ACADEMIC SUPPORTS AND COLLEGE SUCCESS FOR STUDENTS WITH A LEARNING DISABILITY

BY

LAUREN P. RODRIGUEZ

A DISSERTATION

SUBMITTED TO THE FACULTY OF

ALFRED UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF PSYCHOLOGY

IN

SCHOOL PSYCHOLOGY

ALFRED, NEW YORK

NOVEMBER, 2015

ACADEMIC SUPPORTS AND COLLEGE SUCCESS FOR STUDENTS WITH A LEARNING DISABILITY

BY

LAUREN P. RODRIGUEZ

UNIVERSITY AT BUFFALO, THE STATE UNIVERSITY OF NEW YORK, B.S. (2008)

ALFRED UNIVERSITY, M.A. (2010)

ALFRED UNIVERSITY, C.A.S. (2012)

APPROVED BY: Jana Atlas, Ph.D.
Committee Chairperson

Andrea Burch, Psy.D.
Committee Member

Kevin Curtin, Ph.D.
Committee Member

Arthur Greil, Ph.D.
Committee Member

ACCEPTED BY: Mark Fugate, Ph.D.
Chairperson, Division of Counseling and School Psychology

ACCEPTED BY: Nancy Evangelista, Ph.D.
Associate Provost and Director of Graduate Studies

ACCEPTED BY: W. Richard Stephens, Jr., Ph.D.
Provost and Vice President for Academic Affairs

Table of Contents

Abstract

This study examined students with learning disabilities' use of academic consultation, a specific academic support, during the first year of college and the relation it had to completing the undergraduate degree. Forty-one participants were recruited via e-mail, telephone, and social media in order to request their consent to have the researcher access their academic and support services records. Results indicate that the number of academic consultant meetings attended during the first year of college did not have a significant impact on overall GPA or GPA at the end of the third semester. Those who used test accommodations during their first year were more likely to graduate in four years than those students who did not use their test accommodations during the first year. The findings suggest incoming first year students with learning disabilities should be aware of the importance of seeking out and registering with the disability office on campus in order to arrange for their test accommodations.

Chapter 1

Introduction and Review of the Literature

In recent years, the number of students who have been diagnosed with a learning disability and have chosen to continue their education at the postsecondary level has increased substantially (Foley, 2006). Under the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973, students who qualify as having a disability and provide their university with a reasonable level of documentation must be provided with reasonable accommodations (Thomas, 2000). Research has shown that there is a relationship between the degree of academic support used by college students with learning disabilities and college success (Cowles & Keim, 1995; Troiano, Liefeld, & Trachtenberg, 2010). However, research has yet to focus on the evaluation of the effectiveness of specific academic support services at the college level, such as extended test time, note takers, and consultant meetings for academic support (Mull, Sitlington, & Alper, 2001). The current study looked at the number of times a freshman student met with academic consultants at the office of disability services to determine if this related to their degree completion and overall GPA.

Students with Disabilities in Postsecondary Education

Common characteristics.

In 1999, the U.S. Department of Education collected data on students with disabilities in postsecondary education to provide a profile of those students (Horn, Berktold, & Bobbitt, 1999). Their findings indicated that during the 1995-96 academic year, of the 21,000 students who participated in the survey, students with disabilities accounted for about six percent of the undergraduate students enrolled in postsecondary institutions. Among those undergraduates with a disability, 29 percent self-reported as having a learning disability, 23 percent an orthopedic

impairment, and 21 percent reported having another health-related disability. Undergraduates who identified as having a disability were more likely to be male, white, and older than students without a disability. Almost one quarter of undergraduates with disabilities were age 40 years or older. Furthermore, students with disabilities were more likely to attend 2-year colleges than 4-year colleges and universities.

According to research conducted by Henderson (1999), the fastest growing category of disabilities among freshman college students between 1988 and 2000 was learning disabilities. In 2000, 40 percent of first year students with a disability identified as specifically having a learning disability, compared to only 16 percent in 1988. Forty-five percent of the first year college students who reported having a learning disability were women. Prevalence studies of school-identified school-age students with learning disabilities found that 73 percent were male (Hallahan, Lloyd, Kauffman, Weiss, & Martinez, 2005) suggesting that males with learning disabilities are less likely to pursue postsecondary education than females with learning disabilities. Overall, research has shown that there is both a female advantage for college completion and academic performance (Buchmann & DiPrete, 2006). Research addressing graduation rates and gender differences for college students specifically with learning disabilities is limited. According to a study conducted by Vogel, Hruby, and Adelman (1993), male and female graduation rates for students with learning disabilities were almost identical, although there were twice as many male nongraduates with learning disabilities (29%) than female nongraduates (17%). In comparison to other freshman students with disabilities, students with learning disabilities were more likely to consider pursuing an academic major in the arts and sciences and they were least likely to be interested in professional fields (Henderson, 1999).

Barriers to Postsecondary Success.

Students with disabilities must overcome obstacles related to academic preparation, which ultimately may affect their ability to successfully complete a college degree. Horn et al. (1999) found that students with disabilities were less likely to be qualified to be admitted to a 4-year college, and these students also differed from students without disabilities on various indicators of academic performance. The findings indicated that students with disabilities took more remedial English and mathematics courses in high school and fewer advanced placement courses; in addition, they had lower cumulative high school GPAs and lower Scholastic Aptitude Test (SAT) scores. Based on these results, it appears that students with disabilities who pursued an undergraduate degree were less academically prepared for college than students without disabilities.

As the number of students with disabilities who choose to attend a postsecondary institution is increasing, there becomes a concern with how prepared the students are for this more challenging and less structured environment, as up until this point their progress and needs had been monitored by teachers, parents, and counselors. In particular, students diagnosed with a learning disability must often for the first time develop various academic and non-academic skills that they do not already possess, in order to succeed independently. These include study and time management skills, as well as self-advocacy skills specifically related to self-identifying as having a learning disability, describing the disability and its effect on their learning, and discussing appropriate accommodations. Additionally, students with disabilities may not be aware of the support services and accommodations that are offered at the college level, and also where to go to receive these services (Foley, 2006).

Academic performance.

One of the ways incoming students are screened for their probability of success in college is by having high SAT scores. Research findings examining the extent to which SAT scores predict future GPAs for postsecondary students with and without disabilities vary. SAT scores have generally been found to be a reliable predictor of overall college GPA for undergraduate students (Beck & Davidson, 2001; Tross, Harper, Osher, & Kneidinger, 2000; Wolfe & Johnson, 1995). However, research examining the prediction of overall GPA utilizing SAT scores for students with learning disabilities indicates that SAT scores are not typically a reliable predictor of academic performance (DaDeppo 2009; Murray & Wren, 2003; Wilczenski & Gillespie-Silver, 1992; Vogel & Adelman, 1992). Research conducted by Ragosta, Braun, and Kaplan (1991) found that first-year and overall GPAs for students with learning disabilities were consistently overpredicted by SAT scores, for both those students who participated in the standard and special administration of the exam. When both high school grades and SAT scores were used to predict college GPA for students with learning disabilities, there was little to no over prediction. This suggests that the combination of using high school grades and SAT scores is a better predictor than SATs alone.

A 12-year study conducted by Jorgensen et al. (2005) found that 653 college students with and 41,357 students without disabilities had identical grades as well as graduation outcomes. However, their data suggested that in order to accomplish this, students with disabilities often took lighter course loads than students without disabilities and they also typically took a semester longer in order to graduate. Furthermore, when students with disabilities were divided further into two separate groups, one composed of students with learning disabilities and Attention Deficit Disorder (ADD), the other composed of all other disabilities, and then compared to students without disabilities, those students in the learning

disabilities/ADD group had similar grades, passing rates, and graduation rates as those students in the students without disabilities group. Additionally, when the students who were in the group composed of all other disabilities were compared to students without disabilities, those in the other disabilities group were found to have equal graduation rates or better grades and passing rates than students without disabilities. Jorgensen et al. (2005) suggest that the lighter course load and ability to pre-register in preferred classes, along with other disability-specific accommodations utilized, may explain how the group composed of other disabilities had equal or better grades and graduation rates than nondisabled peers. Nevertheless, their performance may also be due to factors irrelevant to the accommodations. Research conducted by Vogel and Adelman (1990) suggested that motivation and attitude toward the teaching-learning process accounted for 28 percent of the variance in college-exit GPA, when comparing a random stratified sample of peers to a sample of students with learning disabilities.

Academic advisement offered to students with learning disabilities may account for findings suggesting that they perform as well as students without learning disabilities (Vogel & Adelman, 1992). When a group of students with learning disabilities were compared to a sample of students without disabilities, matched on gender and ACT composite scores, it was found that there was no significant difference in GPA at the end of freshman, sophomore, junior, or senior year. Still, the mean GPA for students with learning disabilities (2.43) was slightly higher than the comparison group's mean GPA (2.18) upon their exit from college, although not significantly different. Students with learning disabilities also received significantly fewer failing grades, although they took significantly more pass/fail courses (e.g., developmental English courses). In addition, it was found that three times the number of students without disabilities (51%) failed out of college academically than group of students with learning disabilities (18%). Vogel and

Adelman (1992) explained that their findings might have been related to the academic advisement available to the students with learning disabilities. The academic advisors in the study assisted students with learning disabilities by closely monitoring academic performance, monitoring deadlines for dropping courses or taking a pass/fail grade, helping students determine the type of course load to take, as well as guiding them to sign up for courses with professors who were understanding of the needs of students with learning disabilities. Vogel and Adelman (1992) reported that the effect of academic advisement on GPA was validated by the data suggesting that students with learning disabilities received significantly fewer failing grades than students without disabilities who were not receiving academic advising. Still, there are limits to this study. A variety of factors may influence a student with a learning disability's decision to utilize support services, such as motivation, self-understanding, ability to recognize the need to use them, level of acceptance of disability, and developmental life stage (Adelman & Vogel, 1998; Vogel & Adelman, 1992).

History of Learning Disabilities

Historically, the field of learning disabilities has developed as a way to answer two needs—to understand differences in learning and performance among individuals displaying specific weaknesses using spoken or written language, and as a way to provide services to children whose learning needs were not being met by the general education curriculum (Lyon, Fletcher, & Barnes, 2003). Franz Gall's work in the early 19th century was the first that demonstrated relevance to how we conceptualize learning disabilities today (Wiederholt, 1974, as cited in Lyon et al., 2003). Gall observed strengths and weaknesses in oral and written language, and concluded that brain damage could affect one language capability but not others.

Also, he understood the need to rule out other conditions, such as intellectual disability and deafness, which could impair an individual's performance (Hammill, 1993).

Other medical professions also began studying and reporting cases of individuals displaying specific weaknesses in cognitive, linguistic, and reading abilities. Broca (as cited in Lyon et al., 2003) first established the idea of expressive aphasia, or the inability to speak, which he said was the result of lesions on the anterior regions of the left hemisphere. The lesions did not affect individuals' receptive language skills or other abilities not related to language. While observing individuals with specific brain damage, Wernicke (as cited in Lyon et al., 2003) reported that an individual could have impairment in a function, such as their receptive language, but they do not exhibit weaknesses in other cognitive or linguistic skills. Both Broca's and Wernicke's observations later aided researchers in the development of theories regarding learning disabilities (Lyon et al., 2003).

By the beginning of the 20th century, observations and evidence from various sources indicated that children and adults could experience specific learning difficulties (Lyon et al., 2003). Evidence at this time suggested that the pattern and severity of the learning difficulties varied, that they affected the left hemisphere central language processes, more males were affected than females, and that standard general education teaching strategies did not meet the needs of children who had these learning difficulties (Hynd & Willis, 1988). During the 1920s, Samuel Orton's studies and writing were especially influential in motivating research on reading disabilities. Orton believed that children with specific reading disabilities had struggles caused by a failure to establish language dominance in the left hemisphere of the brain, rather than having damage to a specific part of the brain. His research helped to establish teacher and parent

advocacy groups through special schools and clinics, and aided in the development of instructional techniques for teaching students with reading disabilities (Torgesen, 1998).

Through their work at the Wayne County Training School, Heinz Werner and Alfred Strauss attempted to explain the inadequate learning processes of children who experienced difficulty processing specific types of information. Werner and Strauss concluded that, in comparison to children with intellectual disabilities who were not brain damaged, brain-damaged children exhibited specific weaknesses in their attention and perception skills and, therefore, this group of children did not benefit as much from the general education curriculum as those without brain-damage (Torgesen, 1998). Based on their research and observations of the children in the school setting, Werner and Strauss proposed that students with brain-damage required special education interventions in order to overcome their specific areas of weakness (Strauss, 1943). Lyon et al. (2003) concluded that Werner and Strauss' findings and observations had a large impact on the research being conducted in the 1950s and 1960s, specifically guiding scientists to focus on children who had average intelligence but were unable to learn in school.

By 1963, the field of disabilities was progressing towards formally identifying learning disabilities as a handicapping condition. At a conference held to explore problems of children with a handicapping condition or disabilities, Samuel Kirk (1963) suggested "the term 'learning disabilities' to describe a group of children who have disorders in development in language, speech, reading, and associated communication skills needed for social inter-action" (p. 3). The movement and creation of the special education category of learning disabilities was based on the argument that children with learning disabilities had different learning characteristics than children with mental retardation or emotional disturbance. It was determined that learning disabilities were the result of intrinsic factors, children with learning disabilities exhibit strengths

in other areas, and they require specific and specialized academic interventions (Lyon et al., 2003).

Legislation for School-Age Children

The educational rights of school-age students with disabilities first became protected through the passage of the Individuals with Disabilities Education Act (IDEA) in 1975. IDEA addressed the rights of children with disabilities to attend public schools, to receive services to meet their needs at no cost, and to receive as much of their instruction in the regular education classroom as possible. IDEA does not cover all children with disabilities; rather a child must have one of the thirteen impairments, one of which is a learning disability, in order to be eligible. The child must also require the support of a special education service provider in order to access the general education curriculum (IDEA, 2004). Aron and Loprest (2012) reported that by the 2004-2005 school year, 6.7 million children were receiving special education services through IDEA (2004), with learning disabilities being the most common disability among school-age students.

Currently, there are a wide variety of definitions that attempt to identify the characteristics of a learning disability. Kavale and Forness (2000) explained that the definition of learning disability may vary depending on the definee's position and purpose, as some definitions are utilized for federal mandates, while others represent the views of professionals and parents.

The two most commonly utilized definitions include one proposed by the National Joint Committee on Learning Disabilities (NJCLD) and the other found in the Individuals with Disabilities Education Act (IDEA) (Kavale & Forness, 2000). The NJCLD has developed the

following definition of learning disabilities, which is the most commonly adopted definition of participating NJCLD member organizations. The NJCLD's (1990) definition is as follows:

> Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to the central nervous system dysfunction, and may occur across the life span… (p. 20)

IDEA (2004) defines specific learning disability as:

> A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage. (p. 13)

Special Education Programs for School-Age Children

Educators often question whether students with learning disabilities should be provided special education support through the inclusion or resource room model of service delivery (Bentum & Aaron, 2003). In the inclusion model, special education support is provided within the general education classroom, where both the general education and special education teachers adapt and modify the instruction for students with learning disabilities. In contrast, special educators following the resource room model remove the students from the general

education setting and provide instruction in a separate special education class (Bentum & Aaron, 2003). Research from the U.S. Department of Education (2011) indicates that in recent years, the number of school-age students with learning disabilities who participate in the general education setting for the majority of the school day has significantly increased. As of 2011, 62 percent of students with learning disabilities spent more than 80 percent of the school day in the general education classroom (U.S. Department of Education, 2011), in comparison to 22 percent of students in 1989 (McLeskey, Hoppey, Williamson, & Rentz, 2004). Based on the substantial increase in students with disabilities spending over 80 percent of their day in the general education classroom, Zigmond, Kloo, and Volonino (2009) concluded that integrated co-teaching services has now become the preferred model of service delivery.

Many research studies have sought to examine the effectiveness of the inclusion model versus resource room services, and their impact on academic achievement of students with learning disabilities. Of the studies that have examined the effect of resource room, where students receive high-quality, small group instruction matched to their particular skill deficits, most have been unsuccessful at finding statistically significant improvements in academic achievement when comparing pre- and post-tests (Bentum & Aaron, 2003; Gartner & Lipsky, 1987; Haynes & Jenkins, 1986; Kavale & Forness, 1987; McKinney & Feagans, 1984; Swanson & Vaughn, 2010). Reviews of the research on inclusion models of service delivery for students with disabilities vary, with findings indicating that this type of intervention may be effective for some students with learning disabilities, but not all (Carlberg & Kavale, 1980; Epps & Tindal, 1988; Leinhardt & Pallay, 1982; Lindsay, 2007; Madden & Slavin, 1983; Manset & Semmel, 1997). The effectiveness of both resource room and inclusion programs vary due to the differing quality of instruction provided in each setting, therefore suggesting that the quality of instruction

being delivered has an impact on academic achievement, rather than the setting itself. If the instruction being provided is of high quality and is specifically designed to meet the students' needs, research suggests that both inclusive and resource room programs can improve academic outcomes for students with learning disabilities (Epps & Tindall, 1988; Leinhardt & Pallay, 1982; McLeskey & Waldron, 2011).

Types of Postsecondary Academic Support

Once college students have provided the appropriate documentation—as defined by their institution—that they are diagnosed with a disability, the students will then be eligible to receive reasonable and appropriate accommodations to assist with their studies (Thomas, 2000). ADA defines a reasonable accommodation as any change to the typical way things are done that allows the individual with a disability to have an equal opportunity to participate as those individuals who do not have a disability (Americans with Disability Act, 1990). Section 504 indicated that in order to allow students with disabilities equal access to education, they must be provided with reasonable and appropriate academic accommodations. However, academic standards should not be lowered in the attempt to provide accommodations, nor should the integrity of the school or program be endangered. Further, a reasonable accommodation at the postsecondary level should not compromise necessary requirements of a particular academic course or program of study. Still, when a student's disability limits learning a particular type of content, such as a foreign language, the school may substitute the course requirement and allow the student to take an alternate course to fulfill that requirement (Scott, 1994).

Reasonable and appropriate accommodations at the postsecondary level include, but are not limited to, the use of readers, note-takers, extended time to complete exams, and alternate test formats. Although post-secondary institutions are legally obligated to provide students with

learning disabilities equal access to education, there are varying ideas as to how equality is attained (Rath & Royer, 2002). Rath and Royer (2002) explained that there are two different approaches postsecondary institutions tend to follow when providing equal access to education. One way is to adopt the environment-changing approach, which focuses on making changes to the students' environment so that they are able to succeed regardless of their disability. Environment-changing accommodations include assistive technology, including text-to-speech software, use of readers, and word processors with spell check; program modifications, such as extended test time; and direct assistance interventions, such as tutoring. The other alternative institutions may choose is a student-changing approach, which focuses on providing students with opportunities to change such that they are better able to perform in any learning setting to which they may be exposed. The latter is often the desired approach colleges utilize, because by focusing on this method students with learning disabilities can be directly taught ways to improve their academic skills so that they are able to generalize to other environments. Postsecondary institutions may also use a combination of both the environment-changing and student-changing approaches when providing students with learning disabilities equal access to education.

Academically, accommodations often are utilized in order to change the way in which instruction or tests are administered, so that individuals with disabilities are able to learn or demonstrate what they know in a way that is conducive to their strengths, without altering academic standards (Gregg, 2009). The most commonly used accommodation or service offered to students with learning disabilities is modifications to testing conditions, with the most universal accommodation being extended time for exams (Bursuck, Rose, Cowen, & Yahaya, 1989; Hurst & Smerdon, 2000; Yost & Shaw, 1994). Zuriff (2000) explained that by allowing

students with learning disabilities extra time to complete their exam, it permits them to be assessed equivalently to their non-disabled peers. Time-limited tests, specifically those in the area of the student's disability, do not allow the student to demonstrate his/her full knowledge and skill.

Another appropriate accommodation is note-taking, given that many students with learning disabilities have difficulty taking notes due to auditory processing deficits, illegible writing, or short-term memory weaknesses (Brinckerhoff, Shaw, & McGuire, 1993). For students with learning disabilities, note-taking can be a difficult task because it requires them to use multiple skills at the same time. The student is required to listen, comprehend, and extract main ideas, then write it all down within a limited amount of time. Therefore, it has been found that notes of students with learning disabilities are often incomplete and inaccurate (Vogel, 1982). Research on students with learning disabilities and their utilization of note-taking services has been inconclusive (Maydosz & Raver, 2010). Kobayashi (2006) found that test scores of all students, including those without a learning disability, who took and reviewed instructor-provided notes were significantly better than those students who did not. Currently, there are no studies that compare students with learning disabilities who use note-taking services versus those who take their own notes, and the effect on academic performance (Boyle, 2012).

Student-changing interventions often employed at the postsecondary level include both academic counseling and strategy training. Counseling can be utilized as an intervention to help students create future goals and work through current academic difficulties. Additionally, strategy training can be used to address a student's weakness in a particular area, such as academic, emotional, or study skills. This type of training can help the student learn specific strategies to solve their problems in order to improve their academic performance (Rath &

Royer, 2002). Brinckerhoff et al. (1992) stressed that strategy training at the postsecondary level should provide a type of training for students that promotes their independence while also helping them develop better learning strategies, including study skills, memory techniques, strategies for test taking, time management, and note-taking skills, in addition to organizational strategies. An important component to counseling and/or strategy training is assisting the student in developing self-advocacy skills, or their ability to express their needs to others. Training in self-advocacy helps students to better understand their learning disability, which will improve their ability to communicate their needs to their professors so that they are able to get the accommodations and help that they need in order to succeed (Roffman, Herzog, & Wershba-Gershon, 1994).

Peer-based coaching programs are another form of intervention that may be provided for students with disabilities in the postsecondary setting. A peer-based coaching program is one in which other students teach students with ADHD and learning disabilities skill sets, such as self-advocacy, time management, study skills, and organizational skills (Zwart, Kallemeyn, & College, 2001). Additionally, the program seeks to better educate the students about their diagnoses. Student coaches are selected through professor recommendation and go through a variety of trainings before initial meetings with their assigned peers, and they continue to participate in in-service trainings throughout the year. A study conducted by Zwart et al. (2001) examined the effectiveness of a peer-based coaching program for students with ADHD and/or learning disabilities, and its effect on self-efficacy and study skills. Results indicated that in comparison to a group composed of students with ADHD and learning disabilities who did not utilize the peer-based coaching program, those students who did participate in the peer-based

coaching program benefited from the intervention, specifically in the areas of self-efficacy, learning strategies, and study skills.

Another intervention postsecondary institutes may utilize for students with disabilities is a faculty mentorship program (FMP). Specifically, a FMP program connects new students with disabilities with a faculty member in the student's possible area of interest or major (Harris, Ho, Markle, & Wessel, 2011). The faculty members are required to meet with their assigned mentee on a regular basis, whether it be one-on-one or via e-mail communication. Involvement with faculty members gives students with disabilities a sense of belonging to the community, an enhanced understanding of the university's academic expectations, and the students are able to become more familiar with the academic departments and services offered. Harris et al. (2011) reported that students with disabilities who participated in the FMP achieved higher grade point averages and had higher rates of retention than those students who chose not to participate. Furthermore, students in the FMP program more frequently utilized campus resources available to them, including those offered at the learning center and disability services office. Nevertheless, impact on student performance may also be related to factors irrelevant to the interventions utilized, such as specific characteristics of the students who chose to participate in the interventions.

Utilization of Academic Consultant Support

The limited research indicates that there is a connection between college success for students with learning disabilities and their utilization of academic support services. In a study conducted by Troiano et al. (2010), there were 262 college students who were diagnosed as having a learning disability; their attendance data from the learning center, where they received services, was collected for five years. The learning center provided three levels of academic

support for students: Comprehensive (Level One), Enhanced (Level Two), and Entitled (Level Three), in addition to testing accommodations and program modifications. Comprehensive support is the most intensive in that it included four hours of individual and small group work each week with an assigned learning specialist. Enhanced support consisted of the same services as Comprehensive, but for only two hours per week, while Entitled support was initiated by the student, as needed. During the meetings, the learning specialists provided various types of support, including support for textbook reading, note-taking, preparation for tests, test-taking skills, writing strategies, research skills, time management, and self-advocacy. Attendance levels were then compared with academic outcome data in order to determine if attendance in the support center was a predictor of graduation from college. In order to calculate the rate of attendance for each participant for his or her academic career, and to determine levels of consistency, the researchers divided the total appointments attended by the student by the total appointments scheduled by the student. The data indicated that those students who consistently attended their academic support center at the level deemed appropriate for them tended to have higher GPAs and graduation rates than those who did not attend. Based on this data, the study was able to demonstrate that the degree of academic support in college was a good predictor of college success for those students.

Additional research conducted by Lighthouse (2005) sought to explore the predictive relationship between the use of academic support services during college and freshman GPA, among 26 students diagnosed with a learning disability and Attention Deficit Hyperactivity Disorder (ADHD). Academic support services explored were use of testing accommodations, note takers, books on tape, tutors, and meetings with an academic consultant. Results indicated that of the services offered to students with disabilities at the academic support center, academic

consulting was the most commonly used service. Furthermore, among the five academic supports offered to students, the number of meetings with an academic consultant was the only service that was found to have a significant effect on freshman GPA. When students met with an academic consultant four or more times during the fall semester of their freshman year, and all relevant variables were controlled for, they increased their freshman GPA by .13 for every visit at or beyond the fourth. Meeting three or less times with an academic consultant during the first semester did not have a significant impact on their freshman GPAs. Thus, though it appears that a threshold needs to be met, a relatively small number of meetings with an academic consultant during the first semester made a difference in freshman GPA.

Present Study

As the number of students entering college with a learning disability is increasing, it is important to examine the factors that may contribute to their success, such as their access to and utilization of academic support services. Yet, it is difficult to demonstrate a relationship between specific academic supports, such as note-taking services, examination accommodations, and/or meetings with academic consultants, and college success. This difficulty partly stems from the fact that not every postsecondary institution provides the same level of accommodations and support services for its students. Experimental situations would be unethical to conduct, since they would entail denying academic support services to some students with disabilities for a period of time. Furthermore, because of the recent large increase in students with disabilities choosing to continue their education after high school, this particular area of research and interest in this student population is relatively new. Although the study by Troiano et al. (2010) did find a relationship between academic support attendance and college success for students with learning disabilities, the researchers did not examine the relationship between the student's

utilization of specific academic supports, such as test accommodations and note taking services during the freshman year, and their college success. The present study separated the use of specific academic supports during freshman year and examined the individual supports and their impact on college success, rather than looking solely at student's attendance at the academic support office.

The current study was an extension of Lighthouse (2005), which examined whether academic support service use for students diagnosed with ADHD and learning disabilities during college altered the predictive relationship between SAT scores and future GPAs. This study looked more specifically at a population of students who are diagnosed with only a learning disability and their utilization of academic supports; it does not include students with a medical diagnosis of ADHD due to the different origin, expression, treatment, and variability of the diagnosis by outside medical providers. Additionally, all data was collected and analyzed after the participants graduated, so more information was available regarding time taken to complete the degree. The purpose of this study was to examine students' use of academic consultation, a specific academic support, during their first year of college and the relation it had to completing the undergraduate degree. This had not been specifically researched in the literature thus far. The first year of college was of particular interest because the limited research had found that as students progress throughout college, they tend to require fewer services. The freshman year appeared to be the critical year when most students with disabilities utilized support services and need them the most (Bireley & Manley, 1980).

Research Questions

Question 1. Is degree completion related to the number of academic consultant meetings attended by students during their first year, while controlling for testing

accommodations, note-taking services, standardized test scores, college, gender, and overall GPA?

Question 2. Is GPA at the end of the third semester related to the number of academic consultant meetings attended in the first year, while controlling for testing accommodations, note-taking services, standardized test scores, college, and gender?

Question 3. Is the number of semesters to completion predicted by the number of academic consultant meetings, while controlling for testing accommodations, note-taking services, standardized test scores, college, and gender?

Question 4. Are meetings with academic consultants during the first year associated with overall GPA, and if so, are they more important than test accommodations, note-taking services, standardized test scores, college, and gender?

Chapter 2

Method

Participants

Multiple regression analysis was used to examine students' use of academic consultation during their first year of college and the relation it had to completing the undergraduate degree.

The office of student disability services identified 101 potential participants for this study, of which 94 had contact information and could be reached to request their participation. Participants were 41 college students with a diagnosis of only a learning disability. The participants were registered with the office of student disability services and had provided documentation of their disability from their high school Individualized Education Plan, 504 Plan, or other psychoeducational evaluation report. Participants were enrolled as first year students at a small, rural, private northeastern university between September 2002 and May 2013. All participants gave consent to be included in the study. Eight additional participants were not able to take part in the study due to missing standardized test scores or being identified as having a learning disability after their first year of college.

Of the 41 participants in the study, 21 were male and 20 were female. The average first year GPA was 2.79 (*SD* = .65), while the average third semester GPA was 2.97 (*SD* = .59). The average overall GPA was 3.07 (*SD* = .41). Of the 36 participants who took the SATs, the average verbal and math SAT score was 991 (*SD* = 155.73), while the average score for the 14 participants who took the ACTs was 22 (*SD* = 3.64). The average number of academic consultant meetings attended during the first year was 14, with a high of 38 meetings and a low of zero meetings attended (*SD* = 10.48). Participants' GPAs, standardized test scores, and use of academic consultant meetings are included in Table 1.

Variables

Meeting with academic consultant. All students who were diagnosed with any type of disability at this university were eligible to register with the office of student disability services. Once registered with the disability services office, students are eligible to receive reasonable and appropriate accommodations, such as exam accommodations and note takers. Additionally, all students registered are offered the opportunity of meeting with an academic consultant on a voluntary and regular basis. Academic consultants at the university are advanced graduate students in the School Psychology program who are trained in assessment and intervention with both educational and psychological problems. Academic consulting entails meeting with students who are diagnosed with various types of disabilities and helping them to make sure they are receiving their appropriate accommodations for which they are eligible at the university. Additionally, students can meet with their academic consultant to work on schoolwork, study skills, time management, organization, test-taking strategies, and self-advocacy skills. Meetings can occur weekly and usually last from 20 to 40 minutes. Each time an academic consultant meets with a student, they record this information in the student's file. The number of academic consultant meetings the participants attended during their first year were counted and recorded.

Testing accommodations. Testing accommodations are dependent on the students' needs, but may include extended test time, a separate and quiet location, use of or support from a reader, scribe, or other accommodations. For each participant, this data was collected through the office records. This variable allowed us to take into account whether or not the student used additional support services their first year. Students may receive testing accommodations whether or not they meet with their academic consultant. The initial plan was to collect data regarding the number of tests taken with accommodations during the first year, but because of

missing records, utilization of testing accommodations was recorded as "yes" if the participant utilized this service during their first year, or "no" if they did not utilize this service during their first year. Thirty-one participants utilized testing accommodations during their first year, while 10 participants did not utilize testing accommodations. Use of test accommodations was included in analyses as a control variable.

Note-taking services. Note-taking services are offered through the office of student disability services, and class notes are provided by an assigned student note-taker in the same course. Utilization of note-taking services was initially going to include the number of classes students requested class notes for during the first year. Because of missing data, use of note-taking services was recorded as "yes" if the participant utilized this service during their first year, or "no" if they did not utilize this service during the first year. For each participant, this data was collected through the office records. Thirty-one participants utilized note-taking services during their first year, while 10 did not utilize note-taking services. By collecting this specific data, we were able to take into account whether or not the student used additional support services their first year. It is possible that although they may not have met with their academic consultant, they may utilize note-taking services, which could also have an impact on their GPA and degree completion. Use of note-taking services was included in analyses as a control variable.

Standardized test scores. SAT and/or ACT scores were collected from the university's records and entered as reported by the College Board/Educational Testing Service, with SAT verbal and math scores on a 200 to 800 point scale and ACT Composite scores on a 1 to 36 point scale. SAT verbal and math scores were combined in order to get a total score. Z-scores were then created with total SAT or Composite ACT scores in order to obtain a standardized score. If

a participant had an SAT and ACT score on file, the average standardized score was used. Standardized test scores were used as a control variable.

College. Academic college within the university at time of graduation was recorded and fell under the categories of Business/Professional Studies, Liberal Arts and Sciences, Engineering, or Art and Design. Dummy variables were made using Liberal Arts and Sciences as a reference category. Six participants graduated from Business/Professional Studies, six from Engineering, 13 from Art and Design, and 16 from Liberal Arts and Sciences. After the data were collected and analyzed, we were able to determine if there were a difference that occurred among the four categories of colleges at the university. It is possible that students with different majors and/or interests utilize or react differently to consulting or have different GPAs dependent on their required coursework. Academic college was used in analyses as a control variable.

Gender. Gender of the participant was recorded as either male or female and turned into a dummy variable. Of the 41 participants in the study, 21 were male and 20 were female. Gender was used as a control variable. This variable is important because by collecting the information, we were able to determine if there were a difference in the number of academic consultant meetings and GPA/degree completion between genders.

GPA. Overall GPAs were collected from the university's online database, in addition to 1st year GPA and 3rd semester GPA, which were recorded on a 0.0-4.0 scale. This outcome variable was used to determine each student's overall achievement throughout college.

Degree completion. Degree completion information at this university was collected through the university's records, in which two dummy variables were created: completed degree or did not complete degree. Of the 41 participants, four did not complete their degree. Specifically, one student withdrew from the university and three students are still enrolled. This

variable was used to help determine the relationship between number of academic consultant meetings first year and college outcome.

Time taken to complete degree. The number of academic semesters in college it took the students to complete their degree was recorded. Only students who completed their degree were included. A dummy variable was constructed for the number of semesters to completion (eight or less semesters or more than eight semesters). Thirty-one participants completed their degree in eight or less semesters, while ten participants took more than eight semesters to complete their degree. This variable helped to determine the relationship between the number of academic consultant meetings first year and the number of semesters taken to complete the degree.

Procedure

The director of the office of student disability services first accessed the names of students who had registered with their office as having a learning disability as a first year student between September 2002 and May 2013. Once that information was obtained, staff of the disability services office, in coordination with the university's Alumni Relations office, collected contact information for the students, such as current e-mail addresses and/or mailing addresses and phone numbers for those identified students who qualified to participate in the study. Participants were recruited first via e-mail, in order to explain the current study and request their consent to participate in the study, i.e., to have the researcher access their academic and support services records. Students who qualified to participate in the study who did not respond to the initial e-mail contact were called and/or sent a message via social media (Facebook and LinkedIn) to request their participation and explain the study. If they chose to participate in the study, a consent form was sent to their current mailing or e-mail address. In an attempt to recruit

more participants, consent forms were also sent to any mailing address on file for potential participants who were not reachable via phone or e-mail. Students enrolled in the university who had completed three academic semesters or more were contacted to explain the study and request their consent to participate. Participants still enrolled at the university were not able to be part of the data analyses when using the variable of overall GPA because they had not graduated yet. Those who signed and returned the consent form were entered into a raffle for a $100 American Express gift card.

With their consent, information regarding each student's overall GPA, 1st year GPA, 3rd semester GPA, degree completion, number of academic semesters taken to graduate, SAT and/or ACT scores, gender, and college were collected via the university's online database. Data for each participant's use of academic support services was also collected from the specific student files and office files kept at the office of student disability services. Academic support services included number of meetings with academic consultants, utilization of testing accommodations, and note-taking services.

Chapter 3

Results

In order to best study the relationships among variables in the data set, research questions were analyzed with SPSS using multiple regression analysis.

Question 1. Is degree completion related to the number of academic consultant meetings attended by students during their first year, while controlling for use of testing accommodations, note-taking services, standardized test scores, college, gender, and GPA?

The researcher was not able to answer this question. Of the 41 participants, 37 participants completed their degree. One participant did not complete their degree at the university and three participants are still enrolled at the university, therefore indicating a degree completion rate of 97% for the participants in this study who had the opportunity to complete their degree. In contrast, the overall six-year graduation rate at the university for full-time first-degree seeking students, who were students who had no prior postsecondary experience and attended the institute for the first time at the undergraduate level, between fall 2007 and summer 2013 was 62%. Degree completion rates for students registered with the disability office between 2008 and 2011 were 56%. This includes all students who submitted documentation to the disability office, even though some may have never used services (A. Burch, personal communication, July 23, 2015). Nationally, 59% of students who began their degree at a four-year institution in the fall of 2007 graduated within six years (National Center for Educational Statistics, 2015). In contrast, out-of-high school postsecondary completion rates at 4-year colleges for students with disabilities have been reported to be 29% (Sanford et al., 2011).

Question 2. Is GPA at the end of the third semester related to the number of academic consultant meetings attended in the first year, while controlling for use of test accommodations, note-taking services, standardized test scores, college, and gender?

A sequential regression was used to answer this question (see Table 2 for the results of the regression). GPA at the end of the third semester was regressed on the number of academic consultant meetings attended in the first year, controlling for use of test accommodations during the first year (used test accommodations or did not use), use of note-taking services during the first year (used note-taking services or did not use), standardized test scores (SAT and/or ACT scores), academic college at time of graduation, and gender. By holding these variables constant, without having to account for their effects on 3rd semester GPA, the researcher was able to understand the effect that academic consultant meetings attended during the first semester had on 3rd semester GPA by itself. Academic consultant meetings attended during the first semester was added to the regression first in order to test for the significance before controlling for the other variables. The regression indicated that academic consultant meetings attended during the first year did not have a significant impact on GPA at the end of the third semester (Beta = -.143; p = .471). The full model explained 40% of the variance in third semester GPA (R^2 = .404). The only variable significantly related to third semester GPA was standardized test scores (Beta = .540, p = .001). Students with higher standardized test scores had higher GPAs at the end of the third semester. Inspection of the histogram for third semester GPA showed that the data was not seriously different from normality and that the variable was continuous, indicating that there were no breaks in the distribution. Therefore, it was not necessary to group the data (see Figure 1 for the histogram). The scatterplot inspection did not appear to show a correlation between 3rd semester GPA and the number of academic consultant meetings attended during the first year of

college, suggesting that given more cases, the correlation would not change (see Figure 2 for the scatterplot).

Question 3. Is the number of semesters to completion predicted by the number of academic consultant meetings, while controlling for use of test accommodations, note-taking services, standardized test scores, college, and gender?

A simultaneous binary logistic regression was used to answer this question (see Table 3 for the results of this regression). Ordinary least squares regression could not be used because the number of semesters to completion was turned into a dummy variable indicating eight or less semesters or more than eight semesters. The number of semesters to completion was regressed on the number of academic consultant meetings attended during the first year, while controlling for use of test accommodations, note-taking services, standardized test scores, college, and gender. By holding these variables constant and removing their effects on the number of semesters to completion, the examiner was able to understand the effect that academic consultant meetings attended during the first year had on number of semesters to completion. Academic consultant meetings attended during the first year was added to the regression first in order to test for the significance before controlling for the other variables. The regression indicated that the more academic consultant meetings attended in the first year, the longer it took the student to graduate. The result is significant at the .025 level (Exp(B) = 1.255), meaning that each unit increase in academic consultant meetings attended the first year increased the odds of taking longer than eight semesters to graduate by a factor of 1.255. Those who used test accommodations during their first year were significantly more likely to graduate in four years. This result is significant at the .032 level (Exp(B) = .016), meaning that participants who used

test accommodations during their first year increased the odds of graduating in four years by a factor of .016.

Question 4. Are meetings with academic consultants during the first year associated with overall GPA, and if so, are they more important than test accommodations, note-taking services, standardized test scores, college, and gender?

A sequential regression was used to answer this question (see Table 4 for the results of this regression). Overall GPA (M = 3.07; SD = .41) was regressed on meetings with academic consultants during the first year, controlling for use of test accommodations, note-taking services, standardized test scores, college, and gender. By holding these variables constant and removing their effects on overall GPA, the examiner was able to understand the effect that academic consultant meetings attended during the first semester had on overall GPA. Academic consultant meetings attended during the first semester was added to the regression first in order to test for the significance before controlling for the other variables. The regression indicated that the number of academic consultant meetings attended during the first year did not have a significant impact on overall GPA (Beta = -.062; p = .795). The full model explained 25% of the variance in GPA (R^2 = .246). The only variable significantly related to overall GPA was standardized test scores (Beta = .467, p = .020). Students with higher standardized test scores had higher overall GPAs.

Chapter 4

Discussion

This study examined students with learning disabilities' use of academic consultation, a specific academic support, during their first year of college and the relation it had to completing their undergraduate degree. The current study is unique in that it looked specifically at a population of students diagnosed with only a learning disability and their utilization of academic supports during their first year of college. Additionally, this study investigated utilization of academic supports and impact on third semester and overall GPA. In general, some of the findings in this study are consistent with previous studies while other findings differ.

Degree Completion

The plan was to determine if degree completion was related to the number of academic consultant meetings attended by students during their first year, but the question could not be answered because of the high degree completion rate. Of the 38 participants who had the opportunity to complete their degree, only one did not complete their degree. The degree completion rate for the participants in this study who had the opportunity to complete their degree was 97%. Thus, the sample in the current study was not representative of the university (56%) or national overall graduation rates for students with disabilities (29%). With a 97% graduation rate for the sample, it is apparent that students who did not graduate did not consent to participate in the study. They may feel less connected to the university currently, and perhaps, when they were in school. If the students who did not graduate attended fewer consultant meetings, it is possible that academic consultant meetings attended during the first year would be related to degree completion.

It is also possible that students who self-identified as having a disability before or during their first year of college were students who had more support navigating the postsecondary resources from their high school and/or parents. These students may also have different personality characteristics, such as motivation to succeed. Therefore, the participants were not a random sample; rather they may be composed of those who were motivated enough by their undergraduate experiences to participate.

Variables Predicting GPA

In order to examine variables that predict third semester GPA and overall GPA, regression were run. The main question for these two regressions was if the number of academic consultant meetings attended during the first year was a predictor of third semester GPA or overall GPA. Out of the variables that could potentially predict third semester GPA or overall GPA, standardized test scores were the only significant predictors of third semester GPA and overall GPA.

Lighthouse (2005) found that the number of meetings attended with an academic consultant during the first year had a significant effect on freshman GPA. Specifically, students who met with an academic consultant four or more times during the fall semester had significantly higher GPAs in the fall, with an average grade point increase of .13. During the spring semester, meeting with an academic consultant was not found to significantly affect freshman spring GPA. The current study demonstrates that the number of academic consultant meetings attended over the course of the first year was not a predictor of third semester GPA. However, the difference in findings may be related to the sample used in the Lighthouse (2005) study, which was comprised of both students with learning disabilities and diagnoses of attention-deficit/hyperactivity disorder. Students diagnosed with attention-deficit/hyperactivity

disorder may have benefitted more from the academic consultant meetings, where they had the opportunity to work on study skills, time management, organization, test-taking strategies, and self-advocacy skill development. The interventions provided during the academic consultant meetings may have specifically targeted the cognitive weaknesses of students with attention-deficit/hyperactivity disorder, and the interventions provided may not have been as beneficial to those diagnosed with a learning disability who may benefit from a different intervention, such as support with assistive technology. It is also possible that the use of academic consulting has the most impact on academic performance when attended during the first semester of college, when students are transitioning to the postsecondary setting and intervention and support services may be most crucial. The current study collected first year and third semester GPAs, rather than breaking the first year down and collecting first and second semester GPAs, thus may have missed the effects of the initial meetings.

Among the variables that could predict third semester and/or overall GPA, standardized test scores was the only significant predictor. Interestingly, research examining the prediction of overall GPA utilizing SAT scores for students with learning disabilities indicates that SAT scores are not typically a reliable predictor of academic performance (DaDeppo 2009; Murray & Wren, 2003; Wilczenski & Gillespie-Silver, 1992; Vogel & Adelman, 1992). In contrast, SAT scores have generally been found to be a reliable predictor of overall college GPA for undergraduate students (Beck & Davidson, 2001; Tross, Harper, Osher, & Kneidinger, 2000; Wolfe & Johnson, 1995). Given that the sample for this study has been found to be successful in their degree completion rates, it is possible that their functioning in the postsecondary setting is more like students without learning disabilities, and therefore their standardized test scores predicted third semester and overall GPA.

The number of academic consultation meetings attended during the first year was not significantly related to overall GPA in the current study. Interestingly though, a study conducted by Troiano et al. (2010) was able to demonstrate that the degree of academic support in college was a good predictor of college success for students with learning disabilities. Specifically, students with learning disabilities who consistently attended their academic support center at the level deemed appropriate for them tended to have higher GPAs and graduation rates than those who did not attend. It is possible that the differing results may be due to the voluntary nature of the participants in the current study, or the fact that the study did not assign students to levels of academic support and compare students who attended to those who did not. Thus, the current study was not able to compare overall GPA for students who utilized academic consulting meetings versus those who did not attend. The current study also only accounted for the number of consultant meetings attended during the first year, but did not take into account the type of intervention or support provided during the meetings. It is possible that use of academic consulting meetings during the first year does have an impact on GPA, although not directly. Rather than the number of meetings, other factors such as the type of intervention provided during the meetings, relationship with the consultant, or factors specific to the student (e.g., motivation) may have an impact on academic consultant meetings and GPA.

As discussed previously, the sample in the current study was not representative. The average number of consultant meetings attended by students with learning disabilities during the first year was 14. In comparison, students registered with the disability support office at the university averaged six academic consultant meetings during their first year (L.Shea, personal communication, September 30, 2015). Based on the 97% degree completion rate for the sample and the higher attendance rates for academic consultant meetings, it appears as though the

sample mainly consisted of more successful students, therefore the range of students who participated was not representative of the population of students registered with the disability services office with learning disabilities. Perhaps if a larger range of students participated, the number of academic consultant meetings attended during the first year would be related to third semester and/or overall GPA.

Time Taken to Complete Degree

A regression was run to examine variables that predicted the amount of time taken for students with disabilities to complete their undergraduate degree. Of particular interest in this regression was whether academic consultant meetings attended during the first year was a predictor of time taken to complete the undergraduate degree. From the variables that could potentially predict the number of semesters to completion of the undergraduate degree, use of testing accommodations and number of academic consultant meetings attended during the first year were significant predictors of the number of semesters to degree completion. Students who used test accommodations during their first year were more likely to graduate on time than those who did not. In contrast, the more academic consultant meetings students attended during the first year, the longer it took them to graduate.

Testing accommodations

Zuriff (2000) indicates that testing accommodations allow students with disabilities to be assessed equivalently to their non-disabled peers. By utilizing their testing accommodations, students with disabilities are allowed to demonstrate their full knowledge and skills. The current study demonstrates that those who utilized testing accommodations during the first year were five times more likely to graduate on time than those who did not use their testing

accommodations during the first year. This suggests that test accommodations are very beneficial to students with learning disabilities.

Academic consulting

Interestingly, the more academic consultant meetings attended during the first year, the longer it took students to graduate. The average number of academic consultant meetings attended during the first year was 14, with a range of zero to 35. This finding suggests that students with more significant learning disabilities may require a higher level of academic support and seek it out. The students who attend more academic consultant meetings and require a higher level of academic support may also be those who take a reduced course load and therefore take longer to graduate. This would be consistent with research conducted by Jorgensen et al. (2005), which found that in comparison to students without disabilities, students with disabilities had identical graduation outcomes, although students with disabilities took a lighter course load and a semester longer than students without disabilities to graduate.

It's unfortunate that the results indicated that there was no clear benefit from attending academic consultant meetings during the first year of college. Although academic consultant meetings appear to not be beneficial to students with learning disabilities in this study, it is possible that academic consultant meetings are related to outcome, but the benefits were missed because the current study only measured the number of meetings attended. As discussed previously, the benefits of academic consultant meetings may also have been missed due to the limited sample. It is difficult to measure the overall impact of academic consultant meetings on GPA when the study did not have control over which students with learning disabilities utilized the academic support services, who was assigned to work with which academic consultant, the quality and productivity of the meetings attended, as well as the rapport between the student and

consultant. Therefore, the academic consultant variable as measured in this study was not measured well. Research has suggested that when comparing a random stratified sample of peers to a sample of students with learning disabilities, motivation and attitude toward the teaching-learning process accounts for 28 percent of the variance in overall GPA (Vogel & Adelman, 1990). In the future, it would be important to collect information about student motivation and attitude towards use of academic supports at the postsecondary level, as well as motivation to achieve high GPAs.

Even though it appears from this study that academic consultant meetings attended during the first year are not useful to students with learning disabilities, this is most likely not accurate. By having the opportunity to meet with an academic consultant, who is specifically trained in academic intervention, students with learning disabilities are given the opportunity to develop academic and non-academic skills in order to succeed independently at the postsecondary level. Up until this point in their academic career, parents and secondary staff had closely monitored their progress and needs. Those students who chose to meet with an academic consultant have the opportunity to further develop their time management and study skills, self-advocacy skills specifically related to self-identifying as having a learning disability, and discuss accommodations (Foley, 2006). Having access to meet with an academic consultant and to form a relationship with someone on campus who is aware of the support services offered at the college and how to access them is likely to be an important benefit. Further research that better captures the nature of academic consultant meetings may illustrate this.

Participants

As discussed previously, the sample for the current study consisted of 41 college students diagnosed with only a learning disability who were registered with the office of disability

services. The average SAT score for the sample was a 991 and the average ACT score was a 22. In comparison, the university's incoming fall 2013 class average for the SAT was a 1100 and the average ACT score was a 25 ("Integrated Postsecondary Education Data," 2013), while national averages for the same year cohort were 1010 for the SAT (CollegeBoard, n.d.) and a 21 for the ACT (ACT, n.d.). The average first year GPA for participants in the study was a 2.79, while the average first year GPA at the university for students entering in the fall of 2013 was a 2.38 (L. Casey, personal communication, August 11, 2015).

An issue with the sample in the current study is that it was not representative of the population because the portion of the potential sample who did not participate and whose data could not be included in the study appeared to be students who were less academically successful than those who did consent to participate. The participants in the current study had both higher graduation rates and higher attendance at academic consultant meetings than students with disabilities overall at the university. These are not exact comparisons, as there may be cohort and disability differences. If the sample for the current study included mainly the more successful students, as it appears, then there was not as large a range of students as exists in reality. This may have limited the ability to find differences based upon attending consultation meetings.

In order to participate in this study, students had to identify as having a documented learning disability and submit their supporting documentation to the office before or during their first semester at college. Those who registered as a student with a documented learning disability after the first semester would not have been able to participate in the study because they did not have access to their accommodations during that time. This may also have impacted the current study, because it is possible that the sample may vary from students who self-identify and register with the office of disability services later in college. It is also probable that students who

register with the office during their first semester may have a greater level of support from their high school and/or parents than those who did not register during the first semester. The students may have a better understanding of how to access accommodations at the college level, as well as have someone to advocate and guide them through the process. Both factors may have had an impact on the results of the current study.

Implications

The findings of the current study have implications for the parents of and students with learning disabilities attending postsecondary institutions, disability support personnel working at postsecondary institutions, as well as high school support staff who work with students with learning disabilities. When a student with a learning disability initially enrolls in college, it is their choice whether or not to register with the disability services office as a student with a documented disability. Based on the current findings, students with learning disabilities who utilize their testing accommodations during their first year of college have five times greater odds of graduating on time than students with learning disabilities who do not use their testing accommodations during the first year. Because of this, incoming first year students with learning disabilities should be aware of the importance of seeking out and following through with registering with the disability office on campus in order to use their test accommodations. By doing so, they will have equal opportunity to demonstrate their knowledge as students without disabilities do. Further, it would be in the best interest of the student for the parent or guidance counselor to assist students with registration for academic support services before entering the postsecondary institute so that the student has their accommodations in place by the beginning of the first semester. Additionally, with the knowledge of the importance of utilizing testing accommodations during the first year, disability support personnel could encourage students with

learning disabilities about using their testing accommodations from the beginning, rather than first attempting to take their tests without accommodations.

An additional implication of the current study is that it does support research indicating that SAT scores are a reliable predictor of overall college GPA for undergraduate students (Beck & Davidson, 2001; Tross, Harper, Osher, & Kneidinger, 2000; Wolfe & Johnson, 1995). However, the findings in this study contradict research examining the prediction of overall GPA utilizing SAT scores for students with learning disabilities. SAT scores are not typically a reliable predictor of academic performance for students with learning disabilities (DaDeppo 2009; Murray & Wren, 2003; Wilczenski & Gillespie-Silver, 1992; Vogel & Adelman, 1992). As previously discussed, the current results may vary from these findings due to there not being a random sample of participants, or that the study used SAT and/or ACT scores as predictors of overall college GPA, rather than just SAT scores. For disability support personnel at the postsecondary level, figuring out if SAT scores are generally a reliable predictor of college performance could help them to target their efforts and interventions at those students entering college with below average scores. By doing so, disability service offices could work with the postsecondary institute to develop a preventative model of support service delivery.

Study Limitations

Research has shown that a variety of factors may influence a student with a learning disability's decision to utilize support services, such as motivation, self-understanding, ability to recognize the need to use the services, level of acceptance of disability, and developmental life stage (Adelman & Vogel, 1998; Vogel & Adelman, 1992). These factors also likely influenced potential participants when they were deciding if they should consent to participate in the study, as well as their follow through to return the consent form. Consent to participate was voluntary,

therefore those students who had a positive experience at the university and with the support services offered were probably more likely to be motivated to consent to participate. This is evident by the 97% degree completion rate for the participants in the study, in comparison to the 56% degree completion rate for students with disabilities registered with the disability office (A. Burch, personal communication, July 23, 2015). Therefore, another limitation of this study was that the sample was not representative of the population of students with learning disabilities who register with the disability office at the university. Based on the graduation rate and number of academic consultant meetings attended during the first year for the sample, it is apparent that students who did not graduate did not consent to participate in the study. With a more representative sample, it is possible that the number of academic consultant meetings attended during the first year would be positively related to third semester and/or overall GPA, as well as degree completion.

Related, an additional limitation of this study was the sample size. The smaller than anticipated sample may have decreased the chance of finding statistical significance in the results because the sample itself may not have reflected the population of students with learning disabilities that were registered with the disability office.

An additional limitation of this study is related to the use of testing accommodations during the first year and impact on the numbers of semesters taken for students to complete their undergraduate degree. In the current study, there is no way of knowing if use of specific testing accommodations during the first year had more of an impact than others.

Future Research

The number of students who have been diagnosed with a learning disability and have chosen to continue their education at the postsecondary level in recent years has increased

substantially (Foley, 2006). Because of this, it is important to investigate their utilization of academic supports in the postsecondary setting and impact on overall academic performance. To further improve the current study and to understand which academic supports have a impact on overall GPA, further research should be done to investigate the types of interventions being utilized during academic consultant meetings and if the different types of interventions have an impact. Additionally, the current study would be improved by collecting additional data related to other possible factors that the use of academic consulting may have an impact on, such as students perception of connectedness to the college, their engagement with the campus community, their motivation and attitude towards the use of academic supports, as well as their perception of perceived degree of support from the disability services office.

The current study only investigated the effect of academic supports on students with learning disabilities during the first year and impact on GPA and semesters taken to graduate. Further research is needed to understand how the uses of academic supports throughout all years of college have an effect as students with learning disabilities progress.

As discussed previously, use of testing accommodations during the first year had a significant effect on the number of semesters to graduation. Future research could be conducted to determine what specific testing accommodations have a significant effect on academic achievement for students with learning disabilities.

Summary

In summary, the current study is important because it demonstrated that first year students with learning disabilities who use testing accommodations were 80% more likely to graduate in eight semesters or less, in comparison to students with learning disabilities who did not use testing accommodations during the first year and took longer to graduate. Standardized

test scores were the only significant predictor of third semester GPA or overall GPA. These findings add support that SAT scores predict college performance for students with learning disabilities, though the results remain mixed. Results indicate that the number of academic consultant meetings attended during the first year of college did not have a significant impact on overall GPA or GPA at the end of the third semester. Unfortunately, because data was only collected regarding the number of academic consultant meetings attended during the first year, rather than other qualitative aspects, true benefits from attending consultant meetings may have been missed. First year students with learning disabilities, their families, as well as disability support personnel should be aware of the importance of seeking out and following through with registering with the disability office on campus in order to use their test accommodations.

References

ACT (n.d.). 2013 ACT national and state scores. Retrieved from http://www.act.org/newsroom/data/2013/states.html.

Adelman. P. B., & Vogel, S. A. (1998). Adults with learning disabilities. In B. Y. L. Wong (Eds.), *Learning about learning disabilities* (pp. 657-701). San Francisco, CA: Academic Press.

Americans with Disabilities Act (ADA) of 1990, Public Law No. 101-336, 104 Stat. 327.

Aron, L., & Loprest, P. (2012). Disability and the education system. *Future of Children, 22*(1), 97-122. doi: 10.1353/foc.2012.0007.

Beck, H. P., & Davidson, W. D. (2001). Establishing an early warning system: Predicting low grades in college students from survey of academic orientations scores. *Research in Higher Education 42*(6), 709-723. doi: 10.1023/A:1012253527960.

Bentum, K. E., & Aaron, P. G. (2003). Does reading instruction in learning disability resource rooms really work?: A longitudinal study. *Reading Psychology, 24*, 361-382. doi: 10.1080/02702710390227387.

Bireley, M., & Manley, E. (1980). The learning disabled student in a college environment: A report of Wright State University's program. *Journal of Learning Disabilities, 13*(1), 7-10. doi: 10.1177/002221948001300103.

Boyle, J. R. (2012). Note-taking and secondary students with learning disabilities: Challenges and solutions. *Learning Disabilities Research & Practice, 27*(2), 90-101. doi: 10.1111/j.1540-5826.2012.00354.x.

Brinckerhoff, L. C., Shaw, S. F., & McGuire, J. M. (1992). Promoting access, accommodations, and independence for college students with learning disabilities. *Journal of Learning Disabilities, 25*(7). doi: 10.1177/002221949202500702.

Brinckerhoff, L. C., Shaw, S. F., & McGuire, J. M. (1993). *Promoting postsecondary education for students with learning disabilities: A handbook for practitioners.* Austin, TX: PRO-ED, Inc.

Buchmann, C., & DiPrete, T. A. (2006). The growing female advantage in college completion: The role of family background and academic achievement. *American Sociological Review, 71*, 515-541. doi: 10.1177/000312240607100401.

Bursuck, W. D., Rose, E., Cowen, S., & Yahaya, M. A. (1989). Nationwide survey of postsecondary education services for students with learning disabilities. *Exceptional Children, 56*(3), 236-245. doi: 10.1177/001440298905600309.

Carlberg, C., & Kavale, K. (1980). The efficacy of special versus regular class placement for exceptional children: A meta-analysis. *The Journal of Special Education, 14*(3), 295-309. doi: 10.1177/002246698001400304.

CollegeBoard (n.d.). The SAT: Average scores. Retrieved from https://professionals.collegeboard.com/testing/sat-reasoning/scores/averages.

Cowles, J. R., & Keim, M. C. (1995). The graduation rate, intellectual functioning level, and matriculation time of university students with learning disabilities. *College Student Journal, 29*(2), 145-149. Retrieved from http://www.projectinnovation.com/college-student-journal.html.

DaDeppo, L. M. W. (2009). Integration factors related to the academic success and intent to persist of college students with learning disabilities. *Learning Disabilities Research & Practice, 24*(3), 122-131. doi: 10.1111/j.1540-5826.2009.00286.x.

Epps, S., & Tindal, G. (1988). The effectiveness of differential programming in serving students with mild handicaps: Placement options and instructional programming. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), *Handbook of special education: Research and practice, volume I* (pp. 213-248). New York: Pergamon Press.

Foley, N. E. (2006). Preparing for college: Improving the odds for students with learning disabilities. *College Student Journal, 40*(3), 641. Retrieved from http://www.projectinnovation.com/college-student-journal.html.

Gartner, A., & Lipsky, D. K. (1987). Beyond special education: Toward a quality system for all students. *Harvard Educational Review, 57*(4), 367-395. doi: 10.17763/haer.57.4.kj517305m7761218.

Gregg, Noel. (2009). Adolescents and adults with learning disabilities and ADHD: Assessment and accommodations. New York, NY: The Guilford Press.

Hadley, W. M. (2007). The necessity of academic accommodations for first-year college students with learning disabilities. *Journal of College Admission*(195), 9-13. Retrieved from http://www.nacacnet.org/research/publicationsresources/journal/Pages/Journal-of-College-Admission.aspx.

Hammill, D. D. (1993). A brief look at the learning disabilities movement in the United States. *Journal of Learning Disabilities, 26*(5), 295-310. doi: 10.1177/002221949302600502.

Harris, J., Ho, T., Markle, L., & Wessel, R. (2011). Ball State University's faculty mentorship program: Enhancing the first-year experience for students with disabilities. *About Campus, 16*(2), 27-29. doi:10.1002/abc.20058.

Haynes, M. C., & Jenkins, J. R. (1986). Reading instruction in special education resource rooms. *American Educational Research Journal, 23*(2), 161-190. doi: 10.3102/00028312023002161.

Henderson, C., & American Council on Education, Washington D. C. Health Resource Center (1999). College freshman with disabilities, 2001: A biennial statistical profile.

Horn, L., Berktold, J., & Bobbitt, L. (1999). Students with disabilities in postsecondary education: A profile of preparation, participation, and outcomes. *Report of the National Center for Educational Statistics*. Washington, DC: U.S. Department of Education.

Hurst, D., & Smerdon, B. (2000). Postsecondary students with disabilities: Enrollment, services, and persistence. *Education Statistics Quarterly, 2*(3), 55-58. Retrieved from https://nces.ed.gov/programs/quarterly/.

Hynd, G. W., & Willis, W. G. (1988). *Pediatric neuropsychology.* Orlando, FL: Grune & Stratton, Inc.

Individuals with Disabilities Act (2004). Washington, DC: Office of Special Education and Rehabilitation Services. Available at http://www2.ed.gov/offices/OSERS/Policy/IDEA/the_law.html.

Jorgensen, S., Fichten, C. S., Havel, A., Lamb, D., James, C., & Barile, M. (2005). Academic performance of college students with and without disabilities: An archival study. *Canadian Journal of Counselling, 39*(2), 101-117. Retrieved from http://cjc-rcc.ucalgary.ca/cjc/index.php/rcc.

Kavale, K. A., & Forness, S. R. (1987). Substance over style: Assessing the efficacy of modality testing and teaching. *Exceptional Children, 54*(3), 228-239. Retrieved from http://ecx.sagepub.com.

Kavale, K. A., & Forness, S. R. (2000). What definitions of learning disability say and don't say. *Journal of Learning Disabilities, 33*(3), 239. Retrieved from http://ldx.sagepub.com.

Kirk, Samuel A. (1963). *Behavioral diagnosis and remediation of learning disabilities.* Paper presented at the Conference on Exploration into the Problems of the Perceptually Handicapped Child, Chicago, Illinois.

Kobayashi, K. (2006). Combined effects of note-taking/-reviewing on learning and the enhancement through interventions: A meta-analytic review. *Educational Psychology, 26*(3), 459-477. Retrieved from http://www.tandfonline.com/toc/cedp20/current.

Leinhardt, G., & Pallay, A. (1982). Restrictive educational settings: Exile or haven? *Review of Educational Research, 52*, 557-578. doi: 10.3102/00346543052004557.

Lighthouse, A. G. (2005). The relationship between SAT scores and grade point averages among post-secondary students with disabilities. *Dissertation Abstracts International Section A, 66*, 2492.

Lindsay, G. (2007). Educational psychology and the effectiveness of inclusive education/mainstreaming. *British Journal of Educational Psychology, 77*, 1-24. doi: 10.1348/000709906X156881.

Lyon, G. R., Fletcher, J. M., & Barnes, M. (2003). Learning disabilities. In E. Mash & R. Barkley (Eds.), *Child psychopathology* (pp. 520-586). New York, NY: The Guilford Press.

Madden, N. A., & Slavin, R. E. (1983). Mainstreaming students with mild handicaps: Academic and social outcomes. *Review of Educational Research, 53*(4), 519-569. Retrieved from http://www.jstor.org/stable/1170220.

Manset, G., & Semmel, M. I. (1997). Are inclusive programs for students with mild disabilities effective? A comparative review of model programs. *The Journal of Special Education, 31*(2), 155-180. doi: 10.1177/002246699703100201.

Maydosz, A., & Raver, S. A. (2010). Note taking and university students with learning difficulties: What supports are needed? *Journal of Diversity in Higher Education, 3*(3), 177-186. doi: 10.1037/a0020297.

McKinney, J. D., & Feagans, L. (1984). Academic and behavioral characteristics of learning disabled children and average achievers: Longitudinal studies. *Learning Disability Quarterly, 7*, 251-265. doi: 10.2307/1510483.

McLeskey, J., Hoppey, D., Williamson, P., & Rentz, T. (2004). Is inclusion an illusion? An examination of national and state trends toward the education of students with learning disabilities in general education classrooms. *Learning Disabilities Research & Practice, 19*(2), 109-115. doi: 10.1111/j.1540-5826.2004.00094.x.

McLeskey, J., & Waldron, N. L. (2011). Educational programs for elementary students with learning disabilities: Can they be both effective and inclusive? *Learning Disabilities Research & Practice, 26*(1), 48-57. doi: 10.1111/j.1540-5826.2010.00324.x.

Mull, C., Sitlington, P. L., & Alper, S. (2001). Postsecondary education for students with learning disabilities: A synthesis of the literature. *Exceptional Children, 68*(1), 97-118. doi: 10.1177/001440290106800106.

Murray, C., & Wren, C. T. (2003). Cognitive, academic, and attitudinal predictors of the grade point averages of college students with learning disabilities. *Journal of Learning Disabilities, 36*(5), 407-415. doi: 10.1177/00222194030360050201.

National Center for Educational Statistics. (2015). *Institutional retention and graduation rates for undergraduate students.* Retrieved from http://nces.ed.gov/programs/coe/indicator_cva.asp.

National Joint Committee on Learning Disabilities. (1991). Learning disabilties: Issues on definition. *Asha,* 33, (Suppl. 5), 18-20.

Ragosta, M., Braun, H., & Kaplan, B. (1991). Performance and persistence: A validity study of the sat for students with disabilities. *ETS Research Report Series*, *1991*: i-27. doi 10.1002/j.2333-8504.1991.tb01408.x

Rath, K. A., & Royer, J. M. (2002). The nature and effectiveness of learning disability services for college students. *Educational Psychology Review, 14*(4), 353-381. doi: 10.1023/a:1020694510935.

Roffman, A. J., Herzog, J. E., & Wershba-Gershon, P. M. (1994). Helping young adults understand their learning disabilities. *Journal of Learning Disabilities, 27*(7), 413-419. doi: 10.1177/002221949402700702.

Sanford, C., Newman, L., Wagner, M., Cameto, R., Knokey, A.-M., & Shaver, D. (2011). *The post-high school outcomes of young adults with disabilities up to 6 years after high school. Key findings from the national longitudinal transition study-2* (NCSER 2011-3004). Menlo Park, CA: SRI International. Retrieved from http://ies.ed.gov/ncser/pubs/20113004/pdf/20113004.pdf.

Scott, S. S. (1994). Determining reasonable academic adjustments for college students with learning disabilities. *Journal of Learning Disabilities, 27*(7), 403-412. doi: 10.1177/002221949402700701.

Strauss, A. A. (1943). Diagnosis and education of the cripple-brained, deficient child. *Journal of Exceptional Children, 9*(6), 163. Retrieved from http://ecx.sagepub.com.

Swanson, E. A., & Vaughn, S. (2010). An observation study of reading instruction provided to elementary students with learning disabilities in the resource room. *Psychology in the Schools, 47*(5), 481-492. doi: 10.1002/pits.20484.

Thomas, S. B. (2000). College students and disability law. *The Journal of Special Education, 33*(4), 248-257. doi: 10.1177/002246690003300408.

Torgesen, J. K. (1998). Learning disabilities: An historical and conceptual overview. In B. Y. L. Wong (Eds.), *Learning about learning disabilities* (pp. 3-34). San Francisco, CA: Academic Press.

Troiano, P. F., Liefeld, J. A., & Trachtenberg, J. V. (2010). Academic support and college success for postsecondary students with learning disabilities. *Journal of College Reading and Learning, 40*(2), 35-44. doi: 10.1080/10790195.2010.10850329.

Tross, S. A., Harper, J. P., Osher, L. W., & Kneidinger, L. M. (2000). Not just the usual cast of characteristics: Using personality to predict college performance and retention. *Journal of College Student Development, 41*(3), 323-334. Retrieved from http://muse.jhu.edu/journals/journal_of_college_student_development/.

U.S. Department of Education. (2011). *Individuals with Disabilities Education Improvement Act (IDEA) data.* Retrieved March 16, 2013, from https://www.ideadata.org.

U.S. Department of Education, Institute of Educational Sciences, National Center for Educational Statistics (2013). *Integrated Postsecondary Education Data System Data Center.* Retrieved from http://nces.ed.gov/ipeds/datacenter.

U.S. Department of Education, Office for Civil Rights, *Free Appropriate Public Education for Students With Disabilities: Requirements Under Section 504 of the Rehabilitation Act of 1973*, Washington, D.C., 2010.

Vogel, S. A. (1982). On developing LD college programs. *Journal of Learning Disabilities, 15*(9), 518-528. doi: 10.1177/002221948201500902.

Vogel, S. A., & Adelman, P. B. (1990). Extrinsic and intrinsic factors in graduation and academic failure among LD college students. *Annals of Dyslexia, 40*, 119-137. doi: 10.1007/BF02648144.

Vogel, S. A., & Adelman, P. B. (1992). The success of college students with learning disabilities: Factors related to educational attainment. *Journal of Learning Disabilities, 25*(7), 430-441. doi: 10.1177/002221949202500703.

Vogel, S. A., Hruby, P. J., & Adelman, P. B. (1993). Educational and psychological factors in successful and unsuccessful college students with learning disabilities. *Learning Disabilities Research and Practice, 8*(1), 35-43. Retrieved from http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1540-5826.

Wilczenski, F. L., & Gillespie-Silver, P. (1992). Challenging the norm: Academic performance of university students with learning disabilities. *Journal of College Student Development, 33*(3), 197-202. Retrieved from http://muse.jhu.edu/journals/journal_of_college_student_development/.

Wolfe, R. N., & Johnson, S. D. (1995). Personality as a predictor of college performance. *Educational and Psychological Measurement, 55*(2), 177-185. doi: 10.1177/0013164495055002002.

Yost, D. S., & Shaw, S. F. (1994). Practices and attitudes of postsecondary LD service providers in North America. *Journal of Learning Disabilities, 27*(10), 631. Retrieved from http://ldx.sagepub.com.

Zigmond, N., Kloo, A., & Volonino, V. (2009). What, where, how? Special education in the climate of full inclusion. *Exceptionality, 17*, 189-204. doi: 10.1080/09362830903231986.

Zuriff, G. E. (2000). Extra examination time for students with learning disabilities: An examination of the maximum. *Applied Measurement in Education, 13*(1), 99. doi: 10.1207/s15324818ame1301_5.

Zwart, L. M., Kallemeyn, L. M., & College, C. (2001). Peer-based coaching for college students with ADHD and learning disabilities. *Journal of Postsecondary Education and Disability, 15*(1), 1-15. Retrieved from https://www.ahead.org/publications/jped.

Table 1

Descriptive Statistics for Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
First year GPA [a]	2.79	.650	1.44	3.86
Third semester GPA [a]	2.97	.588	1.33	4.00
Overall GPA [a]	3.07	.407	2.13	3.81
Academic consultant meetings [a]	13.54	10.481	0	38
SAT [bd]	990.56	155.728	580	1320
ACT [c]	21.79	3.641	14	26

Note. [a] N = 41. [b] N = 36. [c] N = 14. [d] V+Q.

Table 2

Regression of Third Semester GPA on Academic Consultant Meetings

	Third semester GPA					
	Model 1			Model 2		
Variable	Beta	Standard Error	*p*	Beta	Standard Error	*p*
Academic consultant meetings first year	-.225	.009	.158	-.143	.011	.471
Test accommodations				.244	.229	.160
Note-taking services				-.001	.260	.998
Standardized test scores				.540	.093	.001
College						
Business + Prof Studies				-.170	.257	.285
Engineering				-.009	.291	.961
Art				.141	.198	.379
Gender				.042	.169	.772

Table 3

Regression of Number of Semesters to Completion on Number of Academic Consultant Meetings Attended First Year

Variable	Exp(B)	*p*
Academic consultant meetings	1.255	.025
Test accommodations	.016	.032
Note-taking services	.029	.081
Standardized test scores	.277	.085
Business/Professional Studies	.695	.831
College		
Engineering	17.506	.161
Art	.689	.751
Gender	1.461	.708

Note. Binary logistic regression conducted with the following two categories: eight or less semesters to completion of degree or more than eight semesters.

Table 4

Binary Logistic Regression of Overall GPA on Academic Consultant Meetings

	Overall GPA					
	Model 1			Model 2		
Variable	Beta	Standard Error	*p*	Beta	Standard Error	*p*
Academic consultant meetings first year	-.091	.006	.594	-.062	.009	.795
Test accommodations				.217	.191	.297
Note-taking services				-.069	.219	.779
Standardized test scores				.467	.079	.020
College						
Business + Prof Studies				.081	.204	.668
Engineering				-.006	.253	.977
Art				-.083	.169	.668
Gender				-.048	.139	.781

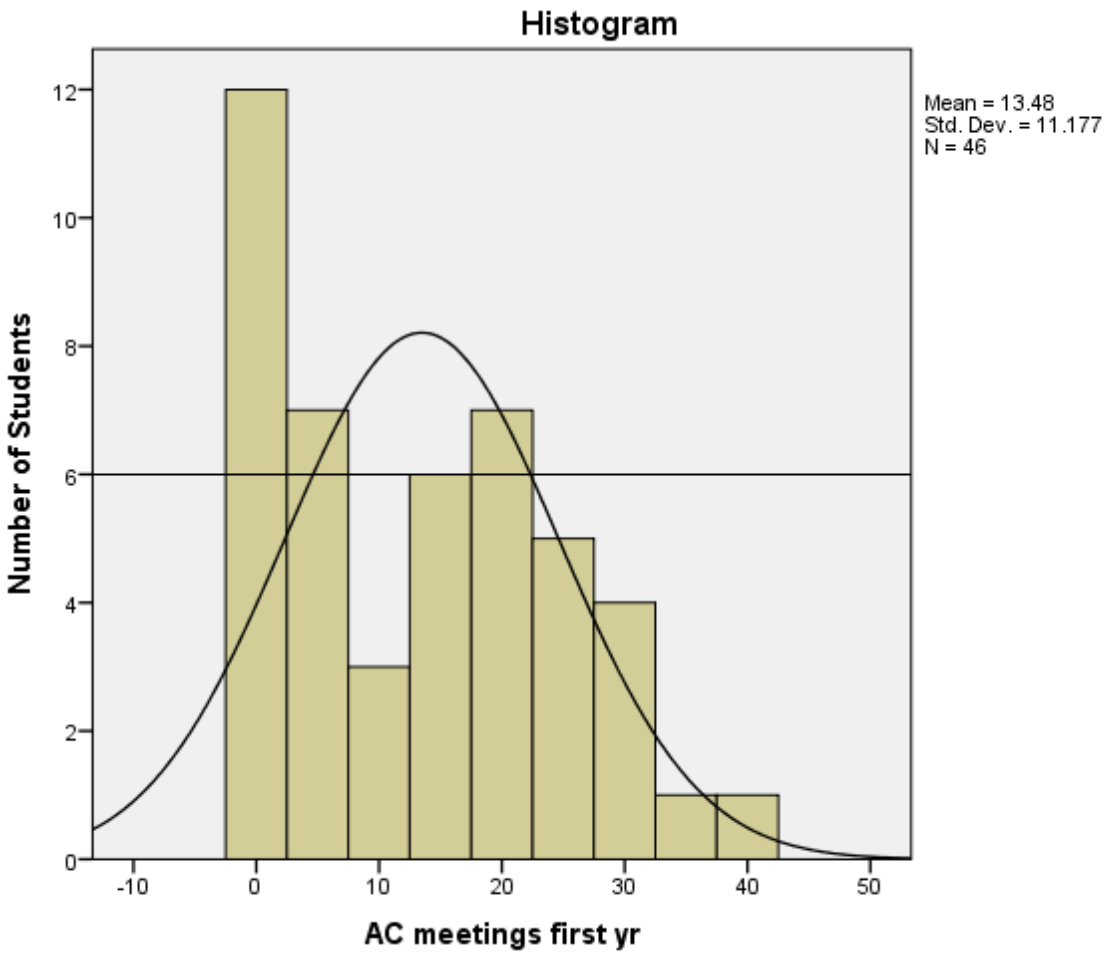

Figure 1. The number of Academic Consultant meetings attended by participants the first year.

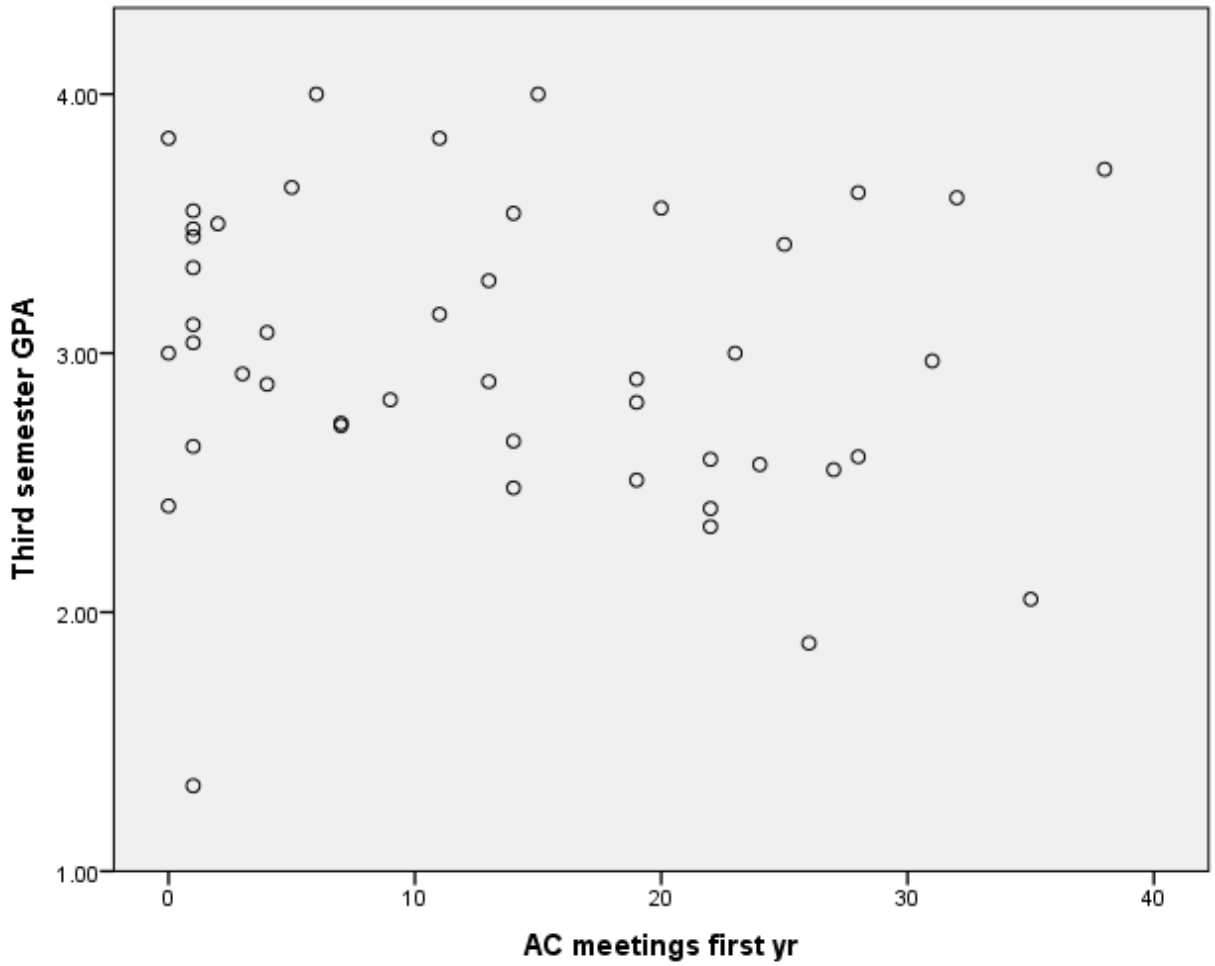

Figure 2. The relationship between third semester GPA and number of Academic Consultant meetings attended during the first year.

Lauren Rodriguez, M.A./C.A.S.

EDUCATION

Alfred University, Alfred, NY (APA accredited)
Doctor of Psychology, School Psychology December 2015
Dissertation: *Academic Supports and College Success for Students with a Learning Disability*
Chairperson: Jana Atlas, Ph.D.

Alfred University, Alfred, NY (NASP approved)
Certificate of Advanced Study, School Psychology May 2012
Master of Arts, School Psychology May 2010

University at Buffalo, The State University of New York, Buffalo, NY
Bachelor of Science, Cum Laude, Psychology with High Distinction May 2008

PROFESSIONAL CREDENTIALS

New York State Provisional Certificate: School Psychologist
Nationally Certified School Psychologist

EXPERIENCE

Purchase College, State University of New York, Purchase, NY
Program Coordinator, Access and Accommodations Office June 2014 – present

Cortland Enlarged City School District, Cortland, NY
School Psychologist, Randall Elementary School September 2012 – June 2014
Building Committee on Special Education Chairperson/504 Coordinator

Liverpool Central School District, Liverpool, NY
School Psychologist Doctoral Intern, Grades Pre-K–12 September 2011 – June 2012

Alfred State College, Alfred, NY
Adjunct Faculty Member, Department of Social and Behavioral Sciences January 2011 – May 2011

Special Academic Services, Alfred University, Alfred, NY
Academic Consultant August 2009 – May 2011

Dansville Central School District, Dansville, NY
School Psychology Advanced Practicum, Dansville Middle School August 2010 – May 2011

The Child and Family Services Center, Alfred, NY
Graduate Clinician August 2009 – May 2010