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### Self-Determination and Academic Success of College Students with Disabilities

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Self-Determination and Academic Success of  
College Students with Disabilities

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A Dissertation  
Presented to  
The Faculty of the University of Lynchburg

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education (Ed.D.)

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by  
Lindsay F. Farrar, M.S.

April, 2020

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May 2020

University of Lynchburg  
Lynchburg, Virginia

Dissertation Title: Self-Determination and Academic Success of College Students with Disabilities

#### APPROVAL OF THE DISSERTATION

This dissertation, (“Self-Determination and Academic Success of College Students with Disabilities”), has been approved by the Ed.D. Faculty of Lynchburg College in partial fulfillment of the requirements for the Ed.D. degree.

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## DEDICATION

This dissertation is dedicated to my son who inspires me daily to work hard, play often, and love big. With this, I am, as he says, “Dr. Mommy”. I love you, E!



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There are many people to which I owe a great deal of thanks at the completion of this dissertation. To my committee chair, Dr. Holly Gould, and committee members Dr. Andrew Bruce and Dr. Deanna Cash, for their expertise and knowledge. To my family, specifically my husband Matt, my mother Melanie, my father Dee, and my sister Alaina, for their unwavering encouragement and support. To my colleagues, particularly Dana and Larry, who picked up the work slack this process yielded while constantly elevating me to attain this achievement. Lastly, to my professors and cohort colleagues, for so willingly sharing knowledge and experience to support my professional development.

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### Abstract

Within education, there have been many legislative changes in the last several decades to promote equitable access for students with disabilities. However, many barriers still exist that prevent these students from being academically successful once they have gained appropriate access. Research in the last 10 to 15 years has consistently identified these barriers as well as pinpointed some predictors of success for students with disabilities. Much of this research acknowledges the importance of self-management, goal-setting, and self-determination, yet there is a gap in the body of literature that specifically links self-determination to academic performance within the postsecondary setting. This study was conducted to determine the relationship between self-determination and academic performance for college students with high incidence disabilities via a quantitative, survey-based approach. Students registered with the Office of Disability Resources attending a small/mid-size, public, co-ed university based in Virginia were invited to participate. One hundred forty-three participants completed the AIR Self-Determination Assessment and the researcher investigated the relationships between the scores on the assessment and overall grade point average (GPA) of the participant to determine the relationship between students' reported level of self-determination and their academic performance. The results revealed a positive relationship between reported self-determination levels and GPA, in that students with higher ratings of self-determination had higher reported GPAs and students with lower ratings of self-determination tended to have lower GPAs. These results support the notion that, for students with disabilities in the post-secondary setting, having a strong level of self-awareness and the ability to engage in goal-directed and self-regulated behavior allows them to be more academically successful. These findings, once expanded upon

and replicated with future research, can influence transition planning in the K-12 environment and allow for more productive programming for disability services professionals in higher education.

## CHAPTER 1

### **Background**

Over the last five decades, the education system in the United States has made significant leaps in providing an accessible education for students with disabilities. Federally mandated services, resources, and accommodations assist in mitigating some of the barriers these students encounter in the educational setting; however, obstacles to academic success still exist.

Beginning in the mid 1970s with the Education of Handicapped Children Act (1975), which later became the Individuals with Disabilities Education Act (IDEA), and Section 504 of the Rehabilitation Act of 1973, children with disabilities gained more access than ever before to an appropriate education. The Education of Handicapped Children Act of 1975 (EAHCA) set forth federal requirements that all public schools that received federal funds had to provide equal and appropriate access to education for children identified as having physical and/or mental disabilities (EAHCA, 1975). IDEA was developed to ensure entitlement to a free and appropriate public education to meet the specialized needs of children with disabilities in the K-12 environment (IDEA, 2004). The Rehabilitation Act of 1973 was the first civil rights law centered on disability in the United States. Section 504 of that Act was developed specifically to prevent exclusion or unequal treatment of children with disabilities in the education system (Disability Rights Education & Defense Fund, 2019). With IDEA setting the stage in K-12 education, and subparts of Section 504 of the Rehabilitation Act addressing post-secondary education, the passing of the Americans with Disabilities Act (ADA) in 1990 added to the arsenal of federal legislation that enforced equitable access to education for people with disabilities. Particularly, Titles II and III of the ADA prevented otherwise qualified individuals from being discriminated

against on the basis of disability in the public and private educational settings, respectively (ADA, 1990).

The aforementioned laws have allowed for people with disabilities to have more appropriate access to educational opportunities than ever. In fact, nineteen percent of undergraduate students reported having a disability in 2015-2016 (U.S. Department of Education, 2019). However, despite the federal legislation mandating access and reasonable accommodations for nearly five decades, students with disabilities continue to face barriers in higher education, including physical, instructional, and attitudinal. This includes a lack of understanding from faculty, staff, and peers, a lack of adequate resources and services, a lack of self-advocacy and training (Lehmann, Davies, & Laurin, 2000), in addition to the perceptions and misunderstanding of other students, faculty, and staff, and being reluctant to request and/or utilize accommodations (Denhart, 2008; Hong, 2015). The research providing evidence to these barriers has simultaneously led to research on predictors of success for students with disabilities in the post-secondary environment. The ability to self-advocate is consistently presented across the board as a frontrunner predictor of success for these students (Gil, 2007).

Within self-advocacy is the concept of self-determination. Self-determination is a multi-dimensional concept that encompasses both internal, psychological traits, such as intrinsic motivation, and behavioral skill sets, such as executive functioning abilities (Cobb, Lehmann, Newman-Gonchar, & Alwell, 2009). This combination of traits and skills often presents in students with disabilities as understanding one's disability, the ability to problem solve, goal-setting, and self-management (Thoma & Getzel, 2005).

Problem solving, goal setting and attainment, self-awareness, and self-advocacy are all considered important traits of self-determination (Ju, Zeng, & Landmark, 2017). Current coaching models for students with disabilities that encourage the use of available resources and accommodations while simultaneously support improvement of self-determination skills have been shown to increase likelihood of academic success (Ju, Zeng et al., 2017). The researcher further contributes to the body of research regarding self-determination by investigating the relationship between self-determination and academic performance of students with disabilities in post-secondary education.

### **Problem Statement and Purpose of Study**

Despite the federal legislative changes in education in the last nearly 50 years, barriers to success in education still exist for many students with disabilities, including lack of resources and understanding of others, as well as a lack of skill sets and readiness for the students themselves (Lehmann, et al., 2000). Research in the last 10 to 15 years specifically has recognized these barriers and made efforts to provide scientific evidence for them (e.g., Denhart, 2008; Hong, 2015; Lehmann et al., 2000; O'Neill, Markward, & French, 2012). Said research is often conducted in the secondary education system, and often with individuals with profound disabilities (e.g. intellectual disabilities). This makes it difficult to generalize findings to students with high incidence disabilities, such as attention deficits and learning disabilities, in the post-secondary setting. Additionally, while much of the research addresses the importance of self-management, goal-setting, and self-determination and how they relate to successful transition for young adults with disabilities (Konrad, Fowler, Walker, Test, & Wood, 2007), there is a gap in the body of literature to address the connection between self-determination and

academic performance. Although certain resources and characteristics have proven to be successful predictors of these students transitioning to adulthood, including accommodations and resources, executive functioning skills, relationships and support systems, self-advocacy and self-determination (Gil, 2007; Parker & Benedict, 2002; Test, Fowler, Wood, Brewer, & Eddy, 2005), there is little known knowledge with regard to how these traits and skills, particularly self-determination, influence academic performance.

The purpose of this study was to take a quantitative, survey-based approach to determine the relationship between self-determination and academic performance for college students with high incidence disabilities. Students registered with the Office of Disability Resources attending a small/mid-size, public, co-ed university based in central Virginia were invited to participate. Participants completed the AIR Self-Determination Assessment and the researcher investigated the relationships between the scores on the assessment and overall grade point average (GPA) of the participant to determine if there was a positive relationship between students' report of level of self-determination and academic performance.

### **Significance of Study**

Given the gap in the literature with regard to post-secondary students, their self-determination levels, and the subsequent impact on academic performance, this study sought to assist in filling this gap with helpful knowledge and information for students, families, and educators. This study specifically aimed to determine the relationship between the psychological traits (e.g., locus of control) and behavioral skill set (e.g., self-advocacy, communication, executive functioning) of self-determination and academic performance for college students with disabilities. A clearer understanding of the relationship between these two factors could help



teachers and counselors develop better transition planning for high school students wanting to attend college, as well as help disability support service professionals at the college level provide more targeted programming. Furthermore, this research provides implications for future research so that the deficiency in this area may be more adequately addressed.

### **Primary Research Question and Hypothesis**

More and more students with disabilities are leaving high school and entering the college environment. Research on the common barriers that these students experience, including lack of resources and lack of staff knowledge (Lehmann et al., 2000) is relatively well-balanced with research on predictors of success for students with disabilities, including executive functioning skills (Parker & Benedict, 2002), supportive relationships (Lombardi, Murray, & Kowitt, 2016), and self-advocacy skills (Test, Fowler, Wood, Brewer, & Eddy, 2005). There is a gap in the literature, however, in how specifically self-determination influences academic performance. This study sought to address the relationship between those two variables in order to help both students and their families, as well as educators at both secondary and post-secondary levels, better understand and transition students with disabilities into higher education.

Research Question: What is the relationship between degree of self-determination and academic performance for college students with disabilities?

Hypotheses:

Null Hypothesis: There is no relationship between self-reported self-determination levels and GPA of college students with disabilities.

Alternative Hypothesis: There is a positive relationship between self-reported self-determination levels and GPA. That is, students with higher ratings of self-determination will have higher GPAs and students with lower ratings of self-determination will have lower GPAs.

### **Research Design**

This study was quantitative in design. While the researcher recognizes the value of qualitative research with regard to students with disabilities and their experiences, a quantitative approach is appropriate to address this research question as it will investigate the relationship between two numerically identified variables: level of self-determination and grade point average. Within this study, students registered with the Office of Disability Resources attending a mid-size public University based in Virginia were invited to participate. Participants completed the AIR Self-Determination Assessment and agreed to let the researcher access their overall grade point average (GPA) in the informed consent process. Developed by the American Institutes for Research (AIR) in conjunction with the Teachers College at Columbia University in New York City, the AIR Self-Determination Assessment measures two self-determination components: capacity and opportunity. The student version of the AIR Self-Determination Assessment was used and participants ranked their self-determination levels on a scale (Wehmeyer, 1995). The researcher investigated the relationship between what participants self-report as their self-determination levels and their overall GPA.

### **Assumptions, Limitations, and Delimitations**

#### **Assumptions**

For this study, it was assumed that participants answered the assessment honestly and to the best of their ability to describe their self-determination tendencies accurately, as the setting is a four year college and a certain level of understanding and maturity is assumed within this age group. It was also assumed the majority of participants would fall within the 18-25 year old age range, and the majority would self-identify as Caucasian, as the majority of students at this institution identify as Caucasian. Lastly, it was assumed that due to the demographic population of the host institution, there would be more female than male participants.

### **Limitations/Delimitations**

Sample size, lack of even variability of disability diagnosis within the sample, and statistical limitations of the assessment instrument are all limitations of this study. The researcher encountered a sample size of less than 300 and that a large majority of that sample had a primary diagnosis of either a learning disability or Attention-Deficit/Hyperactivity Disorder (ADHD). The National Institute of Mental Health (NIMH) defines ADHD as “a brain disorder marked by an ongoing pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development” (NIMH, 2016). A learning disability is largely recognized as a neurodevelopmental disorder that typically presents with ongoing and significant struggle in one or more of the areas of reading, math, and writing (American Psychiatric Association, 2018).

Additionally, the data gleaned from the assessment instrument and overall grade point average (GPA) yields limited opportunity for statistical analysis. Location and student population demographics are also delimitations to be considered. The institution utilized was chosen due to

the researcher's established connection and it has a significant number of Caucasian and female students as opposed to a more diverse student population.

### Definition of Key Terms within this Study

Term	Definition
Self-Determination	“...a combination of skills, knowledge and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior. An understanding of one's strengths and limitations, together with a belief of oneself as capable and effective, are essential to self-determination. When acting on the basis of these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults in our society” (Field, Martin, Miller, Ward, & Wehmeyer, 1998, p.2).
High incidence disability	Students who are able to participate in standard school curriculum with some additional learning supports and accommodations in place. The diagnoses may include: autism spectrum disorders, specific learning disabilities, emotional or behavioral disorders, physical/sensory disabilities (University of Kansas, 2019). These disabilities specifically are seen more often in the education setting than more lower incidence disabilities.
Transition services	“The transition planning process should enable the student to move successfully from school to postsecondary education and training, employment, independent living, and community participation based on the student's preferences, interests, and abilities” (“How Do We Transition?”, Virginia Department of Education, 2020, para. 1)

Executive functioning skills	Organization, planning, self-regulation and the like are the common skills associated with executive functioning ability (Parker & Benedict, 2002).
Self-advocacy	The ability to be in tune with one’s strengths and weaknesses, possess knowledge of rights and resources, and effectively communicate that knowledge (Test, Fowler, Wood, Brewer, & Eddy, 2005).
Attention-Deficit/Hyperactivity Disorder (ADHD)	“...a brain disorder marked by an ongoing pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development” (“NIMH’s Definition of Attention Deficit Hyperactivity Disorder”, National Institute of Mental Health, 2016, para. 1)
Learning Disability	A neurodevelopmental disorder that typically presents with ongoing and significant struggle in one or more of the areas of reading, math, and writing (American Psychiatric Association, 2018).

### Summary

Students with a variety of disabilities are entering post-secondary education at an increasing rate (U.S. Department of Education, National Center for Education Statistics, 2016). As such, institutions of higher learning are grappling with how to provide the appropriate support and resources for the unique needs these students present. The literature details certain predictors of successful transition to the college environment, including self-advocacy, communication and executive functioning skills (Gil et al., 2007). A student with a disability who possesses these skills and knowledge may be more likely to be successful beyond the barriers that exist in higher

education; however, the research is limited on the relationship between self-determination and academic performance. This quantitative, survey-based study was conducted to determine the relationship between degree of self-determination and academic performance for college students with disabilities. The results of this study may be helpful and directly applicable to both the secondary and post-secondary education environments, as well as to the college-bound students with disabilities and their families. Learning more about the relationship between self-determination and academic performance of students with disabilities could allow for better transition planning in secondary education, more meaningful professional development for faculty and staff at both the secondary and post-secondary level, and could better prepare students to tackle the rigorous college environment despite the challenging effects of their disabilities.

## CHAPTER 2

The American with Disabilities Act (ADA) defines a person with a disability as “...a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment” (U.S. Department of Justice, 2009). The passing of progressive federal legislation, including the ADA, over the last several decades has allowed more opportunities than ever, educationally and vocationally, for people with disabilities, and rightly so. The 2010 Census data revealed that nearly one in five people has a disability, and as recently as 2013, nearly 13% of all students in the public secondary school setting have identified disabilities and are subsequently receiving academic support (U.S. Department of Education, National Center for Education Statistics, 2016). Many of these students are entering the post-secondary setting and institutions are grappling with how to appropriately provide resources for them. Approximately 25% of young adults with disabilities enter institutions of higher learning upon completing high school (Wagner, Newman, Cameto, Garza, & Levine, 2005). While the disability types and associated impairments of these students can vary greatly, it is recognized that students with disabilities continue to experience more instructional, physical, and attitudinal barriers to their college education than their peers without disabilities. The following literature review will discuss the disability prevalence in higher education, the disability law provisions within the educational environment, and the existing research on both barriers and predictors for success for students with disabilities in higher education.

**Disability Prevalence in Higher Education**

### **Legal Background & Access**

The early educational landscape for students with disabilities mirrored that of the experience of minorities before the Civil Rights Movement. Prior to the emergence of federal law in the early 1970s, children and adults with identified and/or obvious disabilities were not afforded the option of education. One can be sure that those with undocumented or invisible disabilities were in the mainstream educational system and likely experienced a host of struggles and barriers related to academic success without the proper resources and accommodations (Skiba, et al., 2008).

The Rehabilitation Act of 1973, in part, expanded the responsibilities of access programs for students with disabilities by its prohibiting of discrimination of these otherwise qualified individuals (U.S. Department of Education, 2019). Specifically, Section 504 of the Rehabilitation Act is often the particular piece of legislature mentioned as it prohibits discrimination against people with disabilities in programs that receive federal financial assistance (U.S. Department of Education, 2019). This legislation set the stage for the Americans with Disabilities Act (ADA), which is the federal law that prohibits the discrimination of individuals on the basis of disability in employment, government, public accommodations, commercial facilities, transportation, and telecommunications. Titles II and III of the ADA, which prohibit discrimination on the basis of disability in all services, programs, and activities provided to the public by state and local government and in activities of places of public accommodation respectively, are two of the largest pieces of overseeing federal regulation for post-secondary institutions of learning (U.S. Department of Justice, 2019). Together, the ADA and Section 504 provide colleges and universities with regulations regarding accessibility and accommodations for students with



disabilities. According to the ADA, in order for a person to qualify as having a disability, a person must possess “a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment” (U.S. Department of Justice, 2009, p.7).

As far back as World War I and II, many of those who utilized the accessibility and resources afforded by federal legislation were veterans with combat-related disabilities and the focus was primarily on those with significant physical and motor disabilities (Madaus, 2011). In reports dated as recently as 2015-16, around 19% of undergraduate students nationally reported having a disability (U.S. Department of Education, National Center for Education Statistics, 2017). Disability type and/or diagnosis, however, has changed significantly since World Wars I and II, running the gamut, including orthopedic conditions, health impairments, attention-deficit disorders, learning disabilities, hearing or visual impairments, and more (Horn & Nevill, 2006); however, Attention Deficit-Hyperactivity Disorder (ADHD), emotional/psychological disorders, and learning disabilities are typically the three most common diagnoses self-reported (Wolf, 2001). More recently, statistics reveal that as much as 25% of college students with disabilities identify as having ADHD (DuPaul, Wayandt, O’Dell, & Varejao, 2009). This shift in disability type and commonality has also meant a shift in the types of resources and skills-building required to be the most effective.

Just as the effects of disabilities vary from student to student, so does the transition-planning experiences of these students as they prepare to go from high school to college. The Individuals with Disabilities Education Act (IDEA) ensures that every student in the United States has a free and appropriate education that meets their individual needs (Kindergarten, and

at times earlier, through 12<sup>th</sup> grade; generally from ages three to 22), including transition planning. However, exactly how, when, and to what degree of effectiveness that transition planning has can vary just as much as the availability of resources, educated and committed professional staff, and family involvement.

Transition planning, as described by the U.S. Department of Education, directs secondary schools to prepare students for successful entry into either further education, employment, and/or independent living (U.S. Department of Education, 2011). Naturally, this would include academic preparedness for those seeking to transition into post-secondary education, but recent literature also discusses the need to address nonacademic skills, including self-regulation, perseverance and motivation (Gothberg, Peterson, Peak, & Sedaghat, 2015). These non-academic skills not only support postsecondary success, whether it be academic, workplace, or psychosocial, but are important to the overall growth of the student into adulthood.

While students with disabilities have been a factor in education since the conception of a formal education system, albeit either unnoticed or actively segregated, these individuals began to have more resources and supports beginning with the legislation movement in the 1970s. These legal requirements ensured that public institutions allowed for the equal access of students with disabilities; however, this did not, nor does it currently, ensure equitable successful academic experience or performance.

### **Academic Performance & Retention**

While federal legislation allows for more students than ever to have access to an appropriate education, students with disabilities continue to have “disproportionally high course failure rates, low retention rates, and low graduation rates” (Murry, Lombardi, & Kosty, 2014, p.

31). The discrepancies are seen at both the secondary and postsecondary levels. For example, the graduation rate for all high school students is 84.1%, while it is 65.5% for students with disabilities. Furthermore, only approximately one-third of students with disabilities who enter a four-year institution after high school will graduate with a degree within eight years and the rate only improves to 41% for a two-year degree. (U.S. Department of Education, National Center for Education Statistics, 2016). Outside of the clear discrepancy in compliance for an accessible education being afforded to students with disabilities, this also negatively impacts the overall completion rates for colleges and universities.

While several predictors for success to offset the effects of disabilities in the educational experience have been identified, such as appropriate resources, relationships and support systems, and those behavioral skills and mindsets of self-advocacy and self-determination (Gil et al., 2007), there are clearly significant barriers that remain, as the aforementioned retention and graduation data shows. Research conducted over the last two decades has consistently identified several themes related to the walls and hurdles students with disabilities face in their post-secondary education experience.

### **Barriers for Students with Disabilities in Higher Education**

Frequently, researchers describe the barriers for students with disabilities in higher education within the context of what is lacking in terms of preparation, planning, and support for this particular population. Lehmann, Davies, and Laurin identified four themes of inadequacies in their 2000 article. The authors invited 35 college students with a variety of disabilities to participate in a focus group and through semi-structured questions and activities, were able to cluster the feedback into four categories. These categories included a lack of understanding from

others, a lack of adequate services and resources, a lack of personal, (typically financial) resources and/or the knowledge of how to acquire and use them, and a general lack of self-advocacy skills and training (Lehmann et al., 2000). Lack of understanding from others included such issues as disability being viewed as incompetence, instructor frustration, and general small-mindedness. Limited physical access and adaptive equipment, disability documentation sharing, and lack of instructor training were commonly mentioned under the theme of lack of adequate services and resources. Under the theme of a lack of personal/financial resources, the students reported a need for reliable income to be more self-sufficient and simultaneously struggled to secure on-campus employment. Lastly, a need to be more assertive in expressing their needs, a deeper understanding of self, and a need to gain respect from the academic community were identified as issues under the theme of lack of self-advocacy skills and training (Lehmann et al., 2000).

More recent research has supported Lehmann and colleagues' (2000) notions with similar identified barriers, as well as additional hurdles, including the perceptions and misunderstanding of other students, faculty, and staff; being reluctant to request and/or utilize accommodations; and the mental, emotional, and sometimes physical demands of having to work harder and longer than non-diagnosed peers (Denhart, 2008; Hong, 2015). In her qualitative analysis of various barriers postsecondary students with disabilities experience, Barbara Hong (2015) noted that students reported feeling inadequate due to faculty sharing past negative experiences working with students with disabilities and/or being intimidated by support service personnel. Additionally, advisors being unresponsive or having a general lack of knowledge was also reported (Hong, 2015). In 2008, Denhart's phenomenological study on perceptions of

postsecondary students identified as having learning disabilities found that students reported that while they had to work longer and harder than their non-diagnosed classmates, that they were reluctant to request or utilize accommodations for fear of stigma (Denhart, 2008).

While psychosocial barriers are made evident in themes of a variety of studies, academically-based barriers have also been identified. These barriers often include having more difficulty with comprehension, organization, communication, and social skills (O'Neill, Markward, & French, 2012). Often, these barriers are a direct result of the nature of the disability (e.g., specific learning disabilities and attention deficits). The aforementioned research does not breakdown results by disability type, which could be considered a critique of the research to date.

Although federal legislation paved the way for educational access for students with disabilities, barriers to a successful academic experience still exist. The literature focuses largely on psychosocial barriers, such as lack of understanding from others, lack of self-advocacy skills, and lack of personal resources; however, logistical barriers have also been identified, such as lack of appropriate resources and services, as well as barriers related to the nature of the disability diagnosis, such as difficulty communicating and comprehending.

### **Social Integration and View of Disability**

Students with disabilities may have suffered ill-effects in primary and secondary education by having been identified as having a disability. As such, students with disabilities see post-secondary education as an opportunity to begin college with a “clean slate” (Hong, 2015). With the nature of secondary education frequently requiring on some level of outing or identifying the student, either through in class supports, separate testing, or even self-contained

classrooms, the opportunity for more privacy and confidentiality is appealing to many students leaving that environment in pursuit of postsecondary education. At times, this opportunity to begin anew results in a resistance to self-identify as having a disability and/or utilize appropriate resources and services at the college level. There is an intense drive to be self-reliant, but the students frequently lack the skills and abilities to do so. Best-practice diversity and inclusion literature speaks to a need to promote a sense of belonging for students with disabilities in higher education (Vaccaro, Daly-Cano, & Newman, 2015). Promoting this sense of belonging is often centered on a strengths-based view versus the traditional, medical model, deficit view of disability (Hong, 2015). That is, when a student is viewed in the light of their strengths and as more than their disability or diagnosis, a student is more inclined to feel included. This relates to research exploring the social and attitudinal barriers that students with disabilities often experience in the college setting (Bialka, Morro, Brown, & Hannah, 2017). Discriminatory thoughts and behaviors within the assumptions and stereotypes held by faculty, staff, and other students further perpetuate both the weakness-centered view of disability as well as the sense of isolation for the students with disabilities (Bialka et al., 2017). These implicit biases create negative views of people with disabilities and further perpetuate the low expectations and exclusion of these students in the educational setting (Fleming, Oertle, & Plotner, 2017).

Using a grounded theory approach, Vaccaro, Daly-Cano, and Newman collected individual narratives from students and identified three themes that would contribute to a sense of belonging and well-being for students with disabilities: ability to self-advocate, a need to master the role of student (self-efficacy and resilience), and having supportive relationships within family, peer, and mentor dynamics (2015). These themes reveal that a student's ability to

have a strong sense of belonging extends beyond just the student's intrinsic capabilities but also into the involvement and responsibility of others. Researchers also recognize that sense of belonging and emerging purpose for students with disabilities in higher education is a process that is influenced by social contexts (e.g., social constructs related to disability diagnosis) and intersecting social identities (Vaccaro, Kimball, Newman, Moore, & Troiano, 2018). Researchers identified that sense of belonging for students with disabilities in postsecondary education is a process that is all interconnected and reciprocal and that family, peers, faculty, and staff can assist these students in promoting their belonging by identifying and celebrating their strengths (Vaccaro et al., 2015).

The newfound opportunity for confidentiality or secrecy with regard to their disability often lends itself to some students with disabilities not pursuing accommodations or resources in the postsecondary environment. The perpetuation of the medical model of disability and the implicit biases associated further lends itself to creating an environment in which students do not feel empowered or supported in their disability status. Researchers have identified that a sense of belonging can help offset the barrier to academic success for these students that is the negative social view/integration of disability.

### **Underutilization of Resources**

Many students with disabilities do not always avail themselves of available resources. Marshak and colleagues (2010) conducted a qualitative study that revealed five major themes within its interview data analysis as to why some students with disabilities either do not seek or do not use resources to the fullest extent possible. Those themes were identity issues, avoidance of potentially negative social implications, lack of sufficient knowledge about the resources, their

perceived applicability or usefulness of the resources, and past negative experiences with faculty and staff (Marshak, Wieren, Ferrell, Swiss, & Dugan, 2010). Several of these themes relate to the aforementioned research centered on social integration and stigma concerns as well the desire for a fresh start (Bialka et al., 2017; Hong, 2015). Furthermore, these results show that many students with disabilities enter the postsecondary environment either not prepared or not properly educated about their abilities, needs, and resources.

Unfortunately, the research on barriers to students with disabilities within the educational system to date is often conducted at the secondary level, and often with individuals with profound disabilities (e.g., intellectual disabilities), thus it is difficult to translate findings to students with high-incidence disabilities in the post-secondary setting. This is a limitation of the current field and a reason more research should be done within the postsecondary setting for more applicability.

Connor's (2013) study recognized many of the aforementioned barriers and specifically how they related to the experience of students with learning disabilities making the transition to postsecondary education. He found that self-knowledge of one's own limitations, a practice utilizing one's self-supports in addition to institutional resources were applications toward academic success (Connor, 2013). In fact, research has shown that there are several identified predictors, or at the least, key factors, of success for students with disabilities in higher education. These include executive functioning skills, supportive relationships, self-advocacy skills, and self-determination (Heiligenstein, Guenther, Levy, Savino, & Fulwiler, 1999; Lombardi, Murray, & Kowitt, 2016; Test et al., 2005)

### **Predictors of Success for Students with Disabilities in Higher Education**



## **Executive Functioning**

Recent developments in the study of neuroscience have re-energized the focus on brain development and, more specifically, its impact on learning (Marope, 2016). Organization, planning, self-regulation and the like are the common skills that have been associated with executive functioning ability. Executive functioning is seen as an overarching term to describe all the intricate cognitive processes that allow an individual to engage in goal-directed but flexible approaches (Anderson, 2002). In the postsecondary academic setting, an example would be writing a research paper: creating a plan to achieve the end goal (i.e., completed paper) and self-regulating throughout the process to achieve said goal. Deficits or impairments in these abilities can affect both academic performance and activities involved in daily living.

At the postsecondary education level, deficits in executive functioning can mean significant limitations, including difficulty developing and maintaining realistic academic plans and poor time and effort management, which can negatively impact academic performance, resiliency, and persistence to degree (Parker & Benedict, 2002).

For students with disabilities, having strong executive functioning skills is especially imperative, as they manage academic accommodations, a need to sometimes “work harder” than their peers, etc. However, some are particularly prone to these deficits due to the nature of their diagnosis. Specifically, attention deficit disorders, learning disabilities, autism spectrum disorders, and traumatic brain injuries tend to have the most apparent deficits in executive functioning (Grieve, Webne-Behrman, Couillou, & Sieben-Schneider, 2014). The link to executive functioning and its relationship to academic performance has been shown to be significant, particularly within those disability categories. Heiligenstein and colleagues (1999)

found that students with ADHD were more likely to be on academic probation than their non-ADHD peers, had lower overall grade point averages, and were more likely to report significant academic concerns (Heiligenstein et al., 1999). This impact on academic performance can be further negatively affected as most students with disabilities, including the aforementioned, are accustomed to a high degree of external structure and support in secondary education and post-secondary education places a higher demand on internal capacity of students and provides less external structure, which further challenges underdeveloped executive functioning skills (Parker & Benedict, 2002).

The postsecondary education environment is recognizing the importance of executive functioning as it relates to academic success, even providing for special programs to support the development of such skills. Several institutions across the United States provide training and/or coaching for building and supporting the development of this skillset, such as the Lynn's Institute for Achievement and Learning (IAL) at Lynn University and the Supported Learning Program at David & Elkins College. Additionally, there are now whole institutions that cater solely to individuals with learning differences, such as Landmark College in Vermont and Beacon College in Florida.

Executive functioning, the ability to organize and self-regulate in order to meet an objective, is virtually imperative to the success of any student in the postsecondary setting, and it is no different for students with disabilities. Having a strong skill-set of executive functioning can assist a student with a disability in navigating and potentially mitigating some of the disability-related effects that serve as barriers to their academic success.

### **Relationships**

No different than other college students, students with disabilities often find support in their relationships as a means to overcome the difficulty transitioning to the post-secondary environment. Studies have shown that different types of relationships have been found to be predictors of positive adult outcomes for people with disabilities. This includes family or parental relationships and peer support (Lombardi et al., 2016). With regard to support from family, specifically parents, this can be a difficult line to walk given the student is no longer legally a minor, particularly at the postsecondary education level, where the Family Education Rights and Privacy Act (FERPA) applies, as FERPA details who can and cannot have access to a student's academic records. The majority of students are 18 years of age by the time they enter college, and institutions must adhere to FERPA regulations unless there is a release completed by the student granting access for a parent or guardian to read school records or speak with the institution's faculty and staff regarding the student. If there is no release on file, this could limit the level in which parents can be involved with their college student, or at least the extent to which they could be informed of various components of their student's education and experience at college. Furthermore, while family involvement has been shown to be beneficial to students with disabilities, the exact roles or level of involvement has yet to be effectively established (Dallas, Ramisch, & McGowan, 2015). Regarding faculty relationships, research has shown that students with disabilities respond most positively when faculty show a positive attitude toward disabilities in general, as well as promote inclusive practices as standard in their classrooms (i.e., universal design of instruction) rather than making special arrangements for a student with a disability (Morina, Cortes-Vega, & Molina, 2015).

Research on relationships and the impact on students with disabilities has also investigated the attitudes of other students on their peers with disabilities and found that while most hold neutral (not positive or negative) attitudes about students with disabilities, their perceptions were influenced by the level of social interaction by the student with the disability (De Boer, Pijl, & Minnaert, 2012). This suggests that the way in which the student with the disability actively engages with their environment and creates relationships with others can increase a positive response from others, which could then support success in the postsecondary environment. Actively engaging with their environment is a strong component of another predictor of academic success for students with disabilities: self-advocacy. The self-awareness to identify and articulate one's needs has been identified as one of the leading predictors of academic success for students with disabilities throughout the research on the topic.

### **Self-Advocacy & Self-Determination**

In contrast to their experience in the secondary setting, students with disabilities must self-identify in order to receive accommodations in higher education. This alone can cause a barrier to access if students are not prepared to do so. In fact, the differences in student responsibilities from high school to college is often the most profound struggle of students with disabilities making the transition (Gil, 2007). The need to self-identify, the need to request accommodations from faculty, the need to advocate for his/her own needs: these behaviors were not required in the secondary school system (Gil, 2007). In that setting, Individualized Education Plans (IEPs) were managed by a team of staff including teachers, case managers, and parents, all working on behalf of the student and his or her needs. Ironically, this behavior directly relates to overparenting, colloquially known as "helicopter parenting," which has been shown to be

detrimental to young adults, limiting skill development and producing maladaptive behaviors (Bradley-Geist & Olson-Buchanan, 2013). Further exacerbating the difference between secondary and postsecondary education approaches to students with disabilities, the use of accommodations and resources in the college setting is up to the individual student; there are no IEPs or case managers that require or even facilitate use of these services. With the onus completely on the individual student, the ability to self-advocate clearly becomes a frontrunner predictor of success for college students with disabilities, as the inability to do so can be detrimental, no matter how academically prepared the student may be.

Modeled after the Civil Rights Movement in the 1950s and 1960s, the self-advocacy movement for people with disabilities began in the 1980s as a means of pursuit for autonomy (Test et al., 2005). While research has indicated that development of self-advocacy is crucial for successful transition to adulthood, quite often structured effort toward the growth of that skill set is not included in the resources afforded to students with disabilities. This is perhaps secondary to the apparent lack of focus on nonacademic skills-building in the transition planning process. That is, transition planning often is not centered on the more intrinsically developable skills, rather in tangible, measurable outcomes. This is likely due to the need to have metrics to gauge the success of IEPs and accommodations.

In 2005, Test and colleagues developed a conceptual framework of self-advocacy for students with disabilities. This included reviewing the many recognized definitions of self-advocacy, input from stakeholders in the area of study, and the variables of data-based studies of self-advocacy instruments. The final product included four interrelated categories recognized as pillars to self-advocacy: knowledge of self, knowledge of rights, communication,

and leadership (Test et al., 2005). Sample subcomponents of knowledge of self included strengths, preferences, goals, and needs. Personal rights, steps to advocate for change, and steps to address violations were listed within the pillar of knowledge of rights. Skills within the pillar of communication were identified as assertiveness, negotiation, persuasion, and compromise. Lastly, knowledge of resources, political action, and organizational participation were sample subcomponents of the pillar of leadership (Test et al., 2005).

The ability to be in tune with one's strengths and weaknesses, possess knowledge of rights and resources, and effectively communicate that knowledge is pivotal in a student's ability to be a self-advocate, which then affects their ability to be successful in the post-secondary setting. Well-developed self-advocacy skills ensure a student is a more effective communicator, has an ability to work with others, including peers and faculty/staff, as well as have a generally higher organizational capacity for academic success (Test et al., 2005).

Complimenting self-advocacy as a predictor of success for students with disabilities in postsecondary education is the concept of self-determination. Self-determination as a theory grew from Richard Ryan and Edward Deci's work in the mid-1980s on intrinsic motivation and the factors that promote an individual's optimal development and performance (Deci & Ryan, 1985). The concept formalized in the educational setting in the following decade through Ryan, Kuhl, and Deci's literature on self-regulation (Ryan, Kuhl & Deci, 1997). The act of developing and promoting self-determination for students with disabilities began in the early 1990s when the Individuals with Disabilities Education Act (IDEA) was enacted (Wehmeyer, 2002). Although there are a variety of definitions of self-determination, the standard for its application in education is often the one developed by Field, Martin, Miller, Ward, and Wehmeyer (1998),

which defined self-determination as “a combination of skills, knowledge and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior. An understanding of one’s strengths and limitations, together with a belief of oneself as capable and effective, are essential to self-determination. When acting on the basis of these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults in our society” (p.2). As previously described, self-determination is a multi-dimensional concept that encompasses both internal, psychological traits, such as intrinsic motivation, as well as behavioral skill sets, such as executive functioning abilities (Cobb et al., 2009). This combination of traits and skills often presents in students with disabilities as understanding one’s disability, the ability to problem solve, goal-setting, and self-management (Thoma & Getzel, 2005).

Due to the vastly different educational environment in postsecondary, as compared to the secondary school setting, the academic success for students with disabilities relies heavily on self-advocacy and self-determination abilities and skills. The strong knowledge of one’s abilities and rights paired with engaging in goal-directed, self-regulated behavior, is imperative to successfully completing pursuit of higher education, with or without utilizing accommodations and resources.

### **Self-Determination in Students with Disabilities**

Self-determination is multi-dimensional in that it encompasses both internal psychological traits, such as intrinsic motivation, as well as behavioral skill sets, such as executive functioning abilities (Cobb et al., 2009). This complex combination of psychological traits and behavioral skill sets has been identified in qualitative research as being traits or skills

like problem solving, understanding one's disability, goal-setting, and self-management (Thoma & Getzel, 2005). Research has also explored how to go about fostering these thoughts and behaviors in students with disabilities by asking students how they learned these skills. Respondents described trial and error methods, support from peers/mentors, and being taught by parents (Thoma & Getzel, 2005). Lee and colleagues in 2012 determined that knowledge and instructional factors were stronger predictors of a student's self-determination than more personal variables. It was also determined that there was a reciprocal benefit of having students be more involved during their education on their levels of self-determination; that is the more involved the student, the higher their level of self-determination (Lee et al., 2012). This involvement could include more participation in academic accommodation management, for example. Additionally, student empowerment in the transition process has also been identified as a predictor of self-determination (Shogren et al., 2007). Having the student be afforded more autonomy and decision-making with regard to the academic and transition processes supports the notion that the student is in control of his/her educational experience. Providing opportunities for both risk taking and reflective practices were also suggested strategies for educational providers (Ankeny & Lehmann, 2011).

Interestingly, despite transition planning being a required piece of their secondary school experience, students overall did not mention that as being a place where they honed their self-determination skills (Konrad et al., 2007). This is likely due to transition planning centering on career and/or future planning that could be assessed in tangible outcomes versus more intrinsically developed skills. Per the Virginia Department of Education, "Transition services include a coordinated set of activities focused on academic and functional achievement needed to



assist the student in reaching postsecondary goals; this includes courses of study” (Virginia Department of Education, 2015, para. 2). Similar definitions or regulations of transition services are found across the United States, and while concepts like self-determination could feasibly fall within the concept of functional achievement, the majority of the focus is still academically based achievement. Overall there is a need to demonstrate that teaching self-determination skills does not have to come at the expense of overall academic instruction (Konrad et al., 2007).

Recent literature has shown problem solving, goal setting and attainment, self-awareness, and self-advocacy to all be important traits of self-determination (Ju et al., 2017). In fact, training and coaching models that encourage the use of resources and supports while working to improve self-determination skills have been shown to increase likelihood of academic success by having students actively engaged in working toward both the psychological traits and behavioral skill sets of self-determination (Ju et al., 2017). Studies also show correlations among self-determination, academic achievement, and self-concept, with self-determination and academic achievement being considerably related for students with learning disabilities. Results suggested high-school students with higher levels of self-concept and self-determination also had higher levels of academic achievement (Zheng, Erickson, Kingston, & Noonan, 2014). While results are promising and clearly suggest a need to extend curriculum and transition planning beyond traditional skills building and academic preparation, this remains an area in need of more study. Conducting more research on what components of self-determination relate to a positive impact on academic performance could help further support these initial claims, as well as give more insight into what should be changed or added within the educational system.

The internal psychological traits and external behaviors that define self-determination and their impact on students with disabilities have been studied since the early to mid 2000's. Beginning in more recent years, researchers have delved further into the impact of self-determination, self-concept, and empowerment as it related to academic performance. Results suggest that students in secondary education with higher levels of self-determination and related concepts have higher levels of academic achievement (Zheng et al., 2014). There is a need for further research in this area, as well as expanded the research to the postsecondary environment.

### **Literature Summary and Need for Study**

Students with disabilities are entering the secondary and post-secondary school systems at increasing rates courtesy of more accessible and appropriate educational opportunities and increasing rates of early diagnosis and intervention. Federal legislation, including the Individuals with Disabilities Education Act (IDEA), Americans with Disabilities Act (ADA), and Section 504 of the Rehabilitation Act of 1973, ensures appropriate and reasonable accommodation for these students to have access; however, instructional, physical, and attitudinal barriers still exist which can thwart a student's ability to be successful.

Researchers in the last 10 to 15 years have recognized these obstacles and made efforts to provide scientific evidence for these barriers (Denhart, 2008; Hong, 2015; Lehmann, Davies, & Laurin, 2000; O'Neill, Markward, & French, 2012). These barriers include lack of understanding from others, a lack of adequate services and resources, a lack of personal, (typically financial) resources and/or the knowledge of how to acquire and use them, and a general lack of self-advocacy skills and training (Lehmann et al., 2000). Additional hurdles, including the

perceptions and misunderstanding of other students, faculty, and staff, being reluctant to request and/or utilize accommodations, and the mental, emotional, and sometimes physical demands of having to work harder and longer than non-diagnosed peers have also been identified (Denhart, 2008; Hong, 2015). While psychosocial barriers are made evident in themes of a variety of studies, academically-based barriers have also been identified. These barriers often include having more difficulty with comprehension, organization, communication, and social skills (O'Neill, Markward, & French, 2012).

Unfortunately, the research to date is often conducted in the secondary education system, and often with individuals with profound disabilities (e.g., intellectual disabilities), thus it is difficult to translate findings to students with disabilities in the post-secondary setting. Additionally, while much of the research addresses the importance of self-management, goal-setting, self-determination, etc. and how it relates to success for young adults with disabilities (Konrad et al., 2007), there is a deficiency in the body of literature to address the connection between self-determination and academic performance. Research to date that has investigated the correlation between levels of self-determination and academic success has been conducted within the high school setting. While the results suggest that students in secondary education with higher levels of self-determination and related concepts have higher levels of academic achievement (Zheng et al., 2014), there is a need to investigate if that same would occur with the postsecondary environment.

Research has revealed certain resources and characteristics that have proven to be successful predictors of these students transitioning to adulthood, including accommodations and resources, executive functioning skills, relationships and support systems, self-advocacy and

self-determination. While these traits and skills have positive effects on overall transition, there is a deficiency in the literature with regard to how these characteristics, particularly self-determination, affect academic performance.

While research has shown that self-advocacy skills can enhance the knowledge and communication skills of a student with a disability (Test et al., 2005), which can support the development of strong executive functioning skills that can help students persist to graduation (Parker & Benedict, 2002), there is a gap in the literature on how self-determination fits within this evidence, and moreover, how it influences academic performance. Furthermore, the research shows that strong family and peer relationships produce more positive outcomes for people with disabilities (Lombardi et al., 2016), and that the empowerment development within those relationships has been identified as a predictor of self-determination (Shogren et al., 2007). However, the relationship between the internal psychological traits and the behavioral skill sets of self-determination and how they relate to the overall academic performance of college students with disabilities has not been examined. This study was conducted to further investigate those variables and the results of which can allow for more constructive transition planning at the secondary education level, family and loved ones better equipped to support empowerment, and for faculty and staff at the postsecondary level to provide better resources to support academic success for students with disabilities.

### CHAPTER 3

This study sought to determine the relationship between the psychological traits (e.g., locus of control) and the behavioral skill set (e.g., self-advocacy, communication, executive functioning) of self-determination and academic performance for college students with disabilities. A clearer understanding of the relationship between these factors could help teachers and counselors develop better transition planning at the secondary level, as well as help disability support service professionals at the college level provide more targeted programming. Furthermore, the research may provide implications for future research so that the deficiency in this area may be more adequately addressed.

#### **Research Design & Hypotheses**

This quantitative, survey-based research was conducted to determine the relationship between degree of self-determination and academic performance for college students with disabilities. Research to date on this topic has been largely qualitative, and while that has significant value in promoting the better understanding of students with disabilities and their experiences, a quantitative approach was the best way to address this research study as it investigated the relationship between two numerically identified variables: level of self-determination and grade point average. The study investigated the relationship between degree of self-determination and academic performance for college students with disabilities. The researcher hypothesized that there would be a positive relationship between self-reported self-determination levels and grade point average (GPA) in that students who report higher levels of self-determination have higher GPAs and students who report lower levels of

self-determination have lower GPAs. This hypothesis was based on similar research conducted in the high school setting (Ju et al., 2017; Zheng et al., 2014).

### **Population and Sampling**

For the purpose of this study, the researcher utilized stratified sampling to specifically recruit participants registered with the Office of Disability Resources attending a mid-size public university based in Virginia. Throughout the study, this institution will be referred to as Presidential University. The school has approximately 5,000 students from 25 states and 20 countries and is presently 68% female. Admitted students to the institution are described as having an overall high school grade point average of 3.08 – 3.79, SAT scores within the average range of 1010 - 1160, and an ACT score within average range of 19 - 25.

Students were asked to identify their disability category during participation in this study; however, all disability categories were welcomed to participate. Presently, approximately 600 students are registered with the Office of Disability Resources at Presidential University. The researcher hoped for a survey response rate of 20% given the size of the population. Controlling for the even distribution of demographics of participants will certainly be a limitation of the study. For example, currently, over 75% of students registered with the Office of Disability Resources at Presidential University have either Attention Deficit-Hyperactivity Disorder (ADHD) or a specific learning disability (e.g., dyslexia, dyscalculia, etc.) as their primary diagnosis. Other disabilities are a much smaller representation, and include physical, visual, and hearing disabilities as well as chronic health conditions. Additionally, the student population at Presidential University is approximately 75% white and over 65% female. These demographics

are certainly issues within the population and sampling of this study but will be well-documented and discussed in the limitations.

### **Institutional Review Board and Human Subjects Protection**

The researcher and dissertation committee members have the appropriate human protection ethics training/certification. The researcher received Institutional Review Board (IRB) approval from Presidential University and the conferring institution provided an Institutional Agreement. Although this study utilized a vulnerable population (students with disabilities), the participants were over 18 years of age and there was no intervention, rather just the completion of a survey.

### **Instrumentation**

The American Institutes for Research (AIR), in conjunction with the Teachers College at Columbia University in New York City, developed the AIR Self-Determination Assessments. These assessments measure two self-determination components: capacity and opportunity. Capacity refers to what students possess themselves in their knowledge, perceptions of self, and abilities that empower them to be self-determined. The other component of the AIR Assessment, opportunity, refers to a student's chances to put to use those aforementioned knowledge, skills, and abilities to use (Wehmeyer, 1995).

The AIR Self-Determination Assessments include three versions: student, parent, and educator. For the purpose of this study, the researcher only utilized the student assessment. This assessment is comprised of 24 statements divided into two components: things I do and how I feel (capacity component) and what happens in school and what happens at home (opportunity component). On a rating scale of one to five (1 = Never, 2 = Almost Never, 3 = Sometimes, 4 =

Almost Always, 5 = Always), students will circle the number of the answer that describes what they feel they are most like. The student AIR Self-Determination Assessment also includes three open-ended questions at the end of the 24 statements: give an example of a goal you are working on, what are you doing to reach this goal, and how well are you doing in reaching this goal (Wolman, Campeau, DuBois, Mithaug, & Stolarksi, 1994). While this survey was originally created for use in the secondary education environment, the questions within it are applicable to post-secondary and adults as well, which is not true of most self-determination instruments and thus why this particular one was selected.

Wolman and colleagues (1994) investigated the validity of the AIR Self-Determination Assessment and results of a factor analysis explained 74% of the variance in the measure, with capacity explaining 42.4%, home-school 17.25%, opportunity 10.3%, and knowledge-ability-perception 4.1%. Additionally, field tests were completed in 70 schools and included about 450 students with and without disabilities. Test-retest reliability analyses yielded a correlation of .74, which is within the acceptable reliability range (Wolman et. al., 1994).

The researcher investigated many instruments which measure self-determination before choosing to utilize the AIR Self-Determination Assessment. This instrument was chosen, in part, due to its tested validity and reliability but also due to being the most applicable with regard to content for college-aged students. Additionally, assessing students with regard to two components of self-determination (capacity and opportunity) helped the researcher in determining the relationship between degree of self-determination and academic performance for college students with disabilities. Please see Appendix A for copy of the AIR Self-Determination Assessment Student Questionnaire.



### **Data Collection and Analysis**

An invitation to participate via email was sent to all students registered with the Office of Disability Resources at Presidential University. There were three invitations to participate sent at different points during the Fall 2019 semester: August 30, September 13, and September 25, 2019. Participants who were interested in participating in the study were sent a link that took them to a consent form, demographic questions which included self-reported sex, disability diagnosis, major, class year, and current overall GPA, followed by the student version of the AIR Self-Determination Assessment. This process ensured the survey could be completed at the time and location that suited the individual. If needed for disability-based accommodations, the researcher was able to provide a paper copy of the instrument upon request, as well as give the instrument orally or provide an enlarged copy if needed. Participants with such needs were encouraged to contact the researcher to schedule this accommodation. No participants contacted the researcher for accommodations during the data collection of this study. The researcher offered the chance to win gift cards that were drawn once the data collection closed as incentives for participation. Two gift cards equivalent to \$50 cash were used at the drawing winners' discretion, a welcomed gift for most college-aged students, as it could be used anywhere a debit card is accepted.

Upon the closing of the survey response collection, the researcher utilized demographic identifiers and linear regression analyses to investigate the relationships between the survey score and GPA of respondents. These statistical analyses lend the researcher insight into the various relationships between how participants rated their levels of self-determination and their overall GPA, in addition to the other demographic variables collected.

The researcher chose to utilize a survey instrument over the interview in order to glean quantitative information regarding how students with disabilities describe their self-determination knowledge, skills, and abilities. While qualitative research would certainly provide additional, intriguing insight, quantitative research and utilization of an existing survey instrument had the benefit of being cost-effective and more timely. Additionally, the benefits to quantitative survey data include being numerical, concrete, and easily expanded upon. Also, interviews and other means of qualitative data are utilized in the recommendations for future research. Given the quantitative data from this study, qualitative or mixed methods approach would be a logical next step for continued research on the subject.

### **Limitations**

There are some limitations to this study given the survey design and sampling utilized. Small sample size, lack of even variability of disability diagnosis within the sample size, and statistical limitations of the assessment instrument are all potential limitations of this study, as they can potentially negatively affect the breadth of the data for this study. Location and student population demographics are also delimitations to be considered. That is, the researcher chose to operate within the boundaries of their University of employment and the specific population demographics of the students registered with the Office of Disability Resources at said institution. An additional limitation is that the study revolves around self-report, which leaves some room for human error or variability within the data. Furthermore, one could argue another potential limitation of the sample was utilizing students already registered with the University's Office of Disability Resources and that these students may already have a higher existing level of

self-determination than those who have disabilities but have not self-identified or pursued resources.

### **Summary**

This study sought to determine the relationship between self-determination and academic performance for college students with disabilities. A quantitative, survey-based approach was utilized. The researcher recruited participation of students registered with the Office of Disability Resources attending a small/mid-size, public, co-ed University in Virginia, identified in this study under an alias Presidential University. Participants completed the AIR Self-Determination Assessment and consented to the researcher obtaining their overall cumulative grade point average (GPA) and disability diagnosis. After surveys were administered and results, GPAs, and disability diagnosis information were collected, the researcher utilized appropriate statistical analyses to investigate the relationships between the survey score and GPA of respondents. The results of this study could help teachers and counselors develop better transition planning at the secondary level for college-bound students, as well as help disability support service professionals at the college level provide more targeted programming and resources. Furthermore, this study provides recommendations for future research that could further positively impact both secondary and post-secondary educational experiences for students with disabilities.

## CHAPTER 4

This chapter presents the findings of the study in illustrative tables and analysis. This quantitative, survey-based research study was conducted in an effort to determine the relationship between degree of self-determination and academic performance for college students with disabilities. The researcher utilized stratified sampling, where a larger population was divided into a specific group or strata. For the purpose of this study, that entailed utilizing a specific group of students registered with the Office of Disability Resources at a mid-size public university based in Virginia, referred to in this study as Presidential University. Participants answered demographic questions including self-reported sex, disability diagnosis, major, and current overall GPA, and completed the student version of the AIR Self-Determination Assessment (Wehmeyer, 1995).

A total of 143 students participated in the research study. One hundred forty six entries were collected; however, three entries were duplicates, where participants completed the survey twice. The three duplicate entries were removed for data analysis purposes, based on removing each student's second entry. The remaining 143 assessments were complete and scored and coded for statistical analysis.

Table 1

*Participants Reported Sex*

<u>Category</u>	<u>Frequency</u>	<u>%</u>
Male	25	17.5
Female	114	79.7
Genderqueer/Non-Binary	4	2.8

The above table details the results of the participants self-reported sex. The majority of respondents, nearly 80 percent, were female. This is commensurate with the sexidentification breakdown of both the students registered with the Office of Disability Resources at Presidential University, as well as the University as a whole, which has 67.4% of students identifying as female and 32.6% as male. Additionally, this is representative of the sex breakdown nationally in the college environment. According to the National Center for Education Statistics in 2017, students identifying as female made up over 56% of undergraduate students, with projection for female majority to continue to increase (U.S. Department of Education, 2017).

Table 2

*Participants Reported Class Year*

<u>Category</u>	<u>Frequency</u>	<u>%</u>
Freshman	30	21.0
Sophomore	27	18.9
Junior	47	32.9
Senior	35	24.5
Graduate Student	4	2.8

Table 2 shows the breakdown of the reported class year of the research participants. The majority of participants identified themselves as juniors. It was anticipated by the researcher that the bulk of participants would identify within the undergraduate class year categories, as 89% of Presidential University's student population is enrolled undergraduates. The self-identification of the respondents supported this assumption, as only 4 of the 143 participants were graduate students. While this does not lend itself to a diverse sample, it does support this researcher's

intent to examine a representative sample of institutions similar to Presidential University for replicability.

Table 3

*Participants Reported Disability*

<u>Category</u>	<u>Frequency</u>	<u>%</u>
Attention Deficit-Hyperactivity	36	25.2
Learning	43	30.1
Emotional/Mental	23	16.1
Chronic Health Condition	16	11.2
Visual Impairment	1	0.7
Hearing Impairment	2	1.4
Physical	6	4.2
Other	16	11.2

The two largest categories of disabilities for students registered with the Office of Disability Resources at the University are specific learning disabilities and Attention Deficit-Hyperactivity Disorder (ADHD). Table 3 reflects similar findings within research participants in that over 55% of respondents reported their primary disability diagnosis as either learning or attentional based. This suggests that the sample is representative of the students with disabilities at Presidential University as a whole. Also, this is commensurate with trends seen on the national level, as learning disabilities and ADHD make up 31% and 18%, respectively, of the top five disabilities reported in undergraduate students (U.S. Department of Education, 2019).

Table 4

*Participants Reported Major*


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<u>Category</u>	<u>Frequency</u>	<u>%</u>
Accounting	1	0.7
Anthropology	1	0.7
Art	3	2.1
Biology	3	2.1
Business	6	4.2
Chemistry	1	0.7
Communication Sciences & Disorders	4	2.8
Communication Studies	6	4.2
Computer Science	2	1.4
Criminology/Criminal Justice	6	4.2
English	4	2.8
Environmental Sciences	3	2.1
Graphic & Animation Design	6	4.2
Health & Physical Education	3	2.1
History	9	6.3
Information Systems & Cyber Security	1	0.7
Kinesiology	4	2.8
Liberal Studies	16	11.2
Marketing	1	0.7
Music	1	0.7
Nursing	6	4.2
Physics	1	0.7

Political Science	1	0.7
Psychology	13	9.1
Social Work	10	7.0
Sociology	3	2.1
Special Education	10	7.0
Theatre	1	0.7
Therapeutic Recreation	9	6.3
Undeclared	4	2.8
Graduate Student	4	2.8

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Table 4 details the reported major of research participants. The largest number of participants, over 11%, reported seeking a Liberal Studies degree. This was by significant margin, as the next most reported major, Psychology, was reported at just over nine percent. Notably, Liberal Studies is one of the top two majors within the institution. In 2018, 136 of the awarded Bachelor's degrees at Presidential University were for Liberal Studies. This again supports the notion that this sample of participants is a strong representation of the student body at large within the University, and specifically for the students with disabilities.

While the demographics, particularly for disability diagnosis and sex, were not evenly distributed amongst the categories, when compared to the demographics of the institution, the similarity assists in the representativeness of the sample. Furthermore, the demographics like sex and disability category were comparative to national data sets. Overall, the demographic findings suggest that the results of this study are an appropriate representation of the students with disabilities attending Presidential University and even have similarities supported by national



data trends. Please see Appendix B for measures of center, standard deviation, and range for demographic frequencies.

### **Statistical Analysis**

This research study was conducted to determine the relationship between self-determination and academic performance for college students with disabilities attending Presidential University. The null hypothesis was that there would be no relationship between self-reported self-determination levels and GPA of college students with disabilities. The alternative hypothesis was that there would be a positive relationship between self-reported self-determination levels and GPA, meaning that students with higher ratings of self-determination would have higher GPAs and students with lower ratings of self-determination would have lower GPAs.

After data collection, a simple linear regression was calculated to predict grade point average (GPA) based on overall self-determination rating. Regression was the appropriate statistical measure to lend the researcher insight into the relationship between how participants rated their levels of self-determination and their overall GPA. A significant regression equation was found ( $F(1, 141) = 4.271$ ,  $p = 0.041$ , with an  $R^2$  of 0.029. Participants predicted GPA is equal to  $2.397 + 0.007$  (self-determination rating). Participants' GPA increased 0.007 for each point of self-determination. The results of this analysis supports the alternative hypothesis that students with higher ratings of self-determination would have higher GPAs.

The AIR Self-Determination Assessment measures two self-determination components: capacity and opportunity. What the student possesses in their abilities, self-knowledge, and perception of self that empowers them to be self-determined is capacity. Opportunity refers to a

student's chances to use the aforementioned self-knowledge, skills, and abilities (Wehmeyer, 1995). A simple linear regression was calculated to predict GPA based on participant's rating of capacity for self-determination. A significant regression equation was found ( $F(1, 141) = 5.770$ ,  $p = 0.018$ , with an  $R^2$  of 0.039). Participants predicted GPA is equal to  $2.310 + 0.016$  (capacity rating). Participants GPA increased 0.016 for each point of capacity for self-determination. Conversely, there was not a significant regression equation found when a simple linear regression was calculated to predict GPA based on a participant's rating of opportunity for self-determination ( $F(1, 141) = 1.963$ ,  $p = 0.163$ , with an  $R^2$  of 0.014). This result suggests that the impact of an individual's capacity of self-determination, or self-knowledge, perception, and abilities, has more positive impact than their opportunity to utilize said knowledge and understanding. Please see Appendix C for scatterplot graphs of the significant linear regression equations.

Based on the aforementioned analyses, the null hypothesis, that there is no relationship between self-reported self-determination levels and GPA of college students with disabilities, is rejected. Conversely, the alternative hypothesis was supported. The data demonstrated a positive relationship between self-reported self-determination levels and GPA. That is, students with higher ratings of self-determination had higher reported GPAs and students with lower ratings of self-determination had lower GPAs. Additionally, results revealed that capacity rather than opportunity for self-determination had more positive impact on academic performance for students with disabilities.

In summary, this research study was conducted in an effort to determine the relationship between degree of self-determination and academic performance for college students with

disabilities. Using stratified sampling, 143 students registered with the Office of Disability Resources at Presidential University participated in the study by completing the AIR Self-Determination Assessment and answering questions regarding their sex, disability category, major, and class year. The demographic analyses revealed the majority were female (79.7%) and over 55% reported either a primary diagnosis of a learning disability or Attention Deficit-Hyperactivity Disorder (ADHD). The majority of participants were undergraduates, with only four of the 143 students being graduate students. One of the top two largest majors at Presidential University, Liberal Studies, was the reported major of 11% of study participants. These findings, based on institutional comparison to averages, suggest a representative sample of students with disabilities attending the University, as well as are commensurate with national data trends.

Simple linear regression analyses rejected the null hypothesis and supported the alternative hypothesis. Participants GPA increased 0.007 for each point of self-determination. The results of this analysis supports the alternative hypothesis that students with higher ratings of self-determination would have higher GPAs. Furthermore, participants' GPA increased 0.016 for each point of capacity for self-determination, which suggests that within the concept of self-determination, an individual's belief in their capacity has more potential impact on academic performance than opportunity. These results suggest that the academic success of students with disabilities, as measured by GPA, is positively correlated with level of self-determination.

## CHAPTER 5

### **Introduction**

A steady increase in the number of students with disabilities entering post-secondary education has been well-documented over the last several decades (U.S. Department of Education, National Center for Education Statistics, 2016). As expected, institutions of higher education are having to develop new means to provide necessary support and resources to meet the needs of these students. To date, the literature has identified predictors of successful transition to the college environment, including self-advocacy, communication and executive functioning skills (Gil et al., 2007). A student with a disability who possesses the aforementioned skills and knowledge has a greater likelihood to be successful beyond the barriers that exist in higher education, regardless of disability type. There has been, however, a gap in the literature on the relationship between the specific concept of self-determination and academic performance, particularly for students with disabilities in the post-secondary environment. This study contributed to learning more about the relationship between self-determination and academic performance of college students with disabilities, which can benefit a multitude of invested parties within the education system. Some benefits include utilizing the knowledge to support better transition planning in secondary education, more meaningful professional development related to academic success of students with disabilities for faculty and staff at both the secondary and post-secondary level, and better preparation for students to tackle the rigorous college environment despite the challenging aspects of their disabilities.

### **Summary of the Study**

Barriers to a successful educational experience still exist for many students with disabilities, even with the legislative advances and positive changes in the last several decades. These barriers often include a lack of resources and understanding from others, as well as a lack of skill sets and readiness for the students themselves (Lehmann, et al., 2000). Prior studies and literature on students with disabilities in the educational setting has made efforts to recognize these barriers and made efforts to provide scientific evidence for them (e.g., Denhart, 2008; Hong, 2015; Lehmann et al., 2000; O’Neill, Markward, & French, 2012). Additionally, while much of the research on predictors for success for students with disabilities addresses the importance of self-management, goal-setting, and self-determination for students with special needs (Konrad, Fowler, Walker, Test, & Wood, 2007), there has been a gap in the body of literature to address the specific connection between self-determination and academic performance in the post-secondary setting. Furthermore, the majority of this research was conducted within the K-12 education system and often with individuals with profound disabilities, including intellectual and developmental disabilities.

The examination of psychological traits and external behaviors that define self-determination and the impact on students with disabilities began to be investigated by researchers in the early to mid 2000’s. More recently, researchers have delved further into the impact of self-determination, self-concept, and empowerment as it related to academic performance. Results suggest that students in secondary education with higher levels of self-determination and related concepts have higher levels of academic achievement (Zheng et al., 2014). Being fairly new research, these results need further investigation and attempt to reproduce in order to effectively influence the educational landscape for students with

disabilities. Similarly, there is a significant need to investigate the impact of self-determination on academic performance for students with disabilities in the post-secondary setting.

The purpose of this study was to determine the relationship between self-determination and academic performance for college students with high incidence disabilities via a quantitative, survey-based approach. Students registered with the Office of Disability Resources attending a small/mid-size, public, co-ed university based in central Virginia were invited to participate. Participants completed the AIR Self-Determination Assessment and the researcher investigated the relationships between the scores on the assessment and overall grade point average (GPA) of the participant to determine if there was a positive relationship between students' reported level of self-determination and their academic performance, as has been identified in the K-12 setting (Zheng et al., 2014).

The primary research question was what is the relationship between degree of self-determination and academic performance for college students with disabilities? A total of 143 students participated in the research study. The majority of respondents, nearly 80 percent, were female and most respondents either reported a learning disability or Attention Deficit-Hyperactivity Disorder (ADHD) as their primary diagnosis. Additionally, there was representative distribution across all four undergraduate class years as well as graduate students. The majority of participants reported being a Liberal Studies major.

After compiling the data, the researcher performed simple linear regression analyses. The results rejected the null hypothesis and supported the alternative hypothesis. Participants GPA increased by 0.007 points for each point of self-determination, supporting the hypothesis that the higher the self-determination rating, the higher the GPA. The correlation was found to be

statistically significant with  $p = 0.041$ . Results also suggest that the psychological traits of self-determination: self-knowledge, perception, and abilities, can have more positive impact on academic performance than an individual's opportunity to utilize the skillsets.

The data supported a positive relationship between reported self-determination levels and GPA. That is, students with higher ratings of self-determination had higher reported GPAs and students with lower ratings of self-determination tended to have lower GPAs. These results support the notion that for students with disabilities in the post-secondary setting, having a strong level of self-awareness and the ability to engage in goal-directed and self-regulated behavior allowed them to be more academically successful. These findings, once expanded upon and replicated with future research, can allow for a variety of impacts, including influencing transition planning in the K-12 environment and allowing for more productive programming for disability services professionals in higher education.

This research, especially with further replication, could support consideration for more coaching toward the concepts of self-advocacy, self-determination, and executive functioning, regardless if a K-12 student is vocationally or college bound. Examples of utilizing this research to influence the K-12 environment include creating more constructive transition planning with a focus on the development of psychological traits and behavioral skill sets not unlike those of self-determination. Rather than focusing on the two traditional tracks of transition (vocational or college preparatory), there could be intentional education and activities centered on improving student's self-awareness and practicing goal-setting and self-regulation techniques. Through this, the student with a disability could profoundly impact their overall levels of self-advocacy and

self-determination and be further prepared to experience success in either the work or postsecondary educational setting.

Also pivotal to the secondary education setting would be involving the student's family. Prior literature shows that strong family and peer relationships produce more positive outcomes for people with disabilities (Lombardi et al., 2016), and that the empowerment development within those relationships has been identified as a predictor of self-determination (Shogren et al., 2007). Arming a student's support system with the knowledge about the positive effect of self-determination can assist the person with the disability to have an even greater likelihood of academic success. This could include providing targeted assistance to the family and loved ones of students with disabilities so that they are better equipped to support empowerment of these individuals, with appropriate balances of challenge and support. Doing so could support the development of self-determination and thus further assisting in laying the framework for positively impacting likelihood of success after K-12.

These findings and future research can also educate and support faculty and staff at the postsecondary level to provide better resources to support academic success for students with disabilities. For example, having programming and/or coaching of students with disabilities that centers on building the traits and skills of self-determination and other similar components can help support students' academic performance just as well, if not moreso, than initiatives like tutoring and coaching. Educating disability services professionals, as well as general faculty and staff, on the impact of self-determination on academic performance could positively influence how students with disabilities are viewed in higher education. Additionally, there could be a notable impact on the student's overall college experience and ability for postsecondary



institutions to better retain these students. Increased support that is centered on skills-building, mindset, and self-awareness would be a new movement within postsecondary disability services and has the potential, as supported by the results of this study, to positively influence the academic performance of students with high incidence disabilities. What may have previously been framed as an academic competency issue could be viewed alternatively once this data is considered. It shows that coaching, training, and education for building the traits and skill sets of self-determination can have a direct positive effect on a student's academic performance.

### **Findings Related to the Literature**

The self-advocacy movement for people with disabilities began in the 1980s as a means of pursuit for autonomy (Test et al., 2005). Along with self-advocacy being identified as a predictor of success for students with disabilities in postsecondary education, so is the concept of self-determination. As cited in prior literature, and for the purpose of this study, self-determination is viewed as a multi-dimensional concept that encompasses both internal, psychological traits, such as intrinsic motivation, as well as behavioral skill sets, such as executive functioning abilities (Cobb et al., 2009). This combination of traits and skills often presents in students with disabilities as understanding one's disability, the ability to problem solve, goal-setting, and self-management (Thoma & Getzel, 2005). More recent literature within the post-secondary setting has shown problem solving, goal setting and attainment, self-awareness, and self-advocacy to all be important traits of self-determination (Ju et al., 2017). Studies have also shown correlations among self-determination, academic achievement, and self-concept, with self-determination and academic achievement being considerably related for students with learning disabilities. Results suggested high-school students with higher levels of

self-concept and self-determination also had higher levels of academic achievement (Zheng et al., 2014). For students in the post-secondary setting, the current study supports the previous findings of the K-12 setting in that students with higher ratings of self-determination had higher GPAs.

The data of this study support the aforementioned findings related to self-determination and academic achievement. Through statistical analyses, the results of which supported a positive relationship between self-reported self-determination levels and GPA. Students with higher ratings of self-determination had higher reported GPAs and students with lower ratings of self-determination will have lower GPAs. These results are particularly promising as it builds upon what studies have established between self-determination and academic achievement at the secondary level (Zheng et al., 2014) but this study shows a relationship at the post-secondary level. This is significant because it indicates that self-determination is an impactful variable for students with disabilities at all educational levels, further supporting the notion that coaching and training centered on this topic has the potential to be profoundly effective. Having the proverbial toolkit to engage in self-directed, goal-oriented behavior while maintaining high levels of self-awareness could change the entire experience of education for students with disabilities. While the last several decades of research and legislation has centered on equitable experience and appropriate access, this research shows a new direction that tackles the next step: academic success for students with disabilities.

### **Conclusions, Implications and Recommendations**

Federal legislation, including the Individuals with Disabilities Education Act (IDEA), the Americans with Disabilities Act (ADA), and Section 504 of the Rehabilitation Act of 1973 were

developed to ensure appropriate and reasonable accommodation for students with disabilities in order to have equitable access to educational infrastructure. With these regulations in place, students with disabilities are entering the secondary and post-secondary school systems at increasing rates courtesy of these more accessible and appropriate educational opportunities, as well as increasing rates of early diagnosis and intervention. However, instructional, physical, and attitudinal barriers still exist which, regardless of access, can disrupt a student's success. These barriers include a lack of personal resources and/or the knowledge of how to acquire and use them, lack of understanding from others, a lack of adequate services and resources, and a general lack of self-advocacy skills and training (Lehmann et al., 2000).

Over the last two decades, researchers have recognized these barriers in practice and made efforts to provide scientific evidence for them (Denhart, 2008; Hong, 2015; Lehmann, Davies, & Laurin, 2000; O'Neill, Markward, & French, 2012). Additional hurdles, including negative or inaccurate perceptions of others, being reluctant to request and/or utilize accommodations, and the overall mental, emotional, and sometimes physical demands of having to work harder and longer than non-diagnosed peers, have also been identified (Denhart, 2008; Hong, 2015). Academically-based barriers have also been identified, including generally having more difficulty with comprehension, organization, communication, and social skills (O'Neill, Markward, & French, 2012).

With barriers so robustly recognized in the literature, research has also been conducted regarding the predictors of success for students with disabilities. To date, research has revealed certain resources and characteristics that have proven to be successful predictors of these students transitioning to adulthood, including accommodations and resources, executive

functioning skills, relationships and support systems, self-advocacy and self-determination (Konrad et al., 2007; Lombardi et al., 2016; Parker & Benedict, 2002; Shogren et al., 2007; Test et al., 2005; Zheng et al., 2014). Until now, literature that has specifically addressed self-determination and academic success has been conducted within the high school setting. While this research suggests that students in secondary education with higher levels of self-determination have higher levels of academic achievement (Zheng et al., 2014), there was a clear need to investigate if that same would occur with the postsecondary environment.

This study was conducted to further investigate those variables and the results of which can affect several parties, including the students themselves, parents/caregivers, and educational staff. Analysis of the data collected for this study revealed that participants' GPA increased with each point of self-determination. Additionally, analysis revealed that participants GPA also increased for each point of capacity for self-determination. Based on those analyses, the null hypothesis, that there is no relationship between self-reported self-determination levels and GPA of college students with disabilities, was rejected. Conversely, the alternative hypothesis was supported. The data supported there being a positive relationship between self-reported self-determination levels and GPA. That is, students with higher ratings of self-determination had higher reported GPAs and students with lower ratings of self-determination tend to have lower GPAs.

The data of this study support the aforementioned findings related to self-determination and academic achievement. Through statistical analyses, the results of which supported there being a positive relationship between self-reported self-determination levels and GPA. Students with higher ratings of self-determination had higher reported GPAs and students with lower

ratings of self-determination will have lower GPAs. These results are particularly promising as it builds upon what studies have established between self-determination and academic achievement at the secondary level (Zheng et al., 2014). Future research is encouraged to utilize the results of this study to continue to investigate the relationship between self-determination and academic performance for students with disabilities in the post secondary environment. Recommendations include replication of the study with larger and/or more diverse sample sizes and further investigation of any potential co-occurring impacts like race/ethnicity, sex, socioeconomic factors, and the like.

While decades of research, education, and legislation has led to incredible movements within the educational setting for students with disabilities, equitable access is only one piece of the puzzle. The creation of programming and opportunities for students to increase their self-determination can positively impact their academic success. This research, when combined with continued study of the subject, can be used to create new transition planning approaches in the K-12 setting and new paths for disability services in postsecondary education.

## APPENDIX A

**AIR Self-Determination Scale STUDENT FORM**

The AIR Self-Determination Scale was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement HO23J200005. The Student Form involves 24 statements to be rated on a scale of one to five, one being “Never” and five being “Always”.

1. I know what I need, what I like, and what I’m good at.
2. I set goals to get what I want or need. I think about what I am good at when I do this.
3. I figure out how to meet my goals. I make plans and decide what I should do.
4. I begin working on my plans to meet my goals as soon as possible.
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.
6. If my plan doesn’t work, I try another one to meet my goals.
7. I feel good about what I like, what I want, and what I need to do.
8. I believe that I can set goals to get what I want.
9. I like to make plans to meet my goals.
10. I like to begin working on my plans right away.
11. I like to check on how well I’m doing meeting my goals.
12. I am willing to try another way if it helps me to meet my goals.
13. People at school listen to me when I talk about what I want, what I need, or what I’m good at.

14. People at school let me know that I can set my own goals to get what I want or need.
15. At school, I have learned how to make plans to meet my goals and to feel good about them.
16. People at school encourage me to start working on my plans right away.
17. I have someone at school who can tell me if I am meeting my goals.
18. 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.
19. People at home listen to me when I talk about what I want, what I need, or what I'm good at.
20. People at home let me know that I can set my own goals to get what I want or need.
21. At home, I have learned how to make plans to meet my goals and to feel good about them.
22. People at home encourage me to start working on my plans right away.
23. I have someone at home who can tell me if I am meeting my goals.
24. 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.

## APPENDIX B

*Demographic Frequency Statistics*

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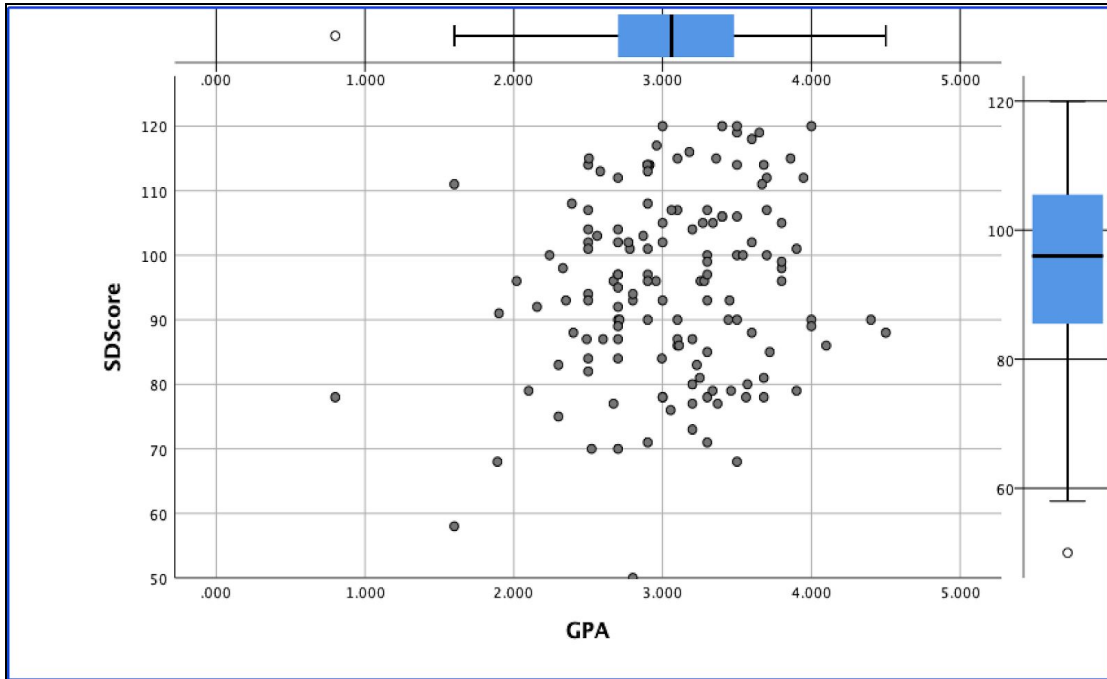
	<u>Gender</u>	<u>Class Year</u>	<u>Disability Type</u>	<u>Major</u>
Mean	1.85	2.69	3.09	22.80
Median	Female	Junior	Learning Disability	Liberal Studies
Mode	Female	Junior	Learning Disability	Liberal Studies
Std. Deviation	0.427	1.140	2.251	10.917
Range	2	4	7	39

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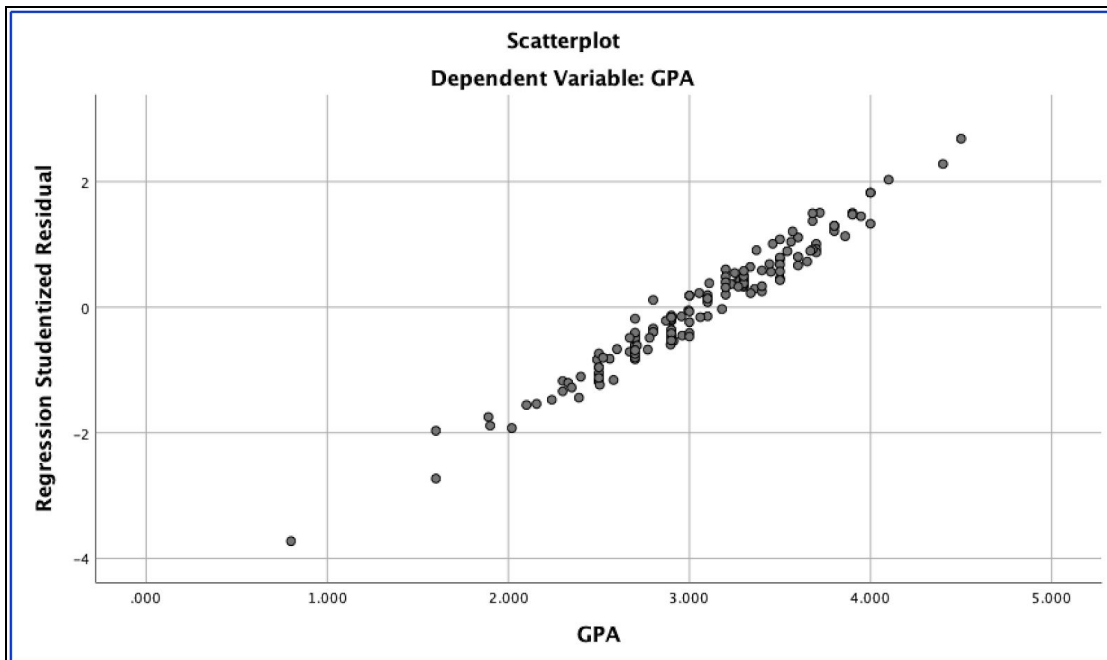


APPENDIX C

*Scatterplot graph for participants' overall GPA and self-determination score:*



*Scatterplot graph for participants' overall GPA and capacity for self-determination score:*



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