
Years of Experience		
1 – 5	2	16.67%
6 – 10	2	16.67%
11 – 20	3	25%
21 – 30	4	33.33%
31 – 40	1	8.33%

RESEARCH METHODOLOGY

Utilizing a mixed methods case study approach, this study examined perspectives surrounding the use of accommodations by students with LD. Mixed methods research is

an investigation that “gathers both quantitative (closed-ended) and qualitative (open-ended) data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand the research problem” (Creswell, 2015, p. 2). Through the collection of statistical data and personal accounts, a better understanding of the research questions was strengthened (Creswell, 2015). This Study was built on a working theory from a qualitative case study research framework (Creswell, 2013, 2016; Eisenhardt, 1989; Stake, 1995), using a single university as the case study, and incorporated the analysis of quantitative data in the form of calculated percentages of numerical data.

Case study research is an inductive process (i.e., formulates theory from emerging patterns found in the data; Eisenhardt, 1989) that allows for the examination of a case (e.g., individual, organization, program, concrete entity; Creswell, 2016) within a real-life, existing setting (Creswell, 2013). It is a qualitative empirical approach, bounded by time and place of the study (Creswell, 2013), that allows for an in-depth analysis of the case to illustrate and gain insight into the larger context of a problem or issue (Creswell, 2016). Through the collection of multiple sources of data, the researcher is able to achieve a deeper perspective on specific problems or issues. Case study research results in the development of a comprehensive narrative (i.e., case description) and the emergence of themes from the data (i.e., case themes; Creswell, 2013, 2016), as well as allows for generalization (i.e., a better understanding of the problem or issue being examined; Creswell, 2016; Stake, 1995). Specifically, this study was of the *instrumental case study* type. That is, it focused on an issue through one bounded case (i.e., a single

location of study; Creswell, 2013), following the defining features and procedures of case study research outlined by Creswell (2013).

Multiple sources of data were collected, including quantitative data (i.e., numeric information obtained from the student database and survey data) and qualitative data (i.e., information from the student database and interview data). Perspectives from two groups of participants (i.e., students with LD and instructors) were analyzed and compared. All sources of data were used to formulate an overall meaning from the case study.

Supporting Research

Prior research has utilized case study research in an effort to understand an issue through the use of participant interviews (See Table 3.9; Banks, 2014; Garrison-Wade, 2012; Jones & Goble, 2012; Lindstrom et al., 2009). Furthermore, there is support from prior research on the use of mixed methods research (Cawthon & Cole, 2010) or use of statistical analysis to report findings (Bourke et al., 2000; Murray et al., 2008; Skinner, 2004). Although the following studies did not use mixed methods, they indicated that future research should focus on qualitative and quantitative analysis to better provide support and understanding of findings (McGregor et al., 2016; Murray et al., 2008; Skinner 2004).

Case Study

First, Banks (2014) interviewed postsecondary African-American students with disabilities in order to stand the barriers and supports that exist in postsecondary transition. Case study methodology was utilized to examine the issue of African-

American SWD attempting to secure accommodations from the disability service office. Banks discovered three resulting themes. Themes were *deficit-ideologies undercut attempts at self-determination, significance of adequate information preceding transition, and competing cultural identities and refusal to access disability services.*

Second, Garrison-Wade (2012) conducted focus groups with postsecondary students with disabilities and interviews with disability service personnel to understand the factors that enhance or inhibit outcomes for postsecondary students with disabilities. Utilizing case study methodology Garrison-Wade discovered perceptions of disability services received by postsecondary SWD in order to understand how to ensure more positive outcomes. Three themes emerged from the data and they were *importance of self-determination skills, implementation of formalized planning, and improvement postsecondary support.*

Next, Jones and Goble (2012) conducted an evaluative case study to understand what makes a mentoring program effective and successful for postsecondary students with intellectual disabilities (ID) and how established programs should progress. Through focus group discussions with students with ID, mentors (i.e., students without disabilities), instructors, disability service personnel, and parents the authors identified essential elements for creating and improving current mentoring partnership programs at the postsecondary level. Such elements like effective communication and collaboration amongst stakeholders, “maintaining high expectations for students with ID” (p. 270), and establishing equal relationships between mentor and mentee can strengthen or undermine a mentoring program.

Finally, Lindstrom, Downey-McCarthy, Kerewsky, and Flannery (2009) documented existing facilitators of and barriers to postsecondary services for SWD using case study methodology. By conducting interviews with postsecondary faculty, staff, and administrators, vocational rehabilitation councilors and administrators, stakeholders, and SWD the authors described and documented supports provided to postsecondary SWD enrolled in training programs. Identified barriers included, “lack of information,” “low confidence and self-esteem,” and “trouble with admission procedure.” Lindstrom and colleagues also identified supports, which included, “increasing initial access for enrollment,” “offering individualized field-based experiences and accommodations,” “making connections to additional campus services,” and “providing ongoing progress monitoring” (p. 4).

Table 3.9: Description of Interview and Case Studies

Study (author, year)	Number of Interviews	Number of Questions	Length of Interviews
*Banks (2014)	3 per participant	24 questions developed	90 minutes
Barnard-Brak, Lechtenberger, & Lan (2010)	1 per participant	Approximately 10	NA
Cook, Hennessey, Cook, & Rumrill (2017)	1 focus group	4	NA
Denhart (2008)	1 per participant	Approximately 6	42 – 139 minutes, Average 1.3 hours
Garner (2008)	1 per participant	NA	NA
*Garrison-Wade (2012)	9 focus groups 6 interviews	10-12	NA
Hadley (2007)	2 focus groups 1 per participant	NA	NA
Hicks-Coolick & Kurtz (1997)	1 per participant	5	45 minutes
*Jones & Goble (2012)	3 focus groups	8	90 minutes
*Lindstrom, Downey- McCarthy, Kerewsky, & Flannery (2009)	1 per participant (excluding SWD) 1 student focus group	4-5	NA
Quinlan, Bates, & Angell (2012)	1 per participant	NA	1 – 1.5 hours
Skinner (2004)	1 per participant	12	24 – 46 minutes Average 35 minutes
Timmerman & Mulvihill (2015)	3 per participant	11	35 minutes – 2 hours

Note. *Indicates Case Studies; SWD = students with disabilities; NA = not applicable; SWLD = students with learning disabilities; DSP = disability service personnel; SWOD = students without disabilities.

Mixed Methods

Cawthon and Cole (2010) used mixed-method data analysis to understand barriers postsecondary students with LD face in accessing accommodations or services. They surveyed students with LD about their perception on using accommodations and obstacles faced in acquiring access to services. When analyzing data collected they reported both descriptive data (i.e., qualitative) and statistical percentages (i.e. percent of respondents). Statistical analysis revealed prevalence of accommodations or services across setting and provider. Themes emerged from descriptive data included, *use of accommodations, transition barriers, knowledge pertaining to disability services, and self-advocacy skills.*

Statistical Analysis

First, Bourke and colleagues (2000) surveyed postsecondary faculty about the provision of accommodations for postsecondary students with LD. Results for faculties' perceived ease or difficulty providing instructional accommodations and attitude towards the provision of accommodations and supports were calculated based on responses to each item and reported in terms of frequency, descriptive statistics, and calculated correlation coefficients using Likert scale data.

Next, Murray and colleagues (2008) surveyed postsecondary staff about their attitude towards postsecondary students with LD. They reported descriptive statistics for each category (e.g., general knowledge, willingness to provide accommodations, willingness to advocate, and knowledge of services) by percentage of responses to each question based on an agreement-disagreement scale.

Finally, Skinner (2007) surveyed postsecondary faculty about their willingness to provide accommodations to postsecondary students with LD. Their descriptive statistics found the percentage of faculties' willingness to provide accommodations by type (i.e., examination accommodations [e.g., extended time, alternative format] and instructional accommodations [e.g., note taker, alternative assignment]), faculty rank (e.g., associate instructor, instructor, professor), and academic school (e.g., business, education, arts).

IRB Approval

Prior to beginning data collection, the university's Institutional Review Board (IRB) granted permission to the researcher (Appendix A). The university's disabilities service office granted permission to the researcher, as well, to collect data from their student database and surveys (Appendix B). Due to the nature of the data collected from the student database and surveys, individual consent was not necessary. Consent for audio recording was necessary prior to the interviews. All participants gave consent to be interviewed and audio recorded for later transcription (Appendix C).

INSTRUMENTS AND MEASURES

Student Database

The university's disability service office keeps electronic records of information for students registered with its office in a student database. The student database contains each student's list of approved accommodations. The researcher was granted access to the student database to obtain information on approved academic accommodations for students with LD. The student database contains information pertaining to students'

personal and demographical information as well; however the researcher did not obtain any student-identifiable information. Information was provided to the researcher through a secured shared folder service.

The student database was obtained for students registered during the 2017-2018 academic year. Approved accommodations were marked with TRUE while non-approved accommodations were left blank. The researcher was able to determine how many and which accommodations students' were approved.

Surveys

Each year the university's disability service office sends out an electronic survey to both students registered with its office and university instructors. The assistant director of the office generates the surveys with the intent to know more about the experiences of students registered with the office, including those obtained in the classroom and around the campus. The information collected helps service providers in the office improve the services provided to students, as well as improve the experiences students have with using accommodations. Surveys consisted of multiple choice, rating scale, and open-ended questions. Survey data was provided to the researcher through a secured shared folder service. See Appendix D for examples of survey questions.

Out of the 84 questions asked on the student survey 22 were included because they pertained to the research questions. The 62 questions that were excluded were done so because it was determined that were not applicable or there was no student response. Three of the 22 questions pertained to demographics, leaving 19 questions for analysis.

Of the 19 non-demographic questions included, 18 were quantitative (i.e., multiple choice or rating scale) while only one was qualitative (i.e., open-ended).

Out of the 32 questions asked on the instructor survey 16 were included because they pertained to the research questions. The 16 questions that were excluded were done so because it was determined that they were not applicable to students with LD or accommodations. Two of the 16 questions pertained to demographics, leaving 14 questions for analysis. Of the 14 non-demographic questions included, 13 were quantitative (i.e., multiple choice or rating scale) while only one was qualitative (i.e., open-ended).

Questionnaire

After the disability service office declined participation in interviews the researcher then requested that disability service personnel voluntarily complete anonymous questionnaires, developed by the researcher to obtain disability service personnel's perspectives.

The researcher pulled the most pertinent questions from the survey created for disability service personnel. Then, revised questions to be explicit and generate the most precise response for information being obtained. The questionnaire had 16 questions with no identifiable information obtained. The questionnaires were sent to disability services via mail but no questionnaires were returned. See Appendix E for an example of questionnaire.

Interview guide

Interview guides were developed by the researcher to specifically address the research questions. An interview guide is a document containing questions and key words tailored to the specific issues of interest and relevance to interview. The interview guide helps steer the interviewer to obtain pertinent information (Yin, 2016). A slightly different interview guide was developed for each participant group (i.e., student and instructor). Questions on both guides paralleled each other, allowing for the perspectives of participants from each group to be revealed related to the research question.

The researcher developed the interview guides by identify major sections of information to be obtained during the interview based on research questions. Such sections were: (a) basic information; (b), understanding about use of accommodations; (c) perceptions of the utility of accommodations; (d) facilitators of and barriers; and (e) disability law.

For each interview guide section (per participant group) the researcher identified key words (e.g., disability, diagnosis, facilitators, barriers) that addressed research questions and formulated specific interview questions. Interview questions were narrowed down to those that seem most valuable in steering the interview. Each guide had approximately 25 questions. The researcher organized the interview guide and sections to allow for the most reasonable way to obtain pertinent information to answer research questions. Interview guides were piloted, on individuals similar to those who meet inclusion criteria for each participant group (students, $n = 3$; instructors, $n = 3$;

disability service personnel, $n = 1$), and adjusted to better obtain information-rich responses. See Appendix F for examples of interview guides.

A total of 22 interviews took place over the course of five months (November – February). All instructor interviews took place in participants’ office, whereas all student interviews took place in researcher’s office. Each participant was interviewed one time. A total of 844.13 interview minutes, 14.07 hours, were accumulated. Instructor interviews had a greater range of minutes and higher average time. The number of primary questions asked (i.e., exclusion of demographic, introduction, and follow-up/clarification questions), from the interview guide, ranged from 18 – 32 across all interviews with students being asked more questions on average.

Table 3.10: Interview Features

Interview Features	Range	Total	Average
Length			
Students	25.53 – 47.30 minutes	373.51 (6.23 hours)	37.35 minutes
Instructors	20.03 – 54:52 minutes	470.62 (7.84 hours)	39.23 minutes
Number of Questions Asked			
Students	23 – 32	NA	28
Instructors	18 – 32	NA	26

Note. NA = not applicable.

DATA COLLECTION AND ANALYSIS PROCEDURES

Data was collected and analyzed from three sources: (a) the disability service student database; (b) the disability service survey of students and instructors; and (c) interviews. Interviews were conducted with students with LD and instructors.

Student Database

The researcher obtained disaggregated data for students with LD electronically from the assistant director of the disability service office. Once data was obtained, the researcher analyzed data to determine what and how many different accommodations had been approved for students with LD, the number of students with LD who receive each accommodation, and the number of approved academic accommodations per individual student with LD. The research also determined the range and average number of accommodations approved for students with LD.

Analysis Procedures

First the research read all accommodations listed and excluded the ones that did not pertain to academic achievement. Next, the research created a list of all academic accommodations and tallied how many students were checked as having each accommodation. Finally, the research created a list of each student with LD (by assigning a number; e.g., 1 – 20) and the total number of academic accommodations they had been approved for. From there the researcher was able to determine how many students fit each possible quantity of approved academic accommodations (i.e., range 1 – 14) and determine the average number of approved academic accommodations. A second research followed the same procedures and agreement was 100%.

Surveys

The university's disability service office released its annual surveys at the end of the 2017 spring semester and allowed approximately one month for completion. Data was compiled and the office disaggregated data for students with LD and instructors (based

on inclusion criteria). The researcher obtained the disaggregated data electronically from the assistant director of the office.

Analysis Procedures

For each survey, the researcher read through all questions to determine which questions pertained to the study. Those that included relevant information to help answer the research questions were identified. Relevant information was determined by asking if the question pertained to: (a) the accommodation process; (b) accommodation use or provision of accommodations; (c) negative or positive experiences related to accommodations; or (d) disability law. Questions were then separated into those for analysis and those that were irrelevant. Questions found to be pertinent to the study were separated by the research question they supported.

Analysis procedures for open-ended questions followed the same procedure described below for analyzing interview data, steps 2-6. Themes found from survey responses were compared with those from interviews to help generate overall meanings through triangulation. Multiple-choice and rating scale questions were analyzed by tallying how many responders chose each answer option and then calculating the percent of responses for each question choice to determine how responses supported or conflicted with other data collected (i.e., how does quantitative data match qualitative responses per research question). A second research followed the same procedures on 100% of quantitative data and 30% of qualitative data. For quantitative data, when calculation differences occurred both researchers re-calculated and compared. Agreement for all calculations came to 100%.

Interviews

Interviews were conducted using a qualitative interview approach. This approach allows for a semi-structured interview (i.e., the interview is not strictly scripted) where the researcher follows an interview guide but may ask probing or follow-up questions based on context and setting of each interview. Interviews evoked participants' understanding and beliefs surrounding the issue of study, while the researcher listened carefully to hear the meaning behind participants' words. The researcher asked open-ended questions to elicit participants' own thoughts and experiences to understand the issue of study (Yin, 2016). The researcher followed the suggestions by Yin (2016) to be successful at conversing with participants during interviews. First, the researcher followed the *speak in modest amounts* (i.e., speak much less than participant) principle. Second, the researcher was as *nondirective* as possible. This allowed the participant to “express their own meaning as part of their own way of describing the” issue within the set boundaries of the interview (p. 144). Third, the research complied with *stay neutral* principle. This included casting a neutral manner through body language, expressions, and words. Fourth, the researcher did *maintain a good rapport* with participants. Fifth, the researcher used an interview guide. Finally, the research did *analyze while interviewing* (i.e., as interview transpires the researcher will monitor and decide when to probe for more detail, when to ask follow-up questions, and when to shift topics).

Recruitment

The followings steps took place to recruit participation. First, purposeful sampling (i.e., selecting individuals [that meet inclusion criteria] who will illuminate the issues of

study through information-rich insights) was utilized allowing for an in-depth investigation through a reasonably small sample or single case (Patton, 2002). Potential participants were elicited for interviews through the distribution of recruitment letters. Recruitment letters were developed by the researcher and provided potential participants an overview of the researcher and the study (i.e., the purpose). The recruitment letters asked that interested individuals respond to the researcher via email or telephone to obtain more information and/or to indicate their interest.

Student Recruitment

Student recruitment was first conducted through the distribution of the researcher's recruitment letter, within the disability service office's monthly newsletter, emailed to all students with disabilities. The first dissemination, in November, generated two responses, however, both were graduate students and so could not be included. The disability service office included the recruitment letter again in their January newsletter and one student responded but again was a graduate student and was excluded. The researcher then asked several fellow researchers and instructors to distribute the recruitment letter to students. Approximately 10 instructors sent the recruitment letter to over 12 courses plus one researcher sent the recruitment letter to a participate pool of students with LD. In addition, two undergraduate student organizations (Student Council for Exceptional Children and Disability Advocacy Student Coalition) distributed the recruitment letter to their organization members. An estimated 1000 plus students

received the recruitment letter, approximate number with LD unknown. Through recruitment students emailed the researcher and indicated a willingness to be interviewed.

Instructor Recruitment

The researcher asked dissertation committee members to provide names of instructors to contact and request participation. The researcher also obtained names of instructors to contact from former and current students of the university and from instructors known personally to researcher. All instructors whose name was provided were sent an email with recruitment letter. In total, approximately 40 instructors were contacted.

Selection

For both instructors and students less than the maximum number responded and therefore all who responded were included in the study. After individual agreed to participate via email the researcher and participant set up interview date and time.

Interviewing

Interviews took place during the end of the fall semester and beginning of the spring semester (i.e., end of October through the end of February), of the 2017-2018 academic year. The researcher conducted all interviews, which consisted of: (a) one interview per participant; (b) one-on-one interview; (c) interview in an agreed upon location by researcher and participant; (d) interview lasting approximately no more than one hour; (e) interview consisting of approximately 25 questions asked; and (f) audio

recorded interview. The researcher received signed consent from the participant before beginning the audio recording.

Interviews started with introductions and the exchange of pleasantries (Yin, 2016). The researcher and participant sat facing one and another and the researcher conducted the interview by asking questions based on the interview guide, as well as from statements by the participant in order to gain more detail and keep the interview flowing. At the conclusion of the interview, the researcher stopped the audio recorder and politely thanked the individual for their participation.

Analysis Procedures

The researcher followed the analysis strategies of Creswell (2013). The researcher took a holistic analysis approach that looked for developing themes throughout the entire case. The following steps were taken for interview data (as well as qualitative survey and questionnaire data) to reveal the emergence of themes and formulate a comprehensive conclusion about the resulting meanings (Creswell, 2013). Analysis was done by group of participants. All interviews for instructors were completed first followed by student interview.

1. Organizing the data: All interviews were transcribed electronically from audio recording and saved to a computer. The researcher paid to have audio recordings transferred as text to electronic copies and then printed (i.e., transcripts). Four transcripts from instructor group and three transcriptions from students group were compared to the original recording for transcription accuracy.

2. **Reading and Memoing:** Each transcript (i.e., interview) was read in its entirety to gain a sense of the interview as a whole. Each was then reread and memos (i.e., short phrases, ideas, and key concepts) were noted. After reading over all interviews, initial categories (or codes) were formed. Categories are major ideas that form from the data.
3. **Coding:** Transcripts were read again and smaller categories were aggregated from data, and evidence from different data sources were gathered to establish patterns (i.e., similar categories within different data sources). In vivo coding (i.e., forming categories from a word or short phrase taken from text) was used to capture exact words of participants. For each participant group a set of categories was compiled, supported from in vivo coding.
4. **Describing and Classifying:** A detailed description of the case (i.e., the issue of accommodations for students with LD at the university) was produced by coding data further into themes (i.e., units of information that divulged from several categories to form a common idea). This was achieved by comparing patterns found in data sources.
5. **Interpreting the Data:** Themes were organized to extract the larger meanings within the data. That is themes were organized and interpreted (through insights, intuitions, and hunches) to form larger conceptual understandings that make sense of the data. The researcher also developed naturalistic generalizations, which are the generalizations that readers can learn from the case.

6. Display Data: Categories and themes were identified across groups of participants and compared for similarities and contradictions; descriptive and visuals (e.g., graphs, tables, charts) were created to represent the data.

Intercoder Agreement

A second researcher coded approximately 30% of interviews conducted with each participant group (i.e., four instructor transcripts and three student transcripts). Each coder independently coded, following the procedures outlined above by Creswell (2013). Interviews coded by two researchers were compared to establish intercoder agreement (i.e., percentage of agreement amongst coders and their consistency of codes within data; Saldana, 2016), which was established to be at least 90% agreement.

STUDY CREDIBILITY

To strengthen the credibility of this study the following approaches were addressed (Yin , 2016). According to Yin (2016), a credible study is one that “provides assurance that you have properly collected and interpreted the data, so that the findings and conclusions accurately reflect and represent the world that was studied” (p. 85). In addition, the researcher addressed research integrity.

Trustworthiness

Trustworthiness, of the researcher and study, was achieved in several ways. First, the researcher held the attitude that the data and participants will reveal insights into the understanding of the issue. No preconceived ideas influenced or biased the interpretation of findings. Second, the researcher had great familiarity with the setting of the study,

having completed a bachelor's degree and master's degree at the case study university. These years of experience with the university allowed for an accurate understanding of the university's campus culture and experiences of students with disabilities, being an individual with a disability herself. Third, the researcher employed purposeful sampling to ensure that participants met inclusion criteria and accurately represent the larger population. Fourth, the researcher conducted interviews in locations where participants felt safe and comfortable to provide accurate and honest responses. The researcher avoided leading questions and conveyed no judgment towards the participant based on responses. Finally, ethical practices were addressed and employed based on protocols outlines by Creswell (2013; p. 58 – 59) during all phases of the study.

Triangulation

Triangulation is the analytic technique of utilizing multiple sources of evidence to corroborate findings (Yin, 2016). This study applied data triangulation by gathering data from different sources (i.e., student database, surveys and questionnaires, and interviews). Further, two different surveys were analyzed (i.e., student and instructor) and interviews were conducted with two groups of individuals (i.e., students with LD and instructors).

All sources of information were intersected to form an overall meaning of the case. Data collected was intersected, by verifying findings and identifying similarities and differences, within and across all sources of data. This allowed for confidence in the accuracy of reported findings.

Validity

The researcher followed six of Maxwell's (2013) eight strategies to reduce threats to validity (Yin, 2016). The two strategies not able to be met were *intensive long-term involvement* and *intervention*. Due to the time frame of the study the researcher chose to do interviews with a greater number of participants rather than multiple interviews with the same participants. Due to the nature of the issue being studied the researcher did not observe interactions. The researcher met validity in the following ways: (a) *rich data* (i.e., the researcher collected multiple sources of data); (b) *respondent validation* (i.e., the researcher acquired clarification of responses when necessary); (c) rival thinking; (d) *triangulation*; (e) report precise numbers in data; and (f) compare data including participants perspectives.

Rival Thinking

The researcher actively and continually engaged in rival thinking (i.e., a skeptic attitude throughout the entirety of the study). This involved asking the following questions while collecting and analyzing data: (a) whether data is as it appears; (b) "whether participants are giving their most candid responses;" (Yin, 2016, p. 90) and (c) whether "original assumptions about a topic" and its characteristics are indeed correct (Yin, 2016, p. 90). Rival thinking further involved monitoring coding (i.e., double-checking interpretations) for rival explanations (i.e., a competing explanation that cannot coexist with an existing explanation; Yin, 2016). If an interpretation was challenged the researcher investigated and sought out the most plausible interpretation, rejecting the original interpretation if necessary. The researcher discussed the rationale behind

accepting and rejecting opposing explanations. Through this process the researcher was able to answer the research questions with the most plausible explanations.

Research Integrity

The researcher certified that research integrity was upheld to the best of her ability by ensuring her research conduct and data represent the truthfulness of perspectives and statements. She strived to produce research that accurately represented the issue of study and addressed any uncertainties. Additionally, it should be noted that the researcher herself is an individual diagnosed with LD (i.e., dyslexia). As an undergraduate student, she was registered with her university's disability service office and received approved academic accommodations. She disclosed her disability in order to request accommodations from instructors. It was her belief that the use of accommodations afforded her equal access to course content, ensured she learned at her potential, and provided her the ability to be fairly assessed.

QUALITATIVE RESEARCH AS A CRAFT

This study satisfies the conditions of original research. The researcher designed the study using prior research as a basis for developing a novel examination of the issue, as well as employed new ideas, words, and data to the best of her knowledge and ability. Further, the research considered the three important objectives of qualitative research as a craft (Yin, 2016).

First, the study upheld transparency. This study was conducted in a manner that allowed for the process to be easily accessible. The researcher documented and described

the procedures so others can review and understand its meaning. In addition, the researcher will make data available for inspection. Second, the study was done with methodic-ness. That is, the research allowed for the discovery of ideas and unanticipated events while adhering to the outlined set of procedures. Further, the researcher employed rigorous field routine in the execution of the study, addressing any possible bias, and following ethical conduct, avoiding deliberate distortion of data. Lastly, the study adhered to the evidence. It consisted of participants' voices, that is, their actual language and context of language expressed. Their language was "valued as the presentation of reality" (Yin, 2016, p. 14). Multiple perspectives were analyzed and evidence in perspectives was tested for consistencies and controversies in order to strengthen findings. Final conclusions were based on evidence from data collected and analyzed objectively.

Chapter Four: Results

The number of students with learning disabilities (LD) entering into postsecondary education is on the rise. The ability for them to receive an equal education opportunity is due in part to receiving services. To understand this issue of students with LD and the use of accommodations this study utilized a case study approach, collecting data on academic accommodations used by students with LD and comparing perspectives towards the use of accommodations by students with LD. Through the analysis of data collected from the student database, student and instructor surveys, and interviews with students with LD and instructors, the researcher answered the research questions.

The researcher followed the analysis procedures of Creswell (2013) for all qualitative data. Categories and themes emerged through the comparison of patterns found across all data sources, answering the following research questions: (a) What do postsecondary professionals (i.e., instructors) and students with LD understand about the use of accommodations? (b) What perceptions do postsecondary professionals and students with LD have about the utility of academic accommodations? (c) What do postsecondary professionals and students with LD perceive as facilitators of and barriers to the use of accommodations? and (d) How does disability service personnel, instructors, and students with LD understanding of the disability law contribute to the use of accommodations? The first five categories, Approved Accommodations, Perception of the University, Attitude, Perception of LD, and Practice of using Accommodations all relate to research question one. The next category, Utility of Accommodations, relates to

research question two while the category, Facilitators and Barriers, relates to research question three and the category Disability Law relates to research question four. The final category, Improved Practice of using Accommodations, has elements related to all research questions.

APPROVED ACCOMMODATIONS

The university's disability service office has a total of 54 accommodations plus other (i.e., accommodations based on individual necessity). Twenty-three accommodations were applicable as an academic accommodation and approved for students with LD, plus an additional five applicable accommodations were approved under other. Of the 28 total approved accommodations for students with LD 18 were class related accommodations and 10 were specifically for testing/exams. Other accommodations approved included one class related accommodation, 'permission to approach instructor to discuss use of a computer on classroom assignments,' and four testing/exam accommodations, 'permission to request a reader,' 'permission to request scratch paper,' 'permission to use a transparent colored overlay,' and 'permission to have specialty colored glasses'. Furthermore, six of the class related accommodations fell under assistive technology (AT). Those accommodations included 'use of laptop,' 'audio recorder,' 'spellcheck,' 'calculator,' 'adaptive equipment,' and 'Kurzweil' (i.e., text-to-speech software). 'Course load reduction' was the overall most approved accommodation at 274 students (91%). The next most approved class related accommodation was 'access to slides' (i.e., from instructor) at 232 students (77.1%). The most approved testing/exam accommodation was '1.5x for any timed activity unless speed is the factor being tested'

at 253 students (84.1%). Other accommodations that over half of students were approved for include 'Kurzweil' at 211 students (70.1%), 'permission to audio record' at 191 students (63.5%), a 'copy of class notes' at 155 students (51.5%), and 'reduced distraction environment' (RDE) for testing at 153 students (50.8%). Accommodations that were approved for less than 10 students (3.3%) include a 'reader,' 'access to course material in electronic format,' 'leniency with spelling in foreign language,' 'do not call on at random,' 'iClicker 1.5x,' 'adaptive equipment,' 'permission to request alternative test format,' and 'preferential seating near front'. See Figures 4.1 and 4.2 for a breakdown of approved accommodations.

Figure 4.1: Class Accommodations

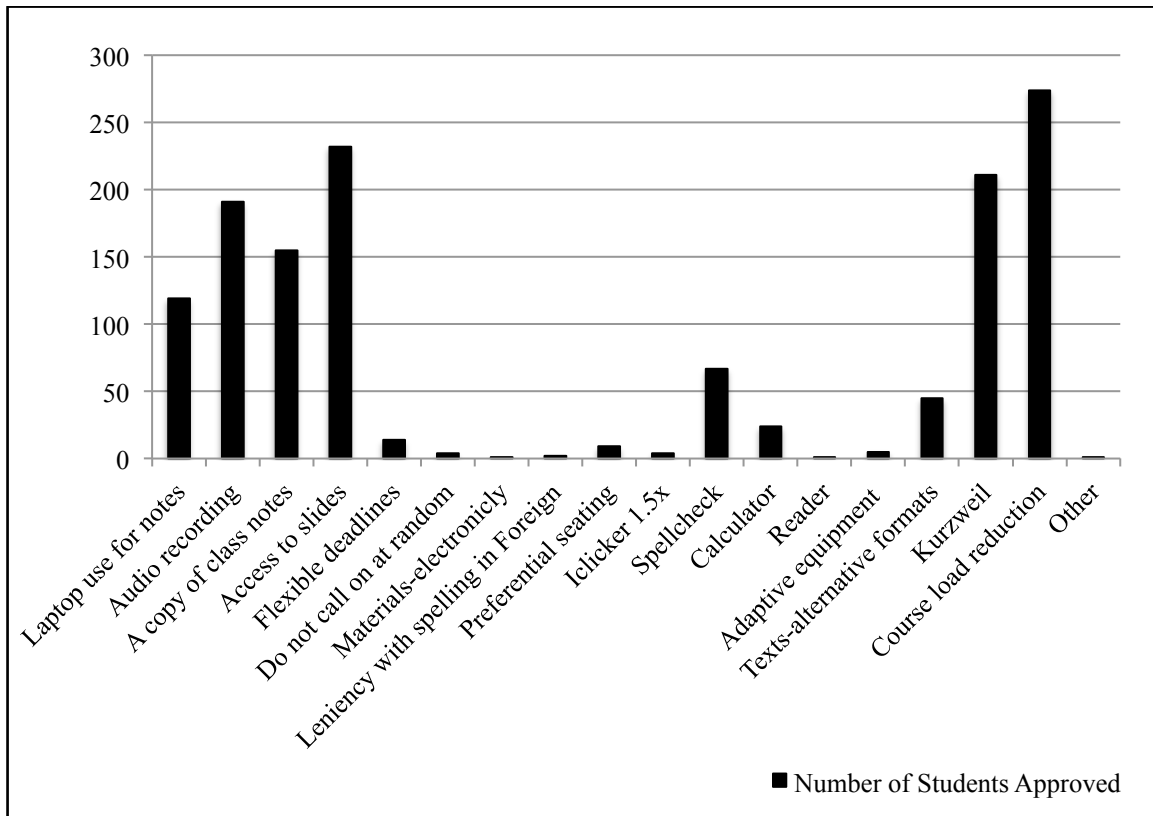
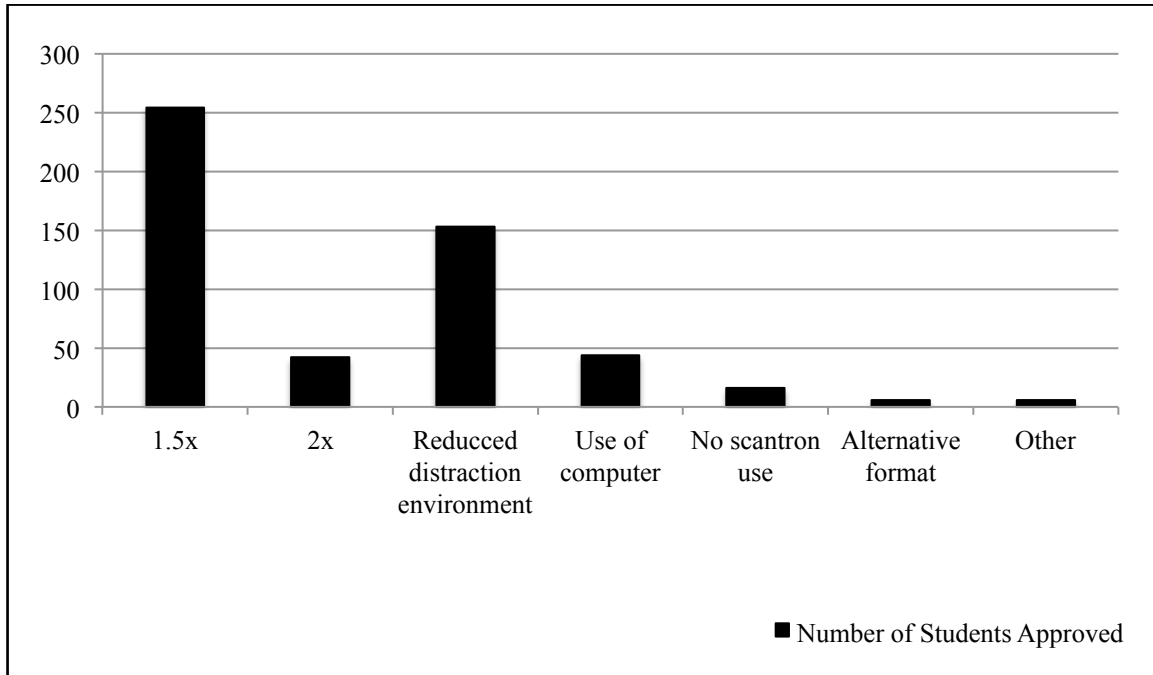


Figure 4.2: Testing/Exam Accommodations

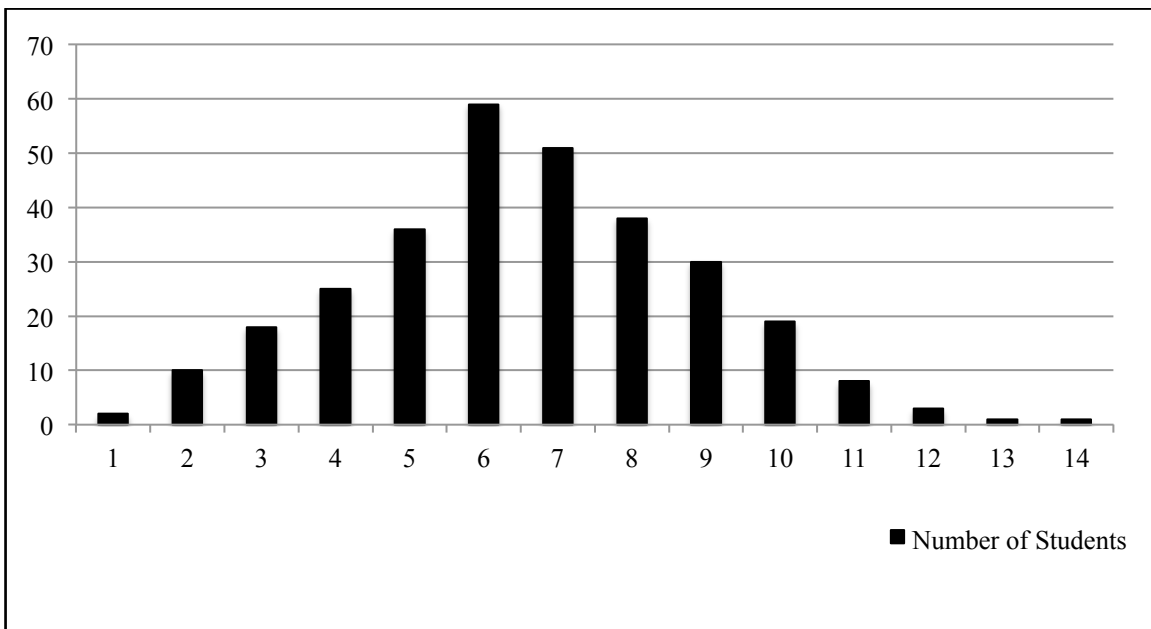


Thirty-one accommodations were excluded because they were not relevant to a student’s LD academic performance or not approved for any student with LD. Those accommodations were ‘priority registration,’ ‘5 – 10 minute breaks,’ ‘3x for any timed activity unless speed is the factor being tested,’ ‘iClicker 2x,’ ‘iClicker alternatives,’ ‘student may need to leave class unexpectedly,’ ‘leave 5 minutes early,’ ‘arrive 5 minutes late,’ ‘arrive 5 – 10 minutes late,’ ‘permission to step out of class for 5 – 10 minutes,’ ‘step out for up to 10 minutes,’ ‘step out for 5 minutes,’ ‘wheelchair accessibility,’ ‘accessible workstation,’ ‘accessible classroom,’ ‘CART,’ ‘typewell transcription,’ ‘closed caption video,’ ‘FM system,’ ‘sign language interpreter,’ preferential seating near door,’ ‘preferential seating,’ ‘audio,’ ‘preferential seating,’ ‘mobility,’ ‘preferential seating visual,’ ‘permission to move about in class,’ ‘Student has medical device which

may beep/alarm,’ ‘Permission to bring food/drink to class,’ ‘course material in large print,’ ‘permission to request alternative to group work,’ ‘flexible Attendance,’ ‘alternative to in class presentations’.

Analysis of the number of approved accommodations per student revealed that six accommodations was the most common number of accommodations approved at 59 students (19.6%). The average, for the number of approved accommodations per student, was seven, ranging from one approved to fourteen approved accommodations. The majority of students (79.4%) had between four approved accommodations and nine approved accommodations. Number of approved accommodations with ten or less students includes one, two, eleven, twelve, thirteen, and fourteen. Figure 4.3 provides the number of students per number of accommodations approved.

Figure 4.3: Number of Students per Number of Accommodations Approved



PERCEPTION OF THE UNIVERSITY

The first category to develop based on interview data was participants' Perception of the University. Students were asked about their school experience at the university, being a student with LD, and instructors were asked to talk about what it has been like as an instructor at the university. Two themes emerged and they were *quality of the university* and *support and resources*.

Quality of the University

Four students made comments related to their perception of the *quality of the university*. Three students mentioned their overall experience thus far as being good. Two students just stated, "it's been good," while a third student stated, "[The university] does pretty good about getting it to where everyone is like okay.... They make it as easy as they can while avoiding people just abusing it," referring to students with disabilities using accommodations. The fourth student was neutral on their overall experience stating, "I'm not saying it was bad, but it wasn't as good here." They indicated that at a prior community college they had a better experience being a student with LD.

Support and Resources

Seven instructors made comments that mentioned *support and resources*. One instructor mentioned the support they felt from the university stating, "I feel like there's a supportive environment for instruction." Contradictory to that, a different instructor mentioned they felt a lack of support stating, "Not a lot of support as an instructor." Rather than support from the university, six instructors felt support came from within their department. One instructor stated, "Outside my department I don't think there's a lot

of networking... a lot of involvement and feedback from other teachers and professors,” referring to the lack of interdisciplinary support. Another instructor stated, “Department has good system in place.... I have good coworkers and a very supportive dean.” Four comments made mention of a specific person who supports their department. Two instructors from the same department stated, “We have an instructional designer in our department who helped walk me through how to make adjustments” and “We have a instructional design person within our college and she is available to kind of help us.” The additional two comments came from instructors in separate departments. They stated, “We have course coordinators who have considerable administrative responsibilities for coordinating the faculty (in department). Typically, handling the requests for alternate exam times and accommodations and so forth” and “Department has student academic support. The lady who works for me down in student academic supports, she interviews every student (who needs accommodations).”

Two of the instructors also mentioned resources but revealed one had to search to find them. “There's lots of resources online. The Center for Teaching and Learning and all of those kinds of places... I feel like if you look for the resources, they're there, but you usually have to look for them,” stated one instructor while the other stated, “It’s just up to professors to actually go and get those resources. They don’t come to you.”

ATTITUDE

Attitude is a state of thinking towards something or someone that influences ones behavior (Merriam-Webster, 2018). The next category to develop was Attitude both students’ attitudes towards being labeled with LD and instructors’ attitudes towards their

position as an instructor. The theme *impact of a LD label* emerged from student responses to be asked how being identified as having a LD made them feel. Three themes (i.e., *attributes of an instructor career*, *responsibility to students*, and *instructing students with disabilities*) emerged from instructor responses to being asked how their career has been as an instructor including working with students with disabilities.

Impact of LD Label

Eight students made comments about the *impact of a LD label*. Five students mentioned the positive aspects of being labeled with a LD, while two students talked more negatively about their attitude towards being labeled. The eighth student mentioned the immediate negative impact but how over time they started to understand and like their label.

The first student, with a more adverse attitude, stated, “I kind of resented having it (LD). I took my accommodations and was like, “Okay, this is great.” They spoke of feeling like they were getting something (i.e., accommodations) they didn't deserve and how they didn't like being different. They continued to state, “But I didn't really think or process the fact that I had a learning disability, I guess,” recognizing they never took the time to connect getting accommodations was due to having LD. The second student mentioned how they didn't like the attention being labeled with a LD brought. They stated:

It's kind of this battle in my mind of acceptance and feeling hopeless and hating that I have it.... I got a really strong response when I found out about that. And I think it was a label. I don't like attention. And so, all of a sudden, it was like...

you have this disability... I don't want to call it that but that's what it is...and I was just feeling hopeless and just upset. And not wanting to put a name to it, I think.

Four of the students with positive attitudes mentioned no longer feeling or believing they were stupid after being labeled with a LD. The first student just stated, "It was a moment. I was just like, 'Okay, so it's not just me. I'm not stupid'." The next student also mentioned how their confidence increased.

It was just relieving because I finally figured out what was wrong with me. I had thought I was just stupid. Everything started to make sense and I started to get some confidence, because I was the most un-confident child you have ever met. I can achieve if I work hard.

Along with the prior student's statement, the next student also mentioned that with hard work they could achieve. They further added that understanding about their LD made things easier for them.

Once I found out, the label of it, I was able to go and learn more about it.... "This is why I think this way." It was so helpful. It was just so... it was blinding not knowing all of that.... But for me, understanding that, it was great.... It just, it seemed easier for me to go and ask for help. Understanding the labels of it. And understanding that it's a disability, not just that you're stupid. We all have capabilities. You might just need a little bit more help... you might need to work a little bit harder to get where you would like to be. I think that's a good thing. I like knowing.

The next two students also mentioned prior to being diagnosed they didn't understand their struggles. The first stated:

It's that thing of like, "Oh, I have this, I'm not just stupid." I don't like using that word because definitely I understand that people with learning disabilities are not stupid at all, usually very bright.... I mean, before I got diagnosed and stuff... it was like, "Why am I having a harder time?" or "why do I feel like I'm doing things differently?" I definitely think having a diagnosis, doesn't mean that you're not smart or can't achieve. It's just a thing.

The other student stated:

Before I knew what I truly had, before I really found out the term learning disability... I felt like... I didn't understand what was going on. I didn't know why I was so behind, I felt like I was slow. I felt like I could've done better, but I know I couldn't. But, when I started learning about it later, actually knowing what it was... I thought more positive... with learning disabilities, when I heard the label.... I actually like telling people that, because it makes me feel unique.

The final student mentioned their initial attitude of feeling defeated and confused but how over time accepted their label as a part of them.

In the beginning, when I was first told that I had LD, it was hard. I felt kind of defeated. I knew that I had that, but still being labeled as, oh, you're LD, I've been kind of shoved into this label and you're just kind of confused. "Okay, does that make me different then? How does that make me really different?" That was kind of a little harsh. But then I started having these little break throughs. "No, I'm not

going to let that label that somebody put on me define who I am. I'm still me and it just makes me, I have a different wired brain, it's great.”

Attributes of an Instructor Career

Five instructors made comments associated with their attitude towards being an instructor revealing the *attributes of an instructor career*. Two instructors spoke only of the enjoyment of such a career. The first stated, “It’s a wonderful career,” and the second, “It’s awesome.” One instructor mentioned that instructing was both enjoyable and challenging stating:

Teaching is one of my favorite things to do... I would say also, sometimes it can be challenging to teach a class with different levels and different backgrounds academically, but I think it's also a very enjoyable process to learn how to facilitate the learning.... I really enjoy having interaction with the students, all kinds of different levels... student from different backgrounds and different departments.

A different instructor spoke solely of such challenges; “I think there’s a lot of challenges.... You get people from wide and diverse backgrounds as far as educational preparation, their cultural backgrounds, so that when you come into a class really you have to ask, what's your background?” They indicated that it’s hard to teach students with diverse backgrounds. The final instructor stated, “Labor of Love.... I really work here because I want to... we get paid so poorly,” revealing her love for her career but the downside of working at a university versus in a clinical setting. *Attributes of an instructor*

career embodies that being an instructor can be pleasurable but also difficult because of a lack of pay and the challenge educating a diversity of students.

Responsibilities to Students

Four instructor responses revealed their general attitude towards their *responsibilities to students*. The first instructor stated:

I think that as you go through the process and if you're all introspective, and sort of critical, self-critical, self-aware, you start to feel, figure out what works in terms of connecting with students in terms of making sure that they're understanding material.

The next instructor also implied that instructors need to connect and understand students, establishing a positive learning environment.

The personability of my classes and sense of community in what I teach are so paramount to me to where it's not a sterile environment anyway.... Whatever I can do to make the lecture dynamic and come alive, to have brain breaks and have conversations. I think dynamic diversified teaching that has equal parts hands on kinesthetic, visual, and oral, all of that together when you're really creating those lectures, it benefits all.

Further evidence for such responsibilities included:

I think my job, my responsibility as a faculty member here, is finding out what you're going to do when you finish not only this class, but your degree... “What are your current aspirations, what are your issues, what motivates you, what is

your greatest concern or fear as you finish your degree?” Most importantly, is that I get to know them.

In addition, instructors should create a sense of independence in learning as one instructor stated:

I think it's like for a teacher, I think it's not like a copy and paste the knowledge from a textbook or anything you might be teaching your student. It's more like a lot of interaction between me and the student, and also among the students themselves... have them learn skills of critical thinking and teamwork, and also independence.... A lot of things are involved in teaching, not just knowledge transferring, more important have students who gain the capacity to learn by themselves.

Based on instructor responses *responsibilities to students* includes connecting and understanding students, increasing students' independent learning ability, and insuring learning occurs through a rich instructional environment.

Instructing Students with Disabilities

Seven instructors mentioned their attitude regarding *instructing students with disabilities*. One instructor simply stated, “It's been positive,” while another stated, “It's certainly not an issue to have them in the class.” Similarly, an instructor stated, “I don't see that there's a problem working with students with disabilities” and added, “I don't think it's any different really from working with any other student.” Another instructor stated, “Just simply be sensitive to the student,” recognizing that students with disabilities

may have more needs. Three instructors spoke of the needs of students with disabilities.

The first stated:

We need to make sure they are trained well, equally with any other student. Also, they get the help they need, because I think every student could be successful, have a very successful career. Make sure they are on the successful pathway, we need to provide them the service and also facilitate the learning pathway for them. That'd be important, because also compared to the typical developing students and the kids, they definitely need actual assistance and help.

Another instructor used an analogy to explain how instructors should figure out how to best help students with disabilities learn.

If we had to teach a student to dance, some students are going to come in dancing really well, and some students are not going to be dancing at all, because they may not have two feet. We have to figure out how we can help them dance. That's how it is learning.

The seventh instructor stated, “A lot of them need support and in my opinion, as a teacher, it's my job to give it.” Based on instructor responses, *instructing students with disabilities* isn't a problem and includes being sensitive and a willingness to meet students' needs.

PERCEPTION OF LEARNING DISABILITY

Both students and instructors were asked to define “learning disability” or explain a learning disability from their understanding. The first theme in this category, Perceptions of Learning Disabilities, only emerged solely out of instructor responses,

misconceptions. The next themes, which were supported by both students and instructor responses, included *lack of understanding*, *effect of a LD*, and *characteristics of a LD*.

Misconceptions

Eight instructors made comments indicating they had a misunderstanding of what defines a LD. *Misconceptions* included four instructors who gave comments that indicated an “association with other disabilities.” The first instructor stated, “I can image that it could be other physical issues, certainly blindness, deafness, all sorts of other things that might require adjustments.” Similarly, another instructor stated, “That maybe they can't walk as good. They can't talk as good. They can't hear as good and whatever.” That instructor also stated that students with LD struggle to meet academic standards, stating students with LD have an “inability to meet the norm.” Two instructors just thought LD was ADHD or related to “attention deficit and focus issues.” In addition, the second instructor also believed LD was “equivalent to learning styles” stating, “Like some people are auditory learners and some people like to see it visually and some people like to record and listen to it many many times.” A fifth instructor had the same misconception stating, “I’m really aware people have different learning styles,” believing students with LD don't have a disability but a different learning style. A different instructor thought of LD as a “disadvantage in learning” stating, “It's where someone is disadvantaged through no fault of their own and you can accommodate them to level the playing field,” but believed through accommodations students with LD could be back on par with students without LD. Another instructor believed “stress levels” was the cause stating, “Probably have higher levels of stress that could cause some negative impact on

their performance.” The last instructor, although not incorrect to perceive a LD as a mental disability, revealed they believed students with LD lacked critical thinking. They stated, “Mental disability that handcuffs them in terms of that critical thinking.”

Lack of Understanding

Responses from five students and three instructors revealed a *lack of understanding* as to what defines a LD. Two students made comments indicating they lacked a full understanding, “I don’t know. I’ve never really had to explain it” and “I don't really know how to explain it well.... I didn't know much about it... as I got older I definitely started realizing more.” While a third student just stated, “I don't really understand it at all.” Two other students provided comments that showed minimal understanding, they were, “I’m not fully comprehending everything” and “Not necessary wrong but there’s issues going on.” Both recognizing that they have a difference, from students without LD, but could not define LD.

Instructor responses revealed minimal understanding. However, they understood a LD is an invisible disability, students with LD do require accommodations, and that a LD is unique to each individual student. One instructor responded, “It’s invisible, it doesn’t show,” while another instructor simply stated students need accommodations, “Having a problem that requires you to need accommodations.” Lastly, one instructor responded, “I think LD is defined by the person who has the LD.”

Further evidence of lack of understanding came from four student responses to being asked if anyone had ever explained what defines a LD to them. The first student just stated, “Not really.” The next students mentioned about how someone tried but they

didn't really understand what they were saying. That student responded, "I did testing and she basically explained how a brain works... and she was telling me that there was this missing link. I don't know if it's a neutron or neuron or something." Another student mentioned learning through their own research, "I've never ran across someone who sat me down and explained it to me. It's more like me seeking out and doing my own research... I really don't understand as much." The last student's comment pertained to not even being told they had a LD by anyone.

I was diagnosed in first grade, but I was not told about it at all. I was not told about it at all until I went and had to turn in a sheet for my ACT accommodations. And so I just saw the piece of paper with all of it written on it, and that's all I knew. I had no idea about any of it.

Effect of a LD

Six students and nine instructors provided responses revealing the *effect of a LD*. Such affects involved "learning or processing differences" and "mental ability."

Responses from three students and seven instructors embraced "learning or processing differences." Student comments include, "I would just say that I can't process things as fast as other people and need more time," "I just process and function a little differently than my classmates," and "It doesn't really exactly mean that you don't have the ability to learn. It's more like you have difficulties in learning. It's basically a deficit of learning. You have certain deficits in order for you to learn." Comments from instructors included, "Struggle with... learning process," "I think sometimes people take a longer time processing. They know the material, but they just need time to read it and

understand the question. So, from that standpoint, it's more just their thought process,” “They take in and retain information or learn differently,” “some difficulty grabbing some key concepts in traditional learning environments,” “Its just a processing difficulty,” “it's just anything that impacts your ability to retain or remember information... persistent issues with academic skills and there's no other reason for it. There's not a medical reason,” and “It's a student who doesn't learn in a very traditional way.”

Three students and two instructors’ responses were related to “mental ability.” One student stated, “To me it's just being wired differently.... It's a different route that I take to get somewhere... if it's limiting me, then I have to find another way to get to it.” The other student comments were, “A mental disability. Like a learning disability in your head that prevents you from working efficiently as others... or staying on task” and “It's almost like a disconnect in the brain. Traditional teaching and learning goes a certain way, and with that disconnect there is a struggle with the connection that is made with traditional teaching and learning.” The two instructor comments were, “There's this cognitive thing happening that we can't quite pinpoint” and “I think uniqueness. I think difference, as in finding what works, that we're going to have ... and all human brains are unique, and take different methodologies to find that light.”

Characteristics of a LD

Students and instructors were asked to explain more about the implications of LD on the individual (i.e., the student). The theme of *characteristic of a LD* emerged and included “strengths” and “challenges.”

Five students and three instructors made comments related to the “strengths” or the potential and capabilities of students with LD. The first two students both mentioned high school class ranking, revealing the academic success students with LD can achieve. Responses were, “I graduated salutatorian in my school” and “I was salutatorian of my high school class.... Just because you are not good in these areas, doesn't mean you're not smart.” The next student also mentioned their intellectual capability:

I know a lot of things. I'm able to process and think critically, but it gets sometimes stored in weird places or encoded differently, and so it takes longer to retrieve. When I'm thinking or answering questions or whatever, I know everything, it's all in there. It is just hard to get to sometimes.

The last two students mentioned their strengths. They stated, “I view myself more on the creative side of things, like I'm really into photography and art and stuff” and “In a way I really love it and appreciate it because it make me function differently and think outside of the box.” The fifth student also stated, “I want to achieve highly at all time... academics are really important to me.... I like to really strive and challenge myself and all that.... I'm one of those people, I love learning.”

The first two instructors believed students with LD were capable smart individuals, while the third did not see students with LD as having the same potential for success as students without LD. Comments include, “I see them as having the absolute potential to be whatever they want to do.... I absolutely see that student as capable and successful,” “These kids are just as bright, if not brighter,” and “Not necessarily as successful. I don't think they could be as successful.”

The next set of responses related to “challenges” of students with LD. All ten students and three instructors mentioned challenges associated with LD. The first set of responses indicated social challenges. Two students made comments about being frustrated with peers not understanding. The first mentioned how peers don't understand how someone with dyslexia can be smart by being asked, “How can you be salutatorian and have dyslexia?” That student further stated, “I told them I have dyslexia.... I'd tell them and they were just like, ‘There's no way... you have perfect grades’.” The second student told of a situation where a peer believed having a LD meant being stupid.

This guy, he was an engineering major and he came out to my ranch for New Years and he was telling me that basically I was stupid for having a learning disability and stuff. I was like, “You don't get it.”

Both students also commented that peers don't understand LD. The first stated, “That's what nobody understood,” referring to how they were smart and had a LD. The other students stated, “Yeah, I don't think they really understand completely.” The first instructor stated, “Those kids are very aware that they have that, so they probably have some difficulty socially” but did not indicate what those social challenges might include. The other instructor thought a LD would be stressful and isolating for the student stating, “Very stressful and you feel very isolated at times.”

Students and instructor also mentioned academic challenges. Five students and one instructor mentioned ‘time’. Four students stated, “I know it takes me twice as long to do things than my peers so that's really difficult,” “It takes me longer to get stuff done,” “When I read, like a test, I usually don't process it for a while,” and “takes longer

to go through the text reading and comprehending it.... It would take me awhile to do some assignments.” The fifth student responded,

It takes me a while to just focus in on something... when somebody would take them five minutes, it probably takes me like 15 minutes to get started on something or maybe longer. Like when I have to study, I have to set out a five-hour block instead of at most two hours.

The one instructor just stated, “Somebody who needs some extra time” to complete academic tasks.

All ten students mentioned specific academic areas for which they had challenges. Eight students made comments about reading comprehension or reading difficulties. Notable responses were (including the comment above that mentions reading and comprehension), “I have to read a lot for tests, like over and over, to actually understand what its saying,” “I’ve never been good at reading comprehension,” “I just have trouble comprehending,” “With me, I have trouble with reading comprehension, having trouble grasping what the novel was about,” and “Reading comprehension, just reading difficulties, and expressive language.” Three students made comments about struggles with other academic areas. Those responses were, “It’s not just a reading disability. I feel like it’s also in math,” “My worst problems was phonics and spelling,” and “Writing was terrible. It’s legible now, but essay writing was terrible. I hated it, I considered it torture,” revealing students with LD have challenges in not only reading but also math and writing as well.

Four students made comments about challenges with connecting and audio processing of information. The first student stated, “I have more of a disconnect with the connecting of things. So connecting written word to spoken word and connecting word sounds.” The next two students mentioned audio processing. They stated, “It's thinking-wise, and especially audio processing, just being able to hear it and fully understand what I'm being told on the first time” and “There's auditory thing... processing... when the professor is talking pretty quickly, I can't reword it in my own auditory before it's gone.” The fourth student spoke about the difficulty of concentrating and learning processing stating, “I have trouble trying to concentrate in class... processing, kind of like a learning processing.” Two additional student mentioned trouble concentrating, specifically in terms of test taking. The first stated:

Even if it's in a classroom, like 20 or 30, I would still be way too distracted to even do little timed tests or stuff like that. I would get distracted by the person next to me and be overwhelmed because they're going so much faster.

The other student mentioned their fear of instructors thinking they're cheating because of their inability to concentrate which leads to eye wondering (i.e., constantly looking around). “Another thing is I'm always afraid of getting in trouble for cheating because I look around a lot. I'm not cheating, it's just I can't stay still.”

Students and instructors mentioned social challenges, such as peers not understanding the capabilities of students with LD or how having LD can be isolating, and academic challenges, such as increased time to accomplish tasks and difficulties with reading, writing, math, and concentration. A final student's comment stated how LD

involves everything. “That's the biggest thing. Because people think about reading and writing as the ways but it really encompasses everything... it really encompasses everything.”

PRACTICE OF USING ACCOMMODATIONS

The first research question this study aimed to answer was, what do postsecondary professionals and students with LD understand about the use of accommodations? Under the category, Practice of using Accommodation, six themes emerged. Those themes were *previous use of accommodations*, *accommodations approved and provided*, *purpose of accommodations*, *accommodation approval process*, *students requesting accommodations*, and *instructors providing accommodations*.

Previous use of Accommodations

The theme *previous use of accommodations* identified how much practice students had with using accommodations. Interview students were asked if they had used accommodations previously. Only one interview student indicated they had not used accommodations prior to the university. Five of the 16 students who responded to the survey marked they had no prior use with accommodations. The remaining nine interview students all said they had used accommodation at the high school level. Only half of the surveyed students said they had used accommodations in high school. Of the nine students interviewed who used accommodation during high school, two also had experience using accommodation at a community college and one had used them at a previous 4-year institution.

Of the students who responded to the survey that they had previous accommodation experience, four only marked high school, one marked high school and community college, one marked high school and other 4-year institution, and one marked high school, community college, and other 4-year institution. The remaining two student only marked they had used accommodations at a community college previously. Twenty of the twenty-six (76.92%) total students in the study had experience using accommodations prior to the university. Table 4.1 provides an analysis of responses from students surveyed.

Table 4.1: Student Survey: Prior use of Accommodations

Survey Question	Response	Rate	Percentage
Have you used accommodations in any of the following settings prior to coming to [the university]?	No, this is my first time using accommodations	5	33.33%
	High School	8	53.33%
	Community College	4	26.67%
	Other 4-year institution	2	13.33%

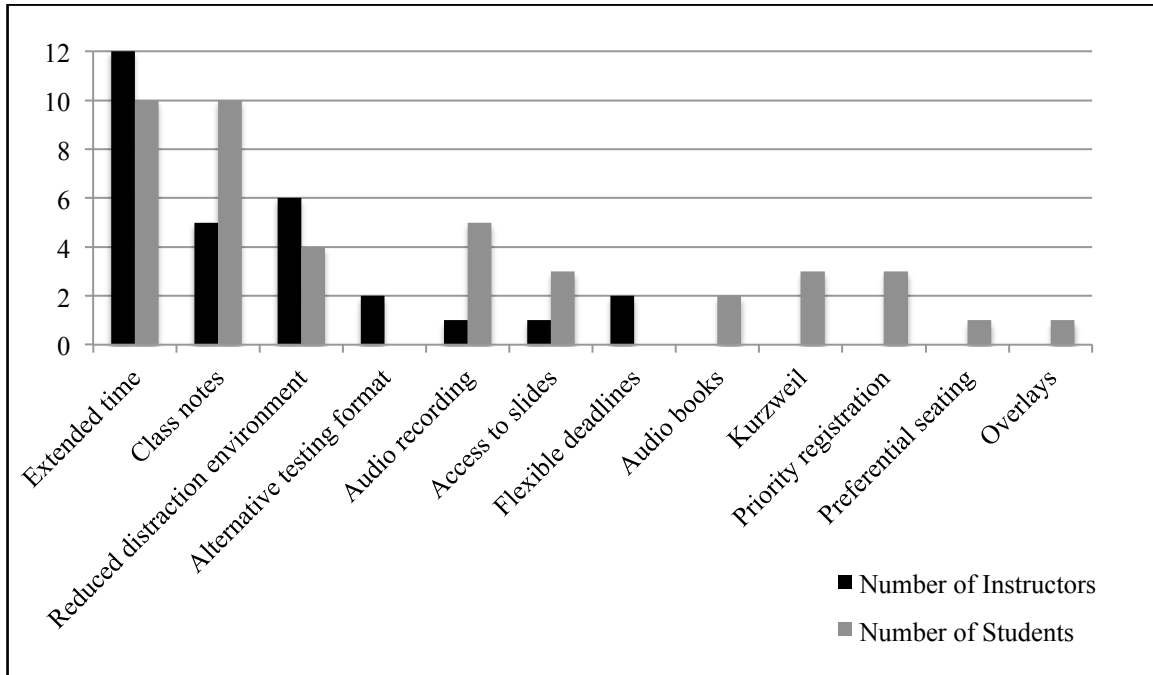
Accommodations Approved and Provided

The next theme to emerge was *accommodations approved and provided*. Students were asked what accommodations they had been approved to use, while instructors were asked what approved accommodations they had provided to students with accommodation letters (because instructors don't typically know what disability the student has, the researcher did not ask specifically about students with LD and excluded any accommodations instructors stated that would not apply to students with LD). Twelve total accommodations were mentioned across both instructors and students.

Students mentioned 10 different approved accommodations while instructors only mentioned seven different accommodations they provided. The two accommodations all students had been approved were ‘extended time for exams’ and ‘peer-notes’. Although ‘extended time for exams’ was provided by all instructors, less than half provided ‘peer-notes.’ According to the student database analysis (see Figure 4.2) extended time was the number one approved accommodation (excluding ‘course load reduction’ because instructors do not provide that accommodation).

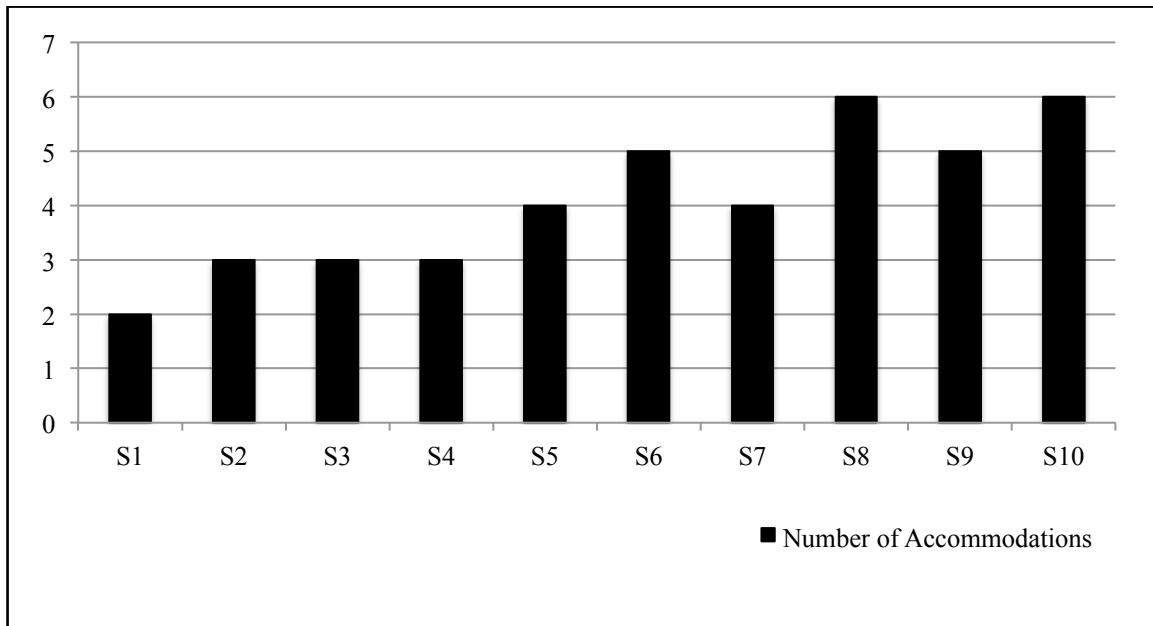
The second highest provided accommodation by instructors was ‘RDE’ but only four students stated they were approved for that RDE. Both ‘peer-notes’ (i.e., a copy of class notes) and ‘RDE’ were approved for over half of students with LD according to the student database (see Figures 4.1 and 4.2, shown previously). Instructors provided two accommodations (‘alternative testing format’ and ‘flexible deadlines’) that no students stated they had been approved. This aligns with the fact that relatively no students (< 5%) are approved for these two accommodations according to the student database. Students indicated four accommodations (‘audio books,’ ‘Kurzweil,’ ‘preferential seating,’ and ‘overlays’) that instructors did not state they had provided. Three students also mentioned ‘priority registration’ but this is not an accommodation instructors provide (nor does it qualify as a class accommodation). More instructors than students indicated the last two accommodations, ‘audio recording’ and ‘access to slides’ as ones provided. See Figure 4.4 for a graph of accommodations students indicated they had been approved and ones instructors said they had provided.

Figure 4.4: Approved Accommodations



As revealed from the student database (see Figure 4.3, shown previously), the average number of approved accommodations per student with LD was seven accommodations, with a range of one to fourteen approved accommodations. The average number of approved accommodations for students interviewed was only four, with a range of two to six approved accommodations. Although, as dictated by one student, “There’s other things, I just don’t remember,” student may not actually know or be able to recall all the accommodations they have been approved. Figure 4.5 provides a graph of the number of approved accommodations per students interviewed (S represents students).

Figure 4.5: Number of Approved Accommodations per Student



Purpose of Accommodations

The third theme to emerge was *purpose of accommodations*. Students and instructors gave responses to interview questions that involved how accommodations “level the playing field,” show students’ “learning capability,” and provide a “learning conducive environment,” as well as other ideas. However, two students and three instructors had an “uncertain understanding” as to the purpose of accommodations. One student stated, “I guess, I don't really know,” while the other stated, “I’m not really sure. I haven’t really thought about it... I guess. I don't know.” Two instructors just mentioned how they really didn't know. The third instructor mentioned how they didn't know but that they provided accommodations because “that’s what we are told to do. We do it.... Haven’t really thought about what the issues are... it’s not clear to me.”

Seven students and three instructors made comments indicating the purpose of accommodations are to “level the playing field.” The first four student responses were, “I think in a way it makes it... more an even playing field for students who have learning disabilities to take that disability and make it better... it just makes being a student not as much of a burden,” “To maybe level the playing field a little bit.... Just maybe evening it out a little bit, giving help where it's needed,” “For me it levels the playing field. I'm just as smart as everyone else, it just takes me a couple more minutes,” and “It's good to kind of level the playing field.... it really helps you succeed, and learn, and get the information that you need to out of school and stuff like that.” Their comments also revealed that accommodations increase their ability to learn. Similarly, one instructor responded, “Help level the playing field.... Equal opportunity to learn and maximize their well-being of their learning,” also indicating increased learning. The other two instructors also mentioned leveling the playing field. Their comments were, “Level the playing field so the student is given an equal opportunity to demonstrate the level that they have,” and “It's the best we know how to do to level the playing field... The accommodations are absolutely essential for leveling the playing field.” The next two students’ responses mentioned how accommodations allow them to be at the same level with other students. Their comments were, “Helping me just get to where I need to be. How everybody else is... accommodations kind of guide me back to where I need to” and “It helps one kid that has LD that's behind this other kid that doesn't have LD go in the same level... It helps you stay in the same level as everybody else in the classroom.” The final student’s

response mentioned fairness, the meaning behind the phrase level the playing field. “I feel they make it more fair for me in comparison to other students.”

Although several responses above are evidence for increased learning the next set of comments relate more specifically to “learning capability.” Two students and two instructors made relative comments, while two other instructors just stated how accommodations allow students to show what they are capable of. The first student mentioned how accommodations are the reason they are able to learn, “I need my accommodations because that's how I'm doing well. If I didn't have them, I wouldn't be doing well.” Similarly, the other student stated, “I have a learning disability but it doesn't really affect how well I do in school because I have my accommodations.”

The first instructor stated, “I would say just accommodating them to do whatever we can to make the subject matter stick as well as it can.” The second instructor mentioned how accommodations remove barriers so students can achieve. “Its just something that you need to adjust so that you can learn. It's more like you take away the barrier so that they can learn just like most people. So that students can achieve the outcome they deserve to achieve.”

Two additional instructors mentioned learning but in the context of environment. They both made comments related to a “learning conducive environment.” Their comments were, “Having an environment where... related to how they need to learn” and “I just think it brings them to a point where they can understand the material, but the need the right situation, environment to be able to do that.”

Four other instructor comments related to the purpose of accommodation. The first instructor mentioned how accommodations provide access and support independence stating, “To provide access to the general curriculum.... Some sort of change that supports that person's ability to be as independent as possible.” Another instructor also mentioned support, “Support pathways that have already been discovered,” talking about how accommodations assist students in the classroom. The third instructor mentioned how accommodations are adjustments made to meet students’ needs. They stated, “Accommodations would be making adjustments to the original plan or rules that I have to help meet the needs of students who have a learning disability.” The final instructor mentioned the purpose of accommodation only in the context of testing. They mentioned how students with LD get easily sidetracked during exams, “It's easier for them to get interference and the distraction from even small kinds of things... may cause problems for them,” and how accommodations help students stay focused. Based on interviews, the purpose of accommodations are to leveling the playing field, allow students to show learning capability, provide a learning conducive environment, provide access and support, increase independence, and help students stay focused during exams.

Accommodation Approval Process

Before students can request accommodations from instructors they need to meet with disability services and go through the *accommodation approval process*. This theme only emerged from student interview data and involves “disability disclosure to university,” “paperwork,” and “determining accommodations.”

The first set of comments related to “disability disclosure to university.” Six students mentioned their decision to disclose their disability to the university’s disability service office in order to be approved for accommodations. Two students mentioned it was because they had used accommodations previously and knew they would still need accommodations. Their comments were, “I knew I was going to need accommodations. I always have, so I was like, ‘Okay, well I'm going to need to go talk to someone” and “I actually did use accommodations in high school a lot and I do feel they helped me and I didn't want to get behind or struggle anymore than anyone else.” Similarly, two other students mentioned wanting to do well. The first stated, “I just wanted my full potential to shine through. Not let anything limit me, so I wanted to do good in all my classes and everything and if that's what I need, then that's what I want to.” The second student's comment was, “I need to make sure I'm setting myself up well and not putting myself behind because I'm not taking advantage of the opportunities I could have.” The last two students mentioned the difficulty of the university and needing help as well as not being afraid to ask for help. Their comments were, “I was told how hard [the university] was and I was like, ‘I’m going to put aside my pride and just use the accommodations’ ... My first semester, I was like, ‘I can’t imagine not using them” and “It was one of those things where it's just like I needed help and I wasn't afraid to admit that I needed help.”

In order to be approved for accommodations students need adequate “paperwork.” Four students mentioned having to be retested to qualify for disability services. The first stated, “When I submitted all my paperwork and stuff to get in... they're like, ‘You need

updated testing' There's a lot of special requirements." The next student stated, "I had to literally go to a neuropsychologist and had to get tested again... I had to do all that paperwork and pay again for the test and everything." The last two students comments were, "I need my accommodations. Now they're saying I have to get retested" and "When I first started to go through the process I had to go get re-diagnosed because it was the whatever years had passed." Student one also mentioned paperwork was too outdated. The last two students also mentioned how frustrating that was stating, "It was just kind of frustrating" and "I was really frustrated." The other six students indicated their paperwork was accepted initially. Three students said they provided disability services their paperwork from high school. One student stated, "I just kind of brought in all my paperwork and stuff that says that I have a learning disability." The last two students mentioned providing testing results. The first just said, "Yeah, they took his letter," referring to diagnostic letter from his psychiatrist. The student stated, "I showed her my testing and that I was diagnosed and everything."

The final set of comments pertained "determining accommodations." All students mentioned meeting with a disability service person and having a discussion to determine which accommodations they would be approved to use. Six students mentioned determining accommodations off of ones that had used previously. One students' response was, "I went into a meeting and we looked over all the past accommodations." Another student also said, "What I have used in the past." Three specifically mention high school accommodations. One student stated, "They went off of what it was for me in high school," while the other two students both stated, "I told them what I had in high

school.” The last student mentioned accommodation from a previous postsecondary campus stating, “I pretty much told them what I had in community college.” Five of those six students also mentioned disability services told them more accommodations they could have or just added more that felt were appropriate. Two additional students had similar responses. One student stated, “They definitely let me know some of the different ones that I didn't know about.” Three other students indicated they didn't know all the accommodations that were possible to have. One of the students stated, “I had no idea what type of accommodations they would give me... .. they presented me with so many other accommodations that would help,” while the other stated enthusiastically, “I was really pumped to hear all these other things they had.” A student also mentioned, “They talked to me about what they usually give students with those disabilities.” Four students mentioned that they were asked what they needed. One student stated, “They asked me a lot like what do you need and why do you need it.” Another student stated, “(Disability service personnel) asked me is there’s anything else that you think could help you?” Two students mentioned the decision was made in part by their challenges. One student stated their disability service person asked them, “What kind of things I struggled with.” The other student stated, “The person I went and met with... wanted to talk about what problems I was having in class.” Student responses indicated that accommodations were determined based on what accommodations students had previously used, disability services knowledge of useful accommodations, what accommodations students felt they needed, and student struggles.

Students Requesting Accommodations

The next theme to emerge was *students requesting accommodations*. Students were asked to talk about the process of requesting accommodations from instructors. Likewise, instructors were asked to talk about how students usually went about requesting accommodations. This includes “how and when requesting occurs,” “ability to explain accommodations,” and “disability disclosure.”

Students and instructors first mentioned “how and when requesting occurred.” Four different methods for how students request and four different methods for when students request, were identified through interviews. Table 4.2 shows the number of students and the number of instructors who indicated each type of method. Likewise, both the student and instructor survey asked about how and when students request accommodations (note that the language is different and request refers to requesting from disability services and delivery means to request from instructor). See Tables 4.3 and 4.4 for response analysis of survey questions. Majority of students interviewed said they either handed letter to instructor before or after class (60%) and/or met with instructor during office hours (50%). One student said they both emailed their letter and met with instructor during office hours while another student said they handed their letter to instructor and then scheduled a meeting for during office hours. Another student said they usually handed their letter to instructor and have met with the TA. They stated the instructed said, “You can talk to the TA.” Similarly, majority of instructors said students usually hand them their letter before or after class (58.33%). Three instructors also said students sometimes email their letter. Few instructors said students meet with them

during office hours (16.67%). Three instructors did not specifically state how students request accommodations. Contradictory to interview data, instructors indicated on the survey that students ‘often’ meet with them (34.51%) when asked how students typically request accommodations. The next top choices marked by instructors were, ‘sometimes’ (27.46%) and ‘always’ (25.35%).

All ten students said they request their accommodations from instructors during the first few weeks of the semester. Majority of students surveyed (53.33%) said they deliver accommodations letters to instructors at the beginning of the semester. Two students said they deliver sometime during the semester while one student said they don't deliver letters to instructors. All instructors, who responded to the questions, said students request at the beginning of semester (58.33%). However, five instructors gave no response. One instructor said they have had a student come prior to the semester start and request accommodations while two said they have had students who wait to request. One stated, “Half think they are okay. The they get into the rigor and volume... then they realize they do need accommodations.” That same instructor also stated they have had students wait until the end of the semester to request accommodations.

Table 4.2: How and When Students Request Accommodations

Question	Response	Rate	Percentage
How students typically request accommodation letters:	Hand to instructor before or after class		
	Student	6	60%
	Instructor	7	58.33%
	Email letter to instructor		
	Student	1	10%
	Instructor	3	25%
	Meet with instructor during office hours		
	Student	5	50%
	Instructor	2	16.67%
	Meet with TA		
	Student	1	10%
	Instructor	0	0%
	No response		
Student	0	0%	
Instructor	3	25%	
When students typically request accommodation letters:	Prior to semester		
	Student	0	0%
	Instructor	1	8.33%
	First few weeks of semester		
	Student	10	100%
	Instructor	7	58.33%
	Mid-way through semester/before exam		
	Student	0	0%
	Instructor	2	16.67%
	End of semester		
	Student	0	0%
	Instructor	1	8.33%
	No response		
Student	0	0%	
Instructor	5	41.67%	

Note. TA = teaching assistant

Table 4.3: Student Survey: Requesting and Delivering Accommodation Letters

Survey Question	Response	Rate	Percentage
When it comes to my accommodation letters I typically:	Request and deliver them at the beginning of the semester	8	53.33%
	Request and deliver them sometime during the semester	2	13.33%
	Request but do not deliver them	1	6.67%
	No Response	4	26.67%

Table 4.4: Instructor Survey: Delivering Accommodation Letters

Survey Question	Response	Rate	Percentage
I find students turn in their accommodation letters in a timely fashion (e.g., at the beginning of the semester or shortly after they have registered with [disability services]).	Never	1	0.70%
	Rarely	15	10.56%
	Sometimes	43	30.28%
	Often	61	42.96%
	All the time	13	9.15%
	No Response	9	6.34%
Students meet with me in person to discuss their accommodations.	Never	1	0.70%
	Rarely	9	6.34%
	Sometimes	39	27.46%
	Often	49	34.51%
	All the time	36	25.35%
	No Response	8	5.63%

Seven students and four instructors also mentioned students' "ability to explain accommodations." Three students stated they didn't know or were unsure how to explain their accommodations or their need to acquire them when meeting with instructors. Their comments were, "Not well, I don't really know," "No... not really," and "I don't know.... Not very specific... I don't think enough." Similarly, two instructors indicated students did not know how to explain sufficiently. The first just stated, "Students don't explain well." The second stated, when student hand them their letter "It's here's my paperwork

and there is a disconnect.” However, that instructor also mentioned that students who are proactive are able to explain stating, “Yes, I do see... in the ones who are proactive because they own it.” Likewise, another instructor said students ability to explain depended on their proactive tendency. They stated, “Depends on how proactive the student is, then, they’ll say here is my waterfront of needs... but here’s what I really, really will benefit from.” The final instructor just stated, “Eighty percent of students know what they need... what kind of help I can provide them.”

One student felt they somewhat could explain stating, “To an extend, I’d say. I feel like I could express oh, ‘this is why I need this’.” The other three students revealed a good ability to explain by responding with how their accommodations benefit them. Part of one student’s comment mentioned how peer-notes are beneficial.

With getting extra notes in the class... you can't do more than one thing at the same thing. I can't write the notes and try to pay attention, because what happens then is all I'm doing is getting too focused on... getting all the information to study. But then, I don't get the concepts.... It's more of just helping me concentrate and yeah, being able to listen in class when I'm supposed to.

In another student’s comment they mentioned reduced distraction environment.

Reduced distraction just helps me kind of keep my focus because if I just look at a paper, letters are everywhere. I need to keep all of my attention to the paper, not to everybody, the little whispers or something that's going on around me because I'll probably turn away or something.

The final students mentioned extended time as part of their response. “I get time and a half. That helps me a lot, too, because it takes me awhile for things to be processed sometimes. I have to read every question two or three times.”

The last set of comments pertained to “disability disclosure” for which seven students and five instructors commented. The five instructors all indicated students mostly do not disclose. One stated, “None of my business” and another stated, “I don’t think it’s needed. It’s just the accommodations that... I just need to know what to do.” Similarly, another instructor stated, “Sometimes they volunteer... I always say you don't have to tell me. I just need to know about accommodations.” This aligns with student survey data (see Table 4.5). All 10 students who responded to the survey marked that an instructor had never asked them to disclose.

Student interview responses slightly differed. Three of the seven students stated that an instructor has asked them to disclose. One student revealed that they have had an instructor tell them they had to disclose in order to receive accommodations. A different student stated that the instructor did say, “I know you’re not required to tell me.” They also said they don't mind telling an instructor if they ask. Similarly, another student, who did not indicate that an instructor had ever asked, stated, “Some professors I told them that it was dyslexia,” indicating they didn't think it was anything to hide. The third student who had been asked to disclose by an instructor stated, “I didn't really like it because that's a personal things and I think it’s rude in my opinion.” They further stated, “I don’t think they need to focus in what I have, just focus on what I need.” As for choosing to disclose, three students specifically stated they do not disclose their disability

to instructors, two students indicated they would disclose, and one student said if an instructor asks they would disclose their disability.

Table 4.5: Student Survey: Disability Disclosure

Survey Question	Response	Rate	Percentage
Has an instructor ever asked you to disclose specifics about your diagnosis/disability?	Yes	0	0%
	No	10	66.67%
	No Response	5	33.33%

Instructors Providing Accommodations

After students' request accommodations comes the provision of accommodations. The final theme to emerge was *instructors providing accommodations*. Interview data from both students and instructors provided evidence as well as the student and instructor surveys, which asked several questions pertaining to the provision of accommodations. Tables 4.6 and 4.7 provide an overview of survey responses. This theme also involves "use of TAs" and "documentation for providing accommodations."

Based on survey data, students who responded indicated instructors (i.e., faculty) were respectful of their confidentiality, marking 'often' (40%) or 'all the time' (26.67%) the most. Survey students also indicated instructors were knowledgeable about providing accommodations most of the time, marking 'often' (40%) the most. However, 26.67% of students chose 'sometimes' or 'rarely'. Majority of students marked 'all the time' (26.67%) or 'often' (20%) to how helpful instructors are with providing accommodations. Equally, 46.67% of students chose 'all the time' or 'often' for instructors' helpfulness with providing testing accommodations. According to student

interview data, out of the nine students who mentioned the provision of accommodations, six indicated that instructors are helpful. Notable comments include, “Most of my teachers have been very willing to give me my accommodations,” “They’ve all been really good about it,” and “I haven’t had any issues with it.” Contrary to survey data, were only two students (13.33%) marked they have had problems and eight students (53.33%) marked they had not had problems, six interview students mentioned problems with instructors providing accommodations. The two survey accommodations students had problems with were extended time and RDE. Similarly, two interview students stated they had problems RDE and one also had problems with extended time. The first student stated, “Having the reduced distraction environment... they’re like, ‘No, no, you’ll just stay here’.” The second student stated, “I had extra time denied to me on a final. Also, the separate quiet room was also denied to me on that final.” That student further stated that an instructor forget to reserve a room that they said they would for an exam. Additionally, four students stated they had problems with instructors providing notes. One student stated, “He wouldn’t give me any notes... I needed actual notes from other students. He wouldn’t give them to me.” Another student stated, “A lot of times they would forget,” talking about instructors forgetting to provide notes. That student also mentioned problems with access to instructor slides. They mentioned an instructor who told them “I’m not giving these out so you can come up with something else.”

Interview instructors also provided evidence of problems with providing accommodations. Five instructors indicating problems, three with providing notes, one with providing extended time, and one with separate testing location. Of the three

problems with providing notes, one instructor stated, “No volunteer peer note takes.” Another mentioned needing to find reliable notes stating, “It took me a little bit of time to find out who will be a good note taker because I don't want to just randomly assign somebody to do the job.” The third instructor had an issue providing notes because they felt students should acquire that skill. They stated, “I have a little bit of an issue with the note-taking issue, because I feel as though it's a really important skill.” The instructor who mentioned a problem with separate testing location stated, “It's a hassle, that's a big hassle.” Finally, four instructors stated they had no issues providing accommodations. One simply stated, “It's usually not a problem for me.”

Table 4.6: Student Survey: Instructors Providing Accommodations

Survey Question	Response	Rate	Percentage
Faculty are respectful of my confidentiality about receiving accommodations.	Never	0	0%
	Rarely	0	0%
	Sometimes	1	6.67%
	Often	6	40%
	All the time	4	26.67%
	No Response	4	26.67%
Faculty members seem knowledgeable about providing accommodations.	Never	0	0%
	Rarely	1	6.67%
	Sometimes	3	20%
	Often	6	40%
	All the time	1	6.67%
	No Response	4	26.67%
Faculty members are helpful with providing my approved classroom accommodations.	Never	0	0%
	Rarely	1	6.67%
	Sometimes	3	20%
	Often	3	20%
	All the time	4	26.67%
	No Response	4	26.67%
Faculty members are helpful with providing my approved testing accommodations.	Never	0	0%
	Rarely	1	6.67%
	Sometimes	2	13.33%
	Often	3	20%
	All the time	4	26.67%
	No Response	5	33.33%
Have you ever had a problem with a professor providing an approved accommodation?	Yes	2	13.33%
	Extended Time	1	6.67%
	Reduced Distraction Environment	1	6.67%
	No	8	53.33%
	No Response	5	33.33%

Six instructors also mentioned how they provide testing accommodations. Five of the instructors mentioned they provided the accommodations themselves. While one instructor stated, “It works best when faculty use the [disability service] office.” One of the instructors who preferred to handle testing accommodations stated, “Usually it’s in house... just in house.... ‘You can test right outside my office. I’m going to be in here.’”

Another stated, “Its easier almost for me to give to the student,” referring to providing testing accommodations versus sending to disability services to test.

Data obtained from the instructor survey revealed that out of all instructors who responded, 100% indicated they had received information on providing accommodations. Most instructors indicated from disability services website (52.11%) or disability service staff (47.89%). However, instructors marked that the information was only ‘somewhat helpful’ (42.96%) the most. Still, a good number of instructors (32.39%) marked ‘very helpful’. Majority of instructor (69.01%) marked they ‘agree’ or ‘strongly agree’ with feeling prepared to accommodate students with disabilities. Similar information was not obtained through interviews.

Table 4.7: Instructor Survey: Providing Accommodations

Survey Question	Response	Rate	Percentage
Since you started working for [the university], where have you received information about the process of providing accommodations to students at [the university]?	I have not received any information	6	4.23%
	Information on the [disability services'] website	74	52.11%
	New Faculty Orientation	39	27.46%
	Other Faculty Members	44	30.99%
	[Disability service] Staff	68	47.89%
	The [disability services'] Faculty Handbook	16	11.27%
	No Response	0	0%
	Other	32	22.54%
	Accommodation Letter/Student	25	17.61%
	Email	4	2.82%
How helpful was any information you received about the process to accommodate students with disabilities at [the university]?	Requested Information	1	0.70%
	[Disability service] Special Presentation	1	0.70%
	Not at all Helpful	4	2.82%
	Neutral	22	15.49%
	Somewhat Helpful	61	42.96%
I feel prepared to provide accommodations to students with disabilities in my classes at [the university].	Very Helpful	46	32.39%
	No Response	9	6.34%
	Strongly Disagree	2	1.41%
	Disagree	15	10.56%
	Neutral	24	16.90%
	Agree	62	43.66%
Strongly Agree	36	25.35%	
No Response	3	2.11%	

Two students and five instructors mentioned the “use of TAs.” One student mentioned having to communicate with the TA, who provided accommodations. They stated, “I had to email the TA... the TA gave it to me.” The other student stated that an instructor told them to “talk to the TA and figure something out, I don't care.” Three instructors simply mentioned they had their TAs handle accommodations because it was easier. Another instructor stated, “I have a fleet of TAs and they do it all for me.” The final instructor mentioned how they don't like to have their TA provide accommodations.

They stated, “Student’s don’t always want to see the TA.... I don't know if the student feels comfortable with the TA knowing.”

The final set of comments by instructors mentioned “documentation for providing accommodations.” Eight instructors specified whether they require students’ to submit documentation to receive accommodations. Half of the instructors said students must provide an accommodation letter. The first instructor stated, “I make sure and ask for their letters,” while the next instructor stated, “I need to follow the university policy... they need some kind of documentation.” The next two instructors’ comments were, “I do not make any accommodations until it’s gone through [disability services]” and “I just have to play by the rules and I don't feel as though it’s fair so I go by the letter.” One of the instructors who does require documentation stated, “They say, ‘I need accommodations’ and I say, ‘Yes’ ... I often times don't see a letter.” Other two comments included, “I talk to students to know what they really need... There are a lot of students without letters... there are a lot of students who never turn them in” and “A lot of times I end up doing that (providing accommodations without letter). I do a lot of individualized instruction.” The last instructor stated that a student told her they were waiting to meet with disability services so she went ahead and provided accommodations.

UTILITY OF ACCOMMODATIONS

The second research question this study aimed to answer was, what perceptions do postsecondary professionals and students with LD have about the utility of accommodations? Under the category, Utility of Accommodations, three themes

emerged. Those themes were *equal access*, *impact on performance*, and *usefulness of accommodations*.

Equal Access

Interview students and instructors were asked if they thought accommodations provided students with LD *equal access* to education. Table 4.8 provides an analysis of interview responses. Nine of the ten students said yes; one student did not respond. Notable comments were, “It’s really disadvantageous for me to not use them” and “Yeah. Without it, I don't think that I would be as successful. And then, I wouldn’t be on equal playing field with the other students that don't have the disabilities.” Survey students were also asked about accommodations and providing equal access (see Table 4.9). When students were asked if they understood accommodations were designed to provide equal access, all students who responded marked ‘agree’ or ‘strongly agree’. When they were asked if accommodations were providing them equal access responses varied. Of the 12 students who responded, majority (67.67%) marked ‘agree’ or ‘strongly agree’. Three students marked ‘somewhat agree’ and one marked ‘neither agree nor disagree’.

Nine instructors said accommodations provide equal access (again, because instructor don't know if students have LD or another disability, responses embrace students with LD/disabilities who use accommodations) one said they don’t, one said depends, and one did not respond. The one instructor that said accommodations don't provide equal access however, did so because they believed the university was not ready to critically answer such a questions. They indicated that the university must first determine standardized outcomes for student assessment. They responded, “I don’t think

we thought hard enough about assessment to really critically ask the question.... What outcome are we trying to determine though these assessment protocols and then we can ask the question, 'Are we doing the right thing for people with learning disabilities'." Several comments, by instructors who said accommodations do provide equal access, were notable. Two instructors responses were, "Yes, everyone learns differently" and "Yes, not an unfair advantage." Next an instructor stated, accommodation allow students "to have fair access to the content... using different modalities that might better reach a student with a certain disability." Another instructors comment was, "Yes, all the content in the class and exam would be the same." The one instructor who indicated it depends stated:

Yes, if they're the right accommodations. If they're accommodations that haven't been proven successful, or they don't feel comfortable, then they're going to be a roadblock to success. If the accommodations have... all been agreed upon and it has been proven successful, then it will support and we can accommodate towards equal. But if they're the wrong measures, it's not going to have the end result we're hoping for, which is student success.

Table 4.8: Equal Access

Question	Response	Rate	Percentage
Do accommodations provide students with disabilities equal access?	Students		
	Yes	9	90%
	No	0	0%
	No Response	1	10%
	Instructors		
	Yes	9	75%
	No	1	8.33%
	Depends	1	8.33%
No Response	1	8.33%	

Table 4.9: Student Survey: Equal Access

Survey Question	Response	Rate	Percentage
I understand accommodations are designed to provide equal access and do not guarantee success.	Strongly Disagree	0	0%
	Disagree	0	0%
	Neutral	0	0%
	Agree	5	33.33%
	Strongly Agree	7	46.67%
	No Response	3	20%
My accommodations are giving me equal access to my class instruction, material and evaluation (tests/quizzes).	Strongly Disagree	0	0%
	Disagree	0	0%
	Somewhat Disagree	0	0%
	Neither agree nor disagree	1	6.67%
	Somewhat Agree	3	20%
	Agree	4	26.67%
	Strongly Agree	4	26.67%
No Response	3	20%	

Impact on Performance

The next theme that emerged was accommodations *impact on performance* for students. Six students and eleven instructors mentioned the impact of accommodations on students' performance or grades. First, two instructors said they were unsure as to the impact accommodations were having, while another instructor stated they didn't know,

that they had never asked students. Other comments involved recognizing accommodations impact on performance through “grades,” acknowledging accommodations are helpful, recognizing accommodation make no difference to other students, and identifying students’ “increased learning” because of accommodations.

Three students and four instructors mentioned, “grades” as an indicator of performance. The first two students stated, “I feel like without the accommodations I have been given, my GPA would probably not be as high as it is. It just wouldn’t” and “I just know that if I didn't have accommodations, I wouldn't be successful pretty much. I just wouldn't make the best grades. I would be behind.” The third student stated:

I definitely wouldn't be doing as well as I think my potential is right now. I feel like if I didn't take the accommodations... tests would be a lot harder for me. I don't know how much my grade would change, but I definitely think there is a correlation between the two.

The first instructor simply stated, “I don’t know if they are getting it except for their grades maybe,” referring to students who use accommodations probably have better grades. Another instructor was referring to grade performance when they stated, “I’ve generally found that students who get accommodations are either, sort of at the median, or above in terms of their performance in my class.” The next instructor stated, “They’re mostly mid-range, between 83-87, some A’s but not many A’s.” They felt students who use accommodations were mostly B students while the next instructor said they range from C to A students. They stated, “I’ve had students with accommodations who are C students, and I’ve had some that are A students, and they do what they do.”

The final instructor above also stated, “If you were to throw them in the mix of the spreadsheet they wouldn’t stand out... so they're right in there with everybody else.” Similarly, another instructor’s comment mentioned “no difference to other students.” They stated, “Not very different from other students.” One student and two instructors responded they though accommodations were helpful. The student’s comment was, “Really positive impact... I think it’s helped me succeed and feel like school is an option for me.” The two instructors responded, “I think having the accommodations is helpful for them, in my experience” and “Oh, it helps them immensely.”

The final two students and instructors mentioned “increased learning.” The first student mentioned recognizing the positive effect on learning because of accommodations. They stated, “I try to pay attention to the comprehensions and knowledge base and actually understanding what's happening.” The other student stated, “I think that they've really made a big difference on my performance... accommodations has allowed me to understand and learn more, and really keep the information in... I’ve done a lot better with them than without.” The last instructor stated:

If they have the right kind of accommodations... successful accommodations leading towards student's success, I think it absolutely enriches the experience on the student with the accommodations if they're the right ones, and I think it absolutely just revolutionizes the learning experience for the learner.

Usefulness of Accommodations

The final theme to emerge under the utility of accommodations was *usefulness of accommodations*. Students interviewed discussed which accommodations they found the most and least useful and how testing accommodations were or were not useful.

Nine students mentioned testing accommodations that were useful. Four students specifically said extended time was beneficial. The first stated, “The extra time has helped a lot because I never finish tests on time. Especially writing tests... That's definitely helped a lot having extra time.” Two other students stated, “Definitely the extra time, that's the one I use all the time” and “It does take me a while to comprehend things so I really think extra time really does help me a lot.” A final student also mentioned extended time was helpful and said they continually use that accommodation. The next three students' comments were, “I think they really help with my test taking,” “They allow me to complete test... I'd say it necessary for me to complete an exam,” and “Tests would be a lot harder for me.” Another student stated, “Something happened and I didn't get the accommodations and I failed the test.” They indicated their poor performance was the result of no testing accommodations. The last student mentioned the benefit of RDE stating, “quiet testing environment. That's been the biggest thing. Because it's a lot for me to take a test surrounded by hundreds of people.” However, one student mentioned a testing accommodation they found not to be useful. They stated, “Like separate room for taking tests. I just feel like that's hard to schedule.”

One student also said notes were helpful. They stated, “Getting the notes (and extended time). Those were pretty much the two that I continuously used throughout

these past three and a half years.” Contrary to that student, four students discussed not using class notes. Three students mentioned being able to take their own. Their comments were, “I did as a freshman but now not really... I’m typically pretty good at taking notes,” “I have access to those, though I have no use for those. I’m pretty good at taking my own notes,” and “Having really good notes or whatever, isn’t always the way that I learn the best. I’m able to keep up well enough to be able to write my own notes.” The final student stated they don’t really need them; “Notes aren’t needed as much. But I do have that option.”

Accommodations mentioned as useful or not were audio recording, Kurzweil, and preferential seating. Two students commented on the usefulness of audio recording. They stated, “I use audio a lot cause that helps me understand something, but it also helps me concentrate” and “It was great. I loved it. Especially when it comes to classes that are very lecture heavy.” Two other students mentioned that Kurzweil was not useful. Both stated they received no training on how to use it. Their comments were, “Kurzweil... I downloaded that. I don’t really use it” and “They didn’t explain very well about how to go about doing that... It just seemed very complicated, so I never set it up.” The last student stated they didn’t use preferential seating; “I think I have preferential seating, but it’s never been something I’ve really needed.”

Overall students found testing accommodations to be useful, especially extended time. They were split on RDE being useful or not necessary. Audio recording was also mentioned to be useful. Peer notes however, were found to not be useful, as well as Kurzweil and preferential seating.

FACILITATORS AND BARRIERS

The fourth research question this study aimed to answer was, what do postsecondary professionals and students with LD perceive as facilitators of and barriers to the use of accommodations? Although, themes that emerged under other categories could be viewed as facilitators and barriers, these themes emerged directly from student and instructor interview responses to specifically being asked what they perceived as facilitators and barriers to students with LD using accommodations. LD/disabilities is used as instructor responses often pertain to SWD and not just specifically LD. Evidence was also supported by student and instructor survey questions. Under the category facilitators and barriers the following eight themes emerged. The first two themes, *Universal Design for Learning (UDL)* and *student characteristics and skills*, were only identified as facilitators while the next three themes, *perceptions towards students with LD/disabilities using accommodations*, *disability service office practices*, and *accommodation postponement*, were acknowledged as only barriers. The final three themes, *advocacy*, *student instructor communication*, and *accommodation acquisition*, were identified as facilitators or barriers depending on implementation.

Universal Design for Learning

The first theme, to emerge as a facilitator, was *Universal Design for Learning (UDL)*, an instructional framework of incorporating multiple means of representation, action and expression, and engagement (CAST, 2011). Three students and four instructors mentioned strategies associated with UDL as facilitators. That is, instructors

building accommodations into the course and identifying how to meet different learners needs.

All three students mentioned instructors posting class slides and/or notes online for all students to then access. The first student stated:

A lot of professors have actually started just putting up their slides [online]. Then some professors actually now have started recording their lectures with the lecture rooms here on campus. Not only do they have the slides on a recording, they have the voice already recorded... posts the lectures every day after class and gives us the notes ahead of time.

The other two students comments were, "Some would just tell me I'm just going to post it [online], because they did that for everyone anyway... It has helped me tremendously" and "Most of my professors post their slides on Canvas for their lecture recordings."

Instructors mentioned understanding students' learning styles and incorporating different ways for students to learn. The first instructor stated:

I guess one general strategy that I try to use that's sort of in that effort of universal accommodation is just using a diverse variety of teaching strategies to cover the same content. One of the things that I did as part of my survey this semester was I asked people what their preferred learning styles are and non-preferred learning styles, and I'm going to show them that data.

The next instructor simply indicated that instructors should "understand the different ways of learning" because the way in which an instructor teaches might "not always be the best way that a certain student might learn." Another instructor stated, "There are so

many different types of learners within our pool of students that we should be identifying how to interact and deal with the different populations within that.” The final instructor mentioned allowing student to learn from multiple sources.

Learn not only from me but from the books and from readings and from their fellow students. The average students probably have different learning style, and then some will be like individual learner, some prefer a group learning. I think it will be up to their individual interests and I'm not like, say, force them or persuade them to switch their learning style.

Student Characteristics and Skills

The next theme to emerge as a facilitator was *student characteristics and skills*. Students and instructor were asked what student characteristics or skills were needed to help facilitate students using accommodations and being successful academically. Nine students and eight instructors provided related responses.

Student responses involved students with LD need to be “hard workers,” “proactive and/or organized,” and “comfortable using accommodations”. The first student stated, “I think just being comfortable with accommodations and I think that comes from knowing them and knowing why you need them and knowing that it doesn't make you any less than anything.” The next five students’ comments mentioned being “proactive and/or organized” as skills needed for success. The first student stated, “I definitely focus on school and set it as a priority,” and responded, “Yeah, I have to” when asked if they were schedule-oriented. The next student stated, “Time management... I always try to just stay ahead of my work because it helps me decrease stress. Then I have

a longer time to process the information and really learn... I really just have to keep a schedule.” Two more student comments were, “Just staying ahead, being assertive, and staying on top of it. And staying ahead is really good because if something happens, and you might need an accommodation for something” and “I think having a schedule, that works for me... I never had a planner in high school or anything, but in college I found that it’s something I’ve needed. And so a planner is a must.” The second student also mentioned having to dedicate more time to school. They stated, “I feel like I have to set time... I have a lot less free time... I need large blocks of time to do stuff that I need, like a whole afternoon to get on top of stuff.” The last student to mention being “proactive and/or organized” also mentioned being a “hard worker.” They first stated:

Proactive...you have to be reactive as well, but proactive is one of the biggest things... I am a very, very schedule oriented. Extremely. I have seven different schedules. I make lists, and lists, and lists and I'm very color-coded, everything is color-coded, everything is time coded and I make lists in order.

Then when asked if they also needed to be a hard worker they responded, “Yes, when I’m studying with friends... they don't have LD's, and they'll finish doing whatever we're doing, and I'll finish 30 minutes later and we'll have the same comprehension level. It's frustrating, but it's the way life is.” Three other students also mention being a “hard worker.” The first simply stated, “You have to put in effort,” referring to student with LD being successful. The next student stated, “I’m very hard working. I have to be disciplined.” The last student was asked if they were a hard worker and they responded,

“Yes, definitely. It’s like if I’m reading I feel like I have to read more than others or ask more questions, that kind of stuff.”

Similar to the student comments, instructor responses also involved students with LD/disabilities need to be “hard workers” and “proactive” as well as utilize communication, being motivated, and not being embarrassed of using accommodations. The first two instructors indicated students need to be “hard workers” The first instructor just responded, “yes,” to be asked if being a hard workers was a skill students with LD/disabilities needed to have. The other instructor stated, “Hard work beats talent when talent doesn’t work hard.” The next two instructors mentioned students with LD/disabilities need to be “proactive.” The first instructor stated, students need to “look at syllabus and see what relates to accommodations... here’s my plan for classes, then you have to bring that plan to the professor and see if you’re both on the same page with respect to plan.” The next instructor stated, needed skills include “taking a proactive stance” and “making an effort” as well as “paying attention... sitting up front... asking questions... coming to office.” Other characteristics and skills mentioned by instructors included, “Motivation,” “Being open, communicating,” and “Overcoming embarrassment” of using accommodations. The final two instructor also mentioned students need to be good communicators. The first mentioned students with LD/disabilities should communicate and collaborate with peers. They stated, “They all communicate and collaborate and talk about deadlines and share resources.... Everybody talks about it like... I heard that this professor's policy is this or whatever,” indicating these conversations are private to instructors. The last one stated, “I think that is the

number one trait... communication I think is the most important trait any student should have, but chiefly those who have learning differences.”

Perceptions towards Students with LD/Disabilities using Accommodations

A major theme to emerge as a barrier was *perceptions towards students with LD/disabilities using accommodations*. This included “student perceptions,” “peer perceptions” and “instructor perceptions.” Further evidence of “instructor perceptions” as a barrier came from instructor survey comments.

Student Perceptions

Three student comments indicated the barrier created by students having negative self-perceptions. Further support came from seven instructor comments about “student perceptions.” Two students and one instructor mention the general stigma felt by students with LD/disabilities. The first student indicated that they didn't like using accommodations because of the stigma. They stated, “I’m thankful for the accommodations but it comes with, you know, stigma.” The other student indicated that it was hard to use accommodation at such a large university because of the stigma. “I feel like there’s stigma around it, and I feel like it's kind of hard with a bigger school.” The instructor mentioned a student not wanting to use accommodations because of the stigma. They stated, “She had a letter every semester and she didn't use it at all... it was because of the stigma attached to the letter. She didn't want the faculty to think differently.” The instructor also mentioned that student with disabilities hold this perception that instructors will watch them more closely if they use accommodations stating, “There's a

perception... if you have a letter... watching you closer, because you might not perform up to par.”

Another student comment revealed they felt like getting accommodations was special treatment. They stated, “I hate special treatment and stuff and that's kind of how it feels sometimes when I go and request accommodations and stuff.” Two instructors comments also indicated student thought accommodation were special treatment. The first instructor stated, “They think they can handle it without going to have special accommodations.” The other instructor also mentioned students feel isolated and don't use accommodation because they want to fit in.

They feel somewhat isolated. Sometimes I found students, even though they have this letter, they will choose not to use it, because they want to fit in. They don't want to feel like, “Oh, I need special treatment.” People still make fun of people for that. They choose to not use their accommodation because they don't want to do it. If they do it, then people are going to say, “Oh yeah, they get the advantage, special treatment. How come she gets that and I don't?” I think they feel sensitive about it.

Other instructor comments indicated that students may feel overwhelmed, embarrassed, or weak and that they don't want to stand out. Two instructors indicated students don't use accommodations out of embarrassment. Their comment were, “Some are embarrassed by it, so don't want to use it” and “All seems very overwhelming to some of them.... That could be a potential barrier, I suppose, if somebody was embarrassed.” A different instructor indicated that students are afraid to use

accommodations because they believe it will show a weakness. That instructor stated students think, “Well, is that going to show weakness? Or is that going to reflect poorly upon me’ ... and so sometimes students are afraid to do that.” The final instructor stated, “They don’t want to standout,” and indicated that students have a perception of being seen as different because of accommodations.

Peer Perceptions

While only one instructor mentioned the impact of “peer perceptions” on students with LD/disabilities, eight student comments pertained. The one instructor mentioned that peers may look at accommodations as a weakness and see students with disabilities as not being as capable. They stated, “Perceived on their standpoint as maybe a potential weakness... ‘You’re not as good as me” and further mentioned the stigma that creates, “Sometimes I think they feel there’s a stigma attached to it.” The eight students also mentioned the barrier peer perception creates. However, two of the students also mentioned when peers don't have a negative perception it facilitated the use of accommodations. The first mentioned how it felt good when peers seem understanding.

Most of the time, people just asked me “Hey, why?” I would just say, “I have a disability.” For the most part people that talked to me are fairly nice and so they're like, “Oh, okay, good luck. Good luck with that, thanks for letting me know.” The other student mentioned that once disabilities and accommodations were discussed more in class with peers it helped. They stated, “Once I got into PDS we kind of talked about it a little bit... I feel like everyone knows. It helps.”

The first student to indicate peer perception as a barrier mentioned they hid the fact they had LD because of peer stigma and that peers think accommodations are unfair.

Yeah... Last year I didn't really tell anyone I had a learning disability. I mean I told my teachers because I really needed them but I would try and go before class when my friends weren't there.... I'll have friends in some classes and I'll go after class to give my teacher my accommodation letter and all my friends are, "Why do you have accommodations... that's not fair." I actually need it and people don't a lot of time understand that.

Three other students mentioned peers think accommodations are unfair. The first student stated, "I didn't want any students to know" because a lot of peers think, "That's not fair that you get extra time." The next student stated, "They're going to be like that's not fair" if peers knew they used accommodations. The third also mentioned peers think accommodations give an advantage.

I have had in the past though... people would call it unfair that I had extra time and that was always something hard... I remember it was a thing. I just wouldn't mention that.... I don't think there's an understanding of why they need it... they think unfair, giving advantage.

Another student discussed in detail how peer perception was the biggest barrier to their use of accommodations.

Yeah. That definitely has an impact. I think that has probably the biggest impact out of anything. I know how I think and how I work, and I know I'm smart and can achieve highly... with using accommodations there's a lot (peer stigma).

There's not much education on it at all. My friends and peers never know what it is. Most of the time, the most questions I get are from friends being like, "Well, why do you need that?" It always comes with a tinge of, "Oh, what makes you so special?" People were like, "That's such an advantage." I'm like, "It's not an advantage." There's literally been studies of it doesn't give a dyslexic person any advantage if they have it or if they don't. It just makes it on par... That definitely will make me a little bit wary about using my accommodations. I try to do my best without doing them, which sucks a little bit just because I don't think that that should be a thing that deters me, but it is viewed as advantages... because there's just not much education on it at all, and people definitely think that you can just waltz in and be like, "I need accommodations. I'm dyslexic. It's hard for me to read..." you cannot fake it.

A different student also indicated that peers just didn't understand. They stated, "I've had peers not understanding why I was doing certain things, why I had extra time on the tests when they were timed," and indicated that was a barrier. Another student mentioned that using accommodation was embarrassing because peers always talk about their intelligence and that they might see accommodations as a not being as smart. Their comment was, "Yeah, I don't really... want to mention that, because they all talk about how smart they are all the time. It's kind of embarrassing." The final student just stated, "I guess a little bit of peer stigma," when asked what created a barrier to the use of accommodations.

Instructor Perceptions

Although only one student specifically mentioned “instructor perceptions” as a barrier another student mentioned that they felt some instructors perceived providing accommodations as extra work. They stated that instructors “have so much more on their minds... they really don't, I guess, quote/unquote, have time for other things,” referring to providing accommodations. They then stated, “I think that would be the one biggest barrier.” The first student’s comment indicated that some instructors don't think students with LD/disabilities need accommodations. Their comment was, “Yeah, it makes me feel... ‘You don't really need accommodations. They're not really helpful. Why do you even have those?’”

Five instructors made comments about the perceptions some instructors have about providing accommodations and the barrier it creates for students. The first instructor mentioned that some instructors don't think they should be spending so much time providing accommodations to students. Their comment was, “A lot of faculty would be like, ‘Oh my god, that’s way above the call of duty, you shouldn’t be doing all that.’” Another instructor mentioned that some instructors believe that if they can’t see the disability, such as a learning disability, they believe it isn’t real. They responded instructors should understand that disabilities are real; “Just because I can’t see it, it doesn’t mean I don’t have it.” When asked what was a barrier, one instructor responded:

Faculty who aren't as open to accommodations because I certainly have those colleagues... they feel they might be too much work for the faculty member to have to do, this extra effort... ‘If they came to college, then they should be able to

do what everyone else does' ... I'm just quoting what I've heard. It's attitudes and not ... It could stem down from that lack of awareness or tolerance for difference or diversity that is generational or the culture of academia in certain departments and those kinds of things.

Another instructor also mentioned some instructors don't perceive accommodations to be mandatory stating, "I still hear stories about other faculty members not realizing that these are not suggestions. 'These are not suggestions' ... That's just crazy to me that they don't understand that after all these years." They continued to state, "I've had a fair number of my colleagues come to me and say, 'Do I really need to do this.'" They also brought back up the instructor who denied the student with LD access to their class. "I'd sure like to find out who that professor was who told that poor kid that he couldn't take his class." The last instructor mentioned some instructors have judgmental attitudes about providing accommodations and perceive students with disabilities to need special treatment, similar to perceptions students had about themselves.

Any sort of judgmental attitudes that are conveyed by a professor would be a barrier.... I do think it is a barrier to awareness and also a barrier to action if you don't know what types of accommodations are possible and how some of them are quite easy fixes.

They went on to state, "There's sort of this attitude sometimes of like, certain people are snowflakes and they need special treatment and coddling." Six comments from the instructor survey indicated that some instructors perceived accommodations to be unfair.

Table 4.10 provides a list of survey comments, pertaining to fairness of accommodations, from instructors when asked about their concerns providing accommodations.

Table 4.10: Instructor Survey: Accommodation Concerns

Survey Question	Response
What concerns do you have about providing accommodations to students with disabilities?	“That accommodations can feel unfair”
	“Fairness to the other students.... I feel misgiving despite wanting to accommodate students' disabilities. The 1.5x or 2x exam time accommodation is HUGE and probably frequently unfair”
	“Fairness to other students”
	“Students seek out accommodations to achieve a competitive advantage on timed exams rather than because of an actual disability”
	“I fear the process is abused and is not fair to non-[disability service] students.”
	“The process is abused by some students”

The student survey asked students if they felt faculty were comfortable interacting with persons with disabilities (see Table 4.11). All eleven students, to respond, marked either ‘often’ (46.67%) or ‘all the time’ (26.67%). However, with majority of students, who responded, marking ‘often’ that indicated that there were times when they perceived faculty did not seem comfortable interacting with people who have a disability.

Table 4.11: Student Survey: Persons with Disabilities

Survey Question	Response	Rate	Percentage
Faculty members seem comfortable interacting with persons with disabilities.	Never	0	0%
	Rarely	0	0%
	Sometimes	0	0%
	Often	7	46.67%
	All the time	4	26.67%
	No Response	4	26.67%

Disability Service Office Practices

The next theme to emerge, as a barrier, was *disability service office practices*.

Although, throughout analysis the university's disability service office was mentioned to be helpful, several comments by students and instructors indicated that some practice create a barrier for students with LD/disabilities. Four comments made by instructors on the instructor survey also indicated challenges occurred based on disability services. Table 4.12 provides a list of survey comments, pertaining to disability services, from instructors when asked about their concerns providing accommodations. Two comments mentioned "the university" but it is disability services who mitigate such concerns.

Table 4.12: Instructor Survey: Accommodation Concerns

Survey Question	Response
What concerns do you have about providing accommodations to students with disabilities?	"I had a student abuse his accommodation this year... I emailed [disability services] about this but never got a reply."
	"Students not getting timely responses from your office - which unfortunately did occur quite often based on what I heard from students."
	"I am continually abashed and frustrated with how little [the university] does to help students who need accommodations."
	"[The university] needs to create a culture of understanding around these issues. We need to pay attention to all of our longhorns equally with love and care"
	"Sometimes it is a challenge to line up the resources necessary"

First, a student mentioned that the wording required by the disability service office to be in syllabi has a negative connotation.

If you go through and actually read the wording of it, I know it has to be very professional and formal, but it is like, “You need to do this or else you won't get your disability handled and all that.” It's not a very welcoming passage of well, I want to help you in succeeding in this class, so be sure to let me be aware of any of these things.

As indicated previously, another barrier to the use of accommodations was the retesting requirement by the disability service office in order for students with LD to acquire accommodations. Under the theme, *accommodation approval process*, four students mentioned they had to get retested in order to prove they had a LD and qualify for accommodations. Three students also mentioned the amount of time and/or cost of retesting as the cause of the barrier. The first student stated:

If we didn't have the insurance that we did at that point, I would not have had been able to afford retesting. We barely could afford it with the insurance... The fact that we had to go out of [the university] and so I had to not only pay for the testing because I had to go back multiple times. I had to pay for transportation there and back and I actually ... I think I missed a class because of traffic, and I wasn't able to get back.

Another student stated, “Took a lot to time, because I had to go back three days in a week to do tests and stuff... and it's more costly, too, to the students.” The third student when asked if testing was expensive indicated yes and stated, “We need to get retested. We are obviously going to go spend the money to get tested.” The student survey asked students, if they had “any other comments related to your experience as a student registered with

[disability services].” One student responded, “Is there advertising or something, because there are plenty of people who would be exponentially helped if they knew that the diagnosed conditions they have allowed them to register with [disability service], indicating the lack of awareness creates a barrier to some student registering for accommodations.

The last set of comments was from instructors who indicated that a lack of support from disability services was a barrier. One instructor first stated, “I think one thing is more support from [disability services], in terms of what we can could do better in class.” They also mentioned that the disability service website was not helpful. Another instructor indicated they “need more support” from disability services and the university “needs to improve the system... letter not clear on how to implement accommodations.” The last instructor mention, “There's not an introduction to all of these different systems” that disability services provides. The went on to stated, “There are so many offices and so many resources on this campus, and you almost have to hunt them down.”

Accommodations Postponement

The final theme to emerge, as a barrier to student use of accommodations, was *accommodations postponement*. This themed involved students attempting course without accommodations or waiting to request accommodations from instructor. Two student comments and four instructor comments provide support as well as twelve comments from the instructor survey. Table 4.13 provides a list of survey comments,

pertaining to accommodation postponement, from instructions when asked about their concerns providing accommodations.

One interviewed instructor indicated that when students provide instructors an accommodation letter but then don't use their approved accommodations it hinders the overall practice of accommodations by sending a message that accommodations aren't necessary. That instructor stated, "If 80% of the students are giving faculty letters and they never use it... It de-emphasizes the importance of the actual accommodation letter." Three other instructors indicated they have had students attempt their course without their accommodations. One instructor responded, "They think they can handle it without going to have specific accommodations.... They send me letter at the beginning but they actually never use the accommodations." The further stated, "Not every student with LD will ask for that help.... They know they're right to use accommodations. I would say some of them use pretty well, but some of them are really, I would say, quite shy." Another instructor mentioned that at some point it's too late to help students who don't use their accommodations succeed; "Statistically, you're getting to a point where it may not be salvageable." The last instructor indicated that by not encouraging students to use accommodations it could lead to a negative mindset.

Maybe I should have asked... I don't want to put myself in the situation..."Well, we've done this before and the students never used them. But, yeah, if you want to be pain, I guess we'll do it for you," kind of thing. If they're needed, they're needed.

Based on analysis of instructor responses pertaining to accommodation postponement eight instructors just mentioned students wait too long to request while four responses indicated too little notice to arrange testing accommodations.

Table 4.13: Instructor Survey: Accommodation Concerns

Survey Question	Response
What concerns do you have about providing accommodations to students with disabilities?	“They come to us too late in the semester.”
	“Student not informing faculty of their needed accommodations”
	“Sometimes last minute notification by student of special needs”
	“When students do not let me know that they have [disability services] paperwork and only pull it out at the end of the semester.”
	“Students don't follow guidelines for arranging accommodations in advance”
	“I need those letters EARLY in the semester when possible, but students often delay;”
	“Having the student notify me at the beginning of the semester”
	“Getting letters from students in a timely fashion to be able to implement appropriate accommodations during the semester.”
	“When they provide me with too little notice - or provide [disability services] with too little notice to set up a time for a proctored exam”
	“I need to know ahead of time so that I can deliver the test materials to SSD on time”
“Students often do not request their needs in time to arrange for them”	
“That students give me enough time to make arrangements”	

Two student statements further support this theme. The first student told of discussing with an instructor about trying an exam without their testing accommodations. They stated, they went to the instructor and said “here are my accommodation letters...

but this semester, I'd really like to try it without accommodations, and if I fall behind, then can I come back to you and talk about it?" and then admitted, "I didn't do super great." When asked if they attempted without to work towards not relying on them they responded, "Yes, yeah. I think so." Another student also told of how they attempt without accommodations at first but do better with them.

I told him before, I said, "I don't think I really need this accommodation but I'll check back with you if we feel that we do." Then, after the first exam, I did go back and said, "I really do actually think this would be helpful." That's hard. I did the same thing with most of my professors at first; I said, "I don't know that I will need this. Let's take the first one, and if I do decide I do need it, then we can try and accommodate that." And it's hard. I've done a lot better with them than without them.

Advocacy

Students and instructors were asked about the impact of self-advocacy on students' with LD/disabilities ability to use accommodations. One's ability to self-advocacy was found to be a facilitator or barrier to their use of accommodations. However, it was also mentioned that instructor and disability service personnel advocacy contributes to students' with LD//disabilities ability to use accommodations. The theme *advocacy* is separated into "student self-advocacy" and "postsecondary professionals' advocacy."

Student Self-advocacy

First, eight students and eleven instructors mention “student self-advocacy” and its impact on students’ use of accommodations. Whereas seven of the eight students all indicated that self-advocacy was necessary, one student did comment that they didn't feel like self-advocacy was important because they preferred not to talk their disability. Their comment was, “I feel like it's not. It's something I don't really talk about, too much.”

One student simply stated, “Yeah, for sure,” when asked if self-advocacy was a facilitator. Another student mentioned self-advocacy was necessary otherwise the university of instructors won’t be able to provide accommodations.

I think it's really important that you self-advocate because if you don't then they're not going to know. The professor has 500 students, they won't know if you don't tell me, if you don't meet with them, if you don't give them your accommodation letters, if you don't request your accommodation letters, then they won't know.

You need to be a self-advocate.

Other student comments included, “You should be a self advocate... I self-advocate as much as I can,” “I definitely think that that's a huge part of getting what you need in college... especially with accommodations because it's not as prevalent,” “You must be honest of what you feel like you need. You tell them if I don't get this accommodation, it's not going to meet my needs. That basically would be self-advocacy,” and “Yes... there's been some core professors and core classes that I've had to actually say, ‘No I really do need this’.” The final student mentioned that students need to be self-advocates because instructors sometimes forget to provide accommodations.

You need to be pretty active at it because with some of my professors, even though I went to them at the beginning of the semester and told them I would need these notes, a lot of the times they would forget. They just tend to forget, so it really up to me to get my accommodations. If I wanted them, it was up to me to really go to the professors and say, “Hey, this is what I need.” It really was! I feel like it's up to the student to really get what they need from professors and the university.

Nine instructor responses indicated self-advocacy facilitates students’ use of accommodations. One instructor mentioned student self-advocacy was important and felt students could explain their disability and accommodations but could benefit from a better understanding of how and why of accommodations.

I feel like self-advocacy is critical because I've found in my own life that being transparent about what my limitations are, people tend to be receptive to needs when they are communicated in a professional, calm manner.... I think that, yeah, students need to advocate for themselves... students might be slightly more willing to disclose. I feel like they’re definitely good at advocating that they have a disability and need accommodations. I don't think that the students have given a lot of discussion around the why or the how.

Two instructors simply stated students do need to be self-advocates. Their comments were, “I think they do” and “They do need to be their own self-advocates.” The second instructor also stated they need to be because of the “stigma that they feel is associated with being labeled as learning disabled.” Another instructor indicated student self-

advocacy was needed to insure instructors provide accommodations but students must have their letter of proof.

Yes. Yes. Yes. Yes... actually beneficial if you self advocate.... But I think the accommodations are there to safeguard their livelihood in those courses for when those instructors aren't willing to mold and fit and customize that semester approach for that individual student. That's when that advocacy component must ring true because it is law. Those instructors are required, but you need to have that letter. If you don't have that proof, how could they know what's true and what's real, versus false.

The last four instructor comments were, "Part of being in college is also taking responsibility for your learning. I will help a student out as much as they need but they have need to come to me," "I think they need to be advocating for themselves and feel normal. This is not something that shouldn't be talked about. It should be open like, 'Yeah, I need accommodation, so what?' It's okay," "I think it's very helpful for them... a lot give me a letter and I have no idea," "To get along in this world, sooner or later you're going to have to be an advocate for yourself. When you do that's very empowering," and "Part of it is that self-advocacy... they have to ask and if they don't ask, they don't get it, which is a huge problem."

Three instructor responses mentioned the barrier created by lack of student self-advocacy. One instructor indicated that many students with LD don't get their accommodations because they don't self-advocate. They stated, "It is possible that there are many more students who actually require or would benefit from sort of LD

accommodations that don't advocate for them." Similarly, another instructor mentioned that some students with LD are shy and will not advocate for their needs and thus not get accommodations. Their comment was, "Say they are shy... not every student with LD will ask for help." Likewise, the third instructor mentioned that if the student is not strong they won't advocate and get accommodations. They stated, "If they're not a strong person they're not going to be an advocate for themselves."

Students were further asked about their ability to self-advocacy and how self-advocacy facilitated their use of accommodations. Seven student responses indicated students felt they had the ability to self-advocate and that allowed them to receive their accommodations. Three students indicated they were not strong self-advocates.

The first student indicated that students need to not have self-pity in order to self-advocate. They stated, "If you're having self-pity or, 'Oh, I just have accommodations,' and you just feel bad about yourself. You're not really going to advocate and be, okay, I need to do this, I have to get my accommodation letters." They further explained how they self-advocate.

Making sure that I print out my accommodation letters and I turn them in to all of my professors. Before the exam, two weeks prior at least, tell them that I'm going to be testing and I need more time and I need a smaller environment.... Just making sure that they know that I'm going to be doing so that it just doesn't get forgotten and it just doesn't happen, because it's happened to me before.

Another student also mentioned if you don't self-advocate you might not receive what you need. They stated, "Yeah, I can. It's just sometimes I feel like I have to do more with

some teachers or professors, because unfortunately, I've had some issues in the past... where there were some that didn't really understand what I needed." The next student also mentioned students must request what they need.

I always warn the teachers. Say, "Okay I have a thing, here's my accommodations, I will probably use this, this, and this, this is what I expect. If I have a problem or I'm concerned about something, I will come to you immediately." And that's what I do. To me, that's self-advocating because you can't get help unless you ask for it. I always try to go to open office hours within the first two weeks, especially if I have an early test... I'll organize my self, then I'll go in.

The next student had a similar response, "I have to go to the teacher and be like, 'This is what I need, this is how it's going to go down,' kind of thing. I think I definitely have to be put my piece in." Another student simply stated, "You need to ask. I had to ask for what I wanted." The last two students mentioned people not understanding LD and so students need to self-advocate for themselves. The first students stated, "I feel like a lot of people, especially at a college level, people are like, 'People with learning disabilities won't go to college or will go to a lesser college'." The other student's comment mentioned they felt it was most important to self-advocate in front of peers. Their comment was, "I have to print the letter and take it to the teacher, and kind of explain it to them. I feel like I have to be more of a self-advocate around my peers because of stigmas and things."

One way for students to gain self-advocacy knowledge is through the university’s students with disabilities advocacy group. The student survey asked students if they knew about the students with disabilities advocacy group. Half of the students, who responded, marked ‘yes’ while the other half marked ‘no’ (see Table 4.14).

Table 4.14: Student Survey: Disability Advocacy Group

Survey Question	Response	Rate	Percentage
Do you know about the [students with disabilities advocacy group], a student organization that engages students in promoting disability awareness and advocacy at [the university]?	Yes	5	33.33%
	No	5	33.33%
	No Response	5	33.33%

Postsecondary Professionals’ Advocacy

Although only one student and one instructor mentioned the idea of “postsecondary professionals’ advocacy,” for students with LD/disabilities, such practice was determined to be a facilitator. The student indicated that they were better able to approach instructors because they knew disability services were an advocate for them. They stated, “I feel like the student services building is a huge advocate for me. I don't feel like I'm on my own at all.” The instructor mentioned that faculty should be advocates for their students with LD/disabilities so they aren’t afraid to request accommodations. Their comment was, “I think that faculty also need to advocate for their students and encourage them. Try to come off as non-judgmental about these things as possible to maybe encourage people who might otherwise be on the fence about coming forward”

Student Instructor Communication

Eight students and eleven instructors interviewed indicated that a key factor to students with LD/disabilities use of accommodations was *student instructor communications*. Also mentioned was when a lack of communication or miscommunication occurred it created a barrier. Through student and instructor responses it was revealed that “good communication” should occur and communication should be “continual,” involve “positive instructor questioning” and comprise not only oral but also “written communication.”

Seven responses indicated that “good communication” facilitated accommodation use. Two comments mentioned indicated that when “good communication” does not occur it hinders accommodation use. The first student responded that good communication was needed and by that they meant, “When I say good communicator, I don't mean like speaking well, like sounding good... it's also giving enough information and not being afraid to mention something or ask questions... that's good communicator when it comes to getting accommodations.” The next student responded, “Really communicating with my professors. Letting them know that I'm conscientious about my work, and that I'm really willing to work hard,” when asked if communication was necessary. The final student also indicated communication was important. They stated, “I always ask my instructors if there's anything else that they want me to know or to be prepared for, so opening communication.” The first instructor indicated communication was key and that students “should not be shy about talking with instructors.” The next two instructors stated, “They need to communicate, it's necessary with faculty” and “The

better they communicate, the better it goes.” The final instructor indicated that communication was important to know how students were doing. They stated, “Student will come and talk to me and then I can get a feeling of how they’re doing.”

A student mentioned that sometime instructors forget to provide accommodations and it’s because of miscommunication. “I think it’s just miscommunications, ‘Oh, I forgot that you had to be in another room or I didn’t have space’.” An instructor indicated that students need to follow-up with instructors because if they don’t they could forget. They stated, “If you gave me a letter, come back and talk with me, don’t assume I did something.”

Next, eight responses mentioned communication should be “continual.” The first student stated, “I think it’s good to have a one-on-one meeting with them at the beginning, but then also follow up throughout the semester.” Another student commented that when there is not continual communication it could lead to not being provided accommodations. They stated, “Yes. I think especially for notes. If you’re not in continuous communication, the professor might just like stop doing it.” When asked if continual communication was important the following responses were given. The first two students indicated yes and stated, “With my exams and everything... to make sure that I get accommodated for what I really need for my exams” and “I let them know in the beginning and when it’s closer to taking tests.” It should be noted that one student thought just the initial communication was critical. Their comment was, “I think the initial communication is what’s important.” The final four comments came from instructors, who though continual communication was necessary. The first two also

mention that communication could occur with the TA. Their comments were, “Regularly meeting with me or TA will be very helpful to make sure they're on the right track, and understand the materials I would like them to know” and “Good communication, I think one of the key things... checking in with their TA or the professor on a regular basis.” The next instructor stated, “Definitely... mostly figuring it out at beginning but then I do a midterm evaluation.” The last instructor indicated that communication was essential and that instructors should be proactive in making sure students with LD/disabilities are successful.

I'll say, “Oh, I would love to take time, and I'm going to really carefully read this.” Then I say, “Are you available to come to my office hours? I can meet before class, after class or during my office hours. I want to make sure I do whatever needs to be done to make you successful’.”

That instructor also mentioned conducting a midterm check-in.

When the student might not be performing as well and we have a mid point in a semester, it's like, “Hey, you know what? Can you come to my office?” I say, “Here's what I'm seeing, and here's what I'm hearing from you.”

Seven responses also mentioned communication should involve “positive instructor questioning.” One student spoke of the barrier it created when an instructor’s questioning was inquisitorial and made them feel uncomfortable.

I have had instructors who have asked me more questions, been more inquisitive about it. And wanted to really see if my requests were legitimate... asked me what’s my disability... asked me what I had and do I really need it.

The other three students all cited instructors whose questions were about what they needed and how the instructor could help them.

I've also had a few professors that have been really good. I come in and I say, "I have a disability" and they're like, "Oh awesome, cool, how can I help you?" It's nice not having to feel like I have to fight for everything.

The next student stated, "My sign language teacher last semester asked me, 'What do you need, what do you want, what helps' ... which was nice. I kind a just told her what I needed and that was good." The third students comment was:

I had one professor this semester that when I gave him my accommodation letter, he goes, "Okay, what can I do for you?" That was such a great response. I was like. "Wow, this is so nice," not making it seem like what do you need (in an irritated manner).

The first instructor mentioned asking students about their learning struggles in order to make sure they are accommodating the student's needs. They stated, "Anytime I've gotten a letter I've brought the person in and I've said, 'Tell me exactly what it is that makes it hard for you to learn'. I accommodate on that rather than what is written on the paper." The next instructor mentioned the questions they typically ask.

I'll ask them questions like, "What do I need to do to support you as a faculty?" If I don't have a clear understanding, I ask the student, "What kind of accommodation do you need? We can see if we can make that happen."

The final instructor indicated that instructors should use communication and ask question when they notice a student who uses accommodations is struggling.

I go to them when I believe they are struggling... That's how it should be. If they need accommodations... that is a big red flag over there that I need to talk to them and say, "What's going on? Do you need any specific help? Or is the lecture too difficult" Any way we can provide help for their learning.

The final two comments indicated communication as a facilitator pertained to "written communication." First, an instructor mentioned how beneficial it was when a student provided them a written letter along with providing an accommodation letter stating the student, "Gave me the letter and then wrote up something herself. A page or two description... she wanted me to understand what she's having to go through." The instructor further indicated it was more helpful because all accommodation letters differ. They stated, "Actually, I go with more of them coming up to me... because the letters are all different." Finally, a student mentioned how written communication was difficult for them and preferred oral communication. However, recognized it would help if they had better written communication skills.

Typing, like emailing, I struggle a little bit. I'm always so hyper focused on message and then grammar... Then also I have trouble deciphering tones and some words I don't recognize when they're on print. I have no idea what that word is, It's a simple word. Then I hear it and I'm like, "Oh, I know exactly what that is." Don't even pause. I struggle more with the written and texting, email, letters, that kind of stuff than the face-to-face, so I try to do face-to-face as much as possible.

Lastly, two instructors mentioned the barrier a lack of communication creates. The first instructor mentioned the struggle with students not communicating until late in the semester, "You're telling me now, and it's November, that you have this letter? We could've given you extra time. There's nothing I can do about it retroactively." The other instructor mentioned the difficulty when students don't provide feedback about the course.

Sometimes the student just hand the letter and they don't think twice about it... they don't explain it. I think understanding, getting their feedback, if maybe the class is going to fast or maybe this particular subject is hard or wasn't explained well from a standpoint of how they might learn would help me change things for the better.

Two comments made by instructors on the instructor survey further supported the theme *student instructor communications*. One instructor wrote, "Best to have timely communication, the its easy." The other instructor wrote, "I strongly believe that a student with disabilities should be prepared to have a discussion with their instructor."

Accommodations Acquisition

Under the theme *accommodation acquisition* one facilitator emerged, "students' ability to print accommodation letters," while three barriers emerged. Barriers included "student nervousness," "class accommodations," and "testing accommodations."

Comments made by instructors on the instructor survey also provided evidence of "class accommodations" and "testing accommodations" creating barriers.

Printing Letters

Three student comments mentioned, “students’ ability to print accommodation letters” (a new system in place by disability services), as facilitating their use of accommodations. The first student stated, “I think having the office is really great and then having the online portal where you get the accommodations... That's really helpful... you can just download them, print them. And having all them on the website it's really nice.” The other two students’ comments were, “You can get your accommodation letters online now. That helped a lot. I'm so glad I didn't have to go to the office now and do a formal request... I'm really glad that they computerized it a bit” and “That you can print yourself, instead of having to go over there, and get the letter. And take it to the professor, it's just one less thing that you have to go do, is nice.”

Student Nervousness

Six students mentioned feeling nervous or anxious when it came to acquiring accommodations from instructors. Students were also asked, on the student survey, if they felt faculty were receptive when discussing accommodation letters (see Table 4.15). Faculty receptiveness may impact how students feel approaching instructors to request accommodations. Out of the eleven students who responded, five marked ‘all the time,’ five marked ‘often,’ and one marked ‘sometimes’.

Table 4.15: Student Survey: Discussion of Accommodations

Survey Question	Response	Rate	Percentage
Faculty are receptive when discussing my Accommodation Letters.	Never	0	0%
	Rarely	0	0%
	Sometimes	1	6.67%
	Often	5	33.33%
	All the time	5	33.33%
	No Response	4	26.67%

The first student mentioned students must state they need accommodations instead asking for them.

When I first had mine, I was really... I was nervous to go in and talk to a professor and say, "I have these things, I need you to give them to me, I require them." It's not a please and thank you, it's a, "I actually need these." It's hard for LD people to go and get ... Say, "I have these, I need this." It's less intimidating to say, "Can I have this?" But in reality you need to say, "I need this."

Another students simply stated they get "so nervous" when "requesting accommodations." Two other student comments mention how instructors might think differently of them. They stated, "the first semester it was very intimidating and hard... still doing the accommodation letters and saying, 'I have a disability'. I felt like they might think of me differently, or I don't know maybe even treat me differently" and "There's a little bit of stress about it, having to give it to them because you never really know how an instructor's going to react... it's kind of, 'Here's this student that has a little bit of special needs'." Another student responded, "A little bit, a little bit, I do. I feel I'm not the type of person to be shy, a little introverted, but in the back of my head it's still

there,” when asked if they got nervous approaching instructors. The final student stated, “I’m always anxious I guess” when approaching an instructor.

The student survey also asked students to indicate their most common frustration or hesitation experienced when approaching professors about accommodations (see Table 4.16). Majority of students did not respond (86.67%). However, one student marked ‘acquiring notes’ and one student marked ‘testing location’. Both barriers discussed below but could also impact students’ nervousness approaching instructors.

Table 4.16: Student Survey: Approaching Instructor

Survey Question	Response	Rate	Percentage
What is the most common frustration or hesitation you experience when approaching your professors about accommodations?	Acquiring notes	1	6.67%
	Testing location	1	6.67%
	No Response	13	86.67%

Classroom Accommodations

Another barrier to students acquiring accommodations is instructors’ ability or willingness to provide classroom accommodations including notes and assistive technology (AT). Only one student mentioned difficulty with AT stating that an instructor didn’t let them use their laptop even with a related accommodation. A barrier to students’ acquisition of assistive technology could be instructors’ lack of knowledge pertaining to AT resources for students with disabilities. As indicated from analysis of instructor survey, majority (76.06%) of instructors are not familiar with AT (see Table 4.17).

Table 4.17: Instructor Survey: Assistive Technology

Survey Question	Response	Rate	Percentage
I am familiar with [disability services'] Assistive Technology resources for students with disabilities.	Yes	22	15.49%
	No	108	76.06%
	No Response	12	8.45%

Instructors were also asked, on the instructor survey, to indicate any accommodations with which they experienced difficulties. Accommodations related to AT for which instructors marked difficulties with included ‘course materials in alternative formats’ (2.83%) and ‘permission to record lecture’ (7.04%). Table 4.18 provides an analysis of instructor responses pertaining to classroom accommodations (bolded).

Table 4.18: Instructor Survey: Accommodation Difficulties

Survey Question	Response	Rate	Percentage
Please indicate any accommodations with which you experienced difficulties.	Access to overheads	8	5.63%
	Copy of class notes/ Volunteer note taker	40	28.17%
	Course materials in alternative formats		
	Extended time on exams	4	2.82%
	Flexible Deadlines		
	Permission to record lectures	44	30.99%
	Preferential Seating	25	17.61%
	Reduced distraction testing environment	10	7.04%
	Never experience difficulties	1	0.70%
	No Response	37	26.06%
	41	28.87%	
	17	11.97%	

Other noteworthy classroom accommodations instructors had difficulties with were ‘flexible deadlines’ (17.61%) and ‘copy of class notes/ volunteer note taker’ (28.17%). Further evidence, for class notes being a barrier, first came from three

instructors comments, provided under *instructors providing accommodations*, which mentioned problems with obtaining and providing notes to students who request them. In addition, eight instructors wrote comments related to concerns providing notes. Table 4.19 provides a list of survey comments, pertaining to class notes, from instructors when asked about their concerns providing accommodations. Five of the comments mentioned difficulties finding a volunteer note taker, two comments related to instructors not believing peers should be asked to be a note taker, and the remaining comment indicated the instructor had concerns about students using peer notes.

Table 4.19: Instructor Survey: Accommodation Concerns

Survey Question	Response
What concerns do you have about providing accommodations to students with disabilities?	“I am not sure what to do if no one volunteers to take notes”
	“I feel like other students should not be asked to take notes for students”
	“I strongly do not feel that I should ask another student to take notes for a student”
	“It has sometimes been difficult to find a student to serve as a note-taker.”
	“I’m also concerned about students using a peer’s notes”
	“Getting other students to assist (i.e., sharing notes)”
	“Finding/connecting volunteer note takers”
	“It takes a lot of time to find dependable student volunteers to take notes for the students requiring them”

Testing Accommodations

The final barrier, under *accommodation acquisition*, was difficulty with testing accommodations. First, Table 4.20 provides an analysis of instructor responses pertaining to testing accommodations (bolded). Instructors marked difficulty with ‘extended time on exams’ (30.99%) and ‘reduced distraction testing environment’ (26.06%).

Table 4.20: Instructor Survey: Accommodation Difficulties

Survey Question	Response	Rate	Percentage
Please indicate any accommodations with which you experienced difficulties.	Access to overheads	8	5.63%
	Copy of class notes/ Volunteer note taker	40	28.17%
	Course materials in alternative formats	4	2.82%
	Extended time on exams	44	30.99%
	Flexible Deadlines	25	17.61%
	Permission to record lectures	10	7.04%
	Preferential Seating	1	0.70%
	Reduced distraction testing environment	37	26.06%
	Never experience difficulties		
	No Response	41	28.87%
	17	11.97%	

Student and instructor interview comments, as well as instructor survey comments, supported the barrier created by problems with testing accommodations. Three instructor interview comments pertained specifically to extended time. Two instructors mentioned difficulties when administering short quizzes. The instructor responded, “how to handle a seven minute in-class quiz,” when asked if they experienced testing accommodation barriers. Similarly, the other instructor responded, “Well, it’s only five minutes, so what do you do with the people in there that need seven and half minutes? Do they get up and leave room and then come back? Well, that’s kind of intimidating.” That instructor also made a comment about students taking exams early

to accommodate extended time. That comment was, “Taking it early, there’s always the question of compromising the exam results.” A comment from instructor survey was similar. That instructor wrote, “Leaks about exam problems when students start before or after the main exam.” The last instructor interview comment about extended time was, “Every time I have to schedule a time for time and a half, I have to find a room, I have to find a proctor, and that's been tough.” An instructor survey comment also just mentioned extended time as a problem stating, “giving extra time for testing.”

Other student and instructor interview comments and instructor survey comments mentioned general problems with testing accommodations. One student stated they don't like to use a separate testing location because of the inability to ask questions. Their comment was, “That's why I usually chose not to be removed because I like to stay in the classroom in case I need to ask a question.” Other interview comments indicated testing accommodations barriers included scheduling and finding a proctor. One student just responded, “scheduling test,” when asked if they experienced testing accommodation barriers. Another student mentioned not using their testing accommodation because of difficult with scheduling. “There’s some that I don't use... like separate room for taking tests. I just feel like that’s hard to schedule.” The final student mentioned difficulties with scheduling because of instructors and class timing.

The only challenges are when I have classes that are kind of near each other. I mean, yeah, because some professors are a little bit more strict on needing to take the test when everybody else is and being sure that you schedule it for that time.

One instructor stated, “The hardest thing about the accommodations is finding own proctors.” Twelve instructor survey comments mentioned general testing accommodation difficulties. Table 4.21 provides a list of such survey comments. Testing accommodations barriers indicated included scheduling, finding space and time to administer, proctors for exams, and additional effort on part of instructor.

Table 4.21: Instructor Survey: Accommodation Concerns

Survey Question	Response
What concerns do you have about providing accommodations to students with disabilities?	<p>“Double time on exams. This creates a huge scheduling problems.”</p> <p>“The ability to provide appropriate test taking circumstances.”</p> <p>“Finding a suitable testing environment.”</p> <p>“Finding time and space to hold extra-time exams for my students.”</p> <p>“Finding appropriate extended testing times, places, and staffing.”</p> <p>“Finding space and proctors for accommodated exams (reduced distraction, extended time) is a big problem.”</p> <p>“Finding a distraction free environment for test-taking.”</p> <p>“Finding proctors for extended time and/or alternative rooms to accommodate low distraction environments.”</p> <p>“Proctoring for exams is challenging.”</p> <p>“I cannot proctor an exam overlapping with the class's main exam period.”</p> <p>“I often have to spend a week finding an open room for testing”</p> <p>“The additional time that attempting to fulfill testing accommodations requires of faculty”</p>

The next set of comments, interview and survey, pertain specifically to disability service support and testing protocols. The first student mentioned difficulty scheduling with disability services to take exam because of the timing services start.

I had an 8:00 a.m. and my exam started at 8:00 a.m. to, what was it, 9:30, but I need extra time. They started scheduling at 8:30, it was a little ... because that took me a little longer and then I was late to my other class.

Similarly, an instructor also had issues with the time available for exams with disability service. They first stated, “Reserving a room. I’ll never do that again. I’ll never use that facility.” When asked why they responded, “The whole process... only there until five. We have a number of evening exams.” That instructor also mentioned “have to grade exam by hand” and “the getting it to and back” as exams problems. The other student just mentioned a testing center would allow for more accessibility. They stated, “I think it would be better if they have an actual testing center, because... what matters is every student should have the accessibility.” Six instructors interview mentioned problems with disability services testing procedures. The first instructor simply stated, “It’s a pain to use testing services” while another instructor stated disability services’ is “not user friendly.” Another instructor mentioned that there were never “slots available for student to take test.” The final two instructors both indicated that students don't want to take test with disability services.

I also have some students that the first time they took the exam in the [disability services] office, was separated place. Then in the second, the third exam, they say,

“Okay, I don't want to go to the [disability service] office. Could I take in the inside class?” I say, “Totally fine,” it's up to them.

The other instructor's comment was, “There's two students who took it with them for the first exam. That exam came to me and said, ‘Can I take with you because they don't let you get up and go to the bathroom’.” That instructor also mentioned, “I think it would be helpful if they supply proctors if we need them” and “the coordination is a little bit tough when you have a large number of students,” referring to disability services.

Two instructor survey comments mentioned not enough support from disability services when it came to testing accommodations. Those comments were, “Not enough support for providing students with alternate testing conditions” and “There is little support in accommodating students in these things.” Ten survey comments by instructors pertained specifically to disability services testing protocols and the need for a testing center. Table 4.22 provides a list of such survey comments.

Table 4.22: Instructor Survey: Accommodation Concerns

Survey Question	Response
What concerns do you have about providing accommodations to students with disabilities?	<p>“It would be great if we had campus-based rooms to send student for extended test time and/or reduced distraction”</p> <p>“There is no testing center, the burden to find testing rooms is all on me.”</p> <p>“[Disability services] should provide an area to accommodate exams”</p> <p>“Lack of testing facilities for extra time exams”</p> <p>“[Disability services] should institute a testing center capable of handling all extended student exams”</p> <p>“If [disability services] has the resources for proctoring exams”</p> <p>“Exam space... [disability services] does not help either, except for final exams”</p> <p>“Lack of room for test taking. Unwillingness or inability of [disability services] to take responsibility in such situations”</p> <p>“Not having the resources to help with extended testing... over reliance on [disability services] as a testing center”</p> <p>“It seems that too many students are given extra time on exam.... If the [disability services] office is going to give so many accommodations, then they should be responsible for proctoring the exams and finding space for students to take these exams”</p>

DISABILITY LAW

The final research question this study aimed to answer was, how does disability service personnel, instructors, and students with LD understanding of the disability law contribute to the use of accommodations? Under the category Disability Law four themes emerged. Themes emerged solely from student and instructor data because disability service personnel declined to be interviewed and zero questionnaires were completed.

Those themes were *knowledge level*, *responsibilities*, *disability disclosure*, and *campus policy*.

Knowledge Level

The first theme, *knowledge level*, involves both students' and instructors' "general familiarity (i.e., understanding that each is a law)" with The Americans with Disability Act (ADA) and Section 504 of the Rehabilitation Act (Section 504) and their understanding of how these laws apply to "postsecondary students with disabilities." Supporting data was obtained from interviews with students and instructors.

Students and instructors were asked about their "general familiar" with ADA and Section 504, two prominent disability laws that mandate protection for postsecondary students with disabilities (see Table 4.23). Four students and two instructors fell under 'no familiarity' with either law. Student comments included, "I didn't realize there were laws," "No, I am really not," and "Not really." Another student said they had heard of the 504 program because they were a part of that in high school but when asked if they knew that was based off a law they responded, "No, I didn't, no, I didn't." The two instructors simply stated, "Not at all" and "I'm not."

Four students and two instructors had familiarity with one of the laws. One student responded, "504, yes" but didn't know much about it's coverage. The other three students knew ADA was a law but again with minimal knowledge. Two students responded, "I know a little bit about Americans with Disabilities Act" and "I know it's the Americans with Disabilities Act. I couldn't tell you what Section 504 is." The final

student also did not realize 504 was a law and only knew of ADA in terms of accessibility.

I just knew that I had 504 accommodations. I didn't even put it together that that was the number from that law.... I honestly, I don't even really know.... When I typically think of ADA and regulations and that, you think of how you have to have a certain amount of parking spaces for accessibility. I didn't even really know that it covered learning disabilities, too.

Similarly, the two instructors stated they knew of ADA only in terms of accessibility. Their comments were, "I know there is an Americans with Disabilities Act and the need for wheelchair access and things like that" and "I don't know what 504 is... but as far as the Americans with Disabilities Act, I'm fairly comfortable with all the rules about bathrooms, and I know that there needs to be wheelchair access."

While only two students fell under 'familiar with both laws,' eight instructors knew both ADA and section 504 were laws. Neither student could give more than recognizing they were laws. The first student stated, "I've heard of them" because she took a class on disabilities. The other student said "yes" she knew of them because she talked about them with her mom back in high school. The first instructor simply stated, "I know they're there." Two instructors responded, "Yes." One also stated, "I wouldn't say I'm totally up to date" and indicated their familiarity was because their spouse was a middle school teacher. Other instructors comments were, "I'm pretty good with ADA... Ok with 504," "I think I'm reasonably familiar," "Yes... not an expert," and "Probably

more so than other faculty.” The final instructor responded, “Pretty familiar. There shouldn't be any kind of discrimination against any student that has a disability.”

Table 4.23: Disability Law Familiarity

Statement	Response	Rate	Percentage
General familiarity with disability laws: ADA and Section 504	No familiarity		
	Students	4	40%
	Instructors	2	16.67%
	Familiar with ADA but not Section 504		
	Students	3	30%
	Instructors	2	16.67%
	Familiar with Section 504 but not ADA		
	Students	1	10%
	Instructors	0	0%
	Familiar with both laws		
Students	2	20%	
Instructors	8	66.67%	
Disability law and postsecondary students with disabilities:	No understanding		
	Students	3	30%
	Instructors	4	33.33%
	Minimal understanding		
	Students	3	30%
	Instructors	2	16.67%
	No response or NA		
	Students	4	50%
Instructors	6	50%	

Note. ADA = Americans with Disabilities Act; NA = response not applicable

Students and instructors that had familiarity were then asked if they knew how ADA and Section 504 applied to postsecondary students with disabilities (see Table 4.23). Three students and four instructors did not know how the laws apply. The three students' comments were, “I have no idea,” “No,” and “I have no idea how they apply.” The four instructors stated, “No, I don't,” “Not really,” “No,” and “I guess not from the postsecondary level.” Three students and two instructors had a minimal understanding. Two students gave guesses as to how the laws apply. The first student stated, “I'm

assuming that they just protect my right to have accommodations.” The next student’s comment was, “This is my best educated guess. My disability is protected and I am able to receive rights for it. Whether it's accommodations or professors have to accept that... and be accommodating of that.” The third student stated, “I know that since I have a disability, that while I'm in an academic setting... I am supposed to get accommodations. That's probably as deep as I know.” The first instructor stated, “I know you can't discriminate against these students,” while the other instructor stated, “Yes... but not the learning disability necessarily.”

Responsibilities

The second theme to emerge under disability law was *responsibilities*. This involves both “student responsibilities” and “instructor responsibilities.” Both students and instructors were asked what they thought the legal responsibilities were of students and instructors when it came to requesting and providing accommodations.

Students Responsibilities

Six students and six instructors gave responses pertaining to “student responsibilities.” Two students and one instructor stated they didn't know. Another student stated, “I don't really know what it entails” but continued to say, “I have a right to request these things and to require them of my professors, but I don't really know much about it.” Two students and three instructors comments involved communicating with instructor. The two students responses were, “To just communicate with people and to obviously not be afraid of telling people what you have. Not telling people your diagnosis, but telling people what you need to be successful. I think that's really

important... self-advocacy” and “You need to give them the letter. And you need to talk it through with them. That's your responsibility, but if they do not abide by them then you need to take action.” The instructor comments were, “They just need to be upfront, and if something's not working out, they just need to be honest. I think that all comes with,” “That's their job to tell me that I need to accommodate the student, not me searching, they need to come to me,” and “Make instructor aware.” Similar to the student’s comment about reporting problems, an instructor also mentioned reporting if there’s a problem. They stated, “I think if the instructor or university does not provide such equal opportunity or student has some kind of concern about this, that they can’t learn in the class based on their disability, they can report to the compliance office at the university level.” The last instructor mentioned that students need to know their rights stating, “Understand what they can receive and what they should be able to get.... They have to understand that is their right.” The final students comment pertained to accommodations. They stated, “I think it's just getting my accommodations that I'm assigned, just getting them,” referring to requesting their accommodations from the instructor.

Instructor Responsibilities

Next, nine students and nine instructors gave responses pertaining to “instructor responsibilities.” Seven of the students mentioned instructors just need to provide them their accommodations. Three instructors’ comments pertained to providing accommodation. According to instructor survey data (see Table 4.24), majority (89.43%) of instructors marked ‘agree’ or ‘strongly agree’ when asked if providing accommodations was a part of their teaching responsibility. Notable student comments

included, “They have the responsibility to provide those accommodations and not withhold them from us,” “I know that if you have paperwork and you show it to them, they have to give you your accommodations without a doubt,” “If we come to them with the accommodation letter and everything, they're supposed to give us the accommodations that we request from them,” and “I know that legally they have to provide the accommodations that I'm approved for.” The first instructor stated, “By law I have to accommodate a student.” The second instructor first stated, “I’m embarrassed to say that I don’t” but when asked if they thought providing accommodations was a responsibility of theirs they responded, “I would probably say I am required.” The last instructor’s comment was, “I’ve just assumed we had to do it... I’ve never questioned it,” referring to providing accommodations to students.

Table 4.24: Instructor Survey: Instructor Responsibilities

Survey Question	Response	Rate	Percentage
Providing accommodations to students with disabilities is part of my teaching responsibilities	Strongly Disagree	2	1.41%
	Disagree	4	2.82%
	Neutral	4	2.82%
	Agree	46	32.39%
	Strongly Agree	81	57.04%
	No Response	5	3.52%

Another student mentioned instructors meeting with students to discuss their needs. They stated, “I feel like they're supposed to talk with us about what it is we need.” The final student indicated instructors have a choice to provide accommodations but if they don't they still need to find a way to meet students’ needs. They stated, “I think it's kind of up to them and if not, they should find another way to accommodate you in that

sense, if they say no.” Similarly, six instructors’ comments also indicated instructors need to meet students’ needs. There comments revealed that meeting students’ need meant creating a learning environment that is accessible. The first instructor stated:

I think the number one thing is make sure they get what they need. If someone comes to me with a request... I think my responsibility is to handle requests.... I need to do to the best I can to make sure they get what they need.... My responsibility is to teach them and make sure they have what they need to learn within the student environment.

Two other instructors’ comments were, “Facilitate learning however that learning needs to occur” and “To provide the environment that’s accessible.” The next instructor stated:

I think I got to be aware of anything that they need... they need to have access to everything as possible so that I can make their learning experience as equal or equitable as every other student in class. That's my responsibility. They should have access as long as it is practical and as long as I can do it.

That instructor also mentioned that it’s their responsibility to provide an equivalent learning experience to peer students without disabilities. The next instructor’s response was, “I think your responsibility is once you are made aware that there is this issue... then you have full responsibility of executing that in their learning environment.” The last instructor added that providing equal opportunity and a fair evaluation are also a part of their instructor responsibilities.

I think I remember we have to provide the comfortable and also reachable, reasonable learning environment for students who have this, not only learning

disabilities, but also all kinds of disabilities. They should have equal opportunity, and also if they need an actual accommodation, we have to make that a requirement for them. Give them a fair enough evaluation and also approach for their learning.

Disability Disclosure

The next theme to emerge was, *disability disclosure*. Students and instructors were asked if they believed students were required to disclose their disability to the instructor. Nine students responded but only seven instructors gave a reply. Tale 4.25 provides an analysis of student and instructor responses.

Table 4.25: Students Disability Disclosure

Statement	Response	Rate	Percentage
Students are required to disclose their disability to instructors.	No or I don't think so		
	Students	6	60%
	Instructors	4	33.33%
	Don't know		
	Students	1	10%
	Instructors	2	16.67%
	Yes		
	Students	1	10%
	Instructors	0	0%
	Instructor shouldn't/can't ask		
	Students	1	10%
	Instructors	1	8.33%
	No response		
	Students	1	10%
Instructors	5	41.67%	

Six students and four instructors said ‘no or I don't think so’. Two student responses were, “We don't have to disclose what LD is” and “I’m not required to tell professor what it is that I have.” Another student stated, “I don’t think so” but after further discussion

stated, “I didn’t know that you really don’t even have to express that to your instructor... that’s interesting.” Two instructor comments were, “I don’t think they need to disclose” and “I’m going to guess probably not.” This is similar to instructor survey data, shown in Table 4.26. Majority of instructors (73.24%) marked ‘somewhat agree’ or ‘strongly agree’ to students’ disabilities are confidential and do not need to be shared with instructors. Out of interviewed instructors, who responded, majority (57.14%) said ‘no or I don’t think so’. One student and two instructors said ‘don’t know’. The survey did not have a ‘don’t know’ choice, however, eight instructors did mark ‘neither agree nor disagree’. One student said ‘yes,’ they thought if an instructor were to ask they had to disclose. On the instructor survey 16.9% of instructors said they ‘somewhat disagree’ or ‘disagree’ that students’ disabilities are confidential. The last student and instructor both made comments indicating that the ‘instructor shouldn’t/can’t ask’. The student stated, “I’m not saying it’s illegal, but they really shouldn’t ask somebody what their disability is... its just not appropriate.” The instructor stated, “I know I can’t ask them specifically.”

Table 4.26: Instructor Survey: Disability Confidentiality

Survey Question	Response	Rate	Percentage
The details of a student's disability(ies) are confidential and does not need to be shared with instructors.	Strongly Disagree	9	6.34%
	Somewhat Disagree	15	10.56%
	Neither agree nor disagree	8	5.63%
	Somewhat Agree	37	26.06%
	Strongly Agree	67	47.18%
	No Response	6	4.23%

Campus Policy

The final theme, *campus policy*, emerged out of responses to instructors being asked if they were familiar (i.e., basic understanding) with campus policies pertaining to the provision of accommodations for students with disabilities. The university's disability service office provides documents that pertain to working with and providing accommodations to students with disabilities and documents specifically for students with LD. Seven instructors gave a range of responses. One instructor acknowledged the campus policy but indicated they had not read it and only would if the need occurred. The next instructor thought they remembered reading it, "I think I did during orientation," but couldn't remember specifics. A different instructor also stated they had "probably not" read the policy. They also stated, "I think that the system is pretty clear. I guess one thing I'm not clear about, again, is what help the students gets." Another instructor stated, "I don't know all the policies" pertaining to providing students accommodations. A different instructor remembered taking a training but said it pertained to non-discrimination of diverse individuals. They stated, "I think we have this compliance training for all the UT employees... its about discrimination." Similarly, another instructor mentioned a training but it didn't cover the provision of accommodations either. They responded, "Not so much... I'm on the college diversity and equity committee. I'm the token diversity person, but I've definitely heard more about the Employee ADA Compliance type things ... access to buildings, wheelchair access across campus, and those kinds of things...but not on learning disabilities." The final instructor stated, "We don't talk about this," signifying they had not received information about providing accommodations to students with

disabilities. They also stated, “I think that there’s something in the syllabus that we have to put in about that fact.” Responses reveal that no instructor had familiarity with campus policy pertaining to the provision of accommodations for students with disabilities.

IMPROVED PRACTICE OF USING ACCOMMODATIONS

The final category to develop was Improved Practice of using Accommodations (i.e., students acquiring accommodations and instructors providing accommodations). These themes emerged from interview responses to questions pertaining to how students’ with LD ability to use accommodations could be improved as well as student and instructor survey responses to disability understanding and awareness questions. A total of six themes emerged. The first theme, *LD student group*, emerged solely from student responses while the second theme, *disability service department contact person*, emerged solely out of instructor responses. The next three themes emerged from data sources including student and instructor interviews and surveys and pertained to education and awareness. Those themes were, *increased understanding of LD/disabilities and accommodations*, *increased understanding of disability law*, and *improved self-advocacy*. The final theme, *other practices*, represents individual participants’ comments on what could improve the use of accommodations by students with LD/disabilities.

LD Student Group

During a student interview, the student mentioned wanting to interact more with other students with LD and thus emerged the theme *LD student group*. That student stated, “I would start networking with other students with LD.... I just hope that we can all get together, LD students, to help one another, because we still get put down a lot.”

Four other students were asked what they thought about a LD student group, during their interview. The first student stated, “Yeah, that'd be kind of cool... It'd be nice. Yeah.”

The next two students also thought an LD student group would be beneficial. One student stated, “I think I could probably help people struggling with it and I think it would be a good place for people who are struggling with it. I think it'd be great.” The next student’s comment was:

Yeah. I think it'd be kind of fun actually...I think it would be just fun and interesting, especially to meet people... that are similar to you in that way.

Obviously, it impacts everybody differently, but a general connection between having this thing.

However, the final student had a different opinion. They mentioned talking to a student with LD who had experience using accommodations could be helpful but didn't have a desire to talk about their LD in a LD student group. Their response was:

Someone who's been there and done that, not someone who is trying to figure it out. Also, I don't know if I'd want to go to something specifically for people with learning disabilities to talk about my disabilities, because I'd rather just not draw attention to my self, and that's just how I'm wired.

Disability Service Department Contact Person

During an instructor interview the theme *disability service department contact person* began to emerge. The instructor stated, “I think if we have some kind of specific person in charge of communication, in charge of education, that'd be great. It would be really straightforward... just like the library... I think that would be important.” Five

other instructors also thought a contact person, for their department, would be beneficial. One just mentioned it would make using disability services less of a hassle to use. Two other instructors comments were, “I think having a that would definitely help” and “I think that would be helpful... It would be easier for the person there to understand what we need.” The next instructor said “yes” would be helpful then stated, “I got just the right person for you rather than us go through the website and send blank email out.” The final instructor stated a contact person would be helpful and suggested an anonymous question service as well.

I think that would be a great suggestion, having someone that kind of knows your field generally. They don't have to be in your field, but at least the general basic things that you do and it's hard because our college has such diversity... but I think it would be useful to have contact person, where it's not like I could start from a phone call to a grad student assistant and then the next time it's a whole different person with a whole different answer. So, a contact person would be great.... Even an anonymous thing where you can ask the questions and get answers without it having to be too cumbersome and time-consuming would also probably be something else.

One instructor, when asked if a disability service department contact person would be beneficial, thought it could be for those that struggle, but found the disability service office to be helpful already. They stated, “If they're having a hard time getting a hold of them, then yes. But every time I called over they'd been wonderful.”

Increased Understanding of LD/Disabilities and Accommodations

The next theme, *increased understanding of LD/disabilities and accommodations*, developed separately for students, instructors, and peers. Students and instructors were asked how more knowledge of LD/disabilities and accommodations would impact the practice of using accommodations. Furthermore, data obtained from the student and instructor surveys provide support to this theme.

Students

First, students and instructors responses were about education for students with LD. Eight students and seven instructors all indicated that it would be beneficial for students with LD to know and understand more about LD and accommodations. The first student stated, “yeah,” it would help them be more confident. Their full response was:

Definitely.... I feel like it would make me more confident talking about it. People will ask me, “What do you have?” I know I have it, but I don't know what that means. It's that kind of stuff. I wish we could talk about that and fully understand what that means.

They also indicated it would help them approach instructors. The next student thought training on LD and accommodations would help students with LD understand what they need and be more comfortable with having LD.

I feel like it comes down to I guess for me, knowledge is power in a way. I just feel like that statement comes in handy when you have a learning disability because I feel like if you understand what your learning disability is, it'll help you

understand what it is, but also maybe help you understand what you need... to become comfortable with it.

Similarity, another students' and instructors' comments indicated more education would help students be more comfortable or accepting of their disability. The student stated, "I think making it as factual as possible can really help because then it can get the point across to people that don't understand and making it more... just a thing like this is real and it impacts me." The instructors responded students should be taught, "It's just a condition that you have. It doesn't define you. You can overcome that, but to be afraid of it and run away from it doesn't solve the problem." They further stated, "It's not something to be ashamed of if you need accommodation. It's just normal." They also stated, that professionals need to "make it fun and make it attractive to them." A different student mentioned being more education would help students be more comfortable using accommodations. They stated, "I think so... I guess just trying to help students understand their accommodations so they can be comfortable and talk about it and not just hide it."

The next student indicated that a better understanding would help students to use accommodations. They stated, "I think it does. It helps me because if I don't understand what an accommodation is helping me with, I'm not going to use it. Some of the accommodations that I have, I hadn't used them until I realized what they were helping me with." Another student thought a better understanding would help students recognize their strengths and struggles. Their comment was, "Yeah. I think... because I feel like it's good to understand. We should always look at abilities, but we should also look at

struggles as well, because then it could help those struggles become abilities... I think that's important." A different student just thought more education would help students be better self-advocates stating, "I think to be able to advocate for yourself. I'm lucky in that I haven't really needed to as much...but I think in terms of advocacy, definitely." The final student thought an increased understand would be beneficial for students and help them handle situations but didn't think a large group setting would be best. They offered up other potential educational methods such as online or small group.

That might be something that you want to incorporate if the student would like that.... I would not want to go, and be with other people, and have to talk about it.... I feel like I would want it, but I don't know. I feel like freshman year that would have just really been too stressful. I don't know how you can go about doing that in a different way... online, maybe. I think online I would be totally fine with doing. I think in a small group, some people might really like to do that. In person versus online, I would have liked to do online... I don't know that much, and I would like to know more because I like to know about myself and how I can handle situations.

The first of the remaining six instructors just stated, "Yes," to being asked if more knowledge of LD and accommodations would be beneficial for students with LD.

Likewise, another instructor stated, "Yes" and added students should also learn about "learning styles and critical thinking and all that." The next instructor stated, "Oh-absolute... on their disability and their role as a student with a disability." Similarly, another instructor stated, "Yes," but added, "They come here and they're like, well, I have

this letter. I don't really know what I'm supposed to do with this... I'm sure, in many ways, probably those kids don't do well here not because of the disability.” They indicated it was a lack of knowledge as to why students do not do well. The last two instructors mentioned it would help students’ understanding. The first stated, “They are the key, they will be the key factor to make their learning a successful process. They need to understand what they can get.” The other instructor indicated students need a better understanding of their self because “if they already feel like they are different or feel like they are one way or the other... they’re going to be hesitant (to use accommodations).” They further indicated students need to understand their weaknesses and deficits. That instructor also responded, “I think that’s a huge part of it. I don’t think that’s explained to them,” when asked if students would benefit from a better understanding of accommodations.

Through student and instructor responses, an increased understanding of LD and accommodations by students with LD would help improve the practice of using accommodations. Such education would help students be more confident and comfortable with their disability, help them understand who they are, what they need, and what they can get, improve their understanding of accommodations, help them approach instructors to request accommodations, and be better self-advocates.

On the student survey, students were asked if they had ever attended a disability awareness event (see Table 4.27). These events provide student’s training to increase their knowledge on disability related topics. Only one student marked ‘yes’ while nine students marked ‘no’. The main reason marked was ‘timing did not work with my

schedule’ (26.67%), however, ‘not interested’ was marked by 20%. Furthermore, when students were asked if they were aware disability service personnel offered trainings majority of students marked ‘no’ (53.33%). What was not asked, of those who attended, was if the event increased knowledge that led to improved practice.

Table 4.27: Student Survey: Disability Awareness

Survey Question	Response	Rate	Percentage
Have you ever attended a disability awareness event sponsored by [disability services] (e.g., Disability Advocate Training, Dinner in the Dark etc.)?	Yes	1	6.67%
	No	9	60%
	No Response	5	33.33%
If you have not attended a disability awareness event, please let us know why.	Was not aware of an event(s)	2	13.33%
	Timings did not work with my schedule	4	26.67%
	Not interested	3	20%
	No Response	6	40%
Are you aware that [disability services] staff are available to provide training to students, faculty and staff on disability-related topics?	Yes	2	13.33%
	No	8	53.33%
	No Response	5	33.33%

Instructors

Second, students and instructors responses were about education for instructors. All ten students and eleven of the twelve instructors indicated that it would be beneficial for instructors to know and understand more about LD/disabilities and accommodations. Furthermore, one student and seven instructors mentioned involving students with LD/disabilities in instructor training would be valuable.

Students indicated that if instructors were more knowledgeable it would increase “comfort approaching instructors,” it would help “remove disability stigma,” and increase

“instructors’ acceptance of students with LD/disabilities and accommodations.” Student interview responses were similar to what students marked on the survey when asked what should others at the university understand about your disability. Although, only four students marked a response, students indicated others should know ‘invisible disabilities are real’ and ‘I can’t just try harder and improve’ (see Table 4.28).

Table 4.28: Student Survey: Disability Understanding

Survey Question	Response	Rate	Percentage
What is one thing you wish other people at [the university] knew about your disability?	Invisible disabilities are real	3	20%
	I can’t just try harder and improve	1	6.67%
	No Response	11	73.33%

Five student responses pertained to more “comfort approaching instructors.” The first student stated, “Yeah... this is why they get these certain accommodations... would be helpful, once they understand it's so much easier for a student to approach a teacher... they're already nervous enough to request accommodations. I definitely think so.” The next two students’ comments were, “I would feel more comfortable talking about it, approaching them probably. Just because I know they understand it” and “I think so. Yeah, I think that's pretty necessary. That instructors should understand why they're giving this... early in college, I was scared of approaching a professors.” Another student stated:

Yes. That would be very helpful. They understand the meaning behind it, even though you're not telling them what the disability is.... I think that would be really helpful, just to know before going and talking to them. And not going to them

thinking they might not know anything. They might just tell me no, they might not take this seriously or think that I really do need this.

The last student's comment also mentioned "instructors' acceptance of students with LD/disabilities and accommodations."

Very much so. I don't think they would push back as much as I've experienced them pushing back, not wanting to give the accommodations. I think that they'd see that, "Okay, this is your accommodation, I understand why you're using it, that's fine." I think it would help the communication; it would help the communication for the LD person as well as for the instructor... I would have felt completely comfortable going in and saying, here's the deal.

Five other students' comments also pertained to "instructors' acceptance of students with LD/disabilities and accommodations." The first student stated:

Yeah. I think that teachers would maybe be more likely. I have some teachers that are so understanding about it... I think they have definitely had experiences or knowledge about it and I have some teachers that don't really... so I think maybe if they had more knowledge on it they would understand more and maybe care a little bit more.

The next student's comment was:

Oh, definitely, yeah. That would be really great. I think that would help them understand a little bit and not just brush us off sometimes. Help us feel a little more included.... They don't really understand, but it would be great if they took, a little lesson on what it is and why we need accommodations.

Two other students' stated, "Yes... I feel like they need to have better background knowledge about learning disabilities because I feel like they don't understand... if they don't understand, then how can they justify in their own mind, about giving someone accommodations" and "Yeah. I think that would be great... getting more exposure... would be really interesting and beneficial to see that there's a whole array of students in the classroom and understanding where they're all coming from." The last student's comment was:

If they have really good training and more information, not just small talk... I feel like if they give more information for what the purpose of the accommodations are, I think that would help and it would give professors more understanding... It will create less insecurity with students and not feel ashamed of what they have.

In addition, two of the pervious students also mentioned more instructor education would help "remove disability stigma." The first student indicated that instructors' lack of understanding leads to less accommodating. They stated, "I feel like that's just the stigma that people have sometimes with learning disabilities, it's that if you're smart and you have good grades, why do you I need to give you anything." The other student's comment was:

I think it would help the stigma... to know the specifics about each type of disability would help them understand and probably be more likely to give you those, and be more open-minded about giving you those accommodations... I think it would remove the stigma"

Instructor responses indicated that more knowledge on students with LD/disabilities and accommodations would help them understand such students better including how they learn and to teach them. Two instructors simply stated, “That would be great, very helpful” and “I think we need training.” The next instructor’s comment included knowing more about the background of LD and their experiences.

I think a class would be really helpful... I'd like to understand students and what they're having to go through.... I wouldn't mind if there was a short, even online, course just explaining the process. Not what you have to do, but explaining the background, students who have these learning disabilities. I think it would help me understand them better and teach better to them”

Another instructor revealed they know little about disabilities and included more training on all types of learners was needed. They stated, “I imagine, I know very little... we are not trained to really understand what the best ways to interact and teach, and assess and all these other issues.... More training in just working with different types of learners.”

The next instructor mentioned instructors should know what they can provide and how to facilitate learning.

Some kind of short workshop once in a while to give the professor and the instructor what kind of service they can provide... I think it would be very helpful. I think each disability is different and specific... I think it'd be important to understand some basic information. What is this disability about? How would it be impactful on learning? Also, probably in general way... how to help them

learn and facilitate their learning... how their disability will affect their learning and what is the solution.

Two instructors simply commented that more information on LD would be beneficial. They stated, "I think absolutely they do... they've had very little if any experience with learning disabilities" and "Yeah, most common learning disabilities you're likely to encounter." The next instructor mentioned wanting sensitized information on how accommodations impact students.

I think that would really be good... I don't want to sit through a whole bunch of medical terms lectures but, yeah, if it were a matter of sensitizing them to what that means for a student and getting them to experience it. I think if they were able to get a sense of how that impact students.

Another instructor indicated that instructors need to understand that they need to meet the needs of students who use accommodations. Their comment was, "I think that there needs to be some kind of recognition that if a student needs a little bit more accommodations than normal, that we have to meet halfway... it would be useful to have a little refresher course." The final instructor's comment indicated that more education could build more acceptance of student differences.

In general, definitely... what those differences are and what they're not and building acceptance of diversity is definitely something I see a need of... That would be really valuable. These are what these disabilities can look like and here's how they impact performance in the classroom"

One student and seven instructors indicated that hearing from students with LD/disabilities would be beneficial. However, one instructor responded it would help but also stated, “They're all going say that, I don't have time” to listen to students. The one students’ comment was:

I think it would be good, to put it in terms of examples from what would be more applicable to their lives... I think that could help them see, “Oh, this is super real to my life.” Then they can maybe apply it better to how that could affect a student. Because obviously teachers have a very different perspective because they're doing the teaching and not the learning.

The next instructor just stated, “I would love to just hear from students.” Another instructor’s comment mentioned it would help instructors understand why students use accommodations and see all students the same. Their comment was, “Yep... why those accommodations were successful and what it was like before they had them. I think that would be a huge selling point because that student would look just like any other student and you wouldn't know it.” Similarly, the next instructor’s response was, “That will send a message to the faculty like, ‘I'm not just being nice, I'm actually helping’. I think as faculty, the most important this the student outcome. I think that would be helpful.” A different instructor thought hearing students’ with LD/disabilities journey would be a great addition to instructor training.

Yeah, I think that would be great. I think that would be good to have that as part of the trainings.... Helpful to actually hear from students. Maybe do a little mini

documentary or mini orientation video about a student's journey or something like that, that wouldn't take too long.

Another instructor mentioned involving students would help empower them. They also indicated that lack of knowledge surrounding students with LD/disabilities is more than just an institutional problem but a social one.

That would be not just be useful for the instructors, but also empowering for the students themselves... “Here's what I look like, here's what I have, but here's what I do.” You're showing a bunch of different kids doing the same thing; one of them just happens to have Down syndrome. It's not just our institution. There's a bigger society level of what people's perceptions and cultural perceptions of disability is.

The final instructor to indicate hearing from students with LD/disabilities as part of instructor education would be valuable, stated captivating stories are greatly needed across the university.

Absolutely, absolutely, between what works for them in their journey.... If you had really captivating stories that were digitized the way university does them, just really cool, and that be the opening way to present that agenda item in a faculty meeting-like setting, I think that would be really cool. So yes, I think it would be great to have a video messaging of that, three to five minutes of a story.... This is something that's really a need university-wide, and I want to bring this forward... Putting a face to a story!

On the instructor survey, instructors were asked if they were aware the disability service office provided disability related training. Slightly more instructors marked ‘yes’

than 'no,' 47.18% versus 45.07%. However, when asked if they had ever attended (or promoted) a disability awareness event, almost all instructors (86.62%) said 'no'. Only nine instructors (6.34%) marked 'yes'. Again, what was not asked, of those who attended, was if the event increased knowledge that led to improved practice. Although, an instructor stated during their interview, "I find them very beneficial," when asked about attending awareness events. Instructors were also asked what disability related training they thought would be beneficial. The number one choice marked was 'I would not like any additional information' at 32.39%. This contradicts responses from instructors who were interviewed. In addition to responses above, two instructors addressed disability awareness training specifically. The first stated, "Definitely bringing some sort of awareness or campaign... if it starts with the [disability service] office, then great." The other instructors stated training should focus on how disability impacts the classroom and why students need accommodations.

Disabilities are another type of diversity. So, bringing more awareness of what we see and how it impacts the classroom and how it doesn't and why there's different supports, why some people need some and other people need different ones, and what it looks like more or less and I think that would be useful.

The top training topic chosen was 'general overview of [the disability service offices] and the [university's] accommodations process' (20.42%) followed by 'working with students with learning disabilities' (14.08%). Table 4.29 provides an analysis of instructor responses to the above questions.

Table 4.29: Instructor Survey: Disability Awareness

Survey Question	Response	Rate	Percentage
Are you aware that [disability service] staff are available to provide training on topics related to disability services in higher education to students, faculty and staff?	Yes	67	47.18%
	No	64	45.07%
	No Response	11	7.75%
Please indicate the training topics below that would be helpful for you.	General overview of disability	11	7.75%
	General overview of [the disability service office] and the [university's] accommodation process	29	20.42%
	Using universal design to create an accessible classroom/syllabus	18	12.68%
	Working with students with learning disabilities	20	14.08%
	I would not like any additional information	46	32.39%
	No Response	24	16.90%
	Other Making sure online courses are compliant with ADA requirements	1	0.70%
Have you attended or promoted a disability awareness event sponsored by [disability services] in the past?	Yes	9	6.34%
	No	123	86.62%
	No Response	10	7.04%

Note. ADA = Americans with Disabilities Act

Peers

Lastly, students and instructors responses were about education for peers. Nine students' and five instructors' responses pertained to peers and an increased understand of LD/disabilities and accommodations. While six students responded peer education would be helpful, two students thought it might be for some but not all. The first stated, "I think it would change some people's opinions, but people have their opinions on things and it's hard to change that once they have it set... it'd be nice for people to hear that, but

who knows.” The other student thought peers were too self-centered to change their opinions unless it came from a highly knowledgeable professional.

I want to say, “Oh yeah that'd really help...” in an ideal world that's what I would hope, but... like, I don't necessarily think that would help. Because I think a lot of the ways students feel is because... we kind of are very self-absorbed this time of our lives, so no matter what, it's going to be, “It's not fair, they shouldn't be able to (have accommodations)... they have a learning disability, okay, but they shouldn't be able to get the best teachers...” I don't know... maybe if it came from an adult or someone who specializes in that and is passionate about making people understand maybe that would be different.

The other six students indicated more education for peers would lead to a better understanding, decrease negative reactions, lessen the stigma, and increase how peers treat and respect students with LD/disabilities. One student stated, “Yeah. I think that peers don't really understand... I think that's the main population who don't really get it. They don't realize that people with disabilities or learning disabilities can still go to a college.” Another student's comment was “I feel like it could help... I'm sure the negative reactions would be minimized with that.” The next student thought more general knowledge would be helpful because disabilities and accommodations are not addressed enough.

I think just more general knowledge on it because my experience is it's pretty hush-hush. I think just a little bit more knowledge would be good because it's never really addressed, what these things actually are.... I think that would also be

something really interesting for people to learn about because then you can learn a little bit more about how our brains function. I think taking more of an educational standpoint would be good because then it's less of a thing.

The next student mentioned it would make peers less ignorant and more considerate. They stated, "I just want them to understand what I have just so that they can kind of respect me as a person and treat me equally... I feel like they're just a little more ignorant about it and not considerate." Another student mentioned a class they were taking that taught about individuals with disabilities and how they should be treated. They simply stated, "Everybody just need to take this course."

The last two students' comments mentioned education could help lessen the stigma. The first student also stated it could help peers not be so judgmental.

I think so as well as others... because obviously it helps to have a more informed community for people to understand people not like them. And because it's really easy to make preconceived judgments of what a disability is whether it's they have a disability or they don't look like they have a disability... so I think, yes, having them more informed, definitely makes it feel less of a stigma.

The other student also mentioned it would make them feel more comfortable. They stated, "Yes, definitely. That would make me more comfortable... I don't think it should be something that's stigmatized or anything, because it's not. It's totally normal, but I feel, yeah, some people still see it as though." Similarly, three instructors also mentioned more education for peers would help with the stigma of disabilities and accommodations. The first instructor stated, "Reach broader... to teach students in general who this other

population is and what they are capable and why they need accommodations... to try and break down that stigma.” The other instructor first responded, “Oh, gosh, yeah,” to being asked if peers needed more education. They then stated, “Oh, yeah, yes. I do think that,” when asked if they thought such education would help breakdown the stigma. The last instructor also indicated that education would “break down stigma” and “cultural misconceptions” amongst peers.

Two other instructors thought more peer education would be beneficial. The first instructor simply stated, “I think that would be great for all students.” The other instructor thought all peers should have more education because the increased number of students using accommodations. Their response was, “I think that, there's so many students now that are having accommodations of some sort because of the increased awareness and stuff.”

Increased Understanding of Disability Law

Students and instructors were asked during interviews how more knowledge of disability law would impact the practice of using accommodations. The theme *increased understanding of disability law* developed separately for students and instructors.

Students

Eight students and five instructors responded and all thought more disability law education for students would be beneficial. Students overall thought it would provide them more confidence and self-advocacy ability, especially to handle difficult situations that occur. The first student mentioned how they wouldn't have dropped a class when the instructor wouldn't provide their accommodations. They stated, “Yeah, I think that would

be really important. I think it would make me actually fight more... I would have probably done more instead of just giving up and actually dropping it.” The next student responded they would have more confidence in their disability and be better able to explain why they need accommodations.

I think so. I think it would give me a little bit more confidence in having a disability. Because right now, it just kind of feels like people don't understand and so, you have this thing that people don't understand and you have accommodations for this thing that people don't understand... I just think that would be a lot better because I try to explain myself, and I get jumbled up, and I lose people.

Two students mentioned having increased confidence and knowing what to do if a problem arises. The first stated, “Yeah, I think it would help me advocate for myself, as well as if I had any problems, I would know how and where and why to report it.” The other student responded:

It'd probably help just having background knowledge and just knowing specifically maybe what to do if one of those situations were to happen... I know a lot of students... don't go in having that confidence. If they know the laws, I think they'll be more confident.

Another student though all students with disabilities should know the law so they can know their rights. Their response was, “Yeah, I think every student with any disability should know that. They should know their rights... I didn't really know that much in depth. I feel a little ignorant not knowing.” The next student stated it would help students

with disabilities have a better mindset and see accommodations as their right. They stated, “I think just having a more solidified mindset of this is a right that I have, which you don't really think about it that way because accommodations are typically viewed as a privilege, which they're not. It's a right.” A different student thought more disability law education would help them have confidence in discussing with instructors.

It definitely would. I feel a lot more confident in those conversations because if I'm going into it where I don't have a basis for this. Whereas, this is like, this is what my rights are under the law and I think it gives that confidence and ability to have that better discussion about it.

The last student just stated they would feel better knowing more about the laws. They stated, “Talking about the law behind it. I would be very interested to know that. I would like to know the specifics. Personally, it would make me feel better to know these specifics about what the law is.”

Similar to the two students who mentioned knowing what to do if a problem arises due to more disability law knowledge, an instructor responded, “I think that will be critical, and they will understand their legal rights. For something goes wrong or not the way they think, then they will know whom they are going to talk to.” Two instructors just indicated, yes, students should know the laws. Their comments were, “I think it has to start somewhere. It makes us start with the person who needs it” and “I think they need to understand what's allowed and what's not.” The next instructor mentioned students should know so they can utilize all resources available. They stated, “Absolutely. I think it would only amplify the utilization of the resources that they have... They need to

know. They need to know.” The last instructor though students with disabilities should be encouraged to learn more on disability law stating, “I think all students should be encouraged and empowered.” They also stated that too often students with disabilities are “minimized and marginalized” and more education would help.

Instructors

Six of the seven students, who gave a response, thought instructor should have more education on disability laws. One student thought instructors already knew the law otherwise they would not be providing accommodations. They stated, “I think the majority of them know what the law is, at least they know the basics because otherwise I don't think some of these teachers would give accommodations at all.” Three students’ comments just indicated should have more knowledge. Their comments were, “Yeah, I think that would be important,” “Definitely, definitely. I feel they should know that, too, just as much as students,” and “Yeah. For sure.” The next two students indicate that everyone, not just instructors, should have more disability law knowledge. The first thought it would help everyone feel equal stating, “Yeah, because some people probably forget about the law... it would make people feel equal to each other.” The other student simply stated, “If everybody could know more that would be great.” The last student mentioned it would improve the way instructors treated students and the provision of accommodations.

Yeah, definitely. I think it would help them sort of understand... like this is the law, this is your responsibility, whether you like it or not, whether you agree with it or not, to kind of help also how they might treat students... for a teacher that

makes the student feel small when they come to them requesting accommodations. Like it's not even the student, you're bound by the law.

Instructors had mixed opinions as to whether instructors should have more knowledge of disability law. Six of the nine instructors thought, yes, instructors should have more education. The first three instructors comments were, "I think it would be very valuable, especially for those instructors that come into contact with students that are new," "Absolutely, absolutely. Yeah, it should be a speaking point... so when a student presents a letter to you of accommodations, that is law binding," and "I'm a firm believer in faculty knowing where sausage comes from... I think people need to know that there are legal underpinnings." The next instructor indicated the laws should be presented in a way that is easily understandable.

It think it would be helpful... if somebody can basically tell me what I need to do, what are my rights and what are my responsibilities... way that's easy on my eyes and I don't have to read into it and interpret the legal term.

Another instructor to think more education would be beneficial indicated it should be mandated for all instructors. They also mentioned instructors should know students rights and provide students an equal education.

I think definitely, I think it'd be great, say, to provide that information as a mandate, or I think a mandate would be important.... I think that's very important, too, for the instructor to know how we can treat the disability of students well. Giving them the equal opportunity and give them the help they need for this learning. Also, we need to understand their right, their legal right for being a

student in a university. What kind of help they can get, not just what kind of help but who is the go to person, who is the go to office they can ask for help.

The last instructor indicated that instructor have biases because they don't understand the purpose of accommodations due to lack of knowledge of disability law. They stated, "I'm sure, a lot of them have biases, they don't understand (accommodations) because they don't understand (the laws)."

The final two instructors indicated more education on disability law might be beneficial. The first stated, "It might help. I'm going to do it no matter what, but it might help with those people like the infamous professor," speaking of an instructor who told a student they couldn't take their class because they had a LD. The other instructor was unsure; they indicated that they provide accommodations regardless of the laws but that there might be a situation where they would need to refer to them.

I don't know if it would, just because I tend to rely on the students. Maybe legally, I don't know if I would just stop at where I'm legally responsible. If someone needed an accommodation beyond that, I would be willing to work with them... I think if I was given a situation where somebody tried to push their accommodations a little bit more in terms of how much time they needed. Then I would double check and I'd look at the laws.

Improved Self-advocacy

The next theme that emerged was *improved self-advocacy*. Students and instructors were asked if and how students with LD/disabilities would benefit from education on self-advocacy. Only two students specifically responded to the question. As

shown above in Table 4.28, the disability service office does provide training on disability advocacy but as indicated by survey students, attendance to such events was not high. The first student interviewed mentioned more self-advocacy ability would be empowering and stated,

Yeah. I think the empowerment thing you were talking about... I never had that. And it kind of makes me emotional thinking about it because it's like I've never even thought about feeling empowered. It is one of my biggest insecurities. My whole battle is insecure and okay with it. That would have been awesome.

The other student also mentioned empowerment in their comment; "I think we should all just empowered... I like that word, be empowered and not be kind of drawn to self-pity, it's okay, It's normal. We should talk about it."

Six instructors responded that self-advocacy education for students is needed. The first three instructors indicated yes. Their comments were, "They absolutely need that. In fact, many of them without letters need that," "Students need this," and "Self-advocacy, empowerment, and proactive." The next instructor also stated, "yes" and indicated students need to be told how to self-advocate.

Absolutely... if the student is on the radar of a university, when their first consultation meetings with their advisor or whomever it might be, that's when that needs to take place... "Here's what I want to help you utilize, here's what's going to make you successful." They need to be told that.

The next instructor thought a peer mentor would be a great way for students to learn how to self-advocate.

Maybe like a peer type advocacy, pairing up a new student who has a documented learning disability with a junior or a senior advocate who could be their buddy, because that's a safe person, and that's also somebody to look up to, to say this person did it.

The final instructor indicated more education is needed because students don't know how to be self perceptive and so professionals need to help the acquire such skills.

They don't have the self-awareness or even have the strength to look into them self. I think that takes a lot of wisdom. I think maybe there's a way the disability office can help them identify... we can't expect them to be able to do that. It's not comfortable to look at yourself, especially when you have something that's not perfect... we have to help them.

Other Practices

The final theme that emerged under this category was *other practices* that could improve the practice of using accommodations. One student comment and four instructor comments fell under this theme. The student mentioned that instructors should approach how they address students with disabilities during class differently so students felt more welcomed and comfortable.

When teachers are going over it (syllabus statement), said something like... “You know, I want to be sure to be able to make sure everybody can be successful in this class, so if you need any accommodations addressed or whatever, be sure to let me know so I can help most effectively for you”... not making it a thing of, “Oh, you have this disability, you need to get handled or whatever,” but more just

“I want everybody in my class to succeed and learn the most effectively that they can...” That would make it seem very welcoming for me to go give them my letter.

Similar to the students comment, an instructor also mentioned it’s beneficial when instructors do more personal assessment with students with disabilities. They stated, inductors should “just do a quick, ‘How you feeling, how you doing’.” The other three instructor comments involved disability services. Two instructors mentioned more convenient information provided by disability services. The first instructor stated, “An online module with how to implement accommodations” would be helpful. The other instructor stated:

I also just think that systematically having a place to go for that information. Knowing exactly what's available. I think generally onboarding for any place is hard, but I feel like just having a really structured introduction.... I feel like making it clear that there are some problems that people have, and we just need to be accepting of that to the fullest extent possible, without compromising the standards or the professional roles and expectations or whatever.

The last instructor thought the disability service office should do more outreach to students with disabilities encouraging them to use accommodations.

Maybe, there's a way the student disability office can maybe reach out to students somehow and send out the general message... “This is really a good thing.” I think maybe from that office, just saying in a passive way of phrasing it, instead

of you are disabled, it doesn't label you, it's just like, “You have this condition that someone needs to accommodate you.”

TRIANGULATION

The analytic technique of triangulation revealed consistencies and inconsistencies across data sources (i.e., student database, student and instructor surveys, student and instructor interviews). Overall, comparison of data sources supported consistencies across themes. Notable consistencies, indicated through both interviews and surveys, include the following themes: (a) *previous use of accommodations*- students with LD entered into the case study university with previous use of accommodations, at either or both the secondary and/or prior postsecondary level; (b) *students requesting accommodations*- students typically provide instructors their accommodation letter at the beginning of the semester, handing it them before or after class; (c) *instructors providing accommodations*- instructors are mostly willing to provide accommodation and helpful to students; (d) *disability disclosure*- students and instructors understand a student's disability is confidential and students do not have to disclose; (e) *equal access*- accommodations provide students equal access their education and not an advantage; (f) *disability service office practices*- instructors feel the disability service office should provide more support for testing accommodations and more easily attainable information and resources; (g) *accommodation acquisition*: students nervousness- students feeling nervous approaching instructors creates a barrier; (h) *accommodation acquisition*: classroom and testing accommodations- students and instructors indicated difficulties

with peer notes and testing accommodations including extended-time and RDE; (i) *accommodation postponement*- instructors noted concerns with students waiting to provide accommodation letters or providing letter and not using their accommodations; and (j) *Knowledge level: disability awareness*- instructors indicated they would like more knowledge pertaining to disabilities and the accommodation process.

Several inconsistencies across data sources appeared. Comparison of the student database and interview data revealed differences in the number of accommodations approved. The student database had a higher average number (seven vs. four accommodations) and wider range (one – fourteen accommodations vs. two – six). Other notable inconsistencies, indicated through both interviews and surveys, include the following themes: (a) *instructors providing accommodations*- only two interviewed students indicated problems with instructors providing accommodations whereas over half of surveyed students marked they had encountered problems. However, both student data sources specified problems were with instructors providing testing accommodations; and (b) *disability service office practices: instructor concerns*- interview instructors understood accommodations are fair and reasonable while surveyed instructors had concerns with the fairness of accommodations to other students and students abusing accommodations.

Chapter Five: Discussion

Postsecondary institutions have the responsibility of ensuring students with disabilities (SWD) are provided equal educational opportunities, including necessary services to achieve at their potential, nevertheless many still experience barriers to academic success. One specific group of SWD to require disability services is students with learning disabilities (LD), who comprise the largest disability group at the postsecondary level. The primary service students with LD require is the provision of accommodations. Accommodations, which assist students with LD in gaining meaningful access to postsecondary education (Brinckerhoff et al., 2002), can be delivered as appropriate academic adjustments or modifications and changes to tasks, environment, or instruction (“Reasonable Accommodations Explained,” 2017). Students with LD specifically need accommodations that directly affect their academic achievement within and outside the classroom, known as academic accommodations (“Access & Accommodations,” 2017).

The present was guided by the interrelationship between the Environmental Model of Disability and the Functional Model of Disability (Smart, 2016). Learning disabilities are often environmentally defined (Smart, 2016) and can thus be understood as ones ability to function within a certain environment (Institute of Medicine, 1997). Students with LD use accommodations to alleviate postsecondary environmental barriers that hinder their access and participation and to adequately function within the environment of postsecondary education (Smart, 2016).

The purpose of the present study was to compare the perspectives of students with LD and postsecondary professions pertaining to academic accommodations and participants' understanding of disability law that mandates the provision of accommodations. The present study extended the investigation of previous research related to postsecondary education and perspectives towards accommodations, perceived facilitators and barriers pertaining to the use accommodations, and level of knowledge about disability law pertaining to accommodations. Perspectives and understanding were attained from students with LD and instructors. Although participation for the present study was not overwhelming high, a more sound understanding of the issue of study was produced based off the triangulation of data sources. Results revealed the emergence of categories and themes and provided the researcher an improved understanding of the perceptions and attitudes of participants, the practice of using accommodations, utility of accommodations, impact of disability law knowledge, and most importantly facilitators and barriers to the use of accommodations. Findings from the present study provided implications for individuals involved in the practice of accommodations at the secondary and postsecondary level and directions for future research. Limitations of the study were also identified and discussed.

PERCEPTIONS AND ATTITUDES PERTAINING TO LEARNING DISABILITIES

Throughout the analysis of results it was evident that perceptions and attitudes influenced postsecondary students' (i.e., those with LD) to use accommodations. The impact of individuals, involved in postsecondary education, opinions and positions towards LD can carry significant power. Such individuals include students with LD,

instructors, and peers without disabilities. When positive perceptions and attitudes are held it facilitates an inclusive environment for all SWD and increase students with LD/disabilities ability to function.

Overall, students in the present study expressed good experiences being a student with LD at the case university. They felt that their LD label provided them more confidence, an improved self-belief about their intelligence, and increased understanding of their ability to achieve. The label of LD can influence one's overall self-perception and attitude. Orr and Goodman (2010) interviewed students with LD and found that having a LD had a positive lasting emotional impact on students' self-concept and identity. Students interviewed by Denhart (2008) felt validated by their LD label, attributing being lazy or stupid to academic struggles prior to being diagnosed. Acknowledging one's LD can have a positive effect on the postsecondary experience.

Instructors at the case university expressed enjoyment with their career but acknowledged it comes with challenges. The university was noted to not be as supportive as it could be, revealing that most support came from within individual departments. Furthermore, resources were available to instructors but were not easily accessible. Instructors also noted being tasked with trying to meet the needs of a diverse population of students with little compensation for their efforts. However, the inclusion of students with disabilities doesn't appear to add any addition effort as long as instructors are sensitive to their needs and willing to meet such needs. Because instructors are the primary source of learning for postsecondary students, including students with disabilities, and directly affect the quality of education they receive (The Condition of

Education, 2017) it is important instructors feel supported and prepared to meet the needs of students.

The perceptions instructors hold about what determines a LD can influence the way they interact and accept students with LD. Many instructors have a misconception of what defines a LD. Such misunderstandings as believing a LD is associated with other disabilities, is just an attention or focus issue, or that students with LD just have different learning styles (which students with LD do learn differently but not due to specific learning style differences). Although the present study did not find students with LD held misconception, May and Stone (2010) found students with LD held the misconception that students with LD have intellectual disabilities (ID). In the present study some instructors also saw a LD as a disadvantage to ones learning or due to ones stress levels. Although West and colleagues (2016) didn't ask instructor specifically about LD, they found instructors lacked understanding of the definition of disability. Similarly, Barnard-Brak and colleagues (2010) also found faculty tended to lack understanding of disability. Not understanding what defines a LD can lead instructors to not adequately provide students with LD an equal education.

Overall, both students and instructors in the present study had little to no understanding of or ability to explain what defines a LD. Students inability could be due to most of them not being explained what defines a LD when diagnosed or made aware of their LD. However, most students and instructors had an understanding of the affect of a LD. Students with LD do learn differently such as the way they process information but still have the ability to learn. They just require changes to how they learn because of a

difference in how their brain functions. Thus students with LD will not always acquire information in a traditional manner and thus differentiated instruction is critical even at the postsecondary level. Santangelo and Tomlinson (2009) studied the application of differentiated instruction into postsecondary environments. They affirmed that the incorporation of differentiated instruction relies on instructors to adapt learning experiences to meet their students' individual and diverse needs as to facilitate their success.

Having a LD comes with strengths and challenges according to both students and instructors. Such strengths include high intellectual and academic achievement capabilities and creative thinking abilities. Challenges occur both academically and socially. Vogel, Fresko, and Wertheim (2007) noted that students with LD had difficulties with peer social interactions. Social challenges include being misunderstood by peers and feelings of isolation. Postsecondary campuses are places where students are exploring new social settings and attempting to integrate a social group. If students with LD are struggling socially it could influence how they function within the classroom. All student participants from the study by Orr and Goodman (2010) indicated that interpersonal relationships and social connectivity were of the utmost importance. Academic challenges include having to put forth more time and effort to achieve at the same level as peers. Denhart (2008) also noted that students with LD perceived themselves to work harder than their peers without disabilities. A LD also has an impact on specific academic areas. Most notably reading, specifically reading comprehension, and writing as well as mathematics. Patterson and Duer (2006) discussed the expectations

of reading and writing at the college level and identified that students need strong reading and writing skills for academic achievement. Students with LD also differ in their audio processing of information. These are necessary skills postsecondary students with LD must utilize during learning and being assessed and why such students require accommodations.

PRACTICE OF USING ACCOMMODATIONS

Majority of students with LD entered into postsecondary with prior use of accommodations, either secondary experience or previous postsecondary practice. Within environments of education students with LD utilize accommodations to function adequately for the demands. Although, the range of number of approved accommodations can range from one to fourteen, most students in the present study were approved between four and six accommodations. The number of approved accommodations can impact how well one functions successfully. The accommodations that were most often approved for students with LD included peer notes, extended testing time, and reduced distraction environment (RDE). These were also the most provided accommodations by instructors. Lindstrom (2007) and Weis and colleagues (2016) also found extended time to be the most commonly approved testing accommodation. Followed by RDE and instructor notes (Weis et al., 2016). However, most students in the present study expressed that not all their accommodations were used or that they even knew all the accommodations they were approved. If students are unsure what accommodations they have it makes it difficult to use accommodations that could potentially benefit them.

Further, students expressed that one reason they didn't use certain accommodations was based on lack of training on how to use that accommodation, such as Kurzweil.

Although, the purpose of accommodations was not clear to all students or instructors, accommodations were noted as leveling the playing field for students, providing a learning conducive environment, and providing students the ability to show their learning capabilities. Primarily, accommodations were thought to enhanced students' ability to function within their education environment. They allow for adjustments in how students learn and remove barriers so students can achieve. Accommodations provide students access to education and support and increase their independence.

To acquire accommodations students with disabilities must meet with the university's disability service office (Katsiyannis et al., 2009). Students in the present study revealed that their accommodations were determined based on a combination of diagnostic paperwork, professional knowledge and judgment by disability service personnel, accommodations previously used, students input on needed accommodations, and sometimes based on areas of struggle for student. Likewise, Hatzes and colleagues (2002) found professionals approved accommodations based on documentation, professional judgment, and input from students. Lindstrom (2007) recommended that accommodations be individually determined based on the functional impact of one's disability on their environment. Related research found students were satisfied with the accommodation process for determining appropriate accommodations (Barnard-Brak et al., 2010; Kurth & Mellard, 2006). Similar to the present study, SWD surveyed by Kurth and Mellard (2006) were pleased with the availability of accommodations. Students in

the present study indicated their pleasure with being offered more accommodations than they knew were available.

After students have been approved for accommodations they can then request their use from instructors. This process typically occurs by students handing instructors their accommodations letter at the beginning of the semester. Many students also meet with their instructor to discuss their needs. Although, only about half of students in the present study were able to explicitly explain their accommodations or need for them. This typically does not include students disclosing their disability to instructor. While some students felt it is none of instructors business other students felt comfortable providing such information if instructor was interesting. To the contrary, Barnard-Brak and colleagues (2010) found students would avoid disclosing about their disability if at all possible.

Overall, instructors were generally accommodating to students' requests for accommodations and helpful in the provision of accommodations. Instructors were found to have a positive willingness to provide accommodations to students with LD (Murray et al., 2008; Skinner, 2007). Although, in the present study problems sometimes occurred, typically with instructors providing testing accommodations or instructor slides. Related research by Barnard-Brak and colleagues (2010) also found faculty were considerate of students with disabilities academic needs and disability and generally helpful in providing accommodations. Although, they too found students encountered problems with seeking accommodations by some faculty.

Many instructors prefer to handle the provision of accommodations themselves versus using disability services, with some utilizing their TA to make sure accommodation requests are met. Half of instructors in the present study provided students accommodations regardless of them providing an accommodations letter. The other half felt the letter was necessary as to be fair to all students and the integrity of the system. Quinlan and colleagues (2012) identified that instructors took three different approaches to providing accommodations. One being accommodations only for students with LD who required them (i.e., students that provided a letter) while the other approach was instructors providing accommodation to any student they believed could benefit from their use (i.e., no letter required).

UTILITY OF ACCOMMODATIONS

The usefulness of accommodations will ultimately impact students with LD/disabilities success within postsecondary environments. However, limited research validates the effectiveness of different accommodations at the postsecondary level (Lindstrom, 2007). Students with LD and instructors overwhelmingly felt accommodations provided students with LD/disabilities equal access to postsecondary education, allowing such students to function at expected levels. However, it was noted that accommodations must be appropriate for success to be achieved. Accommodations were acknowledged to allow students to learn and perform equally to peers without disabilities. Although, students and instructors thought students' grades or grade point average (GPA) was an indicator of utility of accommodations, limited research supports the positive affect of accommodations on students' with LD GPA. Keim and colleagues

(1996) found no relationship between testing accommodations and students' GPA. However, some research has found forms of AT accommodations to improve the GPA of students with LD (Holmes & Silvestri, 2009; Raskind & Higgins, 1995).

Specific accommodations students felt were most useful included extended time and RDE for testing and audio recording of lecture. Kurth and Mellard (2006) also found extended time for testing to be most effective by SWD. However, contrary to the present study, were students didn't favor peer notes, Kurth and Mellard found a note taker for students to be effective. Reinschmiedt and colleagues (2013) found SWD were pleased with all their accommodations but favored AT over other classroom accommodations. Although, students with LD were the least satisfied with their accommodations compared to students with other types of disabilities.

DISABILITY LAW

Postsecondary SWD are mandated protection, which guaranties equal access and independence to their postsecondary education, by two key pieces of federal legislation. These disability laws are Section 504 of the Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act of 1990 (ADA). Whereas, previous research found that majority of instructors had little to no familiarity with either law (Cook et al., 2007; Leyser et al., 1998; Murray et al., 2008; West et al., 2016), the present study revealed that majority of instructors felt they were familiar with Section 504 and ADA. However, all instructor had little to no understanding how such laws applied to postsecondary students. Other studies also found that faculty had little to no knowledge of legal requirements pertaining to the provision of accommodation for postsecondary SWD (Baggett, 1994;

Burgstahler, Duclos, & Turcotte, 2000; Vasek, 2005; Villarreal, 2002; Wilson, Getzel, & Brown, 2000). Student perspectives were also obtained in the present study pertaining to their familiarity with Section 504 and ADA. Similar to instructors, several students indicated familiarity with one or both laws but indicated little to no understanding how laws apply to postsecondary education. Skinner (2004) also found that students with LD were not knowledgeable of disability law.

Familiarity could be due to the fact that Section 504 and ADA are generally mentioned in society in terms of accessibility and employment and thus individuals have heard of such laws but have not learned how they apply to postsecondary education. It is evident from previous research and reinforced by the present study that postsecondary students and instructors lack adequate knowledge of disability law. According to Rao and Gartin (2003) faculty ignorance pertaining to disability legislation and their mandates creates a barrier to accessible learning and the provision of accommodations for postsecondary SWD. They also found that a relationship exists between faculty knowledge of disability laws pertaining to accommodations and their inclination to provide accommodations. Furthermore, the present study revealed instructors were unfamiliar with the university's campus policies pertaining to the provision of accommodations. Based on student and instructor perspective from the present study more knowledge could help facilitate the use of accommodations by students. Katsiyannis and colleagues (2009) noted that faculty would be better able to support SWD with increased legal knowledge.

Students who use accommodations and instructors have responsibilities under the law (“Rights and Responsibilities,” 2016). Skinner (2004) found that students with LD were uninformed of their responsibilities as a SWD. Katsiyannis and colleagues (2009) noted that many SWD are arriving at postsecondary institutions not recognizing that it is their responsibility for contacting disability services in order to acquire accommodations. To the contrary, the present study found generally student and instructors recognized it is the responsibility of the student to meet with disability services to obtain accommodations, provide their letter to instructors and request accommodations as well as communicate their needs. Majority of students also recognized they do not have to disclose about their disability to instructors. However, instructors were not confident that students are not required to disclose their disability to instructors. Houck and colleagues (1992) found that majority of faculty thought students should disclose about their disability to instructors. West and colleagues (2016) found instructors were confident in their responsibilities in the provision of accommodations. Similarly, the present study found instructors recognized that providing accommodations was their responsibility including meeting the needs of students with LD/disabilities and ensuring their learning was facilitated. Students recognized it was instructors’ responsibility to provided their requested accommodations.

FACILITATORS AND BARRIERS

Certain factors influence the use of accommodations by students with LD/disabilities, having the potential to facilitate positive outcomes or interfere (i.e., create a barrier) with students’ success. Facilitators increase students’ ability to function

effectively while barriers impede on students' ability to function adequate for postsecondary success. The present study identified such factors and potential way to alleviate barriers and increase the facilitation of accommodations.

UDL

One way instructors can facilitate students' use of accommodations is by incorporating strategies of Universal Design for Learning (UDL). Although no instructor in the present study specifically mentioned UDL, practices they noted applied to the UDL framework.

UDL means a scientifically valid framework for guiding educational practice that: (A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient (Higher Education Opportunity Act, 2008).

The integration of the UDL framework into instruction provides a variety of learning strategies that may be beneficial to many students. Griful-Freixenet, Struyven, Verstichele, and Andries (2017) asked SWD about their perceptions towards UDL and found that students' learning needs matched well with the principles of UDL.

West and colleagues (2016) asked instructors if they were confident in the use of universal design and found that about half of instructors were not confident. Specific strategies noted by students and instructors in the present study were instructors posting

notes for all students to access and incorporating multiple sources of information for students to learn from. Robert, Park, Brown, and Cook (2011) conducted a literature review of universal design methods (i.e., UDL, Universal Design for Instruction, Universal Design) at the postsecondary level. Although, they found support for the inclusion of universal design methods, they concluded not enough research has been conducted on universal design and its impact on postsecondary students' (with and without disabilities) outcomes.

Student Affects

Other facilitators identified by the present study pertained to characteristic and skills of students with LD that led to more successful outcomes. In Orr and Goodman (2010), the theme *student-owned characteristics and strategies for success* emerged. First, students with LD in the present study owned that they needed to be hard workers and put forth more effort. Denhart (2008) also found that students with LD felt they worked harder than their peers without disabilities. Both studies revealed students with LD tend to take longer to accomplish assignments and tasks. Similarly, Timmerman and Mulvihill (2015) found time was a major obstacle for SWD because of the additional time needed to complete task, noting reading assignment to need substantially more time allotted. Students with LD in a study by Skinner (2004) stated hard work was a critical factor in their academic success. Garner (2008) also noted “working hard” as a characteristic of students with LD.

Next, in the present study being proactive and organized facilitated success as well as students being comfortable using accommodation. On the contrary, a barrier

found was student nervousness acquiring accommodations from instructors. Skinner (2007) and Sweener and colleagues (2002) found students with LD were generally comfortable requesting accommodations from instructors. Sweener and colleagues also noted that students' comfort level impacted their access to education.

Students in the present study indicated that interacting more with other students with LD could be beneficial. They could network and help each other work through struggles. Similarly, Denhart (2008) found students with LD wanted to have rapport with other students with LD. Garner (2008) found that one way students with LD pursued academic excellence was through interacting with other students with similar goals for success. Another facilitator found was good communication between student and instructor. However, when communication was unsuccessful due to miscommunication or a lack thereof, it created a barrier. Denhart (2008) found students with LD had challenges with verbal communication, which created a barrier for them. In the present study it was found to be beneficial when students with LD had continual communication with their instructors, providing reminders for needed accommodations, and utilized multiple forms of communication such as written and oral.

Perceptions and Advocacy Pertaining to Students with LD

Students' with LD ability to self-advocate also impacts their use of accommodations. The present study found self-advocacy was a critical part of students acquiring accommodations and that a lack of self-advocacy had the potential to interfere with the practice of accommodations. When postsecondary SWD self-advocate it increases school attainment and enables students to be more independent (Roessler et al.,

1998). Garner (2008) and Skinner (2004) found self-advocacy to be important to students with LD achievement. However, Cook and colleagues (2007) found students with LD tended to lack self-advocacy skills. Similar to Skinner (1998), Garner noted, students with LD need to understand their strengths and weaknesses. Students with LD in the present study recognized self-advocacy meant being confident in approaching instructors and requesting accommodations. Most students felt they had the ability to self-advocate. Likewise, students with LD in the study by Skinner (2004) expressed confidence in their self-advocacy ability in requesting accommodations from instructors. Skinner (1998) found that students with LD taught how to self-advocate had greater potential for postsecondary competition. Knowledge of their strengths and challenges and impact of accommodations is essential to students' self-advocacy (Skinner, 1998). The present study found that improved self-advocacy by students with LD could lead to more empowerment and self-perceptiveness. Many students expressed the need for more self-advocacy training to increase their potential.

As stated earlier, self-advocacy depends on students understanding of their disability and awareness of their legal rights along with competence communicating rights and needs to those in positions of power (Skinner, 1998). The present study revealed more knowledge pertaining to disability laws as well as increased understanding of students with LD/disabilities and accommodations could improve the practice of students with LD using accommodations as well as increase students' self-advocacy ability. More knowledge by students with LD can increase students' comfort and confidence with using accommodations and approaching instructors, recognizing their

strengths and struggles, and accepting their disability. Skinner (2004) found that majority of students felt increased disability knowledge permitted them to evade problems.

However, if students' hold a negative perception towards using accommodations it can create a barrier. In the present study when students believed that receiving accommodations was unfair or didn't understand the purpose of them they were less likely to use them. Timmerman and Mulvihill (2015) found that SWD appreciated that accommodations assist them in overcoming barriers.

Furthermore, found in the present study, when instructors held negative perceptions such as providing accommodations is extra work or provide an unfair advantage it hinders the practice of using accommodations. Although, Sniatecki and colleagues (2015) found in general faculty held positive attitudes towards SWD, their attitudes were more favorable for students with physical disabilities (PD) over those with LD. Same was true for their perception of potential for success, believing students with PD had more potential to be academically competitive. Katsiyannis and colleagues (2009) found that "a lack of training in and adequate understanding of policies and practices pertaining to students with disabilities has been identified as one reason that faculty are reluctant to provide accommodations" (p. 36). When instructors are more knowledgeable it can increase their acceptance of students with LD/disabilities and decrease stigmatizing attitudes, which in turn can facilitates students ease acquiring accommodations. The RISE Act offers funding to train faculty on postsecondary SWD and their needs ("The RISE Act," 2017). In the present study it was also found that training for instructors could be more beneficial and affective with the inclusion of

students with LD/disabilities. Hearing personal accounts from postsecondary students who use accommodations could positively impact instructors view and understanding of the practice of using accommodations.

More knowledge for peers was also revealed as potential facilitator in the present study. Peers negative perceptions due to a lack of understanding of students with LD/disabilities and accommodations made it more difficult for students to use their accommodations. As many students stated in the present study, they try and hide their disability and use of accommodations from peers because of the stigma they feel associated and the fact that peers believe accommodations are unfair and provide students with LD/disabilities an advantage. Houck and colleagues (1992) found that students without disabilities lacked understanding of students with disabilities and their need for accommodations. They also found that peers were uncertain as to whether accommodations were fair to classmates or not. Timmerman and Mulvihill (2015) found that SWD felt a barrier created by peers' perception that accommodations made class easier for such students and by peers' lack of understanding as to why a postsecondary student would need accommodations.

The Provision of Accommodations

One of the biggest obstacles students with LD in the present study faced was instructors' ability or willingness to provide accommodations. Accommodations are a primary facilitator of SWD achievement by eliminating educational barriers (The Condition of Education, 2017). Although instructors in present study all had a willingness to provide accommodations, many struggled with the ability to provide them. Noted

struggles included providing testing accommodations such as extended time and RDE. The main difficulties were how to provide such accommodations for short quizzes and the difficulty scheduling and finding space for accommodated exams. Cawthon and Cole (2010) also found that students with LD had difficulty scheduling extended testing. Lovett (2010) found that opponents of extended time felt it is approved too often, and potentially alters the skills measured by exam, which leads to unfair comparison of scores by SWD and those without. Advocates, on the other hand, believed extended time is the only way SWD are able to demonstrate their knowledge level.

Class accommodations instructors struggled to provide were peer notes due to lack of student volunteers and forms of AT. AT is frequently approved for postsecondary student with LD to help evade academic deficits they may encounter; yet, limited research has proven ATs effectiveness (Holmes & Silvestri, 2012). Bourke and colleagues (2000) found it was easier for faculty to implement accommodations for students with LD when faculty recognized accommodations allowed students with LD to succeed and they understood their need for accommodations.

Instructors in the present study spoke of other instructors who lacked such willingness to provide accommodations. Quinlan and colleagues (2012) identified that some instructors refused to grant accommodations to students with LD. Pervious research also found instructors' willingness to provide accommodations to be a facilitator or barrier. Students with LD surveyed by Cawthon and Cole (2010) revealed that their top obstacle was instructors' unwillingness to provide accommodations. However, other research found that instructors were generally willing to provide common

accommodations such as peer notes, typical testing accommodations (i.e., alternative testing location, extended time), and forms of AT (i.e., use of laptop, recorded lecture; Houck et al., 1992; Murray et al., 2008; Nelson et al. 1990; Skinner, 2007; Sweener et al., 2002; Vogel et al., 1999).

Another barrier found in the present study was students attempting course without accommodations or waiting to acquire them. Students indicated they felt the need to attempt without because of perceived misconception of accommodation such as they are unfair. Denhart (2008) also found students with LD were reluctant to use accommodations, citing students felt they didn't deserve them, using accommodations was a failure, they were too nervous to use, and/or they didn't want to appear different. The present study also found student nervousness hindered students use of accommodations.

Disability Services

Personnel in the disability service office are the individuals who ensure SWD receive equal educational opportunities, including the use of accommodations (Dukes & Shaw, 1999). The present study found certain procedures within disability services have the potential to facilitate or create a barrier to students with LD/disabilities success. The first way to facilitate the provision of accommodations by instructors would be to establish a department contact person in the disability service office. This would allow instructors to have a specific individual to contact in times of problems and to acquire needed information pertaining to the provision of accommodations. Instructors also noted that more support and services conveniently accessible would help as well as more

convenient information provided by the disability service office on students with LD/disability and accommodations. Bourke and colleagues (2000) found that faculty who felt supported by their university's disability service office was more efficient at implementing accommodations. Students found the ability to print their accommodation letters versus having to pick up in the disability services' office to be an immense facilitator. Noted, as a potential facilitator was increased outreach by disability services to encourage students with LD/disabilities to use services and accommodations provided by their office. Cawthon and Cole (2010) found a barrier to receiving accommodations was students' with LD unawareness of services available.

A major challenge experienced by students and instructors was testing accommodations, as discussed previously. One solution found was the establishment of a testing center by the disability service office. Students and instructors felt a testing center would lessen the challenges faced with accommodating testing requests. The final barrier found pertaining to disability service practices was students with LD having to be retested in order to be approved for accommodations. Previous research also noted the barrier created by the challenge of paying for evaluations (Cawthon & Cole, 2010). If new testing protocol were established, or more awareness of paperwork requirements while students are transition planning, it could reduce the cumbersome process of been approved for accommodations. The RISE Act requires disability service offices at the postsecondary level to accept such forms as IEPs and 504 plans as disability documentation. This came as a response to the problems SWD sometimes faced, such as costly requirements, trying to acquire accommodations ("The RISE Act," 2017).

IMPLICATIONS FOR PRACTITIONERS

The present study provided implications for individuals involved in the practice of accommodations at the secondary and postsecondary level. Such individuals include secondary professionals (i.e., special education teachers, councilors, and transition specialists) and postsecondary professionals (i.e., disability service personnel and instructors), as well as students with LD.

First, with more knowledge and understanding of the experience of students with LD using accommodations at the postsecondary level, secondary professionals can help prepare such students for an efficient transition. Transition problems can occur because many students with LD lack self-advocacy, self-perception, and self-confidence to successfully utilize their new independent and seek services at the postsecondary level (“The State of LD,” 2017). Secondary professionals can assist students with LD by teaching them about their responsibilities at the postsecondary level (i.e., self-disclosure to disability services) as well as helping them to be aware of available postsecondary resources and how to access them. Next, secondary professionals must provide students with LD a strong network of supporters and teach students self-advocacy skills. This can be accomplished through developing a school-community based program that provides opportunities for students to practice self-advocacy and build confidence, ultimately increasing their social-emotional well being, academic achievement, and career readiness (“The State of LD,” 2017). Another way in which secondary professionals can assist is helping students with LD reshape their self-image is emphasizing students’ strengths along with understanding their weaknesses building a better self-perception (Horowitz et

al., 2017). Internal resilience factors (i.e., self-perception and attitude) heavily influence postsecondary and the workplace success of students with LD (“The State of LD,” 2017). This could be achieved through teaching students to understand their LD more comprehensively incorporating their need for accommodations and how such accommodations impact their learning and achievement. Furthermore, students with LD should be taught about disability law and how it applies to them at the postsecondary level. More knowledge of disability law can help facilitate other success factors (Katsiyannis et al., 2009; Rao & Gartin, 2003).

Next, disability service personnel can utilize study finding to strengthen the accommodation approval process and the practice of students with LD/disabilities using accommodations. An improved accommodation approval process could include: (a) accepting secondary paperwork and testing such as IEPs, removing the barrier of students having to be retested in order to qualify for accommodations; (b) incorporating more student education of why accommodations are being approved (i.e., why and how each accommodation benefits them); (c) providing more AT training such as for Kurzweil; (d) discussing with students how to approach instructors to request accommodations and procedure for handling instructors less willing to provide accommodations; and (d) offering students an overview of disability law. Such procedure can help ensure more students with LD qualify and receive necessary accommodations. To improve the practice of students with LD/disabilities using accommodations, disability service personnel can evaluate facilitators to enhance the use of accommodations by students with LD/disabilities and identify how to mitigate barriers. Suggestions include

establishing a testing center, providing students with LD/disabilities self-advocacy training, and increasing campus awareness of students with LD/disabilities, creating a more inclusive and understanding student population (“The State of LD,” 2017).

Furthermore, findings from the present study indicate to help improve instructors’ ability to provide accommodations, disability services can establish a disability contact person for each college/school, make information and trainings on students with LD/disabilities and accommodations more easy available (i.e., improved online system of housing and distribution of information; Bourke et al., 2000), provide a snapshot of disability law mandates in an easily attainable format (Rao & Gartin, 2003), and work with instructors on how to talk with students with LD/disabilities to create a more positive rapport.

Utilizing findings from the present study, instructors can further improve the provision of accommodations. This can be achieved by: (a) understanding students’ apprehension in approaching instructors and issues with acquiring accommodations and evaluating how their own willingness and methods affects such practice; (b) recognizing the stigma surrounding the use of accommodations and evaluating their own perception and attitude towards students with LD/disabilities and accommodations; (c) understanding their responsibilities as an instructor to students with LD/disabilities by being familiar with disability law; (d) utilizing disability services more often including the information and trainings they provide; and (e) improving student communication by doing more continual outreach and using inclusive and positive language and questioning.

Finally, through this research other students with LD can recognize the experience of students similar to themselves. By identifying perspectives held by participants, other students with LD can potentially find connection to their own experiences leading to increased understanding and practice as well as potentially feeling empowered and confident. Improved self-advocacy, self-identity, and self-confidence, and empowerment can be achieved through the establishment of campus LD student organizations or groups. Such assemblies could not only lead to improved graduation rates but employment rates post graduation. Out of working age adults with LD, less than half are employed and they are twice as likely to drop out of the work force as compared to adults without disabilities. Of those who do enter the work force, less than 20% report their LD to their employer and only about 5% receive accommodations. Stigma is one of the leading causes for lack of disclosure (Cortiella, C., and Horowitz, S. H., 2014; “The State of LD,” 2017).

FUTURE RESEARCH

The present study provided evidence for several lines of future research, which could be conducted to better understand the practice of postsecondary students with LD and the use of accommodations. First, a larger scale or multi-site study that incorporates perspectives from other universities could strengthen the significance of findings. Students with LD comprise the largest population of SWD in postsecondary education across the country and thus gaining perspectives from students with LD and instructors from other major universities would allow for a more accurate understanding.

Furthermore, the addition of personnel in disability service offices' as well as peers across universities could add valuable insight into this line of study. Disability service personnel could add meaningful in to the accommodation approval process and perspectives on students' with LD and instructors pertaining to acquiring and providing accommodations. As indicated in findings, peer perceptions towards students with LD and accommodations created a barrier for students with LD using accommodations. The inclusion of peer perspectives could reveal underlining causes of negative and positive peer attitudes.

Second, an intervention study that investigates the impact of self-advocacy training, for students with LD, and disability law training, for students with LD and instructors, should be conducted. Future studies should investigate how such trainings affect the practice of students with LD using accommodation measuring for increased provision of accommodation by instructors and academic success for students with LD.

Another line of research that should be investigated is the impact of AT accommodations on students' with LD performance. As indicated by Holmes and Silvestri (2012) a dearth of research excites as to the effectiveness of AT accommodations on students' with LD success. Similarly, not much research has been conducted on the impact of UDL on students with LD, accommodations, and academic success. Research should focus on how more implementation of UDL within postsecondary classrooms impacts students' with LD use of accommodation and overall academic achievement.

A final line of research that should be investigated is the impact of transition services for students with LD moving from secondary to postsecondary education. The practice of students using accommodations varies greatly from one setting to the next and many students with LD are entering postsecondary education without adequate skills or knowledge of disability services for success. “Many students leave high school without the self-awareness, self-advocacy skills or self-confidence to successfully navigate their new independence and seek out support when needed” (Horowitz et al., 2017, p. 1). How students are being prepared for postsecondary education could influence their use of accommodations at their postsecondary campus. Research should enrich the transition between students with LD receiving services during secondary schooling and services provided during postsecondary education.

LIMITATIONS

It is important to note that the present study was conducted at a single university. Particular findings may only relate to the case study university while other finding can be more generalized to the greater population of students with LD across postsecondary campuses. The present study had several limitations that need to be addressed and discussed.

First, there was a small number of interview participants. Only 10 students with LD participated in the study out of the 301 students registered with the disability service office under a primary diagnosis of LD. Likewise, only 12 instructors participated out of the approximately 3,000 teaching staff at the university. Although all participants who agreed to be interviewed were included, a larger participant population could have altered

or strengthened the findings. Furthermore, if disability service personnel would have agreed to be interviewed, their perspectives could have altered or strengthened the study's findings.

Second, there was a lack of gender diversity amongst interview participants, especially among students. Although, all students who came forth to participant were included, only one male perspective was gained. There were also twice as many female instructors interviewed as male. The ratio of male to female instructors at the university is unknown. Obtaining more male perspectives could have potentially altered findings or revealed gender differences.

Third, there was a small percentage of surveys completed by students with LD and instructors. Out of students registered with a primary diagnosis of LD, only 15 completed the survey and only 142 instructors out of approximately 3,000 did so (although, the actual number of instructors who received the survey is unknown), both approximated a 5% response rate. Adequate response rate for surveys is estimated to be 30% (Nulty, 2008). A higher response rate would have provided more evidence to the study's findings.

The final limitation was response bias for interviews. Response bias refers to only a certain category of individuals responding to participation request (Kaur, 2018). Response bias occurred through only instructors with affirmative attitudes towards students with LD and the use of accommodations accepting invitation to participate in the present study. Had instructors with adverse attitudes participated findings would have been more diverse and potentially revealed other facilitators and barriers.

CONCLUSION

In conclusion, it is important that research continues to investigate the practice of postsecondary students with LD using accommodations in order to help students with LD achieve the best future outcomes. Based on data analysis in the present study, factors such as perceptions and attitudes held by post secondary students with LD and instructors as well as peers without disabilities can influence the ability of students with LD to use accommodations. Further indicated was that increased self-advocacy and knowledge of disability law can have positive effects while procedures used by disability services and instructors' willingness and ability to accommodate students have the potential to facilitate or hinder the use of accommodations by students with LD. Postsecondary students with LD deserve an equal educational opportunity that includes the successful practice of using accommodations leading to positive postsecondary educational and employment outcomes.

Appendices

APPENDIX A: IRB APPROVAL LETTER



OFFICE OF RESEARCH SUPPORT

THE UNIVERSITY OF TEXAS AT AUSTIN

P.O. Box 7426, Austin, Texas 78713 · Mail Code A3200
(512) 471-8871 · FAX (512) 471-8873

FWA # 00002030

Date: 10/30/17

PI: Lisa Lynne Sigafoos

Dept: Special Education

Title: A Case Study of Perspectives Pertaining to Academic
Accommodations for Postsecondary Students with Learning
Disabilities

Re: IRB Expedited Approval for Protocol Number 2017-08-0035

Dear Lisa Lynne Sigafoos:

In accordance with the Federal Regulations the Institutional Review Board (IRB) reviewed the above referenced research study and found it met the requirements for approval under the Expedited category noted below for the following period of time: 10/27/2017 to 10/26/2018. *Expires 12 a.m. [midnight] of this date.* If the research will be conducted at more than one site, you may initiate research at any site from which you have a letter granting you permission to conduct the research. You should retain a copy of the letter in your files.

Expedited category of approval:

- 1) Clinical studies of drugs and medical devices only when condition (a) or (b) is met. (a) Research on drugs for which an investigational new drug application (21 CFR Part 312) is not required. (Note: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review). (b) Research on medical devices for which (i) an investigational device exemption application (21 CFR Part 812) is not required; or (ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.
- 2) Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows: (a) from healthy, non-pregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week; or (b) from other adults and children², considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently than 2 times per week.
- 3) Prospective collection of biological specimens for research purposes by non-invasive means. Examples:
 - (a) Hair and nail clippings in a non-disfiguring manner.

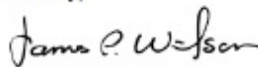
You have been granted a Waiver of Informed Consent according to 45 CFR 46.116(d).

Responsibilities of the Principal Investigator:

1. Report immediately to the IRB any unanticipated problems.
2. Submit for review and approval by the IRB all modifications to the protocol or consent form(s). Ensure the proposed changes in the approved research are not applied without prior IRB review and approval, except when necessary to eliminate apparent immediate hazards to the subject. Changes in approved research implemented without IRB review and approval initiated to eliminate apparent immediate hazards to the subject must be promptly reported to the IRB, and will be reviewed under the unanticipated problems policy to determine whether the change was consistent with ensuring the subjects continued welfare.
3. Report any significant findings that become known in the course of the research that might affect the willingness of subjects to continue to participate.
4. Ensure that only persons formally approved by the IRB enroll subjects.
5. Use only a currently approved consent form, if applicable.
Note: Approval periods are for 12 months or less.
6. Protect the confidentiality of all persons and personally identifiable data, and train your staff and collaborators on policies and procedures for ensuring the privacy and confidentiality of subjects and their information.
7. Submit a Continuing Review Application for continuing review by the IRB. Federal regulations require IRB review of on-going projects no less than once a year a reminder letter will be sent to you two months before your expiration date. If a reminder is not received from Office of Research Support (ORS) about your upcoming continuing review, it is still the primary responsibility of the Principal Investigator not to conduct research activities on or after the expiration date. The Continuing Review Application must be submitted, reviewed and approved, before the expiration date.
8. Upon completion of the research study, a Closure Report must be submitted to the ORS.
9. Include the IRB study number on all future correspondence relating to this protocol.

If you have any questions contact the ORS by phone at (512) 471-8871 or via e-mail at orsc@uts.cc.utexas.edu.

Sincerely,



James Wilson, Ph.D.
Institutional Review Board Chair

APPENDIX B: PERMISSION TO ACCESS SSD DATE LETTER



DIVISION OF DIVERSITY AND COMMUNITY ENGAGEMENT
THE UNIVERSITY OF TEXAS AT AUSTIN

Services for Students with Disabilities • 100 West Dean Keeton St. A4100 • Austin, TX 78712-1093
ddce.utexas.edu/disability • (512) 471-6259 • FAX (512) 475-7730 • VP (512) 410-6644

July 3, 2017

To Whom It May Concern:

The Services for Students with Disabilities (SSD) office at the University of Texas at Austin has agreed to share data with Lisa Sigafos, UT Doctoral Student in the UT College of Education, to use as part of her dissertation research. SSD will allow Lisa access to de-identified data including responses from Annual Faculty and Student End of the Year Surveys and student data contained in SSD's database (including but not limited to academic history, disability history and use of accommodations). SSD will share student data via UT Box in order to ensure adequate protections for de-identified data. SSD expects data to be used only for dissertation research purposes and not to be used for other purposes without SSD's consent. Lisa will keep SSD up to date on research progress and will notify SSD of any publications or conferences where SSD data will be used.

Permission to access SSD's data is contingent on approval from the IRB.

Please let me know if you have any questions. I can be reached at 512-471-6259.

Emily Shryock
Assistant Director

A handwritten signature in cursive script that reads "Emily Shryock".

APPENDIX C: CONSENT FORMS

IRB USE ONLY

Study Number: 2017-08-0035

Approval Date: 11/28/2017

Expires: 10/26/2018

Consent for Participation in Research – Student Participant

Title: A Case Study of Perspectives Pertaining to Academic Accommodations for Postsecondary Students with Learning Disabilities

Introduction

The purpose of this form is to provide you information that may affect your decision as to whether or not to participate in this research study. The person performing the research will answer any of your questions. Read the information below and ask any questions you might have before deciding whether or not to take part. If you decide to be involved in this study, this form will be used to record your consent.

Purpose of the Study

The purpose of this study is to understand and compare the perspectives held by postsecondary students with LD and instructors pertaining to academic accommodations (i.e., accommodations to increase students ability to acquire course content) as well as gain insight as to how personnel in the SSD office perceive the issue of study. Through data collected from the Services for Students with Disabilities (SSD) office student database, surveys disseminated by the SSD office, and interviews of students with LD, instructors, and SSD personnel, this study will answer the following research questions:

1. What do postsecondary professionals and students with LD understand about the use of accommodations?
2. What perceptions do postsecondary professionals and students with LD have about the utility of academic accommodations?
3. What do postsecondary professionals and students with LD perceive as facilitators of and barriers to the use of accommodations?
4. How does disability service personnel, instructors, and students with LD understanding of the disability law contribute to the use of accommodations?

What will you be asked to do?

If you agree to participate in this study, you will be interviewed. The following procedures will be used for interviews:

- One-on-one interview (i.e., principal investigator and participant)
- Conducted in an agreed upon location
- Principal investigator will use a semi-structured interview design using an interview guide with questions and key words tailored to the specific issues of interest and relevance to interview.
- Participant will answer questions honestly and to the best of their ability and provide any additional information or comments.

This study will take approximately one month to conduct interviews. Your participation will take approximately one hour during a one-time interview. The study will include approximately thirty-five (i.e., students with LD, instructors, and SSD personnel) participants. Your participation will be audio recorded.

What are the risks involved in this study?

There are no foreseeable risks to participating in this study.

What are the possible benefits of this study?

You will receive no direct benefit from participating in this study; however, your contribution to this study allows for a better overall understanding of what facilitates students' with LD use of accommodations and what creates barriers. Further, your participation will add to the overall understanding of the importance of knowledge and understanding of disability law.

Do you have to participate?

No, your participation is voluntary. You may decide not to participate at all or, if you start the study, you may withdraw at any time. Withdrawal or refusing to participate will not affect your relationship with The University of Texas at Austin (University) in anyway.

If you would like to participate complete this form, including signature, and return to the principal investigator. You will receive a copy of this form.

Will there be any compensation?

You will not receive any type of payment for participating in this study.

How will your privacy and confidentiality be protected if you participate in this research study?

Assigning you a pseudonym, to be used for all data collection purposes, will protect your privacy and the confidentiality of your data. Your name will be kept in association with your pseudonym, on a master list, for the researcher's purpose only. All data collected and disseminated will be done so using your pseudonym. Data will not be shared with any other researchers for any other research purposes. The master list with your name and pseudonym will be destroyed at the completion of the study.

Audio recordings will be transferred to a secure serve using a password protected, encrypted computer and erased from recording device. Audio recordings will be transcribed and printed for later analysis.

- a. Data will be stored in either a locked cabinet in principal investigators office or on a secure College of Education server through the university.
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- c. After data has been kept for two years post dissemination of results all data will be destroyed. Paper data will be shredded and electronic data will be permanently wiped from server.

If it becomes necessary for the Institutional Review Board to review the study records, information that can be linked to you will be protected to the extent permitted by law. Your research records will not be released without your consent unless required by law or a court order. The data resulting from your participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate it with you, or with your participation in any study.

If you choose to participate in this study, you will be audio recorded. Any audio recordings will be stored securely and only the research team will have access to the recordings. Recordings will be kept for two years post dissemination of results and then erased.

Whom to contact with questions about the study?

Prior, during or after your participation you can contact the researcher, Lisa Sigafos, at (512) 550-3948 or send an email to lsigafos@utexas.edu for any questions or if you feel that you have been harmed.

Whom to contact with questions concerning your rights as a research participant?

For questions about your rights or any dissatisfaction with any part of this study, you can contact, anonymously if you wish, the Institutional Review Board by phone at (512) 471-8871 or email at orisc@uts.cc.utexas.edu.

Participation

If you agree to participate please sign this form and return to the principal investigator, Lisa Sigafos.

Signature

You have been informed about this study's purpose, procedures, possible benefits and risks, and you have received a copy of this form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights.

Please check one of the following:

I agree to be audio recorded. I do not want to be audio recorded.

Printed Name

Signature

Date

As a representative of this study, I have explained the purpose, procedures, benefits, and the risks involved in this research study.

Principal Investigator: Lisa Sigafos M.Ed.

Signature of Person obtaining consent

Date

IRB USE ONLY
Study Number: 2017-08-0035
Approval Date: 11/28/2017
Expires: 10/26/2018

Consent for Participation in Research – Instructor Participant

Title: A Case Study of Perspectives Pertaining to Academic Accommodations for Postsecondary Students with Learning Disabilities

Introduction

The purpose of this form is to provide you information that may affect your decision as to whether or not to participate in this research study. The person performing the research will answer any of your questions. Read the information below and ask any questions you might have before deciding whether or not to take part. If you decide to be involved in this study, this form will be used to record your consent.

Purpose of the Study

The purpose of this study is to understand and compare the perspectives held by postsecondary students with LD and instructors pertaining to academic accommodations (i.e., accommodations to increase students ability to acquire course content) as well as gain insight as to how personnel in the SSD office perceive the issue of study. Through data collected from the Services for Students with Disabilities (SSD) office student database, surveys disseminated by the SSD office, and interviews of students with LD, instructors, and SSD personnel, this study will answer the following research questions:

1. What do postsecondary professionals and students with LD understand about the use of accommodations?
2. What perceptions do postsecondary professionals and students with LD have about the utility of academic accommodations?
3. What do postsecondary professionals and students with LD perceive as facilitators of and barriers to the use of accommodations?
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What will you be asked to do?

If you agree to participate in this study, you will be interviewed. The following procedures will be used for interviews:

- One-on-one interview (i.e., principal investigator and participant)
- Conducted in an agreed upon location
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- Participant will answer questions honestly and to the best of their ability and provide any additional information or comments.

This study will take approximately one month to conduct interviews. Your participation will take approximately one hour during a one-time interview. The study will include approximately thirty-five (i.e., students with LD, instructors, and SSD personnel) participants. Your participation will be audio recorded.

What are the risks involved in this study?

There are no foreseeable risks to participating in this study.

What are the possible benefits of this study?

You will receive no direct benefit from participating in this study; however, your contribution to this study allows for a better overall understanding of what facilitates students' with LD use of accommodations and what creates barriers. Further, your participation will add to the overall understanding of the importance of knowledge and understanding of disability law.

Do you have to participate?

No, your participation is voluntary. You may decide not to participate at all or, if you start the study, you may withdraw at any time. Withdrawal or refusing to participate will not affect your relationship with The University of Texas at Austin (University) in anyway.

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Printed Name

Signature

Date

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Principal Investigator: Lisa Sigafos M.Ed.

Signature of Person obtaining consent

Date

IRB USE ONLY
Study Number: 2017-08-0035
Approval Date: 11/28/2017
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Consent for Participation in Research – Disability Service Personnel Participant

Title: A Case Study of Perspectives Pertaining to Academic Accommodations for Postsecondary Students with Learning Disabilities

Introduction

The purpose of this form is to provide you information that may affect your decision as to whether or not to participate in this research study. The person performing the research will answer any of your questions. Read the information below and ask any questions you might have before deciding whether or not to take part. If you decide to be involved in this study, this form will be used to record your consent.

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Signature

Date

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Principal Investigator: Lisa Sigafos M.Ed.

Signature of Person obtaining consent

Date

APPENDIX D: SURVEY QUESTIONS EXAMPLE

Sample Survey Questions: 2015-2016 Academic Year

Question types: R/S = rating scale; M/C = multiple choice; O/E = open ended

Student:

- My accommodations are giving me equal access to my class instruction, material and evaluation (tests/quizzes). (R/S)
- When it comes to my accommodation letters I typically: (M/C)
- Please feel free to provide comments or concerns about accommodations. (O/E)

Instructor:

- What is your most common concern about providing accommodations for students with disabilities at UT? (O/E)
- Please indicate any accommodations with which you experienced difficulties. (M/C)
- Students meet with me in person to discuss their accommodations. (R/S)

APPENDIX E: QUESTIONNAIRE

Questionnaire: Disability Service Personnel

Dear SSD Personnel,

I am a doctorate student in the department of special education and I am working on my dissertation. I have used SSD services since I was an undergraduate student and could not have made it to this level of education without the incredible support and services from SSD.

I would greatly like to have SSD personnel's perspective to add to my study data. Please take a few minutes to complete this questionnaire to the best of your ability. I understand you are extremely busy but your input will add great value to my study.

The study and questionnaire have been approved by IRB. The study pertains to the use of accommodations by postsecondary students with learning disabilities (LD).

Thank you for your participation. Your time and effort are truly appreciated. Please feel free to contact me if you would like to provide additional information.

Please return survey to Emily Shryock. Questionnaires are voluntary and completely anonymous.

Thank you,
Lisa Sigafos
512-550-3948
lsigafos@utexas.edu

Please use back of paper for more space if needed.

1. Years of experience serving postsecondary students with disabilities:
2. What is your educational background (degree, major)?
3. Talk about the career potential of students with LD after graduation:
4. What purpose do accommodations serve students with disabilities?
5. How do you determine which accommodations to approve to meet each student's needs? What documentation is needed?
6. How does self-advocacy play a role in students with disabilities receiving accommodations? Do students receive any training related to self-advocacy?

7. Do students with disabilities receive training on how to approach and request accommodations from instructors? If so, please explain.
8. How often do you receive complaints from students with disabilities about instructors related to providing accommodations? How are complaints handled?
9. Besides accommodations (and self-advocacy), what student characteristics help students with disabilities be successful with course content?
10. How do accommodations impact students' course performance or overall academic performance from your perspective?
11. What do you see as facilitators for students' use of accommodations? What ways increase students' ability to use accommodations and be more successful with course content?
12. What do you see as barriers for students' use of accommodations? What ways hindered students' use of accommodations to acquire course content?

13. Do you think knowledge of disability law would be beneficial to students and instructors? Why and how?

14. How is the campus wide policy related to students with disabilities and accommodations disseminated to instructors?

15. What kind of training is offered to instructors on who students with disabilities are and the purpose of accommodations?

16. How are campus wide events sponsored by SSD disseminated to students and instructors?

Please provide any additional information about students with LD and accommodations.

APPENDIX F: INTERVIEW GUIDES

Date: _____ Location: _____ 1
Start Time: _____ End Time: _____ Total Time: _____

Interview Guide: Student

(A) Basic Information:

- Name: _____ Pseudonym: _____
- Gender: _____ Age: _____
- Race/Ethnicity: _____ Major: _____
- Classification (year in school): _____ When diagnosed: _____
- Years using accommodations at the postsecondary level: _____
- Disability:
 - What is your LD specifically in (i.e., reading, writing, mathematics)?

Global Questions:

- Talk about past school experiences, as someone who has LD, here at the university.
- Talk about your aspirations for after you finish your degree.
- Talk about what you think you need to do to ensure that you graduate from UT.

(B) Understanding about use of Accommodations:

LABEL:

Disclosure

- Why did you choose to disclose your disability?
 - How well were you able to communicate... about your disability?
Why you need accommodations?

Self-Advocacy

- Talk about how self-advocacy relates to accommodations?
 - From your perspective, how well do you need to be able to self-advocate to use accommodations?

Purpose of Accommodations

- Based on your understanding, what is the purpose of accommodations for students with LD?
 - What does “accommodations” mean to you?
 - What do accommodations do for students?
 - Do you think accommodations provide equal access or equity?
Why/Why Not?

Approved Accommodations

- What academic accommodations (explain: i.e. accommodations that increase your ability to be successful with course content) have you been approved?
 - How were they determined?
 - How did you know what accommodations were available?
 - How well were accommodations explained to you?

Requesting Accommodations

- At what point during the semester do you typically request accommodations?
 - From SSD? From instructors?
- Talk about the process of requesting accommodations from instructors.
 - Typical conversation with instructor?
 - Do instructors ask you about your disability or accommodations?

Accommodations & Success

- How do you know when accommodations are helping you be successful with course content?
- Besides accommodations, what other characteristics help you be successful with course content?

(C) Perception of the Utility of Accommodations:**Utility**

- What is your perception of the utility of accommodations on your learning?
 - What do you base your perception on?
- How do accommodations impact your course performance or overall academic performance?
 - How useful are accommodations for you with course content?

Beneficial Accommodations

- Talk about the accommodations you find most beneficial for your academic success?
 - What do you base your perception on?
- Why are some accommodations more helpful than others?

(D) Facilitators and Barriers:**Facilitators**

- What do you see as facilitators for the use accommodations?
 - What ways increase your ability to use accommodations and be more successful with course content?
 - Talk about things you (instructors) do or should do?

Barriers

- What do you see as barriers for the use accommodations?
 - What ways hindered your use of accommodations to acquire course content?
 - Talk about things you (instructors) do or shouldn't do?

Change Procedures

- What suggestions do you have to increase facilitators and reduce barriers?

(E) Disability Law:**Laws**

- How familiar are you with ADA and Section 504?
 - Campus wide policy?

Rights/Responsibilities

- What do you understand as your legal rights and responsibilities as a student with a disability and the use of accommodations?
 - Must you disclose your disability to instructor?
- What do you understand as the legal teaching rights and responsibilities of an instructor for providing accommodations?
 - Required to provide accommodations?
 - Have you ever had an instructor deny? Explain.

- In what ways do you think disability laws could be changed to support your ability to request and use accommodations?

Stronger Understanding

- How would a stronger understanding of disability law affect your ability to request and use accommodations?

- How would a stronger understanding of students with LD...?
 - How would a stronger understanding of accommodations...?
- How would a stronger understanding of disability law affect instructors' ability to provide accommodations?
 - How would a stronger understanding of students with LD...?
 - How would a stronger understanding of accommodations...?
- How would a stronger understanding of disability law affect your ability to self-advocacy for your use of accommodations?

Anything Else?

Date:
Start Time:

Location:
End Time:

Total Time:

1

Interview Guide: Instructor

(A) Basic Information:

- Name: Pseudonym:
- Gender: Age:
- Race/Ethnicity:
- Department:
- Title:
- Years of experience:

Global Questions:

- Talk about what it is like to be an instructor here at UT.
- Talk about your role in helping students be successful in your courses.
- Talk about some of your experiences working with students who use accommodations.

(B) Understanding about use of Accommodations:

Purpose of Accommodations

- Talk about your understanding of students with LD using accommodations.
 - What does “accommodations” mean to you?
 - What is the purpose of accommodations for students with LD?
 - What do accommodations do for students?
 - Do you think accommodations provide equal access or equity? Why/Why Not?

Approved Accommodations

- What are the most commonly used academic accommodations (i.e. accommodations that increase students’ ability to be successful with course content) in your courses?

Requesting Accommodations

- At what point during the semester do you expect students to request accommodations?
- Talk about the process of students requesting accommodations.
 - What is the conversation like?
 - Do students typically communicate their disability and why they need accommodations? Explain.
 - Do you ask students about their disability, accommodations?
 - What do you typically ask?

- Do you provide any accommodation requested by a student? Why?
 - With or without an accommodation letter?
 - *IF NO:* How do you decide which accommodations to provide?

Self-Advocacy

- What is your understanding of how student self-advocacy relates to accommodations?

Accommodations & Success

- How do you know when accommodations are helping students be successful with course content?
- Besides accommodations, what student characteristics do you think help students be successful with course content?

(C) Perception of the Utility of Accommodations:

Utility

- What is your perception of the utility of accommodations on student learning?
 - What do you base your perception on?
- How do accommodations impact students' course performance?

Beneficial Accommodations

- Talk about accommodations you feel are more beneficial for students' academic success?
 - What do you base your perception on?
- Why do you think some accommodations might be more helpful than others?
- Talk about your ease or difficulty providing accommodations?

(D) Facilitators and Barriers:

Facilitators

- What do you see as facilitators for students' use of accommodations?
 - What ways increase students' ability to use accommodations and be more successful with course content?
 - Talk about things instructors (students) do or should do?

Barriers

- What do you see as barriers for students' use of accommodations?

- What ways hindered students' use of accommodations to acquire course content?
 - Talk about things instructors (students) do or shouldn't do?

Change Procedures

- What suggestions do you have to increase facilitators and reduce barriers?

(E) Disability Law:

Laws

- How familiar are you with ADA and Section 504?
 - Campus wide policy?

Rights/Responsibilities

- What do you understand as your legal teaching rights and responsibilities as an instructor for providing accommodations?
 - Required to provide accommodations?
- What do you understand as the legal rights and responsibilities of a student with a disability and the use of accommodations?
 - Must students' disclose about their disability?
- In what ways do you think disability laws could be changed to support students' ability to request and use accommodations?

Stronger Understanding

- How would a stronger understanding of disability law affect your ability to provide accommodations?
 - How would a stronger understanding of students with LD...?
 - How would a stronger understanding of accommodations...?
- How would a stronger understanding of disability law affect students' ability to request and use accommodations?
 - How would a stronger understanding of LD...?
 - How would a stronger understanding of accommodations...?
- How would a stronger understanding of disability law affect students' ability to self-advocacy?

Anything Else?

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