12-2017

Survey of Self-Determination Constructs in Higher Education Students with Disabilities and Campus Service Improvements

Jennifer L. Raasch
Clemson University

Follow this and additional works at: https://tigerprints.clemson.edu/all_dissertations

SURVEY OF SELF-DETERMINATION CONSTRUCTS IN HIGHER EDUCATION
STUDENTS WITH DISABILITIES AND CAMPUS SERVICE IMPROVEMENTS

_____

A Dissertation
Presented to
the Graduate School of
Clemson University

_____

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Educational Leadership

_____

by
Jennifer L. Raasch
December 2017

_____

Accepted by:
Dr. Pamela A. Havice, Committee Chair
Dr. Robert C. Knoeppel
Dr. M. Janie Hodge
Dr. Tony W. Cawthon

ABSTRACT

This dissertation is an exploratory study on self-determination in students with disabilities in a postsecondary environment. Two questions were asked on self-determination levels in higher education students with disabilities and vital self-advocacy skills in higher education. A survey with closed-ended and open-ended questions was administered to gather data. Critical disability theory provided the conceptual framework for the study.

Federal disability laws required students with disabilities be provided with transitional services which incorporated self-determination and self-advocacy skills from K-12 to postsecondary education institutions. However, a review of current research literature suggested transitional services might not be administered in the same manner in K-12 schools. Therefore, students with disabilities were not entering postsecondary institutions with the self-determination skills needed to be successful. The significance of this study was to critically review and provide further insights into self-determination aspects and self-advocacy development in higher education students with disabilities. The insights gathered from this study provided further resources and opportunities for university faculty and staff to support student development and personal growth toward increased self-determination and self-advocacy skills in the higher education environment. The purpose of this study was to identify factors which increased self-determination and self-advocacy skills in students with disabilities to assist their higher education degree obtainment goals.

Data analysis revealed mixed findings with a range of self-determinations levels in higher education students with disabilities. Furthermore, participants in this research study expressed that barriers existed to receiving academic accommodations and self-advocating for personal disability rights. Barriers included talking with faculty about accommodations and social stigma concerns related to having a disability. Further research suggestions focused on social learning networks and identifying interconnections between students with disabilities self-determination, campus resources usage and demographic factors.

ACKNOWLEDGMENTS

I would like to acknowledge and thank my committee members. Dr. Havice, you are an extraordinary advisor and mentor. I could not have made it through this arduous process without your guidance. Dr. Knoeppel, thank you for your willingness to brain storm ideas and discuss quantitative statistics. Your statistical expertise was greatly appreciated. Dr. Hodge, you pushed me to think about new concepts with enough advice and support to comprehend them. Your expertise in students with disabilities and teaching exceptional children made my dissertation more accurate and my knowledge base more expansive. Dr. Cawthon, when the light disappeared over the two years to write this dissertation, you always had words of encourage and good advice to continue through the long process of writing a dissertation. While I know your research skills are strong, it was your words of encouragement and listening skills that aided me when I most needed them to get to the end.

I would also like to thank my Mom, Kay Raasch, for taking the long doctoral road journey with me. You provided love and support for four long years. I could not have made it through without you! An enormous thank you is also given to my dear friend and colleague, Lori Jacques. You are a math and statistics genius. Your expertise and explanations are more valuable to me than words can ever express. I look forward to future collaborations as our careers advance and years of friendship to come. Finally, thank you to all the teachers who love the craft of teaching and dedicate your lives to teaching others. You are my role models and unsung heroes.

TABLE OF CONTENTS

Table of Contents (Continued)   Page

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

Individuals with disabilities received federal civil rights to accessible public spaces when the Architectural Barriers Act was passed in 1968 (Ward & Meyer, 1999). Section 504 of the Rehabilitation Act, 29 U.S.C. § 794 (1973) provided educational accommodations to students with disabilities. Additional wide-spread federal civil rights were not acquired until 1990 through the Americans with Disabilities Act, 42 U.S.C. § 12101 (1990). These laws impacted higher education environments, but they did not ensure students successful completion of their college degree. Individuals with disabilities had a lower rate of college degree attainment, higher unemployment rates, and increased poverty levels (U.S. Department of Labor, 2014). Access to higher education programs was not sufficient to ensure students with disabilities would be successful in achieving their higher education goals. Students with disabilities received transitional services in high school to increase their self-determination levels and self-advocacy skills and planning for the transition from high school to the work force or college (Landmark, Ju & Zhang, 2010). However, research provided conflicting information on the success of transitional services. Additional research on self-determination aspects for students with disabilities was needed to review transitional services and improve higher education resources for academic achievement.

This chapter outlines key concepts for a study on self-determination for students with disabilities in postsecondary environments. Critical theory provides the conceptual framework for the study. A study purpose and rationale are explained with relevant

supporting national statistics. Research questions guiding the study are listed. Key terms are defined to establish common terminology for the study.

Study Significance

National statistics described individuals with disabilities have a low employment rate and postsecondary degree obtainment while the poverty rate is higher. United States (U.S.) Department of Labor (2014) stated individuals with disabilities had an employment rate of 26.8% and an unemployment rate of 14.7% in 2013. Only 27.8% of individuals with disabilities attained a Bachelor's degree or higher while 17.9% obtained no high school diploma. Individuals with disabilities acquired 19% professional and 32.6% management occupations compared to a higher percentage for individuals without disabilities (22.3% professional and 38.2% management). Cornell University Disability Status Reports (2013) identified the poverty rate (28.2%) was higher for adults with disabilities than for their nondisabled counterparts (12.5%).

Research literature addressed the importance of students with disabilities who obtained higher levels of self-determination that increased academic success and enhanced personal development. Wehmeyer, Sands, Doll, and Palmer (1997) stated a self-determined person is "someone who makes or causes things to happen in his or her life" (p. 306). Wehmeyer et al. (1997) identified key traits of self-determination included autonomous and self-regulated behaviors, psychologically empowered responses, and self-realizing actions. Some key components of self-determined behavior included proficiency in resolving problems, self-advocacy, and self-awareness. Getzel and Thoma

(2008) also addressed vital self-determination aspects such as establishing goals, but added self-management skills to the list.

The significance of this study was to critically review and provide further insights into self-determination competency and self-advocacy skills in higher education students with disabilities. The insights gathered from this study will further resources and opportunities for campus faculty and staff to support student development and personal growth toward increased self-determination and self-advocacy skills in the higher education environment.

Study Purpose and Rationale

The purpose of this study was to identify factors that increased self-determination and self-advocacy skills for students with disabilities to assist their higher education degree obtainment goals. Field, Sarver, and Shaw (2003) stated stronger self-determination levels in students with disabilities resulted in higher grades and GPA scores. Higher grades and GPA scores assisted students with degree obtainment goals. Wehmeyer and Palmer (2003) described higher levels of self-determination increased employment opportunities and personal independence for individuals with disabilities.

Rationale

United States (U.S.) statistics addressed the importance of higher education Bachelor's degree completion to the career success and financial income for individuals with disabilities. U.S. Department of Education (2015) stated 11.1% of enrolled postsecondary undergraduate students reported having a disability and 56.3 % were female in the 2011-2012 academic year. The primary age groups for students with

disabilities were 15-23 years old (45.3%) and 30 years or older (35.8%). U.S. Department of Education (2014) also stated fewer enrolled post baccalaureate students (5.3%) reported having a disability and 64.3 % were female in the 2011-2012 academic year. The primary age groups were 30 years or older (56.3%) and 24-29 years old (35.3%).

U.S. Department of Labor (2014) identified individuals with disabilities between 16-64 years old displayed lower employment rates (26.8%) compared to individuals without disabilities (70.7%). Individuals with disabilities had a higher unemployment rate (14.7%) than individuals without disabilities (7.2%). More individuals with disabilities were unsuccessful at obtaining a high school diploma (17.9%) compared to individuals without disabilities (10.6%). From employed people, the highest percentage of education attainment for individuals with disabilities was 27.8% at the Bachelor's degree and higher compared to individuals without disabilities at 75.9%. Individuals with disabilities acquired fewer professional management type occupations (32.6%) versus individuals without disabilities (38.2%). Individuals with disabilities attained fewer professional jobs (19%) compared to individuals without disabilities (22.3%). Cornell University Disability Status Reports (2013) stated the poverty rate for 21-64 years old working-age individuals with disabilities was higher (28.2%) than individuals without disabilities (12.5%).

Additional research addressed other academic benefits for higher education students with disabilities including social interactions. Funckes, Kroeger, Loewen, and Thornton (2008) created a website called Refocus as part of Project ShiFT with assistance from a U.S. Department of Education three-year grant. Information from the website was designed to improve disability services and provide more proactive

leadership on campus. On the Outreach Student Development page, Refocus emphasized the importance of providing learning opportunities in leadership, design curriculum or programs, exposure to cultural events and social engagement (committee work, student organizations and community service) for students with disabilities (Funches et al., 2008). Getzel and Thoma (2008) stated students with disabilities identified talking with professors and a social support network as critical aspects of college. In summary, students with disabilities who obtain a Bachelor's (or higher) degree and possess strong self-determination can improve career and financial independence opportunities.

Critical Theory Framework

Research on transitional services from K-12 to postsecondary education described mixed findings (Cawthon & Cole, 2010). For this study, a critical theory lens was applied to review and analyze self-determination aspects in higher education students. Marion and Gonzales (2014) stated critical theory "is the practice of critique and interrogation" (p. 287). Critical theory research reviewed and examined societal issues from the viewpoint of various underrepresented groups. Marion and Gonzales (2014) described critical race theory (CRT) presented viewpoints from people of color and explored socioeconomic power structures. Lindemann (2006) addressed feminist ethics and classic theories as a method of reexamining traditional male created social norms and power structures from a female perspective.

For this study, critical disability theory offered a scheme to review the self-determination K-12 transitional preparation to postsecondary education for students with

disabilities. Goodley (2007) addressed individuals with disabilities need for more social discussion engagement and movement away from old impairment or medical models. Rocco and Delgado (2011) identified more focus on identity markers and social constructs for disabilities was essential in disability studies and critical theory. McLean (2011) addressed a warning against ableism, but encouraged inclusive learning environments and service learning opportunities for students. Lester (2014) discouraged the use of disability labels, but described a society with more knowledge of disability barriers, recognition of capabilities in individuals with disabilities and more social support to oppose inequities.

Vaccaro, Kimball, Wells, and Ostiguy (2015) described more students with disabilities participation in research across campus and a need for local professional journal publications for support staff professionals. Rocco and Delgado (2011) stated diversity studies needed to include individuals with disabilities and more research was needed on disability identity markers. Since ableism perceptions dominated, disability identities were not frequently studied. Critical disability research should focus on describing disability identities and publications in education journals to increase disability awareness.

Research Questions

For this study, the research questions were designed to gather both general population information and more in-depth data from postsecondary students' perspectives on the impact of self-determination.

- Research Question 1 (RQ1): Do self-determination levels change across academic years (1st, 2nd, 3rd, 4th or higher year) for undergraduate students with disabilities?

- Research Question 2 (RQ2): What factors do higher education undergraduate students with disabilities report as impacting their self-advocacy competency?

Research Study Overview

This exploratory study utilized a survey instrument with closed-ended and open-ended questions. A survey with closed-ended and open-ended questions approach for this study enabled a broader and richer collection of data and information across a sample of higher education students with disabilities.

For this study, a survey to collect data was administered via an email distribution list to students with disabilities. A convenience sample from the population of registered individuals with disabilities was employed. From the collected closed-ended question data, I was able to generate descriptive statistics, analysis of variance (ANOVA) and factor analysis. Open-ended question data collection and coding allowed further exploration to discover and understand common themes in students' perceptions on self-determination factors and self-advocacy skills needed in higher education. This study endeavored to discover through survey method whether students valued self-determination elements and felt prepared to be their own self-advocates for academic accommodations in college.

<center>**Definition of Terms**</center>

Academic Year:

Academic year was based on the number of accumulated course credits for each participant. Participants self-reported this data.

K-12 Education (Public School)

According to the U.S. Department of Education (1996-97), a public school was generally an establishment that offered elementary and secondary education curriculum in grade classes from teachers and was governed by an educational group.

K-12 Student (School-age Population)

According to the U.S. Department of Education (1996-97), the school-age population was generally residents ages 5 to 17 in each state prior to the beginning of the school year on July 1.

Postsecondary/Higher Education

The U.S. Department of Education (2015) National Center for Education Statistics defined postsecondary education as generally meaning a formal academic, vocational or instructional program with curriculum created for students who are beyond the age of high school.

Postsecondary/Higher Education Student

The U.S. Department of Education (2015) National Center for Education Statistics defined higher education student as generally meaning a student enrolled in undergraduate or graduate credits.

Students/Individuals with Disabilities

  The United States Department of Education (1999) utilized the amended Section 504 federal education statue, 34 C.F.R. § 1200.103, to define "*Individual with handicaps means any person who has a physical or mental impairment that substantially limits one or more life activities, has a record of such an impairment, or is regarded as having such an impairment*" (p. 865).

Self-determination

  Wehmeyer, Sands, Doll and Palmer (1997) defined self-determination as the ability to initiate actions in life with characteristics of autonomous and self-regulated behavior, psychological empowerment and self-realising actions. For this study, strong self-determination on the AIR-S survey was defined as a self-determination score of 84 points or higher (which equals a self-determination level of 80% or higher).

Self-advocacy

  Test, Fowler, Wood, Brewer, and Eddy (2005) explained self-advocacy included a knowledge of self and personal rights, communication of that knowledge, and leadership abilities.

Survey

  A survey was a research technique used to collect data from a sample of a population of people (Scheuren, 2004). Rea and Parker (2005) explained survey research was collecting self-reported data (information) from people about their personal experiences.

Summary

This chapter presented key concepts for a research study on self-determination in students with disabilities in postsecondary education with a critical theory framework applied. An explanation for the study purpose and significance was provided. For this study, research questions and definitions of key terms were listed.

Four additional chapters are included in this dissertation. Chapter Two provides a literature review of disability related legal issues, academic accommodations, postsecondary education transition services, self-determination aspects and a history of critical disability theory. Chapter Three explains the methodology for an exploratory study with survey method. Chapter Four presents the survey results and explores the written response themes from the open-ended questions. Chapter Five provides a discussion of the findings, educational implications, research limitations and suggestions for related future research.

CHAPTER TWO

LITERATURE REVIEW

In this chapter, a research literature review is provided on various aspects of students with disabilities and self-determination. Federal laws are listed related to K-12 transition services and postsecondary education. Academic accommodation issues as well as critical disability related theories are explained. Aspects of self-determination are described including self-advocacy and known barriers to success. Relevant research studies are introduced and explained.

For the literature review, Google™ Scholar including case law was searched to provide a general overview of the research topics. For more in-depth research, the campus education databases (including Academic Search Complete, Education Research Complete, Educator's Reference Complete, ERIC and Teacher Reference Center) were searched. Articles were limited to more recent 2000-2017 years. Limited article selection (older than 2000) was utilized to enhance the historical information for federal laws, critical disability theory, self-determination definition, AIR Self-Determination Scale information and U. S. Department of Education statistical information. Key search terms included disability rights, disability laws (ABA Act, ADA Act, Rehabilitation Act, Tech Act, AT Act, and IDEA Act), Office for Civil Rights, college disability services, college academic accommodations, K-12 transition services, critical theory, disability studies theory, critical disability theory, self-determination and self-advocacy. Selected research articles were limited to higher education references (higher education, college, higher education student and college student) and K-12 transition services into higher education.

Research articles were not narrowed to a specific disability type because this study invited participation from all registered students with disabilities.

Legal Issues

Social activism for civil rights in the 1960s and 1970s paved the way for the creation of disability laws (Scotch, 1989). Several integral laws provided accessibility to public spaces and education for individuals with disabilities. The Architectural Barriers Act (ABA), 42 U.S.C. §§ 4151 *et seq.* (1968), was an important first step in making public spaces accessible for individuals with disabilities. Ward and Meyer (1999) explained this law provided the first public policy to require accessibility to public buildings for individuals with disabilities through architectural planning or modifications. Through ABA law, a clause was added in 1973 to create the U.S. Access Board (2016). This board provided accessibility guidelines and enforceable standards that governed building construction and physical accessibility issues on college campuses in the U.S.

Additional laws influenced postsecondary institutions and students with disabilities. Dayton (2015) provided information on Section 504 of the Rehabilitation Act, 29 U.S.C. § 794 (1973), Americans with Disabilities Act (ADA), 42 U.S.C. § 12101 (1990), and Individuals with Disabilities Education Act (IDEA), 20 U.S.C. § 1401 (1990), which affected K-12 transition services.

Section 504 of the Rehabilitation Act required "non-discrimination and reasonable accommodations to assure fair treatment and good faith efforts to facilitate participation of students with disabilities in programs receiving federal assistance" (Dayton, 2015, p. 374). Section 504 regulations required educational programs and

activities to be accessible to students with disabilities (United States Department of Education, 1999). Discrimination against students with disabilities was prohibited based on federal education statue, 34 C.F.R. § 1200.149. Jaeger (2006) explained that Section 508 of the Rehabilitation Act was appended in 1998 and provided accessibility requirements for federal Websites to be implemented by 2001. In higher education, federal aid funding required many higher education institutions' public Websites to comply with Section 508 standards.

Dayton (2015) stated "the ADA prohibits discrimination against individuals with disabilities in both the public and private sectors, regardless of whether any federal funds are received" (pp. 377-378). The ADA broadened accessibility rights in the US and provided clarification on public institutional responsibilities.

Other disability laws were passed to grant access to assistive technologies utilized in higher education. Day and Edwards (1996) stated the Technology-Related Assistance Act of 1988 (P.L. 100-407) defined assistive technologies as "any technology used to increase, maintain, or improve the functional capabilities of individuals with disabilities" (p. 486). The Technology-Related Assistance for Individuals with Disabilities Act (Tech Act), 29 U.S.C. § 2201 *et seq.* (1988), was amended in 1994 and developed assistive technologies support and training for individuals with disabilities.

Another law influenced assistive technologies. As codified in 29 U.S.C § 3001, the Assistive Technology Act (AT Act) was passed in 1998 and amended in 2004. Alper and Raharinirina (2006) stated the AT Act clarified the terminology and expanded the

programs created in the Tech Act. Students with disabilities in K-12 and postsecondary education received assistive technologies as accommodations.

Federal disability laws supplied an outline for fair and equitable treatment of students with disabilities. As a result, state laws and university policies incorporated federal laws. If faculty, staff or students possessed evidence of a lack of accessibility, an official complaint was issued with an internal campus resource (such as an office of accessibility or equity) or the federal Office for Civil Rights (OCR) or a lawsuit through the courts system. The Office for Civil Rights (2015) listed a mission statement related to enforcement of equal access of civil rights and support for educational excellence.

To comply with federal and state laws, universities have dedicated disability services or accessibility services to register and assist students with disabilities. Cory (2011) stated general disability office services included: (a) suggestions for reasonable student accommodations, (b) access training for faculty and staff, (c) support for universal design in course content, and (d) disability topics in campus diversity planning and events. Duffy and Gugerty (2005) described disability services as (a) centralized or decentralized, (b) aligned with academic divisions or student affairs departments, (c) supporting accessible spaces, programs and events on campus and (d) promoting personal development and self-determination skills in students. Association on Higher Education and Disability (AHEAD, 2017) addressed diversity and inclusion strategies for universities and provided program evaluation tools.

Education Transition Services

Two federal laws influenced transition services from K-12 to higher education. Section 504 of the Rehabilitation Act required the same appropriate educational environment (and services such as career planning) for students with disabilities as students without disabilities in both K-12 and higher education (U. S. Department of Education, 2015, October 16). Section 504 also required appropriate academic accommodations to students with disabilities. In the K-12 educational environment, a 504 Plan that noted the needed academic accommodations became a common practice (LDonline, 2017). In the higher education environment, the 504 Plan was a guide and provided historical background information for necessary accommodations. Related to the Individuals with Disabilities Education Act (IDEA) law, transition services from high school to postsecondary education or employment were provided in K-12 to students with disabilities in the form of an Individualized Education Program (IEP).

> Transition planning best practices include the development of an effective Individualized Education Program planning document and process addressing IDEA transition services language requirements: student self-determination, advocacy, and input in transition planning; and family/parent involvement in transition planning. (Landmark, Ju & Zhang, 2010, p. 166)

Mazzotti, Rowe, Cameto, Test, and Morningstar (2013) reviewed research literature for predictors of education outcomes and identified self-advocacy and self-determination were predictors along with self-care, social skills, student support services and transition programs. From a student perspective, Webster (2004) stated students with disabilities experienced benefits from decision-making problems, risk-taking activities and learned from the consequences of their choices.

Benitez, Morningstar, and Frey (2009) described K-12 special education teachers were moderately prepared to deliver transition services with about half not receiving college course work in transition services. Additionally, K-12 special education teachers felt somewhat prepared (mean rating) to facilitate transition services. Hetherington et al. (2010) reported students and parents were frustrated with a lack of information and clear goals post graduation for the transition process. Information from studies performed in higher education described students with disabilities may not be prepared for the college transition. Cawthon and Cole (2010) found "91% of students did not recall having an IEP at all…covering basic transition topics…or goals towards academic progress" (p. 121). Janiga and Costenbader (2002) surveyed coordinators of special services in New York colleges and identified satisfaction with high school transitional services for students with Learning Disabilities (LD) documentation, evaluations and enrollment in suitable programs of study, but the coordinators of special services were not satisfied with other areas of transitional services for students with LD. Janiga and Costenbader (2002) stated coordinators were apprehensive with the lack of self-advocacy skills and suggested students with LD required more perception on personal strengths and weaknesses.

Conversely, Fleming and Fairweather (2012) described traditional student college attendance predictors and student disability-related factors which impact college attendance with mixed findings. Traditional college attendance predictors (socioeconomic background, gender, ethnicity, parents' education level and high school grades) applied to students with disabilities who attended 4-year universities. Meanwhile, disability predictors (type and severity of disability, number of services received and both

parent and student satisfaction with special education services) pertained more to vocational or technical college attendance. The literature on K-12 transition services to higher education for students with disabilities stated mixed information on some successful transition practices and potential gaps in the process.

Accommodations

Both the Section 504 and IDEA federal laws supported reasonable accommodations for K-12 students with disabilities, but accommodations were optional in higher education. Kim and Lee (2015) stated students had the choice to self-disclose a disability and request disability support in postsecondary education. The higher education institution and student partnered to provide appropriate academic accommodations.

Several research studies addressed information on accommodations in higher education. Bolt, Decker, Lloyd, and Morlock (2011) stated that accommodations were provided and helpful in both high school and college, but more students utilized them in college. Lombardi, Murray, and Gerdes (2012) identified first-generation college students were more likely to utilize accommodations. Kim and Lee (2015) stated that testing accommodations for extended time ($\beta = .114$, $p = .003$) and test materials modifications ($\beta = - .087$, $p = .004$) were predictors of cumulative grade point average (GPA) and effected test scores. Sireci, Scarpati, and Li (2005) further addressed accommodations for extended time on exams increased scores for all students, but students with disabilities achieved larger performance gains on exams. Additionally, Kim and Lee (2015) identified assignment accommodations (B = .059, $p = .05$) also predicted cumulative GPA with less impact on grades than testing accommodations.

Some studies researched deeper into specific disabilities and various accommodations. Cawthon and Cole (2010) researched Students with Learning Disabilities (SLD).

> SLD rated note takers, extended time on tests, adaptive technology, preferential classroom seating, and public transportation as being effective 80-88% of the time. Tutoring services, tape recorders, alternate test locations, taped text/notes, and mental health services were considered effective 64-78% of the time. (Cawthon & Cole, 2010, p. 115).

Trammell (2003) studied learning disabilities (LD) and Attention Deficit Disorder (ADD) and identified better results with accommodations for students with ADD. Students with ADD requested less and more appropriate accommodations. ADD students also received better grades with accommodations.

While many research studies supported the benefits of accommodations, a few recent studies addressed the need for more in-depth evidence of how testing accommodations affected students with disabilities. Lewandowski, Cohen, and Lovett (2013) described students with and without disabilities benefitted from extended time on tests while students with learning disabilities (LD) had an advantage to review more exam information with one and half time and double extended time. Miller, Lewandowski, and Antshel (2015) stated that students with Attention Deficit Hyperactivity Disorder (ADHD) performed similarly to students without ADHD on exams. Therefore, a testing accommodation of extended time (one and half time or double time) for a student with ADHD could potentially grant an academic advantage over a student without ADHD who received no additional testing time.

Other research studies focused on faculty facilitation of accommodations in courses. Skinner (2007) described mixed willingness and support of accommodations from faculty. Besides some negative interactions with faculty, Marshak, Van Wieren, Raeke Ferrell, Swiss, and Dugan (2010) stated additional barriers to students requesting accommodations included identity and social stigma concerns. Other barriers identified were a lack of knowledge of available campus services and accommodation options. These studies addressed other factors besides accommodations affecting students with disabilities in higher education.

Self-determination

Additional factors beyond academic accommodations affected students with disabilities in higher education. Research literature described higher levels of self-determination assisted students with disabilities to be academically successful and enhanced personal development. Wehmeyer, Sands, Doll, and Palmer (1997) stated self-determination developed across a person's entire lifetime.

Wehmeyer et al. (1997) described a self-determined person as "someone who makes or causes things to happen in his or her life" (p. 306). Wehmeyer et al. (1997) identified four vital characteristics of self-determination including (a) autonomous (take action according to own predilections and aptitudes), (b) self-regulated behaviors, (c) psychologically empowered responses, and (d) self-realizing actions (recognize personal assets and impediments). Some additional core aspects of self-determined behavior included skills related to crafting decisions, resolving problems, establishing goals, self-advocacy and self-awareness. Getzel and Thoma (2008) addressed the importance of

some of these core aspects (resolving problems, establishing goals and self-awareness) but added self-management (planning and organization skills).

Additional literature described other skills and services provided to students with disabilities that increased academic success and retention in college. Getzel and Thoma (2008) stated students with disabilities identified the following essential college survival skills were (a) utilizing campus services that support academic success, (b) regular communication with professors, and (c) developing support and social networks. Parker and Boutelle (2009) studied students with LD and ADHD who selected personalized coaching services to build self-determination skills. Students participated in a peer coaching program to improve time management skills, anxiety management, test preparation and increase personal motivation. The students expressed satisfaction with the individualized and guided discussion format to improve self-awareness, self-management skills and establish appropriate academic goals.

Other literature stated strong self-determination related to improved college grades and enhanced employment opportunities. Field, Sarver, and Shaw (2003) described students with LD who had stronger self-determination levels experienced higher grades and GPA scores. Better grades and GPA scores increased the opportunity for program of study completion, graduation and degree obtainment. Wehmeyer and Palmer (2003) stated other positive outcomes for individuals with cognitive disabilities from higher levels of self-determination including employment (with benefits) and increased personal independence (housing and financial).

Self-Advocacy

Self-advocacy was identified as one of the core aspects of self-determined behavior. Test, Fowler, Wood, Brewer, and Eddy (2005) stated self-advocacy included knowledge of self and personal rights, communication of rights, and leadership skills. Test, Fowler, Wood, Brewer, and Eddy (2005) further described the elements of self-advocacy as:

a) a foundation of knowledge of self and knowledge of rights-"it is necessary for individuals to understand and know themselves before they can tell others what they want" (p.45);

b) communication of that knowledge-"communicate information effectively with others through negotiation, assertiveness, and problem solving in individual and group situations is critical" (p. 45); and

c) leadership -"enables a person to move from individual self-advocacy to advocating for others as a group of individuals with common concerns" (p. 45).

Additional literature described self-advocacy as requesting accommodations and persistence in academic work. Prater, Redman, Anderson, and Gibb (2014) stated self-advocacy included the student requesting accommodations by understanding personal academic needs to request and implement appropriate accommodations. Anctil, Ishikawa, and Scott (2008) further described college students utilized persistence to obtain accommodations and educational goals (despite some failures) which enhanced identity, self-advocacy skills and self-determination. Roberts, Ju, and Zhang (2014) recommended additional research on self-advocacy because previous studies lacked information on

ethnicity, gender and types of disability differences, postsecondary or work outcomes, and essential predictor components.

Known Barriers to Success

Research literature addressed important factors such as transition services, academic accommodations, strong self-determination and self-advocacy skills to encourage postsecondary academic success. Research studies also listed barriers to success that students with disabilities experienced in the past. Denhart (2008) listed three reoccurring barriers for students with LD: "(a) being misunderstood, (b) needing to work harder than nonlabeled others, and (c) seeking out strategies for success in education" (p. 484). Denhart's study (2008) stated participants expressed some fear related to the negative stigma faculty might attach to academic accommodations. The participants also preferred the terminology of cognitive or learning difference (not a disability). Participants identified some additional barriers for LD which included: (a) understanding visual and oral concepts for written assignments, (b) improved communication skills, and (c) processing information differently from peers.

May and Stone (2010) studied stereotypes of students with and without LD. Students with LD identified the top stereotypes about the LD disability were lower intelligence and attempts to manipulate the educational system. Students without LD listed the top stereotypes as lower intelligence (at a lower percentage than students with LD) and reduced expectations due to the LD disability. Students with and without LD stated the main stereotype for students with LD was lower intelligence.

Three research studies addressed traditional barrier aspects related to education. Gregg (2007) addressed the underserved populations, including students with LD, may lack the necessary academic preparation for college, not have access to required documentation for accommodations and perceived limited options to transition into higher education programs of study. Mamiseishvili and Koch (2010) stated a higher attrition rate after the first year of college was probable for all students who exhibited the following traits: (a) older, (b) part-time, (c) lower degree aspirations and GPA, (d) lived off-campus, and (e) lacked social involvement on campus. Mamiseishvili and Koch (2010) also identified students with disabilities who spent more money on education increased the rate of persistence which was a unique finding. Parker and Banerjee (2007) stated core technology skills and Internet searching remained important elements of completing college courses. Students with LD and ADHD were willing to experiment with new technologies, but were deficient in some of the core technology skills for academic course work.

Critical Disability Theory

For this study, critical disability theory described a scheme to review the self-determination transitional preparation to postsecondary education for students with disabilities. Goodley (2007) stated:

> While individual, medical and deficit models continue to dominate thinking *about* disabled people, critical disability studies calls for counter-hegemony *with* disabled people. Alternative discourses. A reassessment of the dialectical split of (impaired) body/mind and society. (p. 319)

Critical disability theory evolved from three key theoretical phases and social activism: (a) medical impairment to social justice perspective, (b) disability studies, and (c) empowerment issues.

Medical Impairment to Social Justice

Prior to the Civil Rights Movement in the 1960s, disabilities were considered medical impairments. McLean (2011) defined ableism as "discrimination on the grounds that being able bodied is the normal and superior human condition" (p. 13). Loewen and Pollard (2010) stated the British based Union of Physically Impaired Against Segregation (UPIAS) rejected the Medical Model of Disability (medical impairments) and created the Social Model of Disability (exclusion from social activities due to disability). An important paradigm shift occurred for individuals with disabilities to social justice and disability political activism. Loewen and Pollard (2010) also addressed an identity shift in acceptable names which included disability as an identity marker. In the late 1970s, a name shift to people with disabilities occurred and again, in the middle 1990s, a name shift to disabled people.

Brueggemann (2002) addressed modern social disability issues which included invisible disabilities, social invisibility, economic reasons for a lack of accessibility, ambiguous and undefined disability boundaries, varied personal exposure to disabilities, unrealistic representations in media, personal disability representation or advocacy, and appropriate theoretical frameworks and insights. Switzer (2003) stated invisible disabilities included a variety of medical and chronic illnesses, psychiatric illnesses and environmental illnesses which still "result in pervasive stigma, discrimination, and

stereotypes" (p. 169). Lester (2014) addressed the elimination of disability labels by developing stronger relationships and understanding of disability barriers, acknowledging competencies in individuals with disabilities and gathering more supporters to challenge inequities.

Gabel (2010) studied social inequity in policy making related to socio-economic and cultural factors. Educational policies provided examples of social inequity toward individuals with disabilities. Gabel (2010) stated disability inequality related to representation of disabilities in campus culture, marketing materials, mission statements, institutional policies and discourse.

Disability Studies

From a sociological perspective, Linton (2004) stated human relations, laws, policies and cultural practices were socially created and defined. Linton (2004) addressed disability studies as disability myths and concepts from a multidisciplinary information base across history and cultures. Disability studies created a method to enhance knowledge of society, human events and assign meanings to human differences. Linton (2004) also stated disability studies challenged disability socio-economic status and society assigned roles.

Goodley (2011) described diversity disability studies utilized intersectionality theories to examine disability related to other identity markers of gender, race or ethnicity, social structure and sexuality. Diversity disability studies also recognized and evaluated oppression factors of constructed identities.

Goodley (2011) addressed modern education inclusion as evolving from disability studies and social justice activism. Education inclusive disability studies combined with critical theories generated a new educational environment. Goodley (2011) stated inclusive education called for restructuring school culture for more social justice and equity, expanded curricula to promote diversity engagement, teacher to student partnerships in learning and more awareness of social structures. Disablism concepts were replaced by enabled practices.

McLean (2011) recommended inclusive learning environments and service learning experiences for all students to challenge their social constructs. Vaccaro, Kimball, Wells, and Ostiguy (2015) encouraged students with disabilities to participate in research studies across multiple campus functions and recommended research findings be published in local professional journals to increase support staff awareness of current disability issues.

Empowerment

Empowerment addressed disabilities through control of life choices and care issues. Morris (1997) described a lack of independence as caring for someone while empowerment was independence and control over life choices. Morris (1997) stated individuals with disabilities are often socially viewed as dependent because of some required care so empowerment was not possible, but that viewpoint was misleading. Morris (1997) stated individuals with disabilities were independent and deserved financial control and life choices versus the caregiver possessing all the control and choices.

Kelly (2013) described care was often socially viewed as necessary for children and sick or older people instead of adults. Kelly (2013) referenced historic forms of care for disabled people included oppression, coercion and institutionalization. In recent society, Kelly (2013) stated an emphasis on accessible care which captured a more complex definition of "unstable tension among emotions, actions and values, simultaneously pulled toward both empowerment and coercion" (p. 790). Rocco and Delgado (2011) addressed disabilities as studies in oppression issues with social and political power struggles.

Critical Disability Theory

Rocco and Delgado (2011) stated disability studies and critical theory encouraged moving away from medical and economic issues toward considerations of identity markers and social constructs for disabilities. Rocco and Delgado (2011) addressed disability was excluded in diversity (race, class and gender identity) studies as well as a lack of acknowledgment in adult education literature (such as other identity markers of race and gender). To fill the research gap, critical disability research was necessary to study disability identities further and promote mainstream education journal publications to increase disability awareness.

Goodley (2011) stated critical disability theory examined disability identities and challenged ableism. Goodley (2011) described critical disability theory as "impairment and disability are interrogated as phenomena enacted at the levels of the psyche, culture and society…ever vigilant of political, ontological and theoretical complexity" (p. 157). Meekosha and Shuttleworth (2009) stated critical disability theory was defined as an

examination of past social, political and intellectual paradigms utilized to explain life experiences of individuals with disabilities and prospective improvements for social, political and economic equity in the future. This study addressed social constructs in higher education, identified markers that support individuals with disabilities, and recommended future educational and social improvement opportunities.

Summary

Research literature addressed accommodations and K-12 transitional services into higher education to assist students with disabilities, but was not indicative of successful degree completion. The research addressed higher levels of self-determination and self-advocacy skills in individuals with disabilities encouraged persistence, self-awareness, self-management, goal setting and support network building. Personal growth and academic success were achieved through the development of self-determination. An overview of critical disability literature and its origins were described. Additional research on self-determination and self-advocacy development was suggested to further assist higher education individuals with disabilities. In the next chapter, the methodology for a research study on self-determination and self-advocacy in higher education students with disabilities will be described.

CHAPTER THREE

METHODOLOGY

In this chapter, the methodology for an exploratory study with a survey method is explained and research procedures are described. The research questions are: Do self-determination levels change across academic years (1st, 2nd, 3rd, 4th or higher year) for undergraduate students with disabilities? What factors do higher education undergraduate students with disabilities report as impacting their self-advocacy competency? Participant information and study location are stated. For this study, assumptions and limitations are discussed along with research trustworthiness, reflexivity and researcher role.

Survey Method

I selected an exploratory study with survey method for this study. The purpose of the study was to investigate the self-determination level in postsecondary students with disabilities and students' perceptions of the necessary self-advocacy skills to be successful in postsecondary education. A survey was a research technique used to collect data from a sample of a population of people (Scheuren, 2004). In this study, primary data were collected directly from the participants (Rea & Parker, 2005). The survey design included closed-ended questions with a preset list of answer options and open-ended questions so respondents could write answers (Rea & Parker, 2005). The closed-ended question options were scaled so that they could be converted to a number for statistical analysis. From the collected closed-ended responses and numeric coded data, I was able to generate descriptive statistics and ran both a factor analysis and analysis of variance (ANOVA) to test for differences by academic year.

I designed the survey to include open-ended questions so as to better understand how students with disabilities defined and built self-advocacy skills into their academic lives. Saldana (2013) stated the rich depth of participants' feelings and experiences were needed in research to capture unique perspectives and life events. Participants had the opportunity to provide written responses to open-ended survey questions. A goal of the study was to discover whether students felt prepared to be their own self-advocate for academic accommodations in college and what campus resources improved self-advocacy skills. In higher education, students with disabilities self-identified and registered their disabilities to receive additional educational accommodations and support. "People with disabilities have a unique voice emerging from particular individual and group experiences. These experiences are as rich and varied as are the disabilities and their manifestations" (Rocco & Delgado, 2011, p. 6). A survey with both closed-ended and open-ended questions enabled a broader and richer collection of data and information across the population of higher education individuals with disabilities.

I collected a convenience sample from the population of students registered with disabilities at the research site. Teddlie and Yu (2007) stated convenience samples are generally available and willing participants. The survey was sent to participants during fall semester 2016. Biemer and Lyberg (2003) noted one-time surveys are common and are intended to assess population traits.

Survey deployment was done by an emailed web link for a Qualtrics™ web-based survey. Rea and Parker (2005) explained the advantages of a web-based survey included convenient method to reach participants, quick electronic data collection, cost-effective,

more completion time for respondents, easy follow-up with participants, accessible to specialized populations and enabled more complex design or inclusion of visual aids. Rea and Parker (2005) also noted some disadvantage to a web-based survey included reduced responses due to required electronic access, self-selection bias (such as limited technology skills) could decrease participation and no interviewer meant participants could not ask for question clarification.

An Institutional Research Board (IRB) application was submitted and approval received for this research study (see Appendix A). I implemented and followed all IRB research guidelines for this exploratory study.

Research Questions

I designed the research questions for this study to gather both general population information and more in-depth data from postsecondary students' perspectives on the impact of self-determination. The research questions were:

- RQ1: Do self-determination levels change across academic years (1st, 2nd, 3rd, 4th or higher year) for undergraduate students with disabilities?

- RQ2: What factors do higher education undergraduate students with disabilities report as impacting their self-advocacy competency?

Location

This study was conducted at a large, public, land grant university in the Southeastern United States. The university contained seven colleges and offered 80 undergraduate degree programs and 110 graduate degree programs with an emphasis on science and engineering. The institution also offered some degrees in the social sciences

(business, education, architecture and arts). The university enrolled 17,000-18,000 undergraduate students and 4,000-5,000 graduate students during the 2016-2017 academic year (About Clemson University, 2017).

Participants

The research site's office of student disability support services registered 1,210 students with disabilities in the fall semester of 2016. The student disability demographic consisted of: 44% Attention Deficit Hyperactivity Disorder (ADHD), 17% Learning Disability (LD), 17% Medical Disability/Traumatic Brain Injury, 14% Psychological Disability, 5% Physical or Mobility Disabilities, 2% Autism Spectrum Disorder and 1% Other/Diagnosis Pending (Student Accessibility Services, 2016). All 1,210 registered students with disabilities in fall semester 2016 were invited to participate in the study.

Closed-ended Questions Research Procedures

With U.S Department of Education funding, Jean M. Wolman, Peggie L. Campeau and Phyllis A. DuBois from the American Institutes for Research (AIR) and Dennis E. Mithaug and Virginia S. Stolarski from the Teachers College at Columbia University developed the AIR Self-Determination Scale. The AIR Self-Determination Assessment three surveys, user guide and permission for academic research were posted on the University of Oklahoma Jeannine Rainbolt College of Education Zarrow Center for Learning Enrichment (2016) website. For this study, the AIR Self-Determination Scale, Student Form (AIR-S) provided a set of 24 questions to assess the participants' level of self-determination (Wolman, Campeau, DuBois, Mithaug & Stolarski, 1994). Wolman, Campeau, DuBois, Mithaug, and Stolarski (1994) explained in their user guide

that the AIR Self-Determination Scale assesses "students' capacity and opportunities to self-determine" (p. 4). Wolman et al. (1994) expanded the explanation with assessment of "knowledge, ability, perceptions, and opportunity at school and at home" (p. 5). In summary, knowledge and ability were summed to create the construct capacity while opportunity at school and opportunity at home were summed to create the construct opportunity. The two constructs of capacity and opportunity were summed to generate the self-determination level.

Mamiseishvili and Koch (2010) stated that a higher attrition rate was probable for all students (including students with disabilities in four-year institutions) who exhibited traits including older student, part-time student, lesser degree aspirations and lower GPA. Higher levels of self-determination and utilization of academic support resources might augment these factors. Getzel and Thoma (2008) stated students with disabilities perceived the following essential college survival skills: utilizing campus services that support academic success, regular communication with professors, and developing support and social networks. Therefore, additional questions were added to collect more data for an in-depth review and to subcategorize the self-determination data for further insights. Additional closed-ended survey questions (see Appendix B) were added to the survey including questions on usage of campus academic resources and demographics. The personal demographic information collected included age, GPA, academic year, part-time or full-time status and type of disability. For type of disability, participants could select more than one disability. However, one disability had to be specified for numeric coding for each participant to ensure independence of groups. I (the researcher) reviewed

each participant's response and selected one disability based on the participant's comments and the disability which required more academic accommodations.

Validity and Reliability

Wolman et al. (1994) provided information on reliability and validity for the AIR Self-Determination, Educator Scale (AIR-E). The AIR Self-Determination Scale was field tested with 450 students (with and without disabilities) in approximately 70 schools from New York and California. Wolman et al. (1994) identified 43% of the students were between the ages of 18 and 25 and 82% were registered with special education (79% had mild to moderate disabilities). Wolman et al. (1994) also stated reliability tests were conducted with the following results: (a) alternative-item test of consistency with correlations between .91 to .98, (b) a split-half test for internal consistency produced a correlation of .95, and (c) test-retest measure of consistency conducted over three months produced a correlation of .74. Rovai, Baker, and Ponton (2013) stated parallel or alternate forms of instrument, split-half and test-retest or instrument stability are common forms of reliability testing. Wolman et al. (1994) further explained that the reliability testing found no significant score differences among gender, ethnicity and socio-economic background, but students enrolled in special education programs had significantly lower scores than students not enrolled in special education which demonstrated the survey reliability to measure the intended students enrolled in special education.

For the validity of the AIR-E, Wolman et al. (1994) performed an exploratory factor analysis to evaluate three constructs (including capacity-opportunity, home-school, and knowledge-ability-perception) which explained 74% of the variance. This higher

variance percentage indicated a strong relationship among the factors, scores and conceptual constructs in the survey. Rovai, Baker, and Ponton (2013) described factorial designs provided advantages to study interactions between factors and increase research validity.

Additionally, Shogren et al. (2008) conducted a study with 407 high school students from six states to assess the AIR Self-Determination Scale including the student version (AIR-S) and educator version (AIR-E). The Opportunity subscale questions related to home self-determination behavior were removed for this study because a large portion of the educators could not adequately comment on the students' home activities. Shogren et al. (2008) reported the Cronbach's alpha of .92 and revealed a strong correlation ($r = .50$) with another self-determination instrument which demonstrated that the AIR-S was a reliable and valid survey to measure self-determination. Rovai, Baker, and Ponton (2013) identified Cronbach's alpha as a common reliability test with a generally acceptable social science ranking of .70 or higher.

Shogren et al. (2008) stated the constructs of Capacity and Opportunity subscales of self-determination presented a strong relationship ($r = .73$) which indicated students believed a strong relationship existed between perceptions of capacities and opportunities. Shogren et al. (2008) stated Do (questions 1-6) had an R^2 of .77, Feel (questions 1-6) had an R^2 of .87, School (questions 1-2) had an R^2 of .69, School (questions 3-4) had an R^2 of .67 and School (questions 5-6) had an R^2 of .65. Capacity (Do and Feel questions) had an estimated latent variance of .37 while School questions had an estimated latent variance of .47 (Shogren et al., 2008).

Data Collection Procedures

The AIR-S survey questions with additional demographic questions (see Appendix B) were added to the Qualtrics™ survey tool. The survey was disseminated through an emailed link on the campus email system to all 1,210 registered students with disabilities (see Appendix C). A reminder email for the survey and the survey link was emailed twice more in fall semester 2016 (see Appendix D). An additional printed advertisement was placed in the student accessibility support office to recruit participants in fall semester 2016 (see Appendix C). I (the researcher) was the only person with access to the Qualtrics™ survey with password protection and could request technical assistance if needed from the campus technology services. No contact with campus technology services was required during the course of the data collection and analysis. I offered an incentive of a $20 gift card drawing for submitting a survey to encourage participation. Participants had to click on a separate survey link to enter the $20 gift card drawing. The gift card drawing link to collect personal contact information was designed separately from the AIR-S survey as a data protection method to increase confidentiality of personally identifiable information. From the gift card drawing survey link, participants were asked if they would be willing to participate in a follow-up interview if needed for additional data collection. I offered an additional $20 gift card drawing to interviewees.

After data analysis, open-ended questions received participant responses of 79% or higher. I determined that the high response rate and quality of data (complete answers to the questions and generally more than a couple of words) provided by participants was

sufficient to answer the research question related to the open-ended survey questions.

Biemer and Lyberg (2003) explained survey quality was data that was as accurate as

needed to fulfill the proposed goals. Therefore, additional data collection through

interviews was not required to improve the data quality.

Data Analysis Procedures

First a factor analysis was conducted using SPSS to validate the AIR-S survey

instrument with a postsecondary student population, as previous studies had validated the

instrument with high school students. Mertler and Vannatta (2010) described an

exploratory factor analysis as a method that enabled a reseracher to "describe and

summarize data by grouping together variables that are correlated" (p. 241). For smaller

sample sizes, Barlett's sphericity test was recommended with factor analysis. Mertler and

Vannatta (2010) stated Bartlett's Test of Sphericity "tests the null hyposthesis that the

variables in the population correlation matrix are uncorrelated" (p. 243). Likewise,

Pearson's Reliability Test (Cronbach, 1951) was conducted in Excel with the college

student sample.

Descriptive statistics were generated and analyzed with the closed-ended question

survey data. Pyrczak (2014) explained that descriptive statistics presented a data synopsis

of frequency distribution, mean, median, mode, range and standard deviation. Descriptive

statistical analysis was reviewed in the Qualtrics™ software and exported to Excel for

further analysis. For type of disability, participants could select more than one disability,

but participants had to be assigned to one disability category for numeric coding to

generate post-hoc testing. I reviewed each participant's response and placed participants

with more than one selected disability into one coded disability category based on the participant's comments and the disability which required more academic accommodations and support. For future follow-up studies, the participants should select the primary disability for statistical analysis. I would recommend a survey redesign to provide two types of disability questions so participants could select the primary disability requiring academic accommodations and a second question to select additional disabilities.

I exported the data from the Qualtrics™ software into SPSS™ to run analysis of variance (ANOVA) on demographic variables. One-way Analysis of variance (ANOVA) was calculated on participants' academic year to answer the research question: Do self-determination levels change across academic years (1st, 2nd, 3rd, 4th or higher year) for undergraduate students with disabilities? Cronk (2014) stated ANOVA was a common test to compare means among two or more participant groups and review variance between and within the groups. The assumptions of ANOVA are normality, homogeneity and independence of the groups (Mertler & Vannatta, 2010). To test for normality, the skewness and kurtosis were calculated. To test for homogeneity, the Levene Test of Homogeneity of Variances was conducted (Mertler & Vannatta, 2010). Independence of the cases was ensured by the survey design. The participants were allowed to select only one year in the response options. If a significant difference was found in the ANOVA, post hoc testing was conducted on the academic years. Mertler and Vannatta (2010) stated that post-hoc testing provided multiple or pairwise comparisons "to compare individual treatments two at a time" (p. 69).

Open-ended Questions Research Procedures

Data Collection Procedures

The AIR-S survey contained three short-answer questions related to developing goals. Four additional open-ended questions were added to the survey to collect data for research question two and related to the participant's perceptions on self-advocacy in the higher education environment (see Appendix A) . The questions were:

- What are some of your experiences talking to faculty about your accommodations and fellow students about your disabilities?

- How do (or could) campus resources support you to talk about your accommodations or disability rights?

- What skills do you think you need to be a strong self-advocate and be successful in college?

- How do (or could) campus support or resources assist you to master those skills you mentioned?

Data Analysis Procedures

Open thematic analysis was utilized with descriptive coding for the first round to identify key contextual concepts. Saldana (2013) described descriptive coding as "a word or short phrase…the basic topic of a passage of qualitative data" (p. 87). A second round of coding was completed with the magnitude coding to apply subcodes to the open-ended questions data. Saldana (2013) explained that magnitude coding incorporates "supplemental alphanumeric or symbolic code or sub-code" to the collected data (p. 72). Alphanumeric subcodes and symbolic codes related to self-determination concepts were

utilized to review the four additional open-ended question survey data related to research

question two (RQ2). A third and final round of descriptive coding was utilized to

construct major themes from the data.

Research Study Trustworthiness

Shenton (2004) explained that trustworthiness in research studies incorporated

credibility (truthful examples), transferability (application to similar situations in study),

dependability (information to replicate a study) and confirmability (data driven findings).

To evaluate credibility, Shenton (2004) recommended steps to check internal validity,

utilize established research methods and random sampling, state negative case analysis,

add thick descriptions and review prior research findings. In this study, the AIR-S survey

was an established survey. Additional reliability and validity testing was conducted.

Random sampling was utilized to select participants. The addition of open-ended

questions provided opportunities to review negative cases in the data and build thick

descriptions from written responses.

For transferability, Shenton (2004) suggested noting information on the study

location, population, data collection, and length of the study. For this study, this

information was already listed. For a brief review, the location was a large, public, land

grant university in the Southeastern United States with an undergraduate enrollment of

17,000-18,000 students and 4,000-5,000 graduate students. The population was 1, 210

registered students with disabilities enrolled in fall semester 2016. Data was collected

through an emailed link to a survey with closed-ended and open-ended questions. Other

researchers can compare other research sites, populations and samples with the information provided in this study.

Shenton (2004) stated dependability required stating the research design, data collection procedures and review of the study. A detailed methodology in this chapter and appendices with survey questions would enable other researchers to review and duplicate this study. Study dependability was also increased by a review from a committee of experienced researchers and an IRB committee along with two open public forum discussions of this study.

To address confirmability, Shenton (2004) advised triangulation of data and acknowledgement of researcher bias. A survey design with closed-ended questions and open-ended questions allowed for some data triangulation. Researcher bias included work experiences with students with disabilities but no personal disability experiences in postsecondary education. A more detailed explanation was provided in the Reflexivity section.

Assumptions and Limitations

Some assumptions and limitations were recognized in this study. The researcher assumed participants provided unique personal perspectives on the self-reporting survey and were registered with a disability at the university. The researcher also assumed participants provided real-life experience responses to the open-ended survey questions. IRB research guidelines were followed and precautions were taken to protect participant confidentiality and to securely store data. The data collection design was crafted with

unbiased questions so the researcher avoided influencing participants' answers and skewing data collection procedures.

The main study limitation was minimal generalizability. This exploratory study was limited to a specific sample of students registered with disabilities at one university in the Southeastern U.S. A possibility of students with disabilities who were not registered existed. Research study information was not received by non-registered students with disabilities so those students were not represented in the research findings.

Reflexivity

I (the researcher) was never tested or diagnosed with a disability, but I have experienced substitute teaching and volunteering in the K-12 environment with individuals with disabilities. As a graduate assistant, I worked with student disability support services at the research site. My job responsibilities included assisting students with disabilities to register for accommodations and testing outside the classroom. These work experiences offered insights to the lives, events and experiences of students with disabilities. I heard students' educational experiences and felt the shared stories were sometimes heart-warming, frustrating and inspirational. Students' explained their complex identities with a disability representing one aspect of a larger self-identity and lived life experiences. These students' life stories included a disability unlike my own life, but I understood and recognized similar life experiences from other people trying to place limitations on my academic goals and emotional responses to hurtful words from people who could have chosen to offer support to me instead. I have experienced the need

for perseverance to accomplish my academic goals similar to the experiences expressed by students with disabilities.

I consider my research role to be a "researcher as learner" (Glesne, 2011, p. 60) or a person who chooses to learn from and with the participants. Although I do not have a disability, I can learn about life with a disability from the participants attending a postsecondary institution. Also, I can share higher education academic experiences of successful moments and barriers to learning in postsecondary classes with the participants. As a researcher, I aspire to be a "transformer" (Glesne, 2011, p. 220) or a researcher who encourages all people to reflect on underrepresented populations' lived experiences and acquires a richer understanding of human interaction complexities. I hope people who read my study are encouraged to take action to promote equity and appropriate academic resources for all students in higher education.

Summary

In this chapter, the methodology for an exploratory study with a survey method was described and related research questions were listed. Information on the study location, participants and research procedures for survey data collection was explained. Research trustworthiness and researcher reflexivity were discussed. The research data findings will be explained and examined in the next chapter.

CHAPTER FOUR

FINDINGS

In this chapter, the data analysis and findings from the survey are presented. Two research questions are addressed:

- RQ1: Do self-determination levels change across academic years (1st, 2nd, 3rd, 4th or higher year) for undergraduate students with disabilities?

- RQ2: What factors do higher education undergraduate students with disabilities report as impacting their self-advocacy competency?

Descriptive statistics, analysis of variance (ANOVA) and factor analysis are listed. Open-ended question data analysis is explained and themes revealed. A summary of the survey findings are stated.

Closed-ended Questions Survey Results

Descriptive Statistics

A survey link was emailed to 1,210 students registered with disabilities in fall semester 2016; 113 survey responses were received for a 9.34% response rate. A total of 24 surveys were removed because more than one response was missing on the AIR-S survey questions (n = 13) or no response was selected for academic year (n = 11). The final number of surveys was 89 responses (N = 89; 7.88%). The first stage of data analysis generated descriptive statistics. Pyrczak (2014) noted descriptive statistics supply a data synopsis.

The means were calculated for age (M = 20.84, SD = 3.06), GPA (M = 3.18, SD = 0.61), status (M = 0.99, SD = 0.11), year (M = 2.74, SD = 1.08) and race (M = 0.12, SD =

0.56) at a confidence interval of 95%. From the 89 respondents, 39% of the participants were between the ages of 20-21 (n = 35), 37% of the participants were 18-19 (n = 33), 15% of the participants were 22-23 (n = 13), 8% of the participants were 30 or older (n = 7) and 1% of the participants were 24-25 (n = 1). Participants were 99% full-time students (n = 88) versus 1 % part-time students (n = 1), 63% females (n = 56) versus 36% males (n = 32) with 1% not wishing to disclose gender (n = 1). Participants identified ethnicity as 93% Caucasian (n = 82), 2% African American (n = 2), 2% Latino/a (n = 2), 2% Mixed Race (n = 2) and 1% Unknown/Do not wish to disclose (n = 1).

Participants identified student academic year (accumulated course credits) with 16% first year undergraduate (n = 14), 27% second year undergraduate (n = 24), 25% third year undergraduate (n = 22), and 32% fourth year or higher undergraduate (n = 29). The majority of participants listed a higher GPA range with 2% GPA 0-1.9 (n = 2), 11% GPA 2.0-2.5 (n = 10), 9% GPA 2.6-2.9 (n = 8), 39% GPA3.0-3.5 (n = 35), 26% GPA 3.6-4.0 (n = 23) and 13% Unknown GPA (n = 11). Participants were allowed to select more than one disability type and "other" was an answer option to describe a disability. The "other" written responses were reviewed and added into the eight remaining disability types. The percentages listed for nature of disability were 44% ADHD/ADD (n = 39), 33% Medical Disability/Traumatic Brain Injury (n = 29), 22% Psychological Disability (n = 20), 20% Learning Disability (n = 18), 7% Blind/Visual Impairment (n = 6), 3% Mobility Impairment (n = 3), 6% Deaf/Hard of Hearing (n = 5) and 4% Autism Spectrum Disorder (n = 4). These percentages (except ADHD/ADD disability type) were higher than the total 1,210 participant population demographics previously stated.

The Self-Determination point scale had a range from 0 to 120 points. A score of 84 points (or higher) indicated a higher self-determination level of 80% (or higher). Participants in this study scored between 59-120 points. A total of 68% of participants (n = 60) scored 84 or more points which is a self-determination level of 80% or higher. The remaining 32% of participants (n = 29) scored below 84 points (79% or lower self-determination level). By academic year, the percentage of participants who scored below 84 points (80%) were 4% first year (n = 3), 9% second year (n = 8), 8% third year (n = 7), and 12% fourth year (n = 11). Participants with ADHD/ADD and Psychological Disability types ranked lower on the Self-Determination scores. Participants (n = 39) with ADHD/ADD received 46% of participants (n = 18) with scores below 84 points (80%). Participants (n = 20) with Psychological Disability received 45% of participants (n = 9) with scores below 84 points (80%). Self-Determination (S-D) score distributions for academic year, disability type demographics, and campus resources usage range were shown in Table 4.1. Participants with higher self-determination scores listed a larger usage range for campus resources.

As part of the survey, participants identified main campus resources they utilized and ranked the resource usage on a scale: Never, Rarely, Monthly, Weekly and Daily. Participants' scaled response rates were shown in Table 4.2. Participants (N = 89) indicated the most weekly used campus resources were 44% informal tutoring with friends or family (n = 39), 33% meeting with faculty or course instructor (n = 29) and 28% library resources (n = 25). Conversely, participants specified never used campus resources included 67% paper writing assistance (n = 60), 52% student success

workshops on time management, note-taking, study habits, etc. (n = 46) and 35% formal

tutoring (n = 31). Additional data review indicated no difference among the demographic

variables for campus resources usage.

Table 4.1

Self-Determination Score Level Percentage Distributions by Academic Year, Disability
Type and Campus Resources Usage Range

Participants (N=89)		n=38; 43%	n=22; 25%	n=17; 19%	n=11; 12%	n=1; 1%
S-D Score Points (Percentage)		**120-96** (90-100%)	**95-84** (80-9%)	**83-72** (70-9%)	**71-60** (60-9%)	**59-48** (50-9%)
Academic Year	1st	9	2	1	2	0
	2nd	10	6	5	2	1
	3rd	8	7	4	3	0
	4th	11	7	7	4	0
Disability Type	ADHD/ADD	11	10	10	8	0
	Autism (ASD)	0	2	0	1	0
	Blind/VI	2	2	1	1	0
	Deaf/HoH	2	1	1	0	1
	Learning	8	4	3	3	0
	Medical/TBI	17	8	2	1	1
	Mobility	0	1	2	0	0
	Psychological	7	4	5	3	1
Campus Resources	Low – High Usage Range	11-33	7–26	10–24	9–21	19

Participants (N = 89) responded to questions about accommodation usage and

campus organization involvement. Participants requested 99% accommodations (n = 88),

utilized 89% accommodations in courses (n = 79), and discussed 98% accommodations

with faculty (n = 87). From the respondents, 64% of participants (n = 57) were involved

in campus organizations. From the remaining respondents (n = 32) with no organizational

involvement, the Self-Determination score level percentages were 90-100% (n = 14), 80-

89% (n = 8), 70-79% (n = 9) and 60-69% (n = 1). Additionally, the respondents (n = 32) were mostly upper classmen with 34.5% fourth year or higher (n = 11), 34.5% third year (n = 11), 22% second year (n = 7) and 9% first year (n = 3). Additional analysis revealed no difference among the other demographic variables for organizational involvement and accommodations usage.

Table 4.2

Campus Resources Usage Breakdown (N = 89)

Usage	Library	Formal Tutoring	Informal Tutoring	Success Workshops	Writing Assistance	Faculty Meetings	Assistive Tech
Never	n=10; 11%	**n=31; 35%**	n=7; 8%	**n=46; 52%**	**n=60; 67%**	n=6; 7%	n=27; 30%
Rarely	n=23; 26%	n=26; 29%	n=13; 15%	n=27; 30%	n=23; 26%	n=27; 30%	**n=29; 33%**
Monthly	n=21; 24%	n=14; 15%	n=12; 13%	n=9; 10%	n=5; 6%	n=24; 27%	n=12; 13%
Weekly	**n=25; 28%**	n=14; 15%	**n=39; 44%**	n=5; 6%	n=1; 1%	**n=29; 33%**	n=11; 13%
Daily	n=10; 11%	n=5; 6%	n=18; 20%	n=2; 2%	n=0; 0%	n=3; 3%	n=10; 11%

Note. Highest participant number and percentage for each campus resource are shown in boldface.

Factor Analysis

For this study, the AIR Self-Determination Scale, Student Form (AIR-S) identified a set of 24 questions to assess participants' level of self-determination (Wolman, Campeau, DuBois, Mithaug & Stolarski, 1994). Wolman, Campeau, DuBois, Mithaug, and Stolarski (1994) wrote a user guide and stated the AIR Self-Determination Scale assesses "students' capacity and opportunities to self-determine" (p. 4). In the survey instrument, knowledge and ability scores are summed to create the construct

Capacity value, while opportunity at school and opportunity at home values are summed to create the construct Opportunity value. Constructs of Capacity and Opportunity are summed to calculate the Self-Determination level.

Participants ($N = 89$) completed the AIR-S survey questions for a 7.88% response rate. Three response values were missing so the variable mean for the question section was added. Mean values to replace missing data values were one acceptable option to address minimal absent values in statistical calculations (Mertler & Vannatta, 2010). Wolman et al. (1994) provided reliability and validity results on the AIR-E (Educator) survey for K-12 students with disabilities. Shogren et al. (2008) conducted additional statistical analyses on both the AIR-E and AIR-S for K-12 students with disabilities. Because my study was conducted with postsecondary students, Pearson's reliability analyses (Cronbach, 1951) were conducted for responses of participants on the AIR-S 24 questions to reveal overall reliability with a Cronbach alpha of 0.98; Capability had a Cronbach alpha of 0.93; Opportunity had a Cronbach alpha of 0.81; and Self-Determination had a Cronbach alpha of 0.79.

To test validity on the AIR-S survey instrument with postsecondary students, a factor analysis was conducted. From 1,210 students registered with disabilities, 7.88% of respondents ($N = 89$) submitted survey responses. For smaller sample sizes, Barlett's sphericity test is recommended with factor analysis. Mertler and Vannatta (2010) stated Bartlett's Test of Sphericity "tests the null hypothesis that the variables in the population correlation matrix are uncorrelated" (p. 243). Because the response rate was low (7.88%),

a Bartlett's Test of Sphericity was conducted and determined to be significant ($\chi^2 =$ 1504.99, p = 0.00). This result indicated a factor analysis could be conducted.
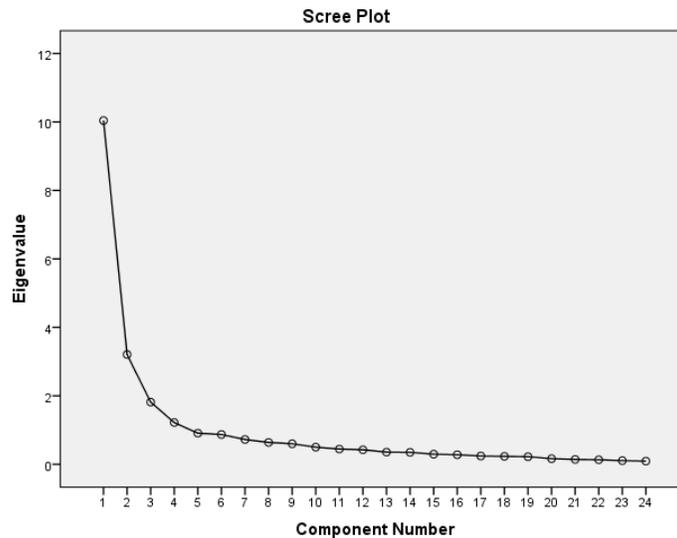
Mertler and Vannatta (2010) stated that exploratory factor analysis was designed to "describe and summarize data by grouping together variables that are correlated" (p. 241). Exploratory factor analysis was conducted to determine if this postsecondary sample retained the same constructs that were found on a K-12 sample and if the same underlying structure existed for measures on the following AIR-S 24 variables: Things I Do (a1 – a6), How I Feel (p1 – p6), What Happens at School (s1 – s6), What Happens at Home (h1 – h6). The survey instrument utilized 24 variables to calculate three construct values. Things I Do (a1 - a6) and How I Feel (p1 - p6) were summed to calculate the construct Capability value ((a1-a6) + (p1 – p6) = C). What Happens at School (s1 - s6) and What Happens at Home (h1 - h6) were summed to calculate the construct Opportunity value (s1 – s6) + (h1 – h6) = O). Capability and Opportunity constructs were summed to calculate the Self-Determination level value (C + O = S-D) for each respondent.

Mertler and Vannatta (2010) described that principal components analysis examined all variability sources for each variable (variance). In principal components analysis, Mertler and Vannatta (2010) addressed component or factor retention based on eigenvalue (amount of total variance explained by each factor), scree plot (graph of magnitude of eigenvalues) and factors accounting for 70% of total variability.

A scree plot was generated with three component points visible above the bend in the plotted line. Mertler and Vannatta (2010) identified components located vertically

above the bend in the plotted line should be retained and analyzed. The scree plot was

shown in Figure 4.1.

Figure 4.1: *Principal Components Analysis Scree Plot Displaying Three Components*

Principal components analysis was conducted utilizing a varimax with Kaiser

Normalization rotation. Mertler and Vannatta (2010) stated factor rotation provided more

interpretable factors without altering fundamental mathematical structures. Mertler and

Vannatta (2010) described varimax as a type of orthogonal rotation "that minimizes

factor complexity by maximizing variance for each factor" (p. 253). Four factors loaded

with eigenvalues greater than 1, explaining 67.85% of the variance. Component 1

included the variables of a1-a4, a6, p1-p6 and h3. Component 2 included variables of h1,

h2 and h4-h6. Component 3 included variables of s1-s6. Component 4 included the

variable of a5. Because the fourth component consisted of only one variable and the scree

plot indicated three components, principal components analysis was conducted again limiting the number of factors to three.

Before rotation, eight values loaded at below 0.6 with one question loading below 0.5. After rotation, five questions loaded below 0.6 and one below 0.5. Both before and after rotation, the three constructs accounted for 62.77% of the variance. After rotation, the first component accounted for 28.48%, the second for 18.36%, the third for 15.93% of the variance. Although restricting the number of factors to three reduced the total variance accounted for, the variables included in each construct then matched the AIR-S survey design and question item variables from Wolman et al. (1994), with Construct 1 including variables a1-a6 and p1-p6, Construct 2 including variables h1-h6, and Construct 3 including variables s1-s6. Rotated component matrix was shown in Table 4.3. These constructs are labeled as follows: Component 1 as Capability, Component 2 as Home and Component 3 as School. In summary, a Cronbach alpha of 0.98 proved reliability and matching components from factor analysis provided validity for the usage of the AIR-S survey with this sample of postsecondary students with disabilities.

Table 4.3

Rotated Component Matrix

Rotated Component Matrix[a]			
	Component		
	1	2	3
a1	**.528**	.172	.332
a2	**.772**	.211	.190
a3	**.786**	.115	.116
a4	**.786**	.143	.184
a5	**.463**	.190	.251
a6	**.768**	.084	-.015
p1	**.554**	.217	.382
p2	**.640**	.406	.140
p3	**.778**	.125	.111
p4	**.747**	-.096	.231
p5	**.801**	.122	-.029
p6	**.689**	.114	.176
s1	.030	.219	**.698**
s2	.183	.221	**.731**
s3	.523	.222	**.575**
s4	.152	.316	**.620**
s5	.161	.106	**.757**
s6	.157	.213	**.818**
h1	.230	**.810**	.250
h2	.195	**.817**	.306
h3	.636	**.569**	.037
h4	.154	**.793**	.273
h5	.135	**.838**	.229
h6	.095	**.841**	.198

Note. Variables aligned with each component are shown in boldface.

ANOVA

Mertler and Vannatta (2010) stated that Levene's test provided a statistical assessment of homogeneity of variances for samples. Levene's test indicated equal variances ($F(3, 85) = 0.18$, $p = .91$) for academic year groups so an ANOVA was deemed an appropriate analysis for this sample. Cronk (2014) described an ANOVA as an analysis to compare means among participant groups and reviewed variance between and within groups. ANOVA was conducted with mean scores significant at $p < .05$ on the dependent variable (self-determination level and three constructs) and independent variable (academic year). An analysis by academic year was not significant ($F(3, 85) = 0.51$, $p = .67$). This result suggests there was no significant difference in self-determination between first year, second year, third year and fourth year or higher with this undergraduate sample. While this result answers one research question, the descriptive statistics suggested there may be differences within the disability type demographics. On the Self-Determination scores, participants with ADHD/ADD and Psychological Disability types ranked lower than the other disability types. Levene's test (Mertler & Vannatta, 2010) indicated equal variances ($F(6, 81) = 0.52$, $p = .79$) for disability type groups so an ANOVA was deemed an appropriate analysis for this sample. One-way between subjects ANOVA was conducted to compare the mean scores among disability type groups with mean scores significant at $p < .05$. For disability types, there was not a significant difference among groups ($F(7, 81) = 1.49$, $p = 0.18$).

When analyzed by constructs, academic year showed no significant difference. For the first component, Capability, analysis revealed no significant difference by year

(F(3, 85) = 0.37, p = 0.78). For the second component, Home, analysis revealed no significant difference by year (F(3, 85) = 0.42, p = 0.74). For the third component, School, analysis revealed no significant difference by year (F(3, 85) = 0.95, p = 0.42).

To see if disability type variables showed a significant difference when analyzed by constructs, one way ANOVA was conducted on each separate construct. Disability showed no significant difference at the p < .05 for the first construct, Capability, (F(7, 81) = 1.15, p = 0.34) and the second construct, Home, (F(7, 81) = 0.91, p = 0.50). However for construct three, School, analysis showed a significant difference at the p < .05 level among disability types (F(7, 81) = 2.20, p = 0.04). Disability type ANOVA results were shown in Table 4.4.

Table 4.4

ANOVA Results for Component School by Disability Type

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.447	7	1.350	2.204	.042
Within Groups	49.596	81	.612		
Total	59.043	88			

Note. From survey demographics, the disability type question contained eight options including ADHD/ADD, Autism (ASD), Blind/Visually Impaired (VI), Deaf/Hard of Hearing (HoH), Learning Disability (LD), MD/TBI, Mobility Disability and Psychological Disability. For post-hoc tests, Mobility Disability was removed from analysis due to fewer than two cases.

To determine what this difference was, Fisher's Least Significant Difference (LSD) post-hoc testing was conducted to compare two means or pairwise comparisons (Salkind, 2010). Mertler and Vannatta (2010) stated post-hoc testing provided multiple or

pairwise comparisons "to compare individual treatments two at a time" (p. 69). I chose to run the LSD test because the size of the demographic disability groups ranged from 1 to 39 participants. Post-hoc testing revealed that MD/TBI had significant differences with ADHD/ADD ($p = 0.007$), Deaf/Hard of Hearing ($p = 0.04$), Learning Disability ($p = 0.04$), Psychological Disability ($p = 0.03$) and Autism ($p = 0.04$). In each case, MD/TBI scored higher in self-determination than these other groups.

Open-ended Questions Survey Findings

For this study, open thematic analysis with descriptive coding was utilized to review and identify key contextual concepts for the first round of coding. Saldana (2013) explained descriptive coding as "a word or short phrase…the basic topic of a passage of qualitative data" (p. 87). An example of descriptive coding for AIR-S survey questions on student goals was to identify key phrases such as "getting all As", "getting good grades", "bumping my grade up a letter", "raise my GPA", improving my GPA" and "getting a 4.0 this semester".

A second round of coding was completed with magnitude coding to apply alphanumeric or symbolic subcodes to the qualitative data. Saldana (2013) described magnitude coding integrated "supplemental alphanumeric or symbolic code or sub-code" to the collected data (p. 72). The application of alphanumeric coding allowed triangulation of data with demographic data and scaled survey responses. An example of magnitude coding for AIR-S survey questions on student goals was grouping similar key phrases and assigning a grouping sub-code that could be used for statistical analysis:

- Subcode 1: Improving Grades

  o "getting all As"

  o "getting good grades"

  o "bumping my grade up a letter"

- Subcode 2: Increasing GPA

  o "raise my GPA"

  o improving my GPA"

  o "getting a 4.0 this semester"

A third and final round of descriptive coding was applied to review commonalities in the magnitude coding and construct major themes from the data. An example of theme construction for AIR-S survey questions on student goals was Subcode 1: Improving Grades and Subcode 2: Increasing GPA were combined into Theme 1: Improving Grades and GPA. Further review and analysis of demographic information provided limited additional insights. To protect the identities of participants in this study as much as possible, the written responses to open-ended questions were listed in a compiled and summarized format.

AIR-S Survey Questions

The AIR-S survey contained three written response questions related to setting a goal and progress toward completing that goal. Out of the 89 participants in the study, 80 participants (n = 80; 90%) wrote responses. These responses were analyzed and coded. From the first question on setting a goal, I compiled six key themes: (a) improving grades

or GPA, (b) future education or jobs, (c) obtaining internships or graduating, (d) finishing projects, (e) increasing study skills and (f) improving personal health.

Improving grades and GPA theme.

From the 80 participants, 24 respondents (n = 24; 30%) set goals related to improving grades or GPA with responses such as "raise my gpa", "getting good grades this semester" and "making a 4.0 this semester". Additionally, 12 of the 24 respondents (n = 12; 50%) reported a GPA of 3.0-4.0.

Respondents self-reported GPA. Four respondents (n = 4; 17%) indicated a GPA of 3.6-4.0. Eight respondents (n = 8; 33%) denoted a GPA of 3.0-3.5. Three respondents (n = 3; 12%) reported a GPA of 2.6-2.9. Five respondents (n = 5; 21%) indicated a GPA of 2.0-2.5. Four respondents (n = 4; 17%) denoted an unknown GPA. Respondents with an unknown GPA were mostly first year undergraduates (n = 3; 12%).

Future education and jobs theme.

From the 80 participants, 17 respondents (n = 17; 21%) stated future goals related to entering graduate school or getting a job with responses like "getting into medical school", "getting into grad school" and "find a full-time job".

Obtaining internships or graduating theme.

From the 80 participants, 12 respondents (n = 12; 15%) noted goals related to obtaining an internship or graduating with comments such as "finishing my degree", "earning my degree" and "finding an internship for the Spring". Additionally, eight (n = 8; 67%) of the 12 respondents selected ADHD/ADD as a disability type.

Finishing a project theme.

From the 80 participants, 11 respondents (n = 11; 14%) listed goals related to developing or finishing a project like "developing my own business plan", "developing a product", "writing a research paper" and "finishing my personal statements and resume".

Increase study skills theme.

Eight respondents (n = 8; 10%) wrote goals on increasing study skills and improving time management such as "try to have better time management", "staying on top of assignments for my various classes", and "creating better study skills".

Improve personal health.

Eight respondents (n = 8; 10%) listed goals related to improving personal health with comments like "losing 20 pounds", "get into a consistent workout routine" and "getting and attending various doctors' appointments in order to get my health issues on track".

Goal Attainment Progress

From the 80 participants, 42 respondents (n = 42; 53%) stated good progress had occurred with comments such as "pretty well so far", "as well as I can" and "almost always achieving the goal". Conversely, 34 respondents (n = 34; 42%) stated some progress but more work was needed like "still getting it together", "don't study for exams as much as I should" and "work in progress…I don't always meet my goals". Four respondents (n = 4; 5%) listed little progress achieved with comments like "not well at all", "not good" and "terrible".

Four Additional Open-ended Questions

Four additional open-ended questions were added to the survey. The additional questions related to experiences talking about disabilities or accommodations, necessary skills for strong self-advocacy and how campus resources could be improved to assist with self-advocacy skills.

Open-ended Question One:

Open-ended question one was: What are some of your experiences talking to faculty about your accommodations and fellow students about your disabilities? From the 89 participants, 81 participants (n = 81; 91%) wrote responses on experiences talking about academic accommodations and disabilities with faculty and friends. A data analysis revealed three key types of experiences including: (a) an expected experience with accommodations, (b) issues talking with faculty and (c) social identity issues talking with friends.

Expected experience theme.

At the research site, an expected experience for students with disabilities included registration for accommodations to receive a written or electronic letter. Then, the student took that letter to the faculty (or email it) for each course and requested to discuss the needed accommodations with each faculty member. A faculty person discussed the accommodations and worked with the student to implement them in class. From the 81 respondents, 42 participants (n = 42; 52%) noted an expected experience talking to faculty about academic accommodations. A few respondents mentioned faculty who were especially helpful. Respondents wrote the following comments:

- "They readily accepted the fact that I needed accommodations and they let me use them when I told them."

- "Professors have gotten to know me better on a personal level, making them more willing to help me succeed."

- "Teachers are very accommodating and understand the accommodation process. This makes it very easy to talk with faculty about the accommodations."

- "Everyone is always very attentive, understanding, respectful, and accommodating."

- "They totally understood and did what they could to help in taking tests and helping understand the info in class."

- "Teachers are very understanding and accommodate me in the best of ways. Empathy from them goes a long way."

Issues talking with faculty theme.

Some respondents expressed a different experience talking with faculty. From the 81 respondents, 21 participants (n = 21; 26%) commented on issues they encountered discussing accommodations with faculty. Respondents noted the following comments:

- "However, the willingness to help and provide additional accommodations varies drastically from teacher to teacher. Some will only offer the very minimum accommodations while others work with me to find what works best."

- "I have gotten a professor that made it seem like a hassle and aren't really helpful. He pretty [much] made me feel like I was on my own."

- "Occasionally a teacher will just completely stay out of it."

- "Some classes are structured in particular ways, say labs or studio art classes, that we don't really know how to find a place for accommodations, and I can see the pain some professors feel to support me even while there's not much they can do to help my experience in class."

- "She made me feel inadequate and emotionally distressed. Sometimes the bad things people say stick with you longer than good things people say to you."

- "A lot of faculty members seem to downplay my needs or act like I faked my way into getting these accommodations."

- "I find it difficult to speak to my professors because they are not always very understanding."

- "…sometimes it can be intimidating because I think they expect a "one-shoe-fits-all" situation if it appears that a student is requesting accommodations that are similar to other students when that's not the case. My disabilities are my disabilities, which means that, just because one student needs extended time and recorded device etc. but they only utilize the extended time on exams doesn't mean that I only need that for my accommodations. If a faculty member brings that up, it makes you feel as though you have to agree because now you're in a position of being put against other students with disabilities, who may or may not have the same disability as you. Therefore, your needs are not going to be the same."

- "I often feel my accommodations are an inconvenience for some of my professors. Even though they are not allowed to ask me why I get certain accommodations, I still feel it necessary to say I have a doctor's note."

- "I have an easy time telling them what my issue is, but not how it affects me in class."

- "It's difficult because you don't know how they're going to react."

- "Getting some to approve testing in the testing center isn't easy and I am supposed to get notes and never have."

Social identity issues talking with friends theme.

From the 81 respondents, 18 participants (n = 18; 22%) described social identity issues discussing disabilities or accommodations with friends. Some participants indicated friends were supportive or surprised with comments such as:

- "When I talk to my fellow students, most of them do not even know that I have a disability so when I mention it to them they are absolutely shocked."

- "My friends don't truly see me as disabled so it is not a big issue."

- "My friends know I have accommodations and they are accepting. They sometimes joke with me about how I have an advantage with them, but the jokes are never meant to be malicious and I know they're not serious."

- "I realized my disability is more common than I thought and that knowing that makes me feel better knowing others have to work harder at certain things too."

- "A couple students are understanding about my disabilities."

- "The students that I have talked are also helpful."

- "Fellow students almost always are compassionate or offer to help in any way they can."

Some participants expressed apprehension about talking with friends or a lack of discussing personal disabilities or accommodations. These respondents wrote the following comments:

- "With my friends, it's kind of embarrassing because some act like I am receiving privileges that they aren't or kind of think it's funny."

- "I don't speak with students about my issues."

- "I do not tell any other students except my close friends about my disability."

- "I do not tell my fellow students about my accommodations unless they ask why I missed a test then I tell them I take them in [the testing center]."

- "I have not talked much with fellow students about my disability, but the few that do know try to understand and help, but only to a certain extent."

- "Most of my fellow classmates don't understand why I have "special accommodations." This is because I have an invisible disability, which is very common, but hard for others to understand."

- "Sometimes I feel that people make assumptions or stereotypes with ADD. ADHD nowadays is very broad term…I feel like they think I may be dumb, or receive unfair help, or not believe in ADD."

- "Most other students see you as being stupid and see you negatively after you share with them your issues."

- "My fellow students tend to be less understanding due to my GPA and general intellect."

- "I find it harder to talk to my peers because they sometimes struggle to grasp a disability that they cannot physically see. Often they don't really believe it or don't understand its severity."

- "Fellow students judge me so hard and think I'm making excuses. Super frustrating."

- "However, I overhear students talking about how they want some Adderrall or wish that they could go to the [testing center], and I don't think that they truly understand and sympathize with how it feels to have a disability."

- "I always feel awkward about discussing my disabilities and accommodations with students because sometimes they feel I have an unfair advantage or that I really don't need the accommodations I have."

- "I am wary about bringing up my disability to fellow students due to the stigma that surrounds it and the general lack of public understanding."

Open-ended Question Two:

Open-ended question two was: How do (or could) campus resources support you to talk about your accommodations or disability rights? From the 89 participants, 70 participants (n = 70; 79%) wrote suggestions to assist students with discussing academic accommodations and disabilities. From the 70 respondents, 43 responses (n = 43; 61%) related to appreciation for current services and continuing services such as academic advising, separate testing facilities and disabilities services while six responses (n = 6; 9%) made suggestions for improving internal campus processes. The remaining 21 responses (n = 21; 30%) conveyed suggestions and improvements to assist students which appeared to have three main themes related to: (a) faculty discussions, (b)

increased public awareness about disabilities and (c) resources such as providing information on disability rights after graduation.

Faculty discussions theme.

From the 21respondents, seven participants (n = 7; 33%) stated the following comments on faculty discussion issues and some suggestions to improve support for students with disabilities:

- "Tell professors to set up specific times for students with disabilities to come meet with them about their accommodations. Faculty are surprisingly difficult to meet with on an individual basis at the beginning of the semester."

- "Letting professors know that they should try to be more understanding."

- "Let faculty know that regardless of how the accommodations seem to be the same, they're not always the same because we all have our own individual disabilities. And in that, when they express how other students only really utilize one of their accommodations request, and not the others, it makes us feel as though we are supposed to and/or expected to do the same, which is unfair."

- "I think that the professors need to be educated about how they treat a student with a disability or with accommodations should not leave their office feeling belittled. Some students, like myself, will wait to make special arrangements because admitting help is like admitting you're not strong enough to do it by yourself. So, for a student to take a step like that, they should not feel belittled or feel threatened, or feel as if they need to justify their needs again to their professor."

- "Better information for instructors about the accommodations offered and how it affects their role as the instructor."

- "A pre-semester discussion about how to approach some teachers about accommodations would be nice."

Increased public awareness about disabilities theme.

From the 21respondents, nine participants (n = 9; 43%) expressed a need for increased public awareness and social understanding of disabilities. Participants explained their feelings on sharing information about personal disabilities:

- "Maybe give us advice on what to tell fellow classmates about where we were during the test on test day."

- "[Freshman orientation course] encourages open discussion about race, gender, and background. I was in a discussion group with someone I have known for years and that was the first time I had heard they needed accommodations just like myself."

- "Maybe do a workshop going about how to talk to people about my disease."

- "Inform people of why people with disabilities get certain rights."

- "I think it would be a positive thing for the campus to drop its ties with Autism Speaks in favor of partnering with an organization that actually seeks to improve the lives of autistic people and foster a greater acceptance of neurodiversity. Some examples of such organizations include ASAN (Autistic Self-Advocacy Network), The Autism National Committee, or Autism Network International."

- "I think if campus was more accepting and aware of all that [accessibility/disability services] had to offer, I wouldn't feel pressure that something was "wrong with me."

- "But also, [this university] is so large and we're bombarded with so much work and messages and activities every day, and I can see how easy it could be to not to take the time to try to understand other points of view; without that general culture shift, the [accessibility/disability services] could have the best advocacy and most enlightening resources on campus and people are still not gonna interact with that outside of those of us who need it."

- "I don't really feel like there is much chance to talk about disability rights on campus. Not really sure how to fix this."

- "Normalize the disability and better information to people that do not have the disability."

Additional resources and disability rights after graduation theme.

From the 21respondents, five participants (n = 5; 24%) suggested additional resources or services which would be helpful. Participants had questions about disability rights in the workforce and transition issues after graduation.

- "I would like to know more of my disability rights moving forward into medical school, jobs, etc. I lack understanding of my rights past college."

- "I wish I know more about job searching and my rights. I feel like I could ask someone in [accessible/disability services] but maybe if there was a career counselor that focused on disabilities and employers and how to navigate that, I think that would be better."

Open-ended Question Three:

Open-ended question three was: What skills do you think you need to be a strong self-advocate and be successful in college? Self-advocacy skills are part of the overarching self-determination concept. Wehmeyer et al. (1997) identified four key characteristics of self-determination which include: (a) autonomous, (b) self-regulated behaviors, (c) psychologically empowered responses and (d) self-realizing actions. From the 89 participants, 78 participants (n = 78; 88%) wrote responses. The self-determination coding and analysis revealed respondents needed the following self-determination characteristic most: psychological empowerment (n = 26; 33%), self-regulated behaviors (n = 21; 27%), mixture of self-determination concepts (n = 21; 27%), self-realizing actions (n = 6; 8%), and autonomous (n = 4; 5%).

Psychological empowerment theme.

From the 78 respondents, 26 participants (n = 26; 33%) needed psychological empowerment and noted that motivation, determination, self-confidence and a sense of social acceptance or belonging were important:

- "motivation"
- "determination"
- "Strong will and determination. Resilience and motivation to never give up."
- "to want more for yourself than the minimum available, the ability to know what you can and will accept in regards to your lifestyle and available means; and the strength to keep plugging through each step until you reach the final goal"
- "Self confidence; Humility; Respect for yourself and others; Ambition"

- "A strong level of perseverance and a feeling or knowledge that I do have the capability of achieving my goals regardless of my disability."

- "I need to be confident in speaking up for myself when I need something or my accommodations are not being met. Also, I need to not be afraid/embarrassed to use my accommodations"

- "Confidence and the ability to be comfortable with your disabilities, as well as practice talking about and working with them."

- "Confidence seems sooo key and I have so little of it!...I know day-to-day everything I'm doing here at school could be improved with a different and stronger belief in my abilities."

- "You have to be aware and confident. You need to be aware of your disability and how it affects your everyday - whether it's classes, studying, getting somewhere on time, etc. You need to know exactly how you are affected but also know that you are capable of changing your behavior. You need to be confident in your abilities as a student and as a person and believe that you can be whoever you want to be and do whatever you want to do."

- "I think you need to believe in your sense of self and be confident. Advocating for yourself is not always easy, but it's vital to be successful in college."

- "Motivation is the biggest one…I realized after all these years, my biggest handicap is not my ADD, it's my brain and the way I see myself and my low self-esteem.

- "Be okay with being the bigger person in a situation."

- "confidence, sense of belonging, and friendship"

- "You need to be confident and be aware that people might give you negative attention"

- "Support from friends and family"

- "Having a teacher realize I work hard"

- "Honestly, I don't know. I believe I do a decent enough job. Sometimes however, I do get intimidated by a person who is in a position of power over me. That happens when I don't know how to explain to them what I'm thinking - specifically in person. I'm great via email, but in person, I shut down. I stutter and get really nervous."

- "I might need to improve my social skills (or at least my imitation of voice inflection) increase my self-confidence, and reduce my fear of speaking up when someone does something I dislike."

- "You need to know that with a school this big that there are bound to be people that feel the same way you feel towards things (i.e. test anxiety). The skill of understanding that despite what you might think there are a lot of people that have figured out how to deal with these extra factors and still succeed in life."

Self-regulating behavior theme.

From the 78 respondents, 21 participants (n = 21; 27%) focused on self-regulating behavior characteristics and highlighted communication skills, time management skills and study skills:

- "Good communication skills"

- "The ability for me to verbally communicate my ideas and difficulties."

- "Communication, work ethic"

- "Public speaking, good eye contact, good studying skills"

- "Having good communication skills and being persistent"

- "Diligence"

- "More decisive"

- "good time management, strong writing skills"

- "Studying privately and effectively"

- "Being organized and prepared"

- "Patience, more time"

- "I need skills like organization, responsibility and time management."

- "Time management, hard working, great study skill/ habits, and experience."

- "Time management. Without it, it doesn't matter how smart you are if you don't make time to learn."

- "More real world skills... Like how to interview. Less procrastinating with more direction."

- "Strong study skills and self motivation to start work earlier."

- "You have to be organized, know how to balance your time and be self motivating."

- "Better study habits"

Mixture of self-determination concepts theme.

From the 78 respondents, 21 participants (n = 21; 27%) suggested a mixture of self-determination concepts were necessary and reflected on multiple aspects such as confidence and passion (psychological empowerment), organization (self-regulated

behavior), self or disability awareness (autonomous) and leadership skills or seeking assistance (self-realizing actions):

- " Determination, passion, organization."

- "Organization and personality"

- "A very strong passion to succeed. You must also be able to fight off procrastination or it will eat you alive. Also, a strong studier."

- "I think you need to be organized, good with time management, the ability to adapt to the situations around you, good planning skills, the ability to understand when to play and when to study. Another big thing is the motivation to achieve your goals and be able to make friends to support you."

- "Confidence in oneself, an understanding how my behaviors affect my academic and social life, and strong motivation to complete tasks despite my natural work and social tendencies."

- "You need confidence, organization, intelligence, and people skills. You have to know how to talk to people and be confident enough to ask for help when you need it or stand up for something you think isn't fair."

- "Self Confidence. Comparing yourself to others only leads to a downfall. Have confidence in your work and be able to accept yourself with pride."

- "The ability to communicate effectively, respect the needs of the person I am requesting accommodation from, be honest with myself when I need help, and stay on top of responsibilities."

- "Being a leader. Time management. Better note taking. More confidence public speaking."

- "Leadership skills have helped me a lot!"

- "Allowing others who want to help, to help; realizing that you have to look out for yourself, because at the end of the day you are for sure going to have your own back"

- "I think you have to learn to stand up for yourself and really know when you need help."

- "Confidence in my confrontational skills and being better about seeking help when I need it."

- "Be willing to stand up for yourself and what you need in order to succeed"

- "Self determination to see yourself improve and get better. Humility because many people are afraid to admit they need help/assistance."

- "Good self awareness and positive self image"

- "Understanding your personal disability and the services available to you are key…You must advocate for yourself, because you can't always rely on others to advocate for you. You must have GOOD communication skills, dedication, and resourcefulness."

Additional demographic analysis and insights.

Demographics analysis by GPA (shown in Table 4.5) and academic year status (shown in Table 4.6) revealed additional information on the self-determination characteristics themes for the 78 participants who responded. Self-regulating behavior skills were ranked highest by 5 respondents (n = 5; 6%) with an unknown GPA. For

aspects of psychological empowerment, respondents with GPA 0-2.9 (n = 8; 10%) and

GPA 3.6-4.0 (n = 8; 10%) ranked highest. For GPA 3.0-3.5, 12 respondents (n = 12;

15%) ranked highest a mixture of self-determination elements. Autonomous and self-

realizing were rated lower by the respondents.

Table 4.5

GPA Breakdown of Self-Determination Responses

GPA =	Autonomous	Self-Regulating	Psychological Empowerment	Self-Realizing	Mixed	Total
Unknown	n=2	**n=5**	n=3	n=0	n=1	n=11
0 - 2.9	n=2	n=4	**n=8**	n= 4	n=1	n=19
3.0 - 3.5	n=0	n=9	n=7	n=1	**n=12**	n=29
3.6 - 4.0	n=0	n=3	**n=8**	n=1	n=7	n=19
Total	n=4	n=21	n=26	n=6	n=21	n=78

Note. Highest participant number for each GPA is shown in boldface.

Table 4.6

Year Status Breakdown of Self-Determination Responses

Year Status	Autonomous	Self-Regulating	Psychological Empowerment	Self-Realizing	Mixed	Total
First	n=2	**n=6**	n=3	n=0	n=3	n=14
Second	n=0	n=4	**n=7**	n=1	n=4	n=16
Third	n=1	n=6	**n=7**	n=1	n=6	n=21
Fourth	n=1	n=5	**n=9**	n=4	n=8	n=27
Total	n=4	n=21	n=26	n=6	n=21	n=78

Note. Highest participant number for each year is shown in boldface.

Academic year status analysis of the demographics (shown in Table 4.6) provided

further insights. From the 78 respondents, six first year participants (n = 6; 8%) ranked

highest self-regulating behaviors. Psychological empowerment was rated highest by

seven second year participants (n = 7; 9%), seven third year participants (n = 7; 9%) and nine fourth year or higher participants (n = 9; 12%). Autonomous, self-realizing and a mixture of self-determination elements were ranked lower by participants in all academic years.

Open-ended Question Four:

Open-ended question four was: How do (or could) campus support or resources assist you to master those skills you mentioned? From the 89 participants, 71 participants (n = 71; 80%) wrote responses. From the 71respondents, 13 participants (n = 13; 18%) had no suggestions but 50 participants (n = 50; 71%) suggested continuing current campus services. Conversely, eight respondents (n = 8; 11%) suggested additional personal support from campus services and friends:

- "Most I believe are borne internally but the campus can support those by supporting me, as a person and not just a student. This is achieved by most faculty and staff I have encountered. None really ask about disability related topics which I do like."

- "Just being there when I need them"

- "Provide support when needed."

- "By allowing student many opportunities to grow"

- "I've always been told my disability won't hold me back from my future."

- "…really it was knowing other people on a personal level who had talked with people at [health services] and [disability services] that made me feel comfortable knowing that if they had helped them they could help me."

Campus services and public awareness.

From the 71 respondents, 50 participants (n = 50; 71%) suggested continuing current campus services and increased public awareness of disabilities. Campus services included student success resources, academic advising assistance (including tutoring and study skills workshops), accessibility or disability services (register for accommodations), personal health resources and counseling services. From the 50 respondents, 27 participants (n = 27; 54%) utilized student success resources and academic advising, 13 participants (n = 13; 26%) reported using accessibility and disability services, and six participants (n = 6; 12%) wanted health services and counseling available. The remaining four respondents (n = 4; 8%) suggested increased public awareness on campus would be helpful:

- "I think if someone from [disability services] came and talked to our classes freshmen year that would be helpful in knowing what all exactly they have to offer."

- "Maybe educating the housing services (RAs) about different things like tutoring and health services."

- "Help the process by normalizing disabilities and helping others understand the difficulty."

- "Publish a centralized list or webpage with resources we do have but someone may not know. Tell teachers and advisers about all of the resources or where students can find more help that they may not even know about."

Summary

In summary, this chapter presented the survey data and findings for this study. Descriptive statistics, analysis of variance (ANOVA) and factor analysis were stated. Further statistical evidence supported the AIR-S survey was reliable and validity results were shown for higher education students with disabilities. ANOVA was conducted on the demographic variable academic year and no significant difference was found. Therefore, there is no difference in self-determination by academic year (RQ1).

Open-ended questions data analysis revealed several key themes. Students with disabilities in higher education noted important goals included improving grades or GPA, future plans to enter graduate school or get a job and obtain an internship or degree. Respondents appeared to highly value and utilize informal tutoring assistance with friends, family or off-campus resources. Participants ranked meeting with faculty and library campus resources next on the list of useful campus resources. All three resources were more utilized than formalized tutoring sessions, paper writing assistance, student success workshops and assistive technologies.

Some students encountered issues talking with faculty about accommodations and expressed concerns with social stigma when discussing disabilities with peers. Some participants provided suggestions to improve faculty interactions and increase public awareness were listed. Participants also commented on self-advocacy skills needed in higher education. Most of the respondents noted self-determination skills related to self-regulated behavior, psychological empowerment and a mixture of skills were essential for college success. Demographics by year and GPA added additional information on the

self-determination skills required by students with disabilities in higher education. Most respondents recommended continued campus services to support self-determination skills along with a few suggestions to improve public awareness of disabilities on campus. In the next chapter, discussion on the findings is presented along with educational implications and further research suggestions.

CHAPTER FIVE

DISCUSSION

In this chapter, survey findings and two research questions are discussed through a critical disability theory lens. The research questions are:

- RQ1: Do self-determination levels change across academic years (1st, 2nd, 3rd, 4th or higher year) for undergraduate students with disabilities?

- RQ2: What factors do higher education undergraduate students with disabilities report as impacting their self-advocacy competency?

Survey findings are presenting mixed data. While 89% of respondents (n = 79) utilize accommodations in courses, 26% of respondents (n = 21) express issues talking with faculty about academic accommodations. A total of 44% of participants (n = 39) utilize informal tutoring weekly. Meanwhile, 35% of participants (n = 31) never use formal tutoring services. In this study, demographic variables are incorporated into the data analysis to understand social interconnections in higher education for students with disabilities.

Critical disability theory provides a lens to review the mixed survey findings, analyze the social implications of current higher education practices, and guide equitable improvements to disability services. Meekosha and Shuttleworth (2009) stated critical disability theory should be used to examine prospective improvements for social, political and economic equity in the future. Additionally, educational implications (through a critical disability theory lens) and future research suggestions are discussed in this chapter.

Discussion

Self-determination Competency Issues

Field, Sarver, and Shaw (2003) stated students with learning disabilities who had stronger self-determination levels obtained higher grades and GPA scores which could improve chances of program of study completion, graduation and degree obtainment. Wehmeyer and Palmer (2003) described higher levels of self-determination can provide positive benefits to students with disabilities such as employment and increased independence. The AIR-S survey was administered to a sample of higher education students with disabilities to determine self-determination levels. From the 89 participants, 33% of respondents (n = 29) scored 83 points or lower (79%). Further analysis of 80 student responses indicated 30% of respondents (n = 24) set goals to improve grades or GPA, 21% of respondents (n = 17) set goals to pursue employment or enter graduate school and 10% of respondents (n = 8) wanted to increase study skills and improve time management. ANOVA results for self-determination indicated no significant difference among first year, second year, third year and fourth year or higher undergraduates which answered the first research question (RQ1) but further analysis of the data provided insights into self-determination aspects that impacted higher education students with disabilities.

Wehmeyer et al. (1997) identified four key self-determination elements including autonomous, self-regulated behaviors, psychological empowerment and self-realizing actions. Additional demographic analysis of 78 student responses indicated 8% of first year undergraduates needed self-regulating skills while 9% second year (n = 7), 9% third

81

year (n = 7) and 12% fourth year or higher (n = 9) struggled with psychological empowerment. Autonomous and self-realizing characteristics ranked lower with all academic years.

The study results indicated students with disabilities were not increasing self-determination levels through the undergraduate years with current campus resources and disability services for this research site. If students worked toward strong self-determination levels, 12% of respondents (n = 11) in the fourth or higher undergraduate year with scores below 84 points (79%) on the AIR-S survey would not exist in this study. Therefore, current campus and disability services for this research location were not assisting students with disabilities to increase low self-determination levels. Study results also suggested students with disabilities still struggled with self-regulating behaviors and psychological empowerment but may not master them in college and develop self-realizing attributes.

From a critical disability theory lens, social and economic equity in higher education required campus and accessibility services to ensure all students with disabilities had strong self-determination and mastered characteristics in all four self-determination elements so the students were supported and prepared to achieve their educational and career goals.

Self-advocacy Skills Factors

Self-advocacy was an essential element of self-determined behavior. Test et al. (2005) identified self-advocacy aspects included knowledge of self and personal rights, communication of rights, and leadership skills. The second research question (RQ2)

asked what factors impacted self-advocacy competency for higher education undergraduate students. Survey findings indicated participants experienced issues talking about accommodations with faculty, expressed social identity concerns with peers, and requested additional support for transition into jobs after graduation.

Kim and Lee (2015) stated students had to self-disclose a disability to initiate disability support in postsecondary education. Bolt et al. (2011) addressed more students utilized accommodations in college. Marshak et al. (2010) stated students with disabilities had identity and social stigma concerns when requesting accommodations. Skinner (2007) described faculty expressed mixed willingness to support students with accommodations. From 81 survey respondents, 26% of participants (n = 21) experienced unwillingness by faculty to support accommodations. Additionally, 22% of participants (n = 18) expressed mixed results talking about disabilities with some support from friends and a lack of discussion with other students. From 70 respondents, 30% of participants (n = 21) provided disability support improvements. Further analysis suggested 33% of respondents (n = 7) required faculty support for accommodations and students with disabilities while 24% of respondents (n = 5) requested additional campus resources to explain workforce disability rights after graduation and disability guided career counseling services. The remaining 43% of respondents (n = 9) expressed a need for increased public awareness and social support of disabilities.

The study findings suggested students with disabilities had mixed experiences with campus resources for accommodations and disabilities support which required strong self-advocacy skills. From a critical disability theory lens, all students with

disabilities deserved social and economic support services to be successful in educational endeavors. Disability support did not reside within one or two departments in a university. Accessibility initiatives and disability awareness extended across the entire academic institution with support from administrators, faculty, staff and students.

Education Implications

Three key educational implications are suggested from this study including: self-determination competency support, disability service improvements and increased public awareness of disabilities.

Self-determination Competency Support

More continuity and collaboration between K-12 transition services and postsecondary student support services is required. Students who have not mastered self-determination aspects and other skills to be successful in higher education should be provided with continued and specific support services. Higher education administrators, academic success staff as well as disability support staff need to consider ways to review self-determination levels in higher education students with disabilities. Then, collaboration among campus services should provide support and training to students to improve low self-determination levels and develop strong self-advocacy skills for academic accommodations and learning needs.

Disability Service Improvements

University administrators and accessibility support staff should review faculty training information on disability services and academic accommodations support. University administrators should also require accessible curriculum materials in courses

and regularly review academic courses for incorporation of universal design pedagogy. Communication opportunities and events to share this important information should be reviewed annually. New faculty orientations and faculty handbooks should include disability rights related to academic support information and campus resources available to support students with disabilities. This information should also be posted on campus websites and in each course syllabus. Disability services should work with other student support services (mental health services, tutoring, advising, career counseling, and student organizations) to provide a social and academic support network for students with disabilities. If students require strong self-determination and self-advocacy skills to be successful in academic endeavors, universities must provide supportive environments and resources for students with disabilities to increase competency.

Increased Public Awareness of Disabilities

Career counseling must collaborate with disability support services to inform students on disability rights in the work force after degree completion. Career counseling and internship coordinators should work with disability support services to provide disabilities awareness to potential employers and encourage increased placement opportunities for students with disabilities.

Campus organization leaders should work with university administrators and disability support services to encourage public awareness of disability rights and diverse representation within campus organization groups. Universities have a wealth of knowledge and resources to share beyond the campus environment. Outreach activities and public awareness events into the surrounding community and state conferences are

essential to increase public awareness of disabilities and encourage students with disabilities to achieve educational and career goals.

Limitations

This study contained limitations including: low response rate, limited sample diversity and a need for improved generalizability.

Improve Generalizability

For this study, low diversity was reported with the majority of participants representing Caucasian females. Additionally, a low response rate (9.34%) from the total population and one research site created limited generalizability for the findings. From the factor analysis, statistical results calculated a total variance below 70%. This study should be repeated with a larger sample size and more than one institution to increase generalizability, inform diversity findings and retest validity on the AIR-S survey with higher education students with disabilities.

Survey Design Issue

A survey design revision is necessary for more accurate demographic analysis. In the demographics questions, type of disability is one question which creates problems in this study with statistical number conversion. To repeat this study, I would recommend making one question into two similar questions. The first type of disability question would ask participants to note their primary disability for academic accommodations support. This response would be utilized for statistical analysis. For the second question, participants could list any other known disabilities to inform descriptive statistics. Two

disability type questions would make the statistical number conversion easier and allow participants to choose their primary disability which requires academic accommodations.

Future Research Suggestions

Three areas of future research are suggested from this study: (a) methods to develop self-determination, (b) educational social networks, and (c) a better understanding of the interrelationships among self-determination, demographics and campus resources for students with disabilities.

Self-determination Development

From the 89 participants in this study, 33% of respondents (n = 29) scored 83 points or lower (79%) on self-determination. Additional research on methods to increase self-determination in higher education students with disabilities is necessary to assist students in educational and career goal achievement.

Self-determination, Campus Resources Usage and Demographics Relationships

Survey findings suggest participants with higher self-determination scores utilized a wider range of campus resources. Statistical results indicate that students with Medical Disabilities/Traumatic Brain Injury disability (MD/TBI) types appear to be more aware of campus and disability services. The relationship among self-determination scores, campus resources usage and demographics is recommended to further understand individuals with disabilities perceptions and potential academic support needs in higher education.

Educational Social Networks

Survey findings indicated that students utilized informal (friends and family) tutoring resources the most. Getzel and Thoma (2008) described students with disabilities identified additional vital college skills including: utilizing academic success services, habitual communication with professors, and cultivating support and social networks. From 89 survey respondents, campus resources usage was analyzed. While 44% of respondents (n = 39) utilized informal tutoring weekly, 35% of respondents (n = 31) never used formal tutoring resources. Additionally, 33% of respondents (n = 29) met with faculty weekly but 52% of respondents never used student success workshops (n = 46). While 28% of respondents (n = 25) utilized library resources weekly, 67% of respondents (n = 60) never accessed paper writing assistance. Social networking for academic learning should be studied further to discover reasons why students with disabilities select informal learning networks over formal campus resources.

Conclusion

With a critical disability theory lens, this chapter answered two research questions related to self-determination levels in higher education students with disabilities and necessary self-advocacy skills for college. Discussion on the data findings for both questions was presented. Educational implications were explored. Research limitations were listed. Further research suggestions focused on social learning networks, methods to develop self-determination, and identification of interconnections among self-determination, campus resources usage and students with disabilities demographic factors.

Federal disability laws required students with disabilities be provided with transitional services which incorporated self-determination and self-advocacy skills development from K-12 into postsecondary education institutions. However, a review of current research literature suggested transitional services were not administered in the same manner in K-12 schools. Students with disabilities were not entering postsecondary institutions with the self-determination skills needed to be successful. This research study also provided mixed findings. Survey respondents received self-determination scores between 59-120 on the AIR-S self-determination scale of 0-120. While no participant ranked very low on the scale, this statistic indicated a range of self-determinations levels in higher education students with disabilities. Furthermore, participants in this research study expressed some barriers that existed to receiving academic accommodations and self-advocating for personal disability rights. Those barriers included talking with faculty about accommodations and social stigma concerns related to having a disability. A general lack of public awareness of disabilities and limited support for individuals with disabilities was also noted by participants in this study.

Critical disability theory encourages continued identification of social and economic barriers to educational access for individuals with disabilities. Educational support and resources to support high self-determination, strong self-advocacy skills and public awareness of disability rights are essential to breaking down on-going social and economic barriers while empowering individuals with disabilities. Research studies focusing on higher education students with disabilities perceptions and experiences with educational accessibility are vital to improving teaching pedagogy and learning

environments. More study findings contributing to disability support best practices are integral to improving educational accessibility standards and informing future higher education policies.

APPENDICES

Appendix A

IRB Approval

From: Nalinee Patin
Sent: Tuesday, July 12, 2016 12:14 PM
To: Pamela Havice <HAVICE@clemson.edu>
Cc: Jennifer Lynne Raasch <jraasch@clemson.edu>
Subject: IRB2016-200 Approval: Self-Determination in Higher Education Students with Disabilities

Dear Dr. Havice,

The Clemson University Institutional Review Board (IRB) reviewed the protocol identified above using expedited review procedures and has recommended approval. **Your approval period is July 11, 2016 to July 10, 2017.**

Your continuing review is scheduled for June 2017. Please notify the office if your study has been terminated or completed before the identified review date.

No change in this approved research protocol can be initiated without the IRB's approval. This includes any proposed revisions or amendments to the protocol or consent form. Any unanticipated problems involving risk to subjects, complications, and/or adverse events must be reported to the Office of Research Compliance immediately. All team members are required to review the IRB policies on "Responsibilities of Principal Investigators" and the "Responsibilities of Research Team Members" available at http://www.clemson.edu/research/compliance/irb/regulations.html.

The Clemson University IRB is committed to facilitating ethical research and protecting the rights of human subjects. Please contact us if you have any questions and use the IRB number and title when referencing the study in future correspondence.

Sincerely,

Nalinee

Nalinee D. Patin, CIP

IRB Administrator

Clemson University

Office of Research Compliance

Institutional Review Board (IRB)

223 Brackett Hall

Voice: (864) 656-0636

Fax: (864) 656-4475

E-mail: npatin@clemson.edu

Web site: http://www.clemson.edu/research/compliance/irb/

IRB E-mail: irb@clemson.edu (send all new requests to IRB inbox)

This message and any attachments contain information which may be confidential and privileged. Unless you are the addressee (or authorized to receive for the addressee), you may not use, copy or disclose to anyone the message or any information contained in the message. If you have received the message in error, please advise the sender by reply e-mail and delete the message.

Appendix B

Web-based Survey (AIR-S, Student Form)

Page 1: Informed Consent Information

Study Requirements:

- Must be 18 years of age or older

- Enrolling in Clemson courses for 2016-17 academic year

- Registered with Student Disability Services (changing name to Student

  Accessibility Services)

Estimated Time: This survey should take about 20 minutes to complete.

Incentives: If you submit a survey, you will have the option to enter a drawing for a $20 gift card for Amazon, Wal-mart or a local fast food restaurant.

Study Title: Self-determination in Higher Education Students with Disabilities: A Case Study

Study Purpose: The purpose of this research is to review and provide further insights into self-determination aspects and self-advocacy development in higher education students with disabilities.

Your part in the study will be to complete a short online survey It will take you about 15 minutes to be in this study. Also, if you would be willing, we would like you to participate in a follow-up interview to elaborate on common ideas and themes compiled from the written responses.

Researchers: Dr. Pamela A. Havice, Clemson Professor, and Jennifer Raasch, Ph.D. Candidate, are running this study through the College of Education.

Risks and Discomforts: We anticipate minimal risks or discomforts to you in this research study. However, there is the possibility for certain risks or discomforts that you might encounter if you take part in this research. There is a possibility for loss of confidential information but we have minimized this risk by limiting access to collected survey data to the listed researchers and collected data will be stored on a secure electronic storage device with password protection.

Possible Benefits: The answers provided in this survey will explain the current self-determination levels in students with disabilities and current campus resources used. We hope to develop some additional campus resource suggestions to assist students with disabilities to be successful in college.

Protection of Privacy and Confidentiality: We will do everything we can to protect your privacy and confidentiality. We will not tell anybody outside of the research team that you were in this study or what information we collected about you in particular. You will not be identified in any publication or presentation that may result from this study. Data will be stored on a protected server. The researchers will use a password protected login to access the survey and data recorded in it. Data will be reported in aggregate so no identifying information will be associated with your responses. Contact information data for the $20 gift card drawing will be stored separately from the survey responses on a secure electronic storage device with password protection. Some general information will be shared with Student Accessibility Services staff including the study purpose, benefits, advertisement to students to participate in this study and aggregate results from the study. Your current assistance through Student Accessibility Services will not be affected by this study. We might be required to share information we collect from you with the Clemson University Office of Research Compliance and the federal Office for Human Research Protections. If this happens, the information would only be used to find out if we ran this study properly and protected your rights in the study.

Choosing to Be in the Study: You do not have to be in this study. You may choose not to take part and you may choose to stop taking part at any time. No questions require a response to move forward in the survey. You can skip questions and not respond at any time during the survey. You will not be punished in any way if you decide not to complete survey questions and not be in the study or to stop taking part in the study. If you choose to stop taking part in this study, the information you have already provided will be used in a confidential manner.

Contact Information:

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Pamela A. Havice at Clemson University at 864-656-5121. If you have technical issues with the survey, you can email Jennifer Raasch (jraasch@g.clemson.edu) for assistance.

If you have any questions or concerns about your rights in this research study, please contact the Clemson University Office of Research Compliance (ORC) at 864-656-0636 or irb@clemson.edu.

Oral Response Option: If you would prefer to have the survey information read to you by phone and respond orally to the survey questions, please contact the researchers for additional assistance.

Page 2: Meet Requirements

Do you meet all the study requirements?

Study Requirements:

- Must be 18 years of age or older

- Enrolling in Clemson courses for 2016-17 academic year

- Registered with Student Disability Services (changing name to Student

    Accessibility Services)

Answer: Yes or No (No-sends participants to a page that states: Thank you for being

willing to participate but you are not eligible for this research study.)

Page 3: AIR Self-Determination Scale, Student Form

Reminder:

No questions require a response to move forward in the survey. You can skip questions and not respond at any time during the survey. You will not be punished in any way if you decide not to complete survey questions and not be in the study or to stop taking part in the study.

Answers for questions:

The 5-value answer scale consists of: Never, Almost Never, Sometimes, Almost Always

and Always.

Instructions for answering the questions:

Please answer these questions about how you go about getting what you want or need.

This may occur at school, or after school, or it could be related to your friends, your

family, or a job or hobby you have.

Things I Do Questions:

1. I know what I need, what I like, and what I'm good at. (a1)

2. I set goals to get what I want or need. I think about what I am good at when I do this. (a2)

3. I figure out how to meet my goals. I make plans and decide what I should do. (a3)

4. I begin working on my plans to meet my goals as soon as possible. (a4)

5. I check how I'm doing when I'm working on my plan. If I need to, I ask others what they think of how I'm doing. (a5)

6. If my plan doesn't work, I try another one to meet my goals. (a6)

How I Feel Questions:

1. I feel good about what I like, what I want, and what I need to do. (p1)

2. I believe that I can set goals to get what I want. (p2)

3. I like to make plans to meet my goals. (p3)

4. I like to begin working on my plans right away. (p4)

5. I like to check on how well I'm doing in meeting my goals. (p5)

6. I am willing to try another way if it helps me to meet my goals. (p6)

What Happens at School Questions:

1. People at school listen to me when I talk about what I want, what I need, or what I'm good at. (s1)

2. People at school let me know that I can set my own goals to get what I want or need. (s2)

3. At school, I have learned how to make plans to meet my goals and to feel good about them. (s3)

4. People at school encourage me to start working on my plans right away. (s4)

5. I have someone at school who can tell me if I am meeting my goals. (s5)

6. People at school understand when I have to change my plan to meet my goals. They offer advice and encourage me when I'm doing this. (s6)

What Happens at Home Questions:

1. People at home listen to me when I talk about what I want, what I need, or what I'm good at. (h1)

2. People at home let me know that I can set my own goals to get what I want or need. (h2)

3. At home, I have learned how to make plans to meet my goals and to feel good about them. (h3)

4. People at home encourage me to start working on my plans right away. (h4)

5. I have someone at home who can tell me if I am meeting my goals. (h5)

6. People at home understand when I have to change my plan to meet my goals. They offer advice and encourage me when I'm doing this. (h6)

Short-answer Questions:

1. Give an example of a goal you are working on:

2. What are you doing to reach this goal?

3. How well are you doing in reaching this goal?

Page 4: Campus Resources Questions:

Researchers say students need be become their own self-advocates as they transition to adulthood and more independent living in college. According to research literature, strong self-advocacy skills can aid students with disabilities to talk about their accommodations and utilize campus resources to be successful. I am interested in what students say help them to be a self-advocate and successful in college.

1. How often have you utilized the below campus academic resources in the past year: (Answer scale includes: Never, Rarely, Monthly, Weekly & Daily)

    a. Library Resources

    b. Tutoring (formal sessions offered by Academic Success Center)

    c. Tutoring/Studying (informal with friends or family)

    d. Academic Success Center Workshops (such as time management, note-taking, study tips, etc.)

    e. Writing Center

    f. Meet with faculty/instructor

    g. Assistive technologies

    h. Others not mentioned (write in box)

2. Are you a current member (or past member) of a student government or organization group on campus?

    a. Yes

    b. No

3. Have you requested academic accommodations for college courses?

    a. Yes

    b. No

4. Have you utilized accommodations for course work?

    a. Yes

    b. No

5. Have you talked with faculty about academic accommodations?

    a. Yes

    b. No

6. What are some of your experiences talking to faculty about your accommodations and fellow students about your disabilities? (*Long Answer Response Text Box*)

7. How do (or could) campus resources support you to talk about your accommodations or disability rights? (*Long Answer Response Text Box*)

8. What skills do you think you need to be a strong self-advocate and be successful in college? (*Long Answer Response Text Box*)

9. How do (or could) campus support or resources assist you to master those skills you mentioned? (*Long Answer Response Text Box*)

10. Additional Comments (*optional*): If you would like to add additional comments about other important resources that help you to be successful in college (or resources you would like to have), please add them here. (*Long Answer Response Text Box*)

Page 5: Demographic Questions

1. Your age is:

   a. 18-19

   b. 20-21

   c. 22-23

   d. 24-25

   e. 26-27

   f. 28-29

   g. 30 or older

2. Are you a full-time or part-time student?

   a. Full-time

   b. Part-time

   c. I am not sure.

   d. I am not currently enrolled in classes for fall semester 2016.

3. Your academic year based on accumulated credits is:

   a. First Year Undergraduate Student

   b. Second Year Undergraduate Student

   c. Third Year Undergraduate Student

   d. Fourth (or higher) Year Undergraduate Student

   e. Unknown

4. What is your current GPA?

   a. 0 - 1.9

b. 2.0 - 2.5

c. 2.6 - 2.9

d. 3.0 - 3.5

e. 3.6 - 4.0

f. Unknown

5. What is the nature of your disability? (check all that apply)

a. ADHD/ADD

b. Autism Spectrum Disorder

c. Blind/Visual Impairment

d. Deaf/Hard of Hearing

e. Learning Disability

f. Medical Disability/Traumatic Brain Injury

g. Mobility Impairment

h. Psychological Disability

i. Other (write in box)

j. Unsure if I have a disability or what it is.

k. I do not have a disability.

6. Your race/ethnicity identity is:

a. African American

b. Asian

c. Caucasian

d. Latino/a

    e. Mediteranean/Middle Eastern

    f. Mixed Race

    g. Native American

    h. Pacific Islander

    i. Unknown/Do not wish to disclose

7. Your gender identity is:

    a. Female

    b. Male

    c. Transgender/Other gender identity

    d. Do not wish to disclose

Page 5: Thank You & Optional Information

Thank you for completing this survey and assisting with this research study! We greatly appreciate your time and effort to assist us with our research!

Optional:

1) **Register for $20 Gift Card Drawing**
   - If you would like to provide contact information to register for the $20 gift card, click on the link below.
2) **Provide contact information for a follow-up interview**
   - If you would be willing to participate in a follow-up interview to elaborate on common ideas and themes compiled from the written responses, click on the link below.

Register for Drawing (or Follow-up Interview) Link: (*add link here*)

Confidentiality: Your contact information for the drawing (and follow-up interview) will

be stored separately from your survey responses on a secure server with password

protection to the data.

<p style="text-align:center"><u>Gift Card Drawing Registration Survey</u></p>

<u>Page 1: Registration</u>

Optional: Register for $20 Gift Card Drawing

Thank you again for assisting with our research study!

Study Title: Self-determination in Higher Education Students with Disabilities: A Case Study

Gift Card Drawing Registration:

If you would like to provide contact information to register for the $20 gift card from a local restaurant, Wal-mart or Amazon, please provide a first name (or nickname) and phone number or email address where you can be contacted if you win.

<u>Drawing Guidelines</u>: If you win a gift card, you will have 2 weeks to respond to a phone call or email. A second attempt will be made to contact you and 1 additional week allowed to respond. If we have not received a response after 3 weeks, a new winner will be drawn to receive the gift card. Gift cards will be available for pick-up at the main office unless other arrangements are made for delivery.

Your Contact Information (*if you win a gift card*):

First Name (or preferred nickname): (*short answer box provided*)

Preferred Phone Number (include area code) or Email Address for Notification: (*short answer box provided*)

<u>Additional Information for Follow-up Phone Interview:</u>

All data and response collection is anticipated to be completed in Fall 2016 semester.

May I contact you again with additional questions or for further elaboration on compiled

themes based on the compiled responses from this survey? (Answers: Yes or No)

First Name (or preferred nickname): (*short answer box provided*)

Preferred Phone Number (include area code): (*short answer box provided*)

Page 2: Thank You

Thank you for your drawing entry (and/or follow-up interview contact information).

It has been submitted and received.

Have a good day!

Appendix C

Participant Advertisement for Study

Looking for Students with Disabilities to Participate in a Research Study

Enter $20 Gift Card Drawing after Submitting a 20 Minute Survey!

More Information & Online Link to Participate: (add web link)

Study Requirements:

- Must be 18 years of age or older
- Enrolling in <u>undergraduate</u> courses for 2016-17 academic year
- Registered with disability services

Study Title: Self-determination in Higher Education Students with Disabilities: A Case Study

Study Purpose: The purpose of this research is to review and provide further insights into self-determination aspects and self-advocacy development in higher education students with disabilities.

Possible Benefits: The answers provided in this survey will explain the current self-determination levels in students with disabilities and current campus resources used. We hope to develop some additional campus resource suggestions to assist students with disabilities to be successful in college.

Researchers: Dr. Pamela A. Havice, Clemson Professor, and Jennifer Raasch, Ph.D. Candidate, are running this study through the College of Education. If you have technical issues with the survey, you can email Jennifer Raasch (jraasch@g.clemson.edu) for assistance.

Oral Response Option: If you would prefer to have this survey read to you by phone and respond orally to the survey, please contact Jennifer Raasch (jraasch@g.clemson.edu) for additional assistance.

Optional: You will have the option to participate in a follow-up phone interview. This interview would be utilized to elaborate on themes or answer additional questions discovered from the aggregate survey results. If you choose to participate in a follow-up phone interview, an additional $20 gift card drawing will be offered.

Participant Email for Study

Dear Student,

Jennifer Raasch is a GA working to complete her dissertation as a requirement for a Ph.D. in Educational Leadership. As part of her dissertation, she is looking for students registered with disabilities to participate in a research study. More information is listed below on this study if you are interested in participating.

Thanks!

Looking for Students with Disabilities to Participate in a Research Study

Enter $20 Gift Card Drawing after Submitting a 20 Minute Survey!

More Information & Online Link to Participate: (add web link)

Study Requirements:

- Must be 18 years of age or older
- Enrolling in <u>undergraduate</u> courses for 2016-17 academic year
- Registered with disability services

Study Title: Self-determination in Higher Education Students with Disabilities: A Case Study

Study Purpose: The purpose of this research is to review and provide further insights into self-determination aspects and self-advocacy development in higher education students with disabilities.

Possible Benefits: The answers provided in this survey will explain the current self-determination levels in students with disabilities and current campus resources used. We hope to develop some additional campus resource suggestions to assist students with disabilities to be successful in college.

Researchers: Dr. Pamela A. Havice, Clemson Professor, and Jennifer Raasch, Ph.D. Candidate, are running this study through the College of Education. If you have technical issues with the survey, you can email Jennifer Raasch (jraasch@g.clemson.edu) for assistance.

Oral Response Option: If you would prefer to have this survey read to you by phone and respond orally to the survey, please contact Jennifer Raasch (jraasch@g.clemson.edu) for additional assistance.

Optional: You will have the option to participate in a follow-up phone interview. This interview would be utilized to elaborate on themes or answer additional questions discovered from the aggregate survey results. If you choose to participate in a follow-up phone interview, an additional $20 gift card drawing will be offered.

REFERENCES

About Clemson University, (2017, Spring). *About Clemson University: At a glance*. Retrieved from http://www.clemson.edu/about/

AHEAD, Association on Higher Education and Disability (2017). *Diversity and inclusion*. Retrieved from https://www.ahead.org/about/diversity

AHEAD, Association on Higher Education and Disability (2017). *Program evaluation tools*. Retrieved from https://www.ahead.org/program_eval_tools

Alper, S., & Raharinirina, S. (2006). Assistive technology for individuals with disabilities: A review and synthesis of the literature. *Journal of Special Education Technology, 21*(2), 47-64.

Americans with Disabilities Act, 42 U.S.C. § 12101 (1990).

Anctil, T. M., Ishikawa, M. E., & Scott, A. T. (2008). Academic identity development through self-determination: Successful college students with learning disabilities. *Career Development for Exceptional Individuals, 31*(3), 164-174. doi:10.1177/0885728808315331

Assistive Technology Act, 29 U.S.C. § 3001 *et seq.* (1998).

Architectural Barriers Act, 42 U.S.C. §§ 4151 *et seq.* (1968).

Benitez, D. T., Morningstar, M. E., & Frey, B. B. (2009). A multistate survey of special education teachers' perceptions of their transition competencies. *Career Development for Exceptional Individuals, 32*(1), 6-16. doi:10.1177/0885728808323945

Biemer, P. P., & Lyberg, L. E. (2003). *Introduction to survey quality*. Hoboken, NJ: John Wiley & Sons, Inc.

Bolt, S. E., Decker, D. M., Lloyd, M., & Morlock, L. (2011). Students' perceptions of accommodations in high school and college. *Career Development for Exceptional Individuals, 34*(3), 165-175.

Brueggemann, B. J. (2002). An enabling pedagogy. In S. Snyder, B. Brueggemann & R. Garland-Thomson (Eds.), *Disability studies: Enabling the Humanities* (pp. 317-336). New York, NY: The Modern Language Association of America.

Cawthon, S. W., & Cole, E. V. (2010). Postsecondary students who have a learning disability: Student perspectives on accommodations access and obstacles. *Journal of Postsecondary Education and Disability, 23*(2), 112-128.

Cornell University Disability Status Reports, Employment and Disability Institute at the Cornell University ILR School. (2013). *2013 disability status report: United States* (U.S. Department of Education, National Institute on Disability and Rehabilitation Research, grant No. H133B031111). Retrieved from http://disabilitystatistics.org/reports/2013/English/HTML/report2013.cfm?fips= 2000000&html_year=2013&subButton=Get+HTML#poverty

Cory, R. C. (2011). Disability services offices for students with disabilities: A campus resource. In W. Harbour & J. Madaus (Eds.), *Disability services and campus dynamics* (Vol. 154, pp. 27-36). San Francisco: Jossey-Bass.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334. Retrieved from http://psych.colorado.edu/~carey/courses/psyc5112/readings/alpha_cronbach.pdf

Cronk, B. (2014). *How to use SPSS: A step-by-step guide to analysis and interpretation* (8 ed.). Glendale, CA: Pyrczak Publishing.

Day, S. L., & Edwards, B. J. (1996). Assistive technology for postsecondary students with learning disabilities. *Journal of Learning Disabilities, 29*(5), 486-492, 503.

Dayton, J. (2015). *Higher education law: Principles, policies, and practice*. Lexington, KY: Wisdom Builders Press.

Denhart, H. (2008). Deconstructing barriers: Perceptions of students labeled with learning disabilities in higher education. *Journal of Learning Disabilities, 41*(6), 483-497. doi:10.1177/0022219408321151

Duffy, J. T., & Gugerty, J. (2005). The role of disability support services. In E. Getzel & P. Wehman (Eds.), *Going to college: Expanding opportunities for people with disabilities* (pp. 89-115). Baltimore, MD: Paul H. Brookes Publishing Co.

Field, S., Sarver, M. D., & Shaw, S. F. (2003). Self-determination: A key to success in postsecondary education for students with learning disabilities. *Remedial and Special Education, 24*(6), 339-349.

Fleming, A. R., & Fairweather, J. S. (2012). The role of postsecondary education in the path from high school to work for youth with disabilities. *Rehabilitation Counseling Bulletin, 55*(2), 71-81. doi:10.1177/0034355211423303

Funckes, C., Kroeger, S., Loewen, G., & Thornton, M. (2008). *Refocus* (U.S. Department of Education, Office of Postsecondary Education PR Award #P333A080082-09). Retrieved from http://www.projectshift-refocus.org/student.htm

Gabel, S. L. (2010). A disability studies framework for policy activism in postsecondary education. *Journal of Postsecondary Education and Disability, 23*(1), 65-73.

Getzel, E. E., & Thoma, C. A. (2008). Experiences of college students with disabilities and the importance of self-determination in higher education settings. *Career Development for Exceptional Individuals, 31*(2), 77-84. doi:10.1177/0885728808317658

Glesne, C. (2011). *Becoming qualitative researchers: An introduction* (4 ed.). Boston, MA: Pearson.

Goodley, D. (2007). Towards socially just pedagogies: Deleuzoguattarian critical disability studies. *International Journal of Inclusive Education, 11*(3), 317-334.

Goodley, D. (2011). *Disability studies: An interdisciplinary introduction*. Thousand Oaks, CA: Sage.

Gregg, N. (2007). Underserved and unprepared: Postsecondary learning disabilities. *Learning Disabilities Research & Practice, 22*(4), 219-228.

Hetherington, S. A., Durant-Jones, L., Johnson, K., Nolan, K., Smith, E., Taylor-Brown, S., & Tuttle, J. (2010). The lived experiences of adolescents with disabilities and their parents in transition planning. *Focus on Autism and Other Developmental Disabilities, 25*(3), 163-172. doi:10.1177/1088357610373760

Individuals with Disabilities Education Act, 20 U.S.C. § 1401 (1990).

Jaeger, P. T. (2006). Assessing Section 508 compliance on federal e-government Web sites: A multi-method, user-centered evaluation of accessibility for persons with disabilities. *Government Information Quarterly, 23*, 169-190.

Janiga, S. J., & Costenbader, V. (2002). The transition from high school to postsecondary education for students with learning disabilities: A survey of college service coordinators. *Journal of Learning Disabilities, 35*(5), 463-470.

Kelly, C. (2013). Building bridges with accessible care: Disability studies, feminist care scholarship, and beyond. *Hypatia, 28*(4), 784-800.

Kim, W. H., & Lee, J. (2015). The effect of accommodation on academic performance of college students with disabilities. *Rehabilitation Counseling Bulletin*, *60*(1), 1-11. doi:10.1177/0034355215605259

Landmark, L. J., Ju, S., & Zhang, D. (2010). Substantiated best practices in transition: Fifteen plus years later. *Career Development for Exceptional Individuals, 33*(3), 165-176. doi:10.1177/0885728810376410

LDonline, The Educators' Guide to Learning Disabilities and ADHD, WETA. (2017). *Accommodations & modification.* Retrieved from http://www.ldonline.org/indepth/accommodations

Lewandowski, L., Cohen, J., & Lovett, B. J. (2013). Effects of extended time allotments on reading comprehension performance of college students with and without learning disabilities. *Journal of Psychoeducational Assessment, 31*(3), 326-336.

Lindemann, H. (2006). *An invitation to feminist ethics*. Boston: McGraw-Hill.

Linton, S. (2004). Broadening the parameters of diversity. In L. Schlesinger & D. Taub (Eds.), *Instructional materials for teaching sociology & disability studies* (2 ed., pp. 11-14). Washington, D.C.: American Sociological Association.

Loewen, G., & Pollard, W. (2010). The social justice perspective. *Journal of Postsecondary Education and Disability, 23*(1), 5-18.

Lombardi, A. R., Murray, C., & Gerdes, H. (2012). Academic performance of first-generation college students with disabilities. *Journal of College Student Development, 53*(6), 811-826. doi:10.1353/csd.2012.0082

Mamiseishvili, K., & Koch, L. C. (2010). First-to-second-year persistence of students with disabilities in postsecondary institutions in the United States. *Rehabilitation Counseling Bulletin*, 1-13. doi:10.1177/0034355210382580

Marion, R., & Gonzales, L. D. (2014). *Leadership in education: Organizational theory for the practitioner* (2 ed.). Long Grove, IL: Waveland Press, Inc.

Marshak, L., Van Wieren, T., Raeke Ferrell, D., Swiss, L., & Dugan, C. (2010). Exploring barriers to college student use of disability services and accommodations. *Journal of Postsecondary Education and Disability, 22*(3), 151-165.

May, A. L., & Stone, C. A. (2010). Sterotypes of individuals with learning disabilities: Views of college students with and without learning disabilities. *Journal of Learning Disabilities, 43*(6), 483-499. doi:10.1177/0022219409355483

Mazzotti, V. L., Rowe, D. A., Cameto, R., Test, D. W., & Morningstar, M. E. (2013). Identifying and promoting transition evidence-based practices and predictors of success: A position paper of the Division on Career Development and Transition. *Career Development and Transition for Exceptional Individuals, 36*(3), 140-151. doi:10.1177/2165143413503365

McLean, M. A. (2011). Getting to know you: The prospect of challenging ableism through adult learning. *New Directions for Adult and Continuing Education, 132*, 13-22. doi:10.1002/ace.427

Meekosha, H., & Shuttleworth, R. (2009). What's so "critical" about critical disability studies?. *Australian Journal of Human Rights, 15*(1), 47-75.

Miller, L. A., Lewandowski, L. J., & Antshel, K. M. (2015). Effects of extended time for college students with and without ADHD. *Journal of Attention Disorders, 19*(8), 678-686. doi:10.1177/1087054713483308

Morris, J. (1997). Care or empowerment? A disability rights perspective. *Social Policy & Adminstration 31*(1), 54-60.

Parker, D. R., & Banerjee, M. (2007). Leveling the digital playing field: Assessing the learning technology needs of college-bound students with LD and/or ADHD. *Assessment for Effective Intervention, 33*(1), 5-14.

Parker, D. R., & Boutelle, K. (2009). Executive function coaching for college students with learning disabilities and ADHD: A new approach for fostering self-determination. *Learning Disabilities Research & Practice, 24*(4), 204-215.

Prater, M. A., Redman, A. S., Anderson, D., & Gibb, G. S. (2014). Teaching adolescent students with learning disabilities to self-advocate for accommodations. *Intervention in School and Clinic, 49*(5), 298-305. doi:10.1177/1053451213513958

Pyrczak, F. (2014). *Making sense of statistics: A conceptual overview* (6 ed.). Glendale, CA: Pyrczak Publishing.

Rea, L. M., & Parker, R. A. (2005). *Designing & conducting survey research: A comprehensive guide* (3 ed.). San Francisco, CA: Jossey-Bass.

Rehabilitation Act (§ 504), 29 U.S.C. § 794 (1973).

Riege, A. M. (2003). Validity and reliability tests in case study research: A literature review with "hands-on" applications for each research phase. *Qualitative Market Research: An International Journal, 6*(2), 75-86. doi:10.1108/13522750310470055

Roberts, E. L., Ju, S., & Zhang, D. (2014). Review of practices that promote self-advocacy for students with disabilities. *Journal of Disability Policy Studies*, 1-12. doi:10.1177/1044207314540213

Rocco, T. S., & Delgado, A. (2011). Shifting lenses: A critical examination of disability in adult education. *New Directions for Adult and Continuing Education, 132*, 3-12. doi:10.1002/ace.426

Rovai, A. P., Baker, J. D., & Ponton, M. K. (2013). *Social science research design and statistics: A practitioner's guide to research methods and SPSS analysis*. Chesapeake, VA: Watertree Press LLC.

Saldana, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). London: Sage.

Salkind, N. J. (Ed.). (2010). *Encyclopedia of research design*. Thousand Oaks, CA: Sage.

Scheuren, F. (2004). *What is a survey*. Retrieved from American Statistical Association Website: http://www.amstat.org/sections/srms/pamphlet.pdf

Scotch, R. K. (1989). Politics and policy in the history of the disability rights movement. *The Milbank Quarterly, 67*(2), 380-400.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22*, 63-75.

Shogren, K.A., Wehmeyer, M. L., Palmer, S. B., Soukup, J. H., Little, T. D., Garner, N., & Lawrence, M. (2008, March). Understanding the construct of self-determination: Examining the relationship between the ARC's Self-Determination Scale and the American Institutes for Research Self-Determination Scale. *Assessment for Effective Intervention, 33*(2), 94-107. doi:10.1177/1534508407311395

Sireci, S. G., Scarpati, S. E., & Li, S. (2005). Test accommodations for students with disabilities: An analysis of the interaction hypothesis. *Review of Educational Research, 75*(4), 457-490. doi:10.3102/00346543075004457

Skinner, M. E. (2007). Faculty willingness to provide accommodations and course alternatives to postsecondary students with learning disabilities. *International Journal of Special Education, 22*(2), 32-45.

Student Accessibility Services, Clemson University, (2016, Fall). *Faculty resources: Facts for faculty*. Retrieved from http://www.clemson.edu/academics/studentaccess/documents/fact-sheet.pdf

Switzer, J. (2003). *Disabled rights: American diability policy and the fight for equality*. Washington, D.C: Georgetown University Press.

Technology-Related Assistance Act for Individuals with Disabilities Act, 29 U.S.C. § 2201 *et seq.* (1988).

Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research, 1*(1), 77-100. doi:10.1177/2345678906292430

Test, D. W., Fowler, C. H., Wood, W. M., Brewer, D. M., & Eddy, S. (2005). A conceptual framework of self-advocacy for students with disabilities. *Remedial and Special Education, 26*(1), 43-54.

U. S. Department of Education, About ed/offices. (2015). *Office for Civil Rights*. Retrieved from http://www2.ed.gov/about/offices/list/ocr/index.html

U. S. Department of Education, About ed/offices, Office for Civil Rights. (2015, October 16). *Protecting students with disabilities: Frequently asked questions about Section 504 and the education of children with disabilities.* Retrieved from https://www2.ed.gov/about/offices/list/ocr/504faq.html#interrelationship

U. S. Department of Education, Code of Federal Regulations, (1999, July 1). *Title 34-Education: Chapter XII-National Council on Disability, 3,* 865. Retrieved from http://www.gpo.gov/fdsys/pkg/CFR-1999-title34-vol3/xml/CFR-1999-title34-vol3-chapXII.xml

U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. (1996-97). *State profiles of public elementary and secondary education: Item definitions: General characteristics*. Retrieved from http://nces.ed.gov/pubs2000/stateprofiles/item_definitions.asp

U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. (2015). *Integrated Postsecondary Education Data System: Glossary*. Retrieved from http://nces.ed.gov/ipeds/glossary/

U. S. Department of Education, National Center for Education Statistics. (2014). *Table 311.10: Number and percentage distribution of students enrolled in postsecondary institutions, by level, disability status, and selected student characteristics: 2007-08 and 2011-12* (2007-08 and 2011-12 National Postsecondary Student Aid Study, NPSAS:08 and NPSAS:12). Retrieved from http://nces.ed.gov/programs/digest/d13/tables/dt13_311.10.asp

U.S. Department of Education, National Center for Education Statistics. (2015). *Fast facts: Students with disabilities* (Digest of Education Statistics, 2013, Chapter 3). Retrieved from http://nces.ed.gov/fastfacts/display.asp?id=60

U. S. Department of Labor, Bureau of Labor Statistics, Economic News Release. (2014). *Persons with a disability: Labor force characteristics news release.* Retrieved from http://www.bls.gov/news.release/archives/disabl_06112014.htm

U. S. Department of Labor, Bureau of Labor Statistics, Economic News Release. (2015). *Table A-6: Employment status of the civilian population by sex, age, and disability status, not seasonally adjusted.* Retrieved from http://www.bls.gov/news.release/empsit.t06.htm

United States Access Board. (2016). *Advancing full access and inclusion for all.* Retrieved from https://www.access-board.gov/the-board/laws/architectural-barriers-act-aba

University of Oklahoma, Jeannine Rainbolt College of Education, Zarrow Center for Learning Enrichment. (2016). *AIR Self-Determination Assessment.* Retrieved from http://www.ou.edu/education/centers-and-partnerships/zarrow/self-determination-assessment-tools/air-self-determination-assessment.html

Vaccaro, A., Kimball, E. W., Wells, R. S., & Ostiguy, B. J. (2015). Researching students with disabilities: The importance of critical perspectives. *New Directions for Institutional Research, 163*, 25-41. doi:10.1002/ir.20084

Ward, M. J., & Meyer, R. N. (1999). Self-determination for people with developmental disabilities and autism: Two self-advocates' perspectives. *Focus on Autism and Other Developmental Disabilities, 14*(3), 133-139.

Webster, D. D. (2004). Giving voice to students with disabilities who have successfully transitioned to college. *Career Development for Exceptional Individuals, 27*(2), 151-175.

Wehmeyer, M. L., & Palmer, S. B. (2003). Adult outcomes for students with cognitive disabilities three-years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities, 38*(2), 131-144. Retrieved from http://www.jstor.org/stable/23879591

Wehmeyer, M. L., Sands, D. J., Doll, B., & Palmer, S. (1997). The development of self-determination and implications for educational interventions with students with disabilities. *International Journal of Disability, Development and Education, 44*(4), 305-328. doi:10.1080/0156655970440403

Wolman, J. M., Campeau, P. L., DeBois, P. A., Mithaug, D. E., & Stolarski, V. S. (1994). *AIR Self-Determination Scale and user guide*. Palo Alto, CA: American Institutes for Research and Teachers College, Columbia University. Retrieved from http://www.ou.edu/content/education/centers-and-partnerships/zarrow/self-determination-assessment-tools/air-self-determination-assessment.html