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### Students with Learning Differences from College STAR: A Case Study

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Students with Learning Differences from College STAR: A Case Study

By  
Haley Zoe Nulty

A Dissertation Submitted to the  
Gardner-Webb School of Education  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Education

Gardner-Webb University  
2018

## Approval Page

This dissertation was submitted by Haley Zoe Nulty under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Just keep swimming... >◇ >◇ >◇ >◇ >◇ >◇

## **Abstract**

Students with Learning Differences from College STAR: A Case Study. Nulty, Haley Zoe, 2018: Dissertation, Gardner-Webb University, Students with disabilities/Learning Differences/Family/ Faculty/Perceptions/College STAR

This case study focused on the perceptions from students, family members, and faculty of students utilizing programs funded by the College STAR grant. The College STAR grant provides funds to welcome and support students with unique learning needs. As a newer initiative, minimal data exist on college students' utilization of the resources provided by College STAR. The success of these students was the focus of this research. An analysis of feedback from one of the three participating universities including faculty members, family perspectives, and student qualities was conducted. This qualitative research approach consisted of a six-part design to collect and analyze data.

Through the interviews conducted, College STAR was determined to have an overall positive effect on students. This grant offered assistance such as guidance with time management, mentors, and a specific tutoring center that accommodated participating students with a smaller, less invasive space for studying. Parents expressed how these services introduced their students to others with similar needs and gave them additional support needed, while in college. Two of the three professors interviewed were less knowledgeable about College STAR; however, all three professors were actively engaged with the participating students and were able to detail the positive impact College STAR had on teaching their students to reach out, advocate, and sustain themselves. The foundation built by the College STAR grant is tremendous, and it is only just beginning.

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## **Chapter 1: Introduction to the Study**

### **Introduction**

Some students with learning differences have navigated the university system, sought optimal resources for their learning needs, and graduated despite challenges and odds against them. How do they feel about their accomplishments and what are they doing now? How did their families feel as they journeyed through college? How did professors respond to their documented learning needs? This research study responds to the previous questions in further detail.

Students with disabilities and learning differences are entitled to equal opportunities when attending any school (U.S. Department of Education, Office of Civil Rights, 2011). There are specific laws that have been defined and adhered to for many years to protect students with disabilities (U.S. Department of Education, Office of Civil Rights, 2011; Wolanin & Steele, 2004). In addition, new programs are available for students with learning differences attending postsecondary schools. These programs were uniquely designed for this population, providing them with individualized, goal-centered learning.

This research study focused on three students who participated in College Supporting Transition Access and Retention (STAR). College STAR was created for college students with learning differences (College STAR, n.d.). This research focused on one male and two females who participated in College STAR while obtaining their undergraduate degree.

### **Statement of the Problem**

According to the U.S. Department of Education, National Center for Education Statistics (NCES, 2016), during the 2011-2012 school year, there were 11.1% of college

students who had a disability. In addition, schools offering new programs and support are encouraging more students with disabilities to attend postsecondary institutions. The U.S. Department of Education, Office of Civil Rights (2011) noted, “more and more high school students with disabilities are planning to continue their education in postsecondary schools, including vocational and career schools, two- and four-year colleges, and universities” (p. 1). College graduation rate statistics for students with learning differences are limited; however, there are available statistics regarding students with disabilities in higher education found in a longitudinal study completed by Sanford et al. (2011).

Sanford et al. (2011) explored post-high school outcomes of students with disabilities. In this research, it was noted that 55% of students interviewed reported they continued their education at a postsecondary institution following high school. Thirty-seven percent of students with disabilities had enrolled in a 2-year or community college; 28% in a vocational, business, or technical school; and almost 15% in a 4-year college. As far as completing postsecondary education, Sanford et al. considered 63% of students who attended postsecondary schooling but were not enrolled when the interview was conducted. Of the 63% of students with disabilities who within 6 years of leaving high school attended a higher education institution, 38% completed their program or graduated (Sanford et al., 2011).

Due to the growing number of students with disabilities and learning differences and their desire to attend postsecondary schools, research examining their challenges and successes at the college/university level is necessary. Krupnick (2014) revealed staggering statistics, sharing that 94% of students in high school with learning disabilities receive some type of support, while only 17% of college students do. This statistic may

suggest students with learning disabilities are more likely to drop out of college with only 34% completing their 4-year degree within 8 years of finishing high school (Krupnick, 2014).

According to NCES (2016), students with learning disabilities represent the largest group of all students with disabilities. Students with disabilities and their families experience barriers to life, education, and independence, affecting their enjoyment of human rights and inclusion (United Nations Children's Fund [UNICEF], 2007). Their abilities are overlooked, and their environment poses barriers more often than their actual disability (UNICEF, 2007).

The purpose of this study was to provide case studies of the successes and challenges of students with learning differences at University 1 to determine if there were deficits in the services provided by College STAR to help these students be successful. This research investigated how students with learning differences utilized the services funded by the College STAR grant to meet the expectations for college students at University 1 and the associated support received from family and professors. An analysis of the responses from all interviewees regarding College STAR and layers of student success is detailed in the study. The layers embody experiences from time spent in college, completing coursework, and preparing for graduation.

### **Context of the Study**

The literature review in this case study extends to the changes observed for students with learning differences across various settings and into the university system. The context of this case study reviewed legal changes that have evolved, including the increase of students with any type of disability attending postsecondary schooling, previous studies, legal action, and policies. The research available for students with

disabilities attending colleges or universities and the various types of support provided is vast. The extent of universal design (UD) for all students and 21st century learning along with planning, curriculum, assessments, teaching strategies, and co-teaching are presented in detail.

This case study examined the experiences of three students from one university who utilized services funded by the College STAR grant. The College STAR grant is a project designed by collaborating universities to assist campuses in welcoming students with unique learning needs. At University 1, the As-U-R program is the student component of the College STAR grant, and it provides supports to students who are capable of success but may face academic struggles because they learn differently. The College STAR grant provides the funding for As-U-R, weaves together direct supports for students and instructional supports for university faculty members, and ultimately provides strategies to support both students and faculty members at the postsecondary level (College STAR, n.d.). The focus of this grant is to encourage Universal Design for Learning (UDL) to facilitate learning for all students. There are two components to the College STAR grant that focus on individual campus-based initiatives as well as an integrated system of supports for students and faculty focusing on the implementation of the UDL principles (College STAR, n.d.).

College STAR has grown tremendously for students who learn differently. College STAR has cultivated a network of postsecondary education professionals interested in creating more welcoming environments for students with learning differences on the college campus. This grant-funded, research-based initiative is being implemented at three universities in the southeastern region of the United States. College STAR (n.d.) is supported by the Oak Foundation, the GlaxoSmithKline Foundation, and a

coalition of area foundations including the Joseph M. Bryan Foundation, the Cemala Foundation, the Weaver Foundation, the Tannenbaum-Sternberger Foundation, and the Michel Family Foundation.

There was one university designated for this case study. This university is located in a state in the southeastern portion of the U.S. University 1 is a public, coeducational university located in the mountains. It serves just over 18,000 students according to the 2016 enrollment. University 1's Office of Disability Services (ODS, 2017) expressed their dedication to broadening disability awareness, removing barriers, and focusing on reasonable accommodations (Wall, 2016). This university was selected by recommendation, displaying tremendous growth in its formative years of implementing the College STAR grant. University 1 has historically provided students with learning differences the supports they needed once applying through ODS. During the fall 2012, it was determined that University 1 would focus on supporting students with executive function challenges (College STAR, 2018). Few studies have been focused on students with executive function challenges, thus encouraging University 1 to get on board and deliver the benefits College STAR had to offer (College STAR, 2018).

### **Significance of the Study**

Despite the programs designed and implemented at the university level for students with learning differences, research relating to successes and challenges of these students is limited (Madaus & Shaw, 2010). Programs for college students with learning differences have been confounding in identifying and supporting their learning needs. Depending on a student's need, the delivery of documented, federally mandated services may vary. Student, family, and professor perceptions should be continuously reassessed to reflect individualized student needs (Wolanin & Steele, 2004).

Due to the infancy of College STAR, communication and feedback from graduates is limited. Each participating university has a unique system to provide students with differentiated learning environments, including a variety of supports and resources (College STAR, n.d.). It is essential to follow up with students who have participated in this program to obtain information on their experiences while attending postsecondary schooling and use their testimonies to engage more research. This case study focused on three students in their last semester of college.

### **Research Questions**

The following research questions were designed to guide the purpose of this study. These questions engaged students, families, and professors from one of the three universities participating in College STAR.

1. What are current student, family, and professor perceptions of College STAR, as investigated using interviews?
2. Which supports offered by As-U-R were identified by participating students as contributing to their academic success while attending postsecondary schooling?

### **Definition of Terms**

For the purpose of this research, the key terms are defined as follows.

#### **21st century skills.**

A broad set of knowledge, skills, work habits, and character traits that are believed—by educators, school reformers, college professors, employers, and others—to be critically important to success in today’s world, particularly in collegiate programs and contemporary careers and workplaces. (Great Schools Partnership, 2014, para. 1)

**As-U-R.** Housed in the Student Learning Center at University 1, As-U-R provides supports to students with executive function challenges (College STAR, 2018).

**College STAR.** A grant-funded initiative supporting transitions, access, and retention for college students with learning differences, currently in three public universities (College STAR, n.d.).

**Equally shared responsibility for participation.** Ensuring that students and professors are on the same page with regard to student participation in college courses.

**Equally shared responsibility for decision-making.** Ensuring that all members of a decision-making process are equally represented by their thoughts and/or recommendations.

**Executive functions.** A combination of complex cognitive skills, executive function is the management system of the brain that controls and facilitates cognitive flexibility, initiating appropriate actions while inhibiting others, planning/organizing, working memory, self-monitoring, paying attention to and remembering details, and emotional control (College STAR, 2018).

**Learning difference.** Understood as another type of learning where an individual may process, understand, or execute tasks in an alternative way.

**Learning disability.** Neurologically based processing problems which can interfere with learning basic skills such as reading, writing, and/or math. These problems may also interfere with higher level skills such as organization, time planning, abstract reasoning, long- or short-term memory, and attention (Learning Disabilities Association of America, 2017).

**Perception.** A theme or dimension that may emerge through data analysis (Creswell, 2014).



**Shared resources.** Resources are shared between students, parents, professors, and other members of a university to support learning for students with learning differences.

**Student with disability.** As defined by federal statute, “a student who has a physical or mental impairment that substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment” (US Legal, 2016, para. 1).

**UD.** “Design of products and environments to be usable by all people, the greatest extent possible, without the need for adaptation or specialized design” (North Carolina State University [NCSU], 1997, para. 1).

**Universal Design for Instruction (UDI).** Learning for students can be maximized using a variety of UD principles in all aspects of learning (DO-IT, 2017).

**UDL.** “A framework to improve and optimize teaching and learning for all people based on insights into how humans learn” (CAST, 2017, About Universal Design for Learning, para. 1).

### **Delimitations**

The scope of this research was limited to three College STAR students in the last semester of their college education. Five students from University 1 were invited to participate in the study. College STAR was implemented during the 2014-2015 school year; therefore, documentation relating to experiences of students who have participated in College STAR has not previously been conducted. Age was not considered as a factor in the research. Specifics regarding diagnosis of each student, demographics, and previous educational institutions were not considered.

## **Limitations of the Study**

The research study focused on students who were in their last semester of college as participants of College STAR, not the diagnosis for eligibility to College STAR. The information previously listed as delimitations did not contribute to their responses. In addition, this research is only a sample of the students from one of the three universities who have participated in College STAR and in turn may not reflect the experience of all College STAR participants. Furthermore, only three students responded to the invitation for participation in this case study. They were all students who remained participants in College STAR through their last semester of college, thus their perceptions may be biased. Personal attitudes and/or opinions may have contributed the internal validity of this research. Consequently, multiple interviews of multiple participants were conducted, and interview questions were worded to reduce the threat of internal validity related to personal attitudes and opinions.

## **Conclusion**

“One of the beauties and unique purposes of qualitative research is that it can truly delve into the deepest thoughts and feelings and experiences of the people researchers wish to explore” (Timmerman & Mulvihill, 2015, p. 1610). Conclusions from this study will contribute to the literature on students with disabilities who graduate from 4-year university programs and will generate awareness, acceptance, and understanding of complex phenomena (Timmerman & Mulvihill, 2015). University support can offer students with guidance in obtaining their degree, graduating, and moving forward into the workforce; however, literature on students with learning differences graduating from postsecondary schooling after having been a part of College STAR is limited. College STAR offers professional development for faculty to support

students who learn differently and provides faculty with resources for students enrolled in their courses. University 1 offers a wide range of degrees, demographic diversity, and geographic variation; and the number of students involved in College STAR has grown tremendously since implementation.

Research serves to offer guidance and respect as educators seek to encourage and enhance learning for students with disabilities and learning differences who have a desire to go to college, graduate, and move into the workforce or further their education. Perceptions guided this case study and reveal more research that can be used to increase awareness, make suggestions, and provide students enrolled in College STAR the support(s) they need to be successful. Chapter 2 is a review of the literature related to students with disabilities attending postsecondary education, followed by Chapter 3 where the methodology for this case study is formally detailed.

## **Chapter 2: Review of Literature**

### **Introduction**

This review of the literature focuses on students with disabilities who have attended postsecondary schooling, received support throughout college, and have now graduated from the postsecondary education level. Specifically, the research in this chapter focuses on student, family, and faculty perspectives as relating to students with disabilities and learning differences attending college.

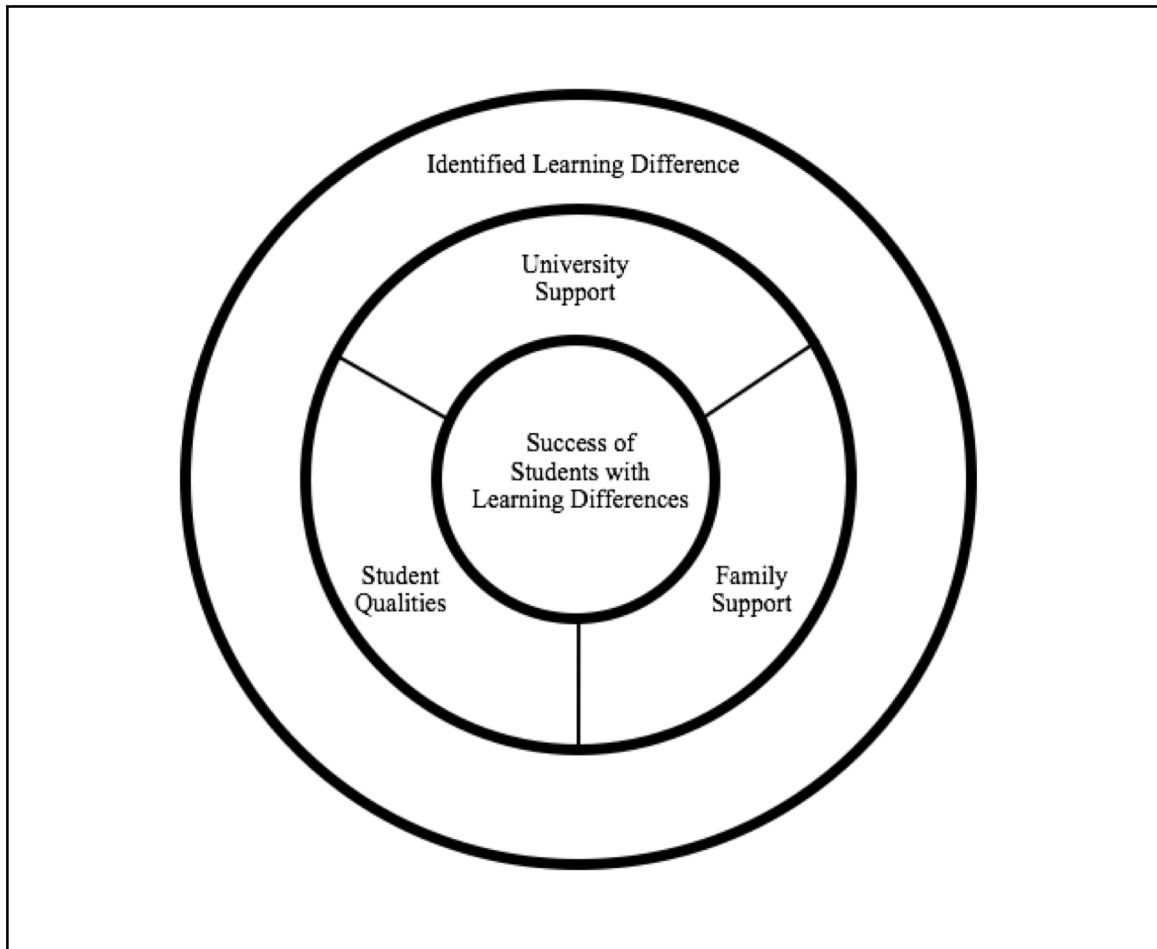
One factor in particular is that high school graduation rates for students with disabilities have slightly improved (Grindal & Schifter, 2017); and this fact supports the research that many of these students are furthering their education through attending postsecondary schooling (National Center for Learning Disabilities, 2018). These factors are delineated and reviewed through disability literature in this chapter.

### **Conceptual Framework**

Conceptual frameworks are used as a key component to the organizational aspect of research. Previous research indicates that relational expectations of students with disabilities and faculty at the postsecondary level are important to promoting student learning (Sachs & Schreuer, 2011). The research on family perspectives and the influence on students with disabilities in higher education is limited, thus signifying the need for additional exploration. Family perspectives along with student and faculty perspectives were used as a guide in relating and ultimately answering the research questions and detailing the literature for this case study.

Factors affecting students with learning differences and their success in postsecondary education is the leading construct of this conceptual framework. There are positive and negative factors that influence success for students with learning differences.

These factors were investigated through a review of literature and were founded upon research including student, family, and faculty input. Figure 1 provides a visual representation of the conceptual framework utilized for this research.



*Figure 1.* Conceptual Framework.

Figure 1 details the conceptual framework specifically designed by the researcher to guide the research for this study. Success of students with learning differences was the center of the research. Analyzing university support, family support, and student qualities were the contributing factors, based on the all-encompassing factor of the students being researched previously identified as having a learning difference.

## **Diagnostic Criteria**

Determination of a disability or learning difference and eligibility for additional supports must take place on a case-by-case, individualized basis. Evaluating the nature and severity of an impairment, the duration, and if there will be a permanent or long-term impact from the impairment, “the actual effect on the individual’s life” (Hobart & William Smith Colleges, 2017, para. 5) is essential.

The following legislative research from Hobart and William Smith Colleges (2017) provided integral information to inform others regarding individuals with disabilities:

The court in *E.E.O.C. v. Harvey L. Walner & Associates*, 91 F.3d 963,996 (7th Cir. 1996), described the proper disability determination as follows: A disability determination, however, should not be based on abstract lists as categories of impairments, as there are varying degrees of impairments as well as varied individuals who suffer from the impairments. Some impairments may be disabling for particular individuals but not for others, depending upon the stage of the disease or disorder, the presence of other impairments that combine to make the impairment disabling, or any number of other factors. (para. 2)

Not all disabilities are the same, and not all disabilities will have the same impact on individuals. Research has the ability to provide individuals with disabilities the supports they need in life.

Although this specific case involves individuals with physical disabilities, it is applicable to a range of disabilities. “Hidden” disabilities such as learning disabilities may not be diagnosed until a child begins school. With proper documentation and data, further evaluations may be recommended. Evaluations can be conducted by a school

psychologist or an outside psychologist to determine if learning discrepancies exist and if a child is eligible under federal law for specialized education. Oftentimes, members of a multidisciplinary team work together to recommend and/or conduct specific evaluations. Upon completion of evaluations, a team meets to review and analyze results. In order to gain a deeper understanding or to look beyond the struggles in school, a full evaluation can also be conducted by a medical professional (National Institute of Child Health and Human Development, n.d.).

### **Policies and Legislation**

Students with disabilities have legal rights that are far too often overlooked (Fleischer, 2005; UNICEF, 2007). Laws have been in place for many years, building precedent and setting the standard for future legislative acts. Some of these legislative acts are described in the next sections.

**Education for All Handicapped Children Act.** This act, passed in 1975 by Congress, was the first law that addressed children with physical and mental disabilities in the kindergarten through twelfth-grade setting and was created to provide children with special needs the same opportunities as their nondisabled peers (Masters in Special Education Program Guide, 2017).

**Individuals with Disabilities Education Act (IDEA).** IDEA is a modification of the Education for All Handicapped Children Act (Masters in Special Education Program Guide, 2017) and requires public schools to provide students with disabilities a free, appropriate public education utilizing a least restrictive environment curtailed to individual needs (U.S. Department of Justice, Civil Rights Division [USDOJ], 2009). This act also requires that an Individualized Education Plan (IEP) is developed, followed, and reviewed on an annual basis. IDEA amendments of 1997 and 2004 mandated that

students are invited to their transition meetings, including meetings that plan for postsecondary education (Eddy, 2010).

### **Other Laws Affecting Students with Disabilities**

Other laws that pertain to students with disabilities in higher education include the following:

**Rehabilitation Act of 1973 (RA).** This act prohibits discrimination on the basis of disability in programs conducted by federal agencies (USDOJ, 2009).

#### **Section 504 of the Rehabilitation Act (1973).**

No qualified individual with a disability in the United States shall be excluded from, denied the benefits of, or be subjected to discrimination under any program or activity that either receives Federal financial assistance or is conducted by any Executive agency or the United States Postal Service. (USDOJ, 2009, Section 504)

**Family Educational Rights and Privacy Act (1974).** This law protects the privacy of student records and gives parents certain rights to their child's education records which is then transferred to the student at the age of 18 (U.S. Department of Education, Family Policy Compliance Office, n.d.).

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

A new perspective on students with disabilities in higher education, yet to provide substantial research, was presented by the American Council on Education (ACE).

Providing access to higher education for students with disabilities is an issue to keep on the forefront of legislation/policy (ACE, 2016). As previously discussed, Sanford et al. (2011) explored post-high school outcomes of students with disabilities and noted that 55% of students interviewed reported they continued their education at a postsecondary



institution following high school. The Accessible Instructional Materials in Higher Education (AIM HE) Act was introduced in September 2016. The AIM HE Act was charged with creating a commission that developed voluntary accessibility guidelines for instructional materials utilized at the postsecondary level (ACE, 2016). The commission also cultivated information regarding existing information technology standards to use as a resource for colleges, universities, and any company that may work with them (ACE, 2016). The bill is currently under review, being supported through many higher education communities and associations; and ACE continues to work hard to have this legislation passed (ACE, 2016).

Although students with disabilities are attending postsecondary institutions, they continue to remain behind their peers in accessing college at rate of 45%, as compared to 53% of their regular education peers; and the retention rate for students with disabilities attending postsecondary institutions continues to present concerns (Madaus & Shaw, 2010). Madaus and Shaw (2010) concluded that the requirements students met for high school graduation did not adequately prepare students, including those with learning differences, for the demands of college-level academics. Some states have created programs involving community colleges to assist students with learning differences become acclimated and adjust to the college setting, thus preparing them for college coursework (Madaus & Shaw, 2010).

### **Executive Functioning**

Students who struggle with executive functioning skills are attending postsecondary institutions (College STAR, n.d.). “Executive Function is the management system of the brain that controls and facilitates cognitive flexibility, initiating appropriate actions while inhibiting others, planning/organizing, working memory, self-monitoring,

paying attention to and remembering details, as well as emotional control” (College STAR, 2018, para. 2). Executive functions are best known as a set of processes that enable a person to manage themselves and their resources to achieve specific goal(s). It has been coined as a term for skills that are neurologically based, focused on mental control and self-regulation (Cooper-Kahn & Dietzel, 2017). Challenges with executive function typically revolve around persistent difficulties with organization, planning, and follow-through with tasks, which can make academic success at the college level more challenging. Furthermore, college students with executive function challenges may have been diagnosed with Attention Deficit Hyperactivity Disorder and/or a learning disability, but there may be others who have not been diagnosed despite their struggles with executive function tasks (College STAR, 2018).

Cooper-Kahn and Dietzel (2017) explained the basics of executive functioning, describing it as the “conductor of all cognitive skills” (para. 1). Although diverse, the set of skills known as the executive functions are related and oftentimes overlap. These skills overlap through mental processes connecting past experiences with present action (College STAR, 2018; Cooper-Kahn & Dietzel, 2017). Students who have difficulties with their executive function skills most likely face challenges at school, home, or in the workplace. They struggle with the ability to plan, organize, and manage time and space (College STAR, 2018; National Center for Learning Disabilities, 2017).

To explain problems with executive function more in-depth, College STAR (2018), Cooper-Kahn and Dietzel (2017), and Diamond (2013) expressed that individuals will likely struggle to plan a project and comprehend the extent of how long a project may take to complete. In addition, individuals may struggle to communicate in an organized fashion or tell a complete story. Difficulties with executive function may be

presented when an individual does not display the ability to use mental strategies for restoring or retrieving information or while they are working independently.

**Student perspectives.** Perspective can be referred to as a theme or dimension that emerges as part of a data analysis (Creswell, 2014). Understanding the perspectives of students, family, and faculty members can provide a component to the research of students with disabilities, the necessary supports they need, and how they can potentially be successful in higher education and beyond. When thinking about students, it is also important to remember that everyone is different; and what may be beneficial for one person, may or may not be beneficial for another. Time also affects change. Each year, new research, new technology, and new opportunities have the ability to contribute to the perspectives of students, family, and faculty. As our world evolves, so do the needs of all people, perpetuating research and pressing for a deeper investigation into the world of special education.

Referring to IDEA (1990) and the reauthorization of PL 94-142, educators and policymakers sought ways for students with disabilities to be active in the transition planning from school to adult life (Eddy, 2010), thus offering their perspectives as they proceed with their education. In addition, since 1990 when President Bush signed the Americans with Disabilities Act (ADA; PL 101-336), the number of students with disabilities seeking higher education has increased by approximately 21% (Battle, 2004). Getzel and Thoma (2008) discussed the adjustment perspective for students with disabilities learning to manage their accommodations and coursework and the uniqueness of the challenges these students face.

NCES (2016) reported that during the 2011-2012 school year, there were 11.1% of students with disabilities enrolled in postsecondary institutions, an increase of almost

2% as compared to 1999-2000 where 9.3% of students reported disabilities (Battle, 2004). Battle (2004) noted that the number of students with disabilities attending postsecondary institutions tripled from 1978-1998, with 50% of students with disabilities enrolling in a 2-year program, and 50% of those students moving on to a 4-year school. In addition, in 2011-2012, the percentage of students reporting a disability was 11% for both male and female undergraduates (NCES, 2016), which is an increase from 1999-2000 when 9.3% of full-time college undergraduate students reported a disability (Battle, 2004).

Huger (2009) stated that services addressing the individual needs of students with learning disabilities are vital as the number of these students continues to rise. To understand student needs at the postsecondary level, it is imperative to provide them with resources to assist them in being successful. According to Madaus and Shaw (2010), the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 mandated that education at the postsecondary level be considered as a goal for any student.

Students with disabilities have their own perspectives when they make the decision to further their education after high school. They have worked for many years to achieve goals and gain respect by graduating from high school. Under IDEA, students with identified disabilities can have an IEP until they graduate high school or they reach a maximum age of 21 (Stanberry, 2017). Although IEPs do not exist after high school, they are designed to support students as they transition and prepare for life after high school (Stanberry, 2017). One important aspect of receiving services and having an IEP in high school is that it provides students with the ability to learn how to advocate for themselves, which is an essential skill to have as many of them seek to further their education at the college or university level (Stanberry, 2017).

Students with disabilities can experience difficulties in both academic and social aspects of learning. Common challenges in academic subject areas such as reading, writing, and mathematics may exist as well as other subject areas that involve more rigor and commitment at the college level. Social aspects of attention, advocacy, and behavior may also greatly impact students with disabilities who are attending college, along with time management, organization, and executive functioning skills. Wegner (2008) suggested that with a lack of self-determination, psychosocial challenges may be created when students who have learning disabilities progress to higher education.

In a study performed by Hill (1996), students were asked if lack of services impacted their ability to move forward with postsecondary education. Twenty-one percent of the students in this study confirmed that a lack in services forced them to withdraw from a course or forced a change in their program of study; however, further investigation revealed it was not necessarily a lack of services. Instead, it was a lack of understanding and negative attitudes. Regardless, the impact on students with disabilities was apparent, and students suggested additional staff members to better support their needs should be considered (Hill, 1996).

Transitioning to college life can be difficult for all students, especially those identified as having a disability; and once at college, it is the responsibility of the student to seek support and apply for needed modifications and/or accommodations (U.S. Department of Education, Office of Civil Rights, 2011). Timmerman and Mulvihill (2015) explained that the greatest barriers students with disabilities reported was not seeking services or accommodations due to issues related with their identity and students do not want to be viewed as needing additional support or seen as being “different,” yet this research suggested that students who did disclose their disability expressed

satisfaction with the accommodations and services they were provided (Timmerman & Mulvihill, 2015).

Self-advocacy is an essential skill for students with disabilities, and it can be defined in several ways. Roper (2016) expressed the belief that self-advocacy is displayed by an individual having the ability to communicate effectively as well as being able to deliver, discuss, or emphasize one's curiosities, wishes, essentials, and/or rights. Students with disabilities attending postsecondary school oftentimes do not know how to self-advocate, due to lack of knowledge of their disability and their own strengths and weaknesses (Basilice, 2015; Getzel & Thoma, 2008; Roper, 2016). Research has also revealed recommendations regarding self-advocacy, encouraging these skills to be included in student transition plans prior to college (Eckes & Ochoa, 2005). One of these recommendations includes teaching students to communicate on their own behalf. This provides them with additional support when they realize that no communication is required between high school teachers and college professors when a student makes the big transition (Eckes & Ochoa, 2005).

Individualized factors as relating to students with disabilities were considered in the research conducted by Ressa (2016). This research indicated individual student perceptions related to disability, mental fatigue, ill health, pain, and injury as factors that contributed to their performance in college (Ressa, 2016). These factors exposed experiences that were stressful for students and left them feeling stigmatized, alienated, and as if there were a lack in the accommodations provided (Ressa, 2016). Additional individual-related factors zeroed in on cognitive competence, noncognitive competence, self-determination, and educational goal-related factors. The participants in this research all described themselves as being persistent, resilient, and dedicated; and they all wanted

to attend college and focus on their future (Ressa, 2016).

Atkinson (2014) conducted a case study to understand support needs identified by undergraduate students with disabilities. Students were asked to identify their strengths and weaknesses in relation to study skills and the ability to complete homework. Then, plans developed between mentors and mentees to support students while attending college were reviewed. There were two goals set for each semester. Atkinson was able to use student information to determine their needs and analyze their goals with program mentors. The case study aspect of this research allowed the researcher to tie together important information relating to student strengths and weaknesses that was directly linked to student support and needs while completing their undergraduate coursework. Organization, time management, and classroom strategies were among the variables students stressed as a need for support while completing their undergraduate degrees (Atkinson, 2014).

**Family perspectives.** “Promoting the outcome that students leave school as self-determined young people is a lifelong focus for families and educators” (Wehmeyer, 2014, pp. 3-4). Family members have the ability to support students with disabilities, encourage them to reach beyond their potential, strive for achievement, and reflect a balance of tough love and expectation; however, research related to family perspectives and their relation to students with learning disabilities attending postsecondary schooling is limited. Research that is similarly related is derived from family perspectives of students with disabilities in the K-12 setting. When conducting research of family member perspectives who have students attending college, the bulk of existing research is comprised of student perspectives and faculty/professor perceptions of their experiences with students who have disabilities and college coursework.

Some existing research does detail the influence parents have on a child's educational aspirations and outcomes regardless of grade (Lee, McCoy, Zucker, & Mathur, 2014). The transition planning component from secondary to postsecondary schooling is a key component for family members to consider when supporting their child(ren) with a disability. Although limited to students with autism spectrum disorders, Lee et al. (2014) confirmed the importance of academic transitional support for students and suggested that oftentimes parents were unaware of this available support. With little research and a lack of understanding relationships for students with autism spectrum disorders, there is minimal planning in relation to academic transition all the way from preschool to postsecondary settings (Lee et al., 2014).

Lombardi, Murray, and Gerdes (2012) conducted research on first generation college students with disabilities. Findings from their research indicated that determining unique support needs for these first generation college students was vital to their success. Support needs with regard to self-efficacy, finances, social and peer support, and accommodations can offer substantial reinforcement for students with disabilities and do so in ways that are not necessarily beneficial to the general population. Furthermore, the research stressed successful interventions could lead to multiple positive outcomes for this population regardless of their family background (Lombardi et al., 2012).

Continuing to build on Ressa (2016), family-related perceptions included low expectations from parents and lack of appropriate information for parents who have students with disabilities attending postsecondary schooling. With a lack of appropriate information for parents, some students did not receive the accommodations they were entitled to, thus limiting their access to learning. Overprotection and fearfulness negatively impacted many students' pursuance of higher education as well, which led to



misunderstandings and reduced interactions. Nevertheless, Ressa constructed research that revealed additional findings to the contrary. On a progressive note, advocacy, financial, and emotional support contributed to positive educational outcomes for students with disabilities before and during their academic careers (Ressa, 2016).

To look at another aspect of family perspectives, McDermott-Fasy (2009) compiled research from parents regarding their experiences as their students matriculated through the educational system, elementary through high school. Parents expressed a sense of urgency in the stories they had to tell about the teachers who worked with their children. This research implied that parents felt as if teachers did not know what their children needed, thus they were not providing them with the education or tools they needed to be successful (McDermott-Fasy, 2009). Parents who have students with disabilities need to be informed and prepared for the experiences their family may encounter as their children matriculate through elementary, middle, and high school; college; and beyond. “Getting the run around” and feeling as if there was a lack of honesty was a common experience provided by parents in McDermott-Fasy’s research.

**Faculty perspectives.** Faculty expectations as determined by colleges or universities for when they are working with students who have disabilities and/or learning differences can vary. Furthermore, awareness of disabilities as described and compared with what is required, including protocols related to eligibility, accommodations, and modifications for each school regarding teaching students needing additional support, is included in this section. College faculty members hold priorities, beliefs, and behaviors, all of which contribute to the quality of experience at the postsecondary level for students with disabilities (Cook, 2007).

Despite the many changes that take place in the educational world, some aspects

remain the same, such as the need for support from faculty members at all levels of schooling, including support they receive once they move to higher education (Sachs & Schreuer, 2011). “Studies have shown the importance of faculty’s attitudes toward students with disabilities, their awareness of these students’ needs, and their knowledge of the reasonable accommodations available” (Sachs & Schreuer, 2011, para. 8). Fifty percent of students with disabilities reported that faculty members understood their needs; however, only 25% of these faculty members were willing to meet the needs of their students (Sachs & Schreuer, 2011). Furthermore, the research presented by Sachs and Schreuer (2011) indicated that attitudes surrounding social change with regard to students with disabilities and faculty were imperative to equal opportunities and socialization.

Detailed in the research by Hill (1996), the author noted that almost two thirds of student respondents reported that faculty members were very willing to assist with their accommodation needs, yet only 20% of students with learning disabilities reported that faculty accepted them very willingly. This was the lowest percentage as compared to students with disabilities in other categories such as physical disabilities, chronic health problems, multi-handicapping conditions, and visual and auditory disabilities. A low percentage of less than 50% of faculty members being very willing also was noted in terms of assignment accommodations; yet on the side of testing accommodations, students noted that faculty members were very willing to allow extra time for completion, at 64%; and 63% were very willing to allow tests to be taken in an alternative location (Hill, 1996). Hill stated that a lack of accommodations for 34% of students and delays in obtaining services for 20% of students impacted their ability to pursue further education.

Basilice (2015) and Alliston (2010) explained that faculty members in higher

education tend to have limited knowledge regarding disability law; best practice for students with disabilities with regard to contact, connection, and campus support; and differentiated instruction for these students. Furthermore, Basilice (2015) stated that faculty who had previous exposure to teaching students with disabilities were more likely to provide accommodations than faculty with limited experience; however, research related to faculty encouraging student achievement presented concerns. These concerns were directly related to supporting students and academic fairness (Basilice, 2015). It is essential that faculty seeks resources to provide them with the appropriate means of supporting students with disabilities and being well-informed to student rights as related to their specific needs.

Kraska (2003) focused on faculty attitudes in relation to providing accommodations as associated with four main categories: previous contact with individuals with disabilities, gender, discipline, and level of information; in which no statistical significance was found to have an impact on students with disabilities. The purpose of this research was focused on attitudinal barriers and the fact that they should not be ignored when seeking to promote equal access for students with disabilities attending postsecondary schooling (Kraska, 2003). The research did, however, yield statistically significant differences in faculty rank and the academic department with which they were associated in relation to supporting students with disabilities (Kraska, 2003), opposed to no significant findings in these areas for Hoffman (2013).

Faculty members at the college level will most likely encounter students with disabilities at some point during their tenure or stay. Alliston (2010) reviewed faculty perceptions for training, as it related to students with disabilities. This researcher surveyed faculty members and students. Data indicated that a large percentage of the

faculty members interviewed had taught less than 10 students with disabilities (Alliston, 2010). A statistically significant relationship existed with regard to gender, years of teaching, prior experience with disabilities, department, and previous training (Alliston, 2010). The importance of disability etiquette and UDI were also areas that displayed statistically significant responses (Alliston, 2010).

Advancements have been made to provide access and include students with disabilities in higher education settings, yet these students continue to face barriers (Cook, 2007). Nevertheless, research still needs to be conducted with regard to priorities, perceptions, and practices of faculty members who need guidance for supports and services for students with disabilities (Cook, 2007). This statement is supported through Cook (2007), indicating that faculty members reported frustration with not knowing where to obtain information and resources they need. In addition, Cook focused on the following specific terms: legal issues, accommodations, disability etiquette, disability characteristics, and UDI. Through an analysis of the research, Cook determined the following themes: legal, UDI, etiquette, and disability characteristics. All of these were found to be of high importance in discussing students with disabilities in higher education.

Kelly (1999) conducted research at Tennessee State University (TSU) regarding Section 504 and ADA, which depicted a lack of knowledge for these categories. There were several subgroups of participants who were knowledgeable with regard to providing accommodations to students with disabilities. Of the faculty members at TSU, students with learning disabilities were provided with less sympathy than students with other disabilities (Kelly, 1999). Overall, this research concluded that the faculty at TSU were open to making accommodations for students with disabilities, but they maintained a

concern for integrity (Kelly, 1999).

Hoffman (2013) analyzed data with regard to college/university faculty awareness, knowledge, and perceptions. Hoffman produced information that led to faculty members having the most experience/knowledge teaching students with varying disabilities, more commonly learning, speech, visual, and hearing, and not as commonly with mobility or psychiatric disabilities.

Donato (2008) focused on college/university faculty members and the specific use of certain accommodations. One faculty member reported providing a safe, physical environment with learning contracts, preferred seating, having discussions with students, and allowing travel time between classes; whereas two to three faculty members reported providing enlarged materials, custom assignments, peer helpers, one-on-one assistance, additional time, alternate locations or arrangements, and lecture notes prior to class. The majority of faculty members also shared that they provided notetakers in class. Faculty members suggested that note-taking and alternate exam locations were the highest requested accommodations made by students (Donato, 2008).

Referring back to Ressa (2016), in relation to instructor-related factors, lack/limited collaboration, non-inclusive practices, uncaring teachers, misunderstandings, and deficits in instructor perceptions were all elements considered in the research; however, when looking at factors that affected academic competence for students, inclusive practices and teacher-parent collaborations were most influential. It was noted that the inclusive settings provided students with teachers who recognized, appreciated, and acknowledged needs. Positive attitudes, teacher collaboration, and home-school partnerships were essential components to supporting students and their academics (Ressa, 2016).

## **Successful Degree Completion of Students with Disabilities**

Students with disabilities are entitled to equal opportunities to be successful in all settings, including school (U.S. Department of Education, Office of Civil Rights, 2011). Professors, coursework, additional faculty members, family members, and other environmental factors all contribute to the types of services students with disabilities receive when attending postsecondary schooling. The roles these individuals play may or may not affect the success in higher education and the relational expectations for students with disabilities. The research surrounding factors that affect students with disabilities attending postsecondary education and their ability to graduate is insightful and on the rise. The following section delineates the various factors that impact degree completion.

**Supports for student success.** Sandifer (2002) completed research on challenges seen in higher education for students with disabilities, with the type of institution being the leading influence or greatest influence. Students with disabilities who attended private universities/colleges had a significantly higher rate of graduation in comparison to students who attended public institutions (Sandifer, 2002). The author suggested benefits for graduations were derived from smaller class sizes, which provided students with the assistance to pace their course work, as well as professors who were more engaged and knowledgeable about the laws protecting students with disabilities. The research also presented the likelihood of private institutions having established, well-organized procedures that assist students with disabilities, in addition to a student's ability to meet admission standards and have involvement and support from parents (Sandifer, 2002).

**ADA.** ADA has had several amendments since its origin in 1990, when it was signed by President George W. Bush. The most recent amendments occurred in 2008, and these amendments allowed for more students to be covered based on their disability.

In 2013, updates were made to Title I of ADA which covered equal employment opportunities. Then in 2015, ADA celebrated 25 years. With laws in place, research indicates there will be an increase in the number of students with disabilities who seek services as well as in the number of students who actually receive disability services (Herbert et al., 2014). The research by Herbert et al. (2014) also yielded that there was not a difference with regard to the type of disability students had and graduate rate, with all disabilities comparatively level. Successful completion of degree was also noted, with students who had a disability requiring an average of 10.1 semesters to graduate. In addition, Herbert et al. noted that race/ethnicity and being on main campus were significant contributors to students completing their degrees. It was suggested that students with disabilities who were in contact with at least one university person increased the likelihood of their success and self-determination to succeed in college (Herbert et al., 2014).

**Self-determination.** Self-determination was easily yielded as a factor that contributed to the success of students with disabilities (Herbert et al., 2014; Wegner, 2008). These researchers discussed the need for students with disabilities to be engaged in their academics, focused on the content they are learning, and seeking support when they feel behind. In the research conducted by Pingry (2007), the author encouraged students with disabilities to use the data obtained in the study to advocate for accommodations and support. This takes an immense amount of self-determination; but it is an act that should be encouraged and promoted through peers, faculty, and/or family.

**Age.** One variable that stood out in the research conducted by Pingry (2007) was age. This research noted higher graduation rates among students who were 23 years of age and older. Perhaps younger students were not staying in school, or it may be more

likely they matriculated through high school at an older age and thus attended college later than their typically developing peers. In addition, unlike the most recent research conducted by Herbert et al. (2014), Pingry found that students with cognitive and mental disorders were less likely to graduate than students with physical disabilities.

**Accommodations.** Adhering to and providing appropriate accommodations are key factors to student success. In Pingry's (2007) research, it was noted that distraction-reduced testing and extended time increased the likelihood of graduation for students with cognitive disabilities and mental disorders. Flexible assignments and test dates were also positive contributing factors to graduation for students with disabilities as well as learning strategies and skills (Pingry, 2007). Furthermore, students receiving physical therapy and/or functional training were more likely to graduate than those who did not receive these supports (Pingry, 2007). All of these factors can contribute to different students in different ways, regardless of disability. Nevertheless, it is imperative to look at all the factors that were beneficial to students with disabilities and take note of the supports that were most effective.

**Relationships on campus.** Smith (2015) discussed the positive satisfaction students with disabilities had by developing relationships with their faculty, fellow students, and staff. These relationships were direct contributors to positive educational experiences for students with disabilities. A relationship is such a simple factor that can be developed with ease and precision to hold value that is vital to supporting students. Social integration was a common thread through Smith's research in which students who were more socially integrated felt a sense of being more connected to their higher education community, and ultimately, they felt the support they needed to be successful.

Furthermore, there is research trending towards increasing interpersonal skills,



self-development, and problem-solving, which can in turn promote greater independence and ultimately a better quality of life. These skills are interrelated to student perspectives and can be encouraged through the support of rehabilitation counseling which is client centered and focuses on an individual's culture, family environment, and educational experiences (Meyer, Hinton, & Derzis, 2015).

**Academic challenges creating barriers to student success.** On the reverse side of support falls challenges that ultimately create barriers to student success. Smith (2015) reported institutional, physical, and attitudinal barriers. These barriers are inconsistent throughout college campuses, making it more difficult for students to find the direct support they need. In addition, Smith stressed the importance of having a disability support office. Not only should all college campuses have these offices, but there should be staff members eagerly awaiting students to develop relationships that can guide their education and success. Smith placed an emphasis on the relationships with staff members to discuss school performance and accommodations. These relationships are not easily developed, and it takes both the student and the school working together to create long-lasting partnerships.

When students do not know how to self-advocate, self-regulate, or use self-knowledge, it makes it very difficult for them to be successful in postsecondary settings (Herbert et al., 2014). An adjustment phase takes place when students with disabilities go to postsecondary education. One factor would be remaining at one campus throughout college providing consistency and the level of needed support from the very beginning (Herbert et al., 2014). This, however, is not always typical of students with disabilities attending postsecondary schooling. Oftentimes, students struggle to find their niche, and it is difficult for them to find the consistency they need to be successful. When students

make changes to their routines, such as moving campuses, their ability to connect with faculty and staff decreases and their stressors may rise, which can lead to an increase in tension and anxiety and ultimately affect their ability to graduate (Herbert et al., 2014).

Assistive technology, classroom assistants, and transportation impacted students with disabilities and their likelihood of graduation in the research conducted by Pingry (2007); however, it was noted in this research that students requiring this level of support may have had more significant disabilities, which in turn presented more obstacles to overcome for graduation (Pingry, 2007). This could be viewed in another perspective with universities being unable to provide the appropriate technology or assistance a student with a disability may need possibly due to a lack of funding (Pingry, 2007).

In a case study conducted by Meade (2015), the researcher noted participants unanimously agreed that additional services or classes should be offered for students with disabilities. Meade also noted that when interviewing transition coordinators, they did not feel they were capable of meeting the transitional needs of students with disabilities, sharing that their time and expertise were limited. Referring to this research, it is important to note there are many factors that can contribute to student success, some of which are out of the hands of the students. In addition, consultation, professional development, collaboration, flexibility, and coursework emerged as common themes from the interviews conducted in this case study (Meade, 2015). These results, coupled with the survey and outcome data, provided the researcher with information on the themes regarding factors that affect students in higher education.

### **Universal Design**

UDL has allowed for a new and innovative approach to teaching to take place across the educational field. Students with learning differences can benefit greatly from

the resources provided through UDL. College STAR (n.d.) describes the three principles of UDL as providing opportunities with multiple means of representation, providing students with various ways to engage, and providing options for action and research. UDL was created to look at a broader picture; a picture that includes equal access for all people, including those with disabilities. As the university systems across our nation and world grow, UDL will take shape in various forms on many campuses. Research relating to UDL will continue to expand, and students will continue to learn the positives and negatives of this design.

UDL is a newer way to interact and support students with learning differences in and out of the classroom. When campuses do not provide appropriate training to faculty and staff regarding hardships for students with learning differences, they are discounting the actual support these students require to be successful. UDL offers unique and innovative ways to teach, learn, and support all students. This, in turn, needs to come with an open mind from faculty regarding implementation. Negative interactions among faculty and peers can significantly impact a student's success. The seven principles as described by NCSU (1997) are imperative for breaking down barriers and offering students a variety of settings, resources, and avenues for learning.

UDL can have a positive impact as well as create a barrier to learning. To discuss the positive impact, it is important to note that UDL is rooted in UD, from which UDL flourishes, and furthermore guides instruction for UDL. The principles of UD, as described by NCSU (1997), expressed that UD is considered the "design of products and environments to be usable by all people, the greatest extent possible, without the need for adaptation or specialized design" (para. 1). Although this may seem somewhat variable, students expressed the need for usable instruction that serves to enhance their education

and promote a well-rounded learning environment.

There are seven principles to UD that assist individuals with diverse abilities, focusing on design disciplines rooted around environments, products, and communications. The first principle is equitable use, which seeks to be useful and marketable for all users, providing the same means of use (NCSU, 1997). Principle two is flexible in use, stating that the design will be accommodating for a wide range of preferences and abilities for all individuals; followed by principle three, simple and intuitive use, making a design easy to understand and use, regardless of experience or ability (NCSU, 1997). Principle four focuses on perceptible information, seeking to ensure that the design communicates all appropriate information to the user regardless of ability; while principle five extends to a tolerance for error, striving to minimize consequences (NCSU, 1997). Principles six and seven wrap up UD. Principle six seeks a design be used proficiently and securely with minimum fatigue and is defined by low physical effort; size and space for approach and use is the leading descriptor for principle seven (NCSU, 1997). In this principle, approach, reach, and manipulation are all constructed with appropriate size and space in mind to be useful for any person regardless of their body size, posture, or mobility (NCSU, 1997). These seven principles are all equally important and essential factors to providing students with learning differences the necessary structures and means to be successful at the postsecondary level of education. The research provided on UD expressed that although there are many considerations for UD, the principles may offer guidance for integrating features that can meet the needs of as many individuals as possible (NCSU, 1997).

Since UDL was introduced, it has grown tremendously in theory and in practice. There are guidelines for UDL that zone in on three important networks: affective,

recognition, and strategic (CAST, 2017). Each of these networks serves an individual purpose with regard to learning. The affective networks are also referred to as the “why” of learning, it is engaging, and known for purposeful and motivated learners; the recognition networks are known as the “what” of learning, being representative of resourceful and knowledgeable learners; and the strategic networks are viewed as the “how” of learning, focused on action and expression, for the strategic and goal-oriented learners (CAST, 2017).

Research conducted by Coomber (2006) expressed how UDL engages individuals to embrace differences by providing access within a learning community for individuals with disabilities. There are many approaches to take when developing curriculum and furthermore taking architectural barriers into consideration for UDL. Using a variety of methods for instructional purposes without lowering the standards set for academia is the key focus of UDL (Coomber, 2006). The researcher for this study also notes that it is important to understand even though some accommodations help students in the classroom, these supports may not carry over to the final product (Coomber, 2006).

When looking at UDI, McGinty (2016) found varying responses from faculty members. The college to which faculty members belonged had a significant impact on the experiences they provided with regard to accommodations and instruction for students with learning differences. Furthermore, there were faculty members who felt UDI was not used consistently throughout the university and therefore the climate was not reflecting the practice of using UDI (McGinty, 2016). Alliston (2010) suggested providing faculty members with training on UDI to encourage the implementation within their coursework and using principles within UDI to focus on flexible instruction, which in turn can promote better access for all students.

Black (2012) conducted extensive research on students with disabilities who participated in college courses that utilized UDL. Based on student responses, Black concluded that because every student learns differently, their needs in the classroom were also very different. Students with visual impairments had needs that were quite different from other disabilities, noting that they did not benefit from many brainstorming activities that included the blackboard or PowerPoint slides (Black, 2012) simply because they could not see them; however, students with other disabilities noted that videos made them sleepy or professors did not provide feedback, thus marking additional factors that contributed to student outcomes (Black, 2012). Students with and without disabilities process information differently (Black, 2012). It is imperative that institutions of higher education are continually seeking ways to support learning for all students.

Rose, Hall, and Murray (2008) carried out research related to assessment and UDL for students with learning disabilities. Motivation was found to be a direct indicator for student engagement and moreover an even bigger indicator on the differences of orientation and motivation for students with learning disabilities and assessment (Rose et al., 2008). Reviewing UDL for this research, the “goal was focused on ensuring accurate measurement and educational accountability for all students” (Rose et al., 2008, p. 23). The researchers for this report noted three areas that may negatively impact students with disabilities: attention and interest in an assessment, sustained effort and engagement when faced with difficulty, and self-regulation (Rose et al., 2008).

### **College STAR**

College STAR was created to support students with unique learning abilities at the collegiate level. Students participating in this program are accepted to one of the three participating universities. Among acceptance to a participating university, students

have the ability to seek out additional support from College STAR. College STAR offers students with learning differences supports to be successful at the postsecondary level. Although relatively young in development, this program has graduated students from all three of the campuses involved (E. Hoffman, personal communication, April 27, 2017; S. Williams, personal communication, June 13, 2017).

College STAR utilizes a two-fold structure, most commonly known through Components A and B. Each component has key features to support each individual campus based on the mission, priorities, and cultures of each university (College STAR, n.d.). Component A focuses on developing a network that is all encompassing for student supports, and Component B is geared towards UDL and direct services for students with disabilities (College STAR, n.d.). College STAR is a grant-funded project supported by the Oak Foundation, the GlaxoSmithKline Foundation, and a coalition of area foundations including the Joseph M. Bryan Foundation, the Cemala Foundation, the Weaver Foundation, the Tannenbaum-Sternberger Foundation, and the Michel Family Foundation (College STAR, n.d.).

The three universities involved vary in terms of enrollment and location. They also vary based on the needs of their campus. The three universities have independent ways of providing students with learning differences environments that are conducive to learning, including a variety of supports and resources (College STAR, n.d.). University 1 is a public, coeducational university located in the mountains and serves just over 18,000 students (Wall, 2016). University 2 served almost 29,000 students in 2016 and is also a public, coeducational university (West, 2016). University 3 is a historically Black, public university that served just over 6,200 students in 2016 (Institutional Research, 2017). All three universities have learning centers/tutoring centers for students

participating in College STAR. This research focuses solely on University 1.

University 1 began implementing College STAR during the 2014-2015 academic year. This university has designated multiple individuals who are responsible for the implementation and follow-through for the two components, A and B, associated with College STAR. There is a faculty member who leads Component A, a faculty member who leads Component B, and a program director for the entire College STAR project. Considering the needs for this program, the university has maintained constant communication with the leaders for each component as well as the director, seeking to make adjustments and improvements as needed.

Component A is focused on the students, and the students are the entire reason College STAR exists. Using the growing population of students with learning differences attending college, College STAR emerged as a support program for these students while they attended postsecondary schooling. Currently, University 1 has 90 students participating in this program. This number has increased every year since 2014-2015 and is currently maxed out with a waiting list for prospective students. There is a rolling admissions process, but students typically begin the fall semester after they have been accepted to the university.

As-U-R is the student-centered portion of College STAR, providing students with executive function challenges or other disabilities the supports and resources they need (College STAR, 2017). These supports and resources may include strategic tutoring and peer mentoring, learning strategy instruction, drop-in assistance, quiet study rooms, specific training, access to assistive technology, transition assistance, and coordination of individualized services (College STAR, 2017).

Component A utilizes an accountability factor for participating students that



matches them with a student mentor who typically is a graduate student. The students participating in College STAR meet with their assigned mentor the same day and time throughout the semester. The number of times they meet varies and is dependent upon individual student needs. In addition, incoming students are coded with a risk level and then an individualized support plan is created for each student. This provides a blueprint for their college career and what is needed to support their education.

University 1 has developed tremendous supports for students participating in College STAR. Study Central is a location on campus that has been designated for these students to utilize for completing their coursework. There are quiet study rooms located here, and it is utilized like a library. Students are required to spend 3-6 hours here each week (College STAR, 2017). Furthermore, students participate in entry level courses to teach them study skills, leadership skills, and a book study course that was designed to promote collaborations and forge relationships between students and faculty members.

Component B was created to foster UDL. This component focuses on faculty development and is referred to as AppStar. The focus of UDL in Component B is on motivation and engagement. The university seeks to explain the “why of learning” and educate faculty members about learning differences and various teaching strategies to enhance student learning (College STAR, 2017). There is a center used for workshops, and the lead faculty member for Component B visits each individual department on campus to provide a brief overview of the program and offer additional information with regard to students, training, and learning communities.

College STAR has created professional learning communities for faculty, which are referred to as the STAR learning communities. Moreover, there are workshops, seminars, and online modules to support faculty members with regard to UDL and

teaching techniques for their courses and curriculum (College STAR, 2017). The faculty components for College STAR are supported by two foundations, the Oak Foundation and the GlaxoSmithKline Foundation, as well as The Center for Academic Excellence (College STAR, 2017).

Since its emergence during the 2014-2015 academic year, over 250 professors or other staff/faculty members have participated in College STAR training at University 1. This number leads to over 700 participants in professional development workshops. This includes over 200 participants in 2014, 60+ participants in 2015, over 300 in 2016, and over 200 in 2017. These workshops consisted of generic informational sessions, course redesign, summer institute, webinars, and UDL presentations. An online calendar provides staff and faculty members with upcoming events and training provided by College STAR (College STAR, 2017).

Component A and Component B are the ultimate combination for student and faculty support and success. With the implementation of College STAR at University 1, the number of student and faculty participants has continuously increased, and the relationships between the two have flourished. As additional research is collected and reviewed, the program will use it to drive design and structure of College STAR at University 1.

### **Summary**

Students with learning differences are attending higher education institutions at a growing rate; and they are seeking support from faculty, staff, family, and peers to assist them in their success. Students with learning differences are studying, learning to be self-determined, and advocate for themselves, thus guiding themselves through college and graduating with a degree in hand. Taking the many resources and research from the

review of literature provides the readers with insight and knowledge, highlighting important information with regard to students with disabilities and/or learning differences at the postsecondary level.

Considering the many factors that affect individuals with disabilities on a daily basis can be overwhelming. There are many topics for reflection, including how a student is diagnosed, either physically, cognitively/mentally, short term or long term. Furthermore, the laws that protect individuals with disabilities have been implemented since the early 1970's, and they only continue to grow as research is produced and legislature is brought forward. Breaking down these factors to look at perceptions by students with learning differences, faculty members who teach students with learning differences, and parental perceptions provides insight as to how these subgroups feel at the higher education level.

There are students who seek to do well regardless of the situations or circumstances with which they are faced. Ressa (2016) expressed that the students with disabilities interviewed all wanted to be in college. These students were seeking to advocate for themselves, find the resources they needed, and ask for support when faced with difficulties. Students in this research were focused on the task at hand and wanted to succeed in college. Whether their disability brought them challenges, health issues ensued, or coursework was intense, students in Ressa's study managed because "they were smart, made wise choices, and benefitted from the accommodations offered to them by various university services" (p. 385).

Family perceptions were much more difficult to uncover. Research is limited for guiding family members regarding higher education for their student with a disability. Research for family perceptions may potentially be limited due to the fact an individual

becomes a legal adult at the age of 18, and most students in college are 18 years of age and older. At this point, family is not considered to have as great an impact simply because of the ages of students; however, the minimal research available suggested that support needs and successful interventions were beneficial to their students (Lombardi et al., 2012).

Faculty members detail perceptions from a total outsider's point of view. They are not the student, nor are they related to the student by being a family member. At some universities/colleges, faculty members are provided with training and support to better meet the needs of students with learning differences; however, the trainings and support may or may not be mandatory. Some universities/colleges do not provide any training or support. The bulk of research perspectives for supporting students at the postsecondary level was available through faculty perceptions.

Events and interactions at institutions where promoting higher education is on the forefront of their mission produce many factors that contribute to successful graduation for students with learning differences. From location and consistency to having confidence and being able to self-advocate, students with learning differences are affected by many factors when they decide to attend postsecondary schooling. Case studies provide researchers with direct insight into factors that affect students with learning differences. Hall and Hord (2015) expressed the importance of change and how it means to develop new understandings and do things in new ways. Private schools also displayed a higher graduate rate (Sandifer, 2002). Recommendations for further research on the topic of private institutions and support for students with disabilities and/or learning differences are made in Chapter 5.

UDL seeks the ultimate goal of providing equal access to education for all

students (Black, 2012; Coomber, 2006; McGinty, 2016). It is the premise behind the College STAR project. Learning how to work with students who have diagnosed disabilities provides the students with encouragement and support, especially at the postsecondary level. Following recommendations and seeking additional support for student learning is empowering, and students can develop stronger relationships with faculty members.

Building on the introduction and literature review, the following chapters discuss methodology, results, and discussion. Chapter 3 details the methodology procedures intended for this research, providing details regarding the data collected and discussing design, participants, methods for data collection, and an analysis review. Chapter 4 discusses results from the case study, detailing responses from the participants and providing a summary of the analysis. The study concludes with Chapter 5 which focuses on the discussion portion of the research. Chapter 5 reviews all literature findings, provides a conclusion, expresses limitations, and makes further recommendations. The appendices include all documents directly related to the case study data collection and participant interviews.

## **Chapter 3: Methodology**

### **Introduction**

This case study analyzed perceptions from students, family, and faculty members of students involved in College STAR while completing their undergraduate coursework. Furthermore, the factors affecting students with learning differences and high school graduation ensuring entrance to college were explored. This case study utilized a qualitative design in order for the researcher to explore more in-depth topics with participants. The methodology is detailed in this chapter, explaining the selection process for participants, which instruments were selected, and how the data were collected and analyzed. A summary of documented information is detailed at the end of the chapter to review the information presented.

### **Participants**

Focusing on a qualitative approach, this research encompassed the in-depth procedures described by Creswell (2014), where detailed information is collected over a period of time, using various forms of data collection. University 1, actively involved with the College STAR grant, was seeking ways to strengthen its program and receive feedback from students. Several participating students, in their last semester at the university, were considered for this research. The program director from University 1 provided names and contact information for students from College STAR. From the data provided, students were randomly selected to participate in this case study, thus identifying the population of the study as described by Creswell. Initially, five students were contacted; but only three confirmed their participation, one male and two females. The sampling design was single stage, with the researcher having direct access to participant names (Creswell, 2014).

Each of the students participated in College STAR while completing an undergraduate degree. In addition, the students provided contacts of faculty members from previous courses along with contact information for family members. Faculty members varied with regard to the courses they were responsible for teaching and their involvement with students from College STAR. Family members varied with regard to location, contribution to their child's college, and overall understandings of specific disabilities/learning differences. The researcher met with all individuals who selected to participate in the case study either in person, via videoconferencing, or teleconferencing.

Consent to participate was asked and obtained by all participants prior to conducting any research. Informed consent forms were provided for participants to fill out, seeking information with regard to participation, rights once the research began, and any questions. The informed consent was reviewed verbally to ensure participant understanding of the research. Appendix A details the form used for voluntary consent to participate. These forms also provided information as to how the researcher would ensure confidentiality. The purpose, procedures, and benefits are included in Appendix A as well. In addition to the participant consent, each student signed a consent form when they attended University 1. A blank copy of this consent form is available in Appendix B.

### **Procedure**

Case studies have the ability to explore programs in depth using detailed information and various procedures for data collection (Creswell, 2014). A qualitative approach guided this case study as it aimed to unveil perceptions of students with learning differences, family members of these students, and faculty members who worked with these students. The perceptions provide insight regarding College STAR

and the benefits for students. Qualitative data were analyzed regarding factors that affected experiences for these students when they were attending postsecondary institutions. Creswell (2014) defined qualitative research as “a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem” (p. 4). Furthermore, questions and procedures, data collection and analysis, themes and meanings of data deliver the research (Creswell, 2014).

The research amassed a six-part design that focused on several aspects of students with learning differences attending postsecondary schooling. The first part of the research consisted of discussions at University 1, obtaining the necessary documentation and information to move forward. Following this step, part two required the researcher to contact all participants who participated with College STAR. Once consent was received, part three, where the researcher gathered data by conducting interviews, took place. Data analysis of the initial interviews followed in part four, thus producing additional information for the follow-up student interviews to achieve the fifth part of the research. The research concluded with part six: a final data analysis and discussion. To support the readers with how the research design unfolded, Table 1 represents each of the six parts.

Table 1

*Research Design*

Part	Description
1	University Setup: IRB, Sampling, Contact Info
2	Participant Contact: Invitations, Set up Interviews, Consent Forms
3	Gather Data: Student, Family, Faculty Interviews
4	Data Analysis: Transcription, Themes, Additional questions
5	Follow-up Interviews: Students only
6	Final Data Analysis: Discussion, Validation of qualitative findings



Table 1 provides an easy resource for the six-part development of the research design. It was developed with a case study generalization, focusing on acquiring information through solid documentation, appropriate protocols, and narrative data analysis.

### **Research Design**

This research abided to the design of a case study. The researcher followed Creswell (2014) and developed an in-depth analysis on multiple individuals, family members, and faculty members, all of whom were involved in College STAR. Numerous variables were considered for this research; therefore, the use of a case study allowed the researcher to examine multiple points of view, while zeroing in on the factors that affected college experiences for students with learning differences. It was through narrative research that the researcher was able to delineate details about the lives of students (Creswell, 2014) attending higher education institutions. The plan used for the research design is detailed Table 2.

Table 2

*Research Design, Detailed*

Step	Description	Part A	Part B
1	University Setup	-IRB -Sampling -Contact information for students	n/a
2	Participant Contact	-Email students to inquire about participation in the research -Follow-up email if needed -Set up first round of interviews, provide consent forms -Obtain family contact information and set up interviews -Set up professor interviews via email	n/a
3	Gather Data	-Student Interviews -Family Interviews -Faculty Interviews	-In person, phone, or zoom -Set questions with flexibility -Length (~45 minutes) -Record
4	Data Analysis	-Transcribe recordings -Themes, quotes, etc. -Develop additional questions	
5	Follow-up Student Interviews	-Based on prior responses and themes	
6	Final Data Analysis	-Validation of qualitative findings	

Table 2 directly depicts the research design used for this case study. Step one began with the researcher initiating the setup at University 1. To set up the research, submission of the work to the Internal Review Board (IRB) took place first, followed by determining the selection of the sample groups. Step one concluded with obtaining the contact information for eligible students.

Transitioning to step two, the participants were contacted. Initially, students were emailed with an invitation to participate in the research study. Upon securing student participants, the first round of interviews was scheduled. Family contact information was requested from students to set up their interviews as well as names of faculty members who taught their courses or had an impact on the student while they were in college. Family members were contacted by the email addresses provided by the students. One student was unable to get in contact with his parents to inform them of the possibility of participating, therefore they did not participate. Last, the professor interviews were set up via email. Multiple attempts were made to confirm participation; but ultimately, three professors participated, one from each student.

Building on step two was step three, data collection. Step three included gathering data from student, family, and faculty interviews. The interviews were conducted face to face, over videoconferencing, and over the phone. The questions provided to each of the participants were designed to be flexible and receptive of multiple responses (see Appendix C). Each interview was expected to last approximately one hour; however, none of the interviews lasted quite this long. During the interviews, the researcher had time to share about the study and provided appropriate documentation for participants. Each interview was digitally recorded for reporting purposes.

Step four consisted of the data analysis. The researcher transcribed the recordings from each of the interviews. Furthermore, themes were determined, quotes were marked for importance, and any other significant information was noted. Additional questions were developed for the second-round student interviews based on their original responses in the first interview.

Follow-up student interviews were the premise for the fifth step. These

interviews were designed based on the previous responses and themes derived from the first interview. The whole research design was concluded with a final data analysis, step six. Utilizing this research design provided the researcher with concise guidelines for working with participants, gathering data, analyzing data, and presenting results through a final discussion. Through this interpretation of the research, the findings or results are discussed in detail (Creswell, 2014).

### **Design Rationale**

Using a case study research design, this study focused on the stories that individuals had to tell; detailing their perceptions through the lens of students, family members, and faculty members. This research will ultimately allow College STAR to examine the gathered data and use them to make adjustments and facilitate greater receptivity by college students with learning differences. Narrative research also assisted in examining the journey students with learning differences take upon entering college, their journey through college, and plans for life after graduation.

### **Instruments**

Qualitative interviews captured the bulk of the research for this case study. Through interviews, the researcher was able to provide a case-by-case story for each of the participating students. An interview protocol, better described as a form used by a researcher for collecting qualitative data, assisted in recording and documenting information (Creswell, 2014) while the interviews were conducted. These interview protocols were developed based on the recommendations from Creswell (2014) for qualitative interviews. The qualitative interviews for this research consisted of face-to-face, telephone, or internet video constructs. As Creswell described, these interviews are typically unstructured and have open-ended questions that are few in number to gather

participant views and opinions. The interview protocols are available in Appendix C.

### **Data Collection**

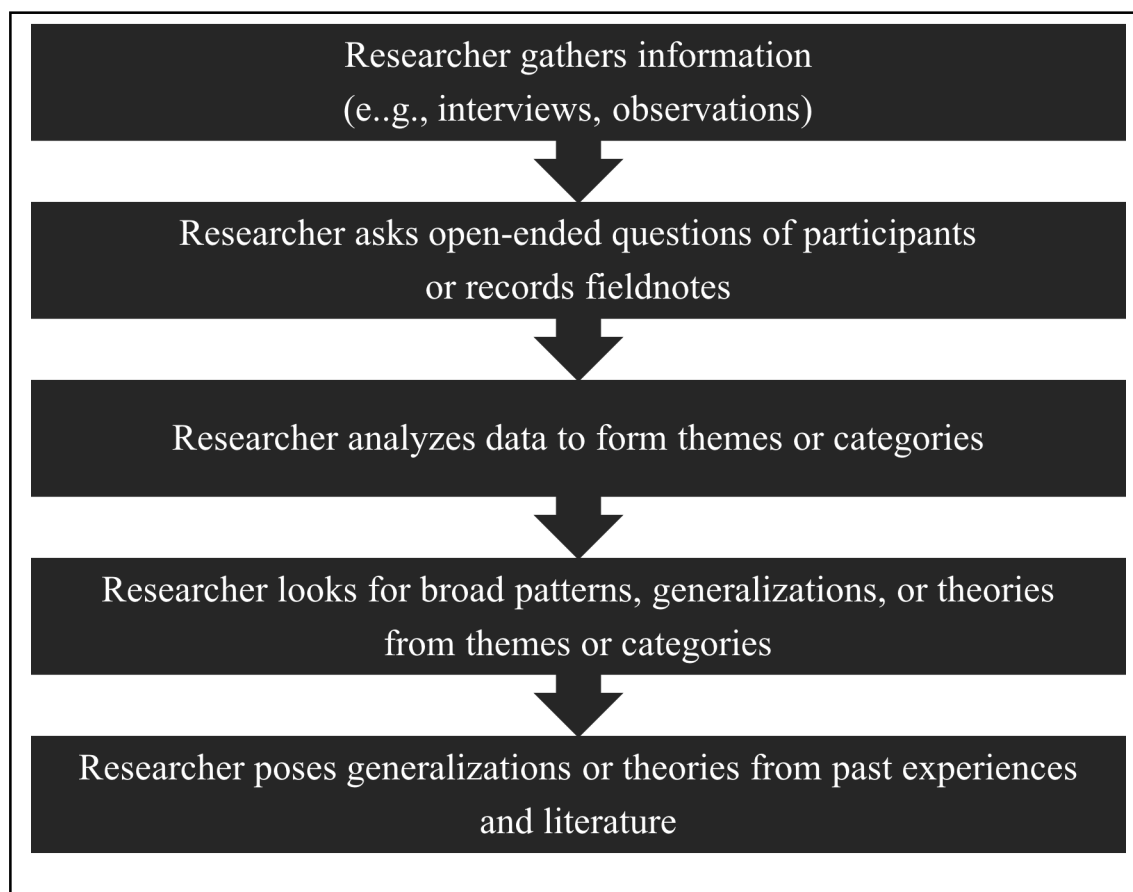
For the data collection portion of this research, step three, participants were contacted and scheduled to participate in scheduled interviews. The researcher conducted face-to-face interviews with the goal of obtaining greater insight into each of the participants. In addition, the researcher used video and teleconferencing when face to face was unattainable. Students participated in the initial interviews; and a second interview was set up at the end of the first session to allow the researcher to reconvene, in hopes of gaining additional information relating to their college experiences. Family and faculty members only participated in one interview, where the researcher extracted the factors they felt contributed to student success. Step five was similar in nature, but only focused on students, zeroing in on factors that were derived from the initial interviews.

### **Data Analysis**

Upon completion of all interviews with students, family, and faculty, the responses were transcribed in narrative form. The results lifted from the various perceptions are explained through written documentation and tables. Themes emerged from the qualitative research produced in this dissertation. To unveil the themes, the researcher took responses from the interviews and looked for patterns in theories or generalizations that were represented through interconnected thoughts or multiple parts linking back to a whole (Creswell, 2014). The researcher developed an interview protocol to use for asking questions and recording responses. The interview protocol followed the suggestions delineated by Creswell (2014) and included specific details of what needed to be collected during the interview, along with a log for documenting each separate interview. The researcher took notes electronically on a computer during the

interview, and audiotaping was utilized as an additional component. Upon completion of the data collection, each interview was transcribed.

Determining themes for this research took place through the transcription of files, which the researcher accomplished independently. Using professional responsibility, by ensuring confidentiality, the researcher analyzed qualitative text and data exploration. The researcher marked tallies on repeated content and examined the information for similar feedback. Comparing personal experiences and/or previous literature, the researcher was able to look for broad patterns, theories, and generalizations in participant responses (Creswell, 2014). For this case study, the researcher followed the logic of this inductive approach adopted from Creswell (2014) in Figure 2.



*Figure 2.* Inductive Approach (Creswell, 2014).

Using the inductive approach depicted in Figure 2, the researcher began by gathering data from interviews with participants. The researcher used open-ended questions with each group of participants to compile pertinent information. The researcher then analyzed the data to form the themes derived from participant responses. Patterns and generalizations were extracted from the themes determined in this research. The results from the data analysis were validated using an outside researcher who is a doctoral candidate conducting independent research on a nonrelated subject. Using this individual provided an unbiased approach to confirming the data obtained from participants. Additionally, the researcher concluded the inductive approach by making recommendations from past experiences obtained from participant interviews.

### **Grounded Theory**

All the results from the interviews are presented throughout Chapter 4 of this case study, using narrative representations that emulate the participant responses using unspecified names and documentation of clear details. Utilizing grounded theory, a general research method that looks for emerging patterns in data (Scott, 2009), the researcher was able to represent participant responses and themes derived from the interviews. Utilizing grounded theory provides organization and a well-ordered structure for presenting the data; however, when using grounded theory, it is important to note that it is an exploratory method that takes an all-encompassing analysis (Scott, 2009).

### **Summary**

Ultimately, the methodology section provides the readers with direct insight to the research, explaining the participants, instruments, procedures, and research design utilized for this case study. The chapter describes through extensive details the research design, design rationale, data collection, and analysis. Chapter 4 delivers the results from

the interviews conducted and provides details and associations. Chapter 5 presents a discussion of the collective case study.



## Chapter 4: Findings

### Introduction

This qualitative research study was conducted to gain a better understanding of the supports and barriers to student success from students with learning differences at a university in the southeastern part of the United States who utilized College STAR while in college. Using student interviews, faculty interviews, and family member interviews, this case study analyzed perceptions from each of these three groups of participants. Initially, two students, two faculty members, and two family members were to be included in the research; however, due to the response rate from the randomly selected sample population, three students, three faculty members, and three family members from two of the students participated. One student was unable to obtain permission for participation from his parents. Having three students and three professors provided additional perspectives to consider for the research.

### Case Study Participants

The participants are represented in Table 3.

Table 3

#### *Participants*

Participants		
Students	Parents	Professors
Remi	No parent participation	Psychology Professor
Evie	Mother and Father	Business Professor
Lilly	Mother	Special Education Professor

Table 3 provides the participants for this case study. Each student is named, followed by the parent information and professor information. The students represented utilized College STAR while they were attending postsecondary schooling, and each was

able to speak independently about their experiences. The participating students had unique representations of their college experience. Pseudonyms (Remi, Evie, and Lilly) have been assigned to the students to protect the identity and confidentiality of each individual. Student responses are delineated by individual case studies, and their responses were cross-analyzed to determine what they had in common and what was different.

**Student backgrounds.** Initial interviews were conducted with students who were in the last semester of their senior year at the participating university. Remi is a male student. In his initial interview he said he was 23, almost 24. The other two students, Evie and Lilly are both female; and neither of the two shared their age. All three students applied to College STAR to seek additional support for organization with school and life as well as strategies for studying and reaching out to professors. Remi studied psychology while in school; Evie was a marketing major; and Lilly was a special education major. Each student interviewed expressed that they learned about College STAR from a friend who was already receiving support from the program. Remi did not expose his direct learning differences, but he displayed hesitance in his communication and did not make eye contact with the researcher. Evie and Lilly were more alike, expressing their high levels of anxiety, difficulty with organization, and severe attention issues. Knowing that other students were struggling the same way they were was a push for them to seek the additional support.

**Family backgrounds.** Evie's mother and father participated in the family interview. They are both career parents, always maintaining full-time jobs while Evie was growing up. Currently, they are approximately three and a half hours from University 1 but shared that they lived in multiple other states before settling down in the

state where University 1 is located. Lilly's mother represented her experience for the family portion of this case study. She was a stay-at-home parent, while her husband worked. Lilly's mother lives approximately two hours from University 1.

**Faculty backgrounds.** Remi's professor is a professor of psychology at University 1. He currently teaches undergraduate courses in learning as well as perception, and he has spent the past 32 years in higher education. The professor interviewed from Evie's college experience is an adjunct professor of marketing. He currently teaches business courses and Principles of Marketing. Evie's professor has been at University 1 for 9 years, and he previously worked in the business world. Lilly's professor is an assistant professor of special education at University 1. She has been teaching for 8 years at the university level, five of those at University 1.

Chapter 4 discusses the data collected from the interviews, detailing the various themes that were exposed from each of the three groups of participants. The following research questions are answered through the data analysis described in this chapter.

1. What are current student, family, and professor perceptions of College STAR, as investigated using interviews?
2. Which supports offered by As-U-R were identified by participating students as contributing to their academic success while attending postsecondary schooling?

Furthermore, the development of the positive supports and barriers to student success are provided, including how students were supported or not supported by their family and professors. Zoning in on the conceptual framework for this study, the success of students with learning differences is detailed as the core of the case study, which furthermore analyzed university support from faculty members who taught the student participants;

and additionally, the study discusses family support. Student qualities were the contributing factors for this case study, and they were based on the all-encompassing factor of the students being researched having a learning difference.

In addition to the results of the interviews, the response analysis from each of the participants is discussed. The analysis includes themes that were derived from the specific responses provided by students, family members, and faculty members throughout the interview. The responses were given based on the questions asked from the specified interview protocols (Appendix C) and how the participants expressed themselves.

### **Explanation of the Study**

Multiple meetings were utilized to interview students, family members, and professors and to discuss College STAR. Over the course of 8 days, face-to-face interviews, videoconferences, and phone conferences were conducted. Interviews varied in time, ranging from 23 minutes to 48 minutes depending on the availability of participants and willingness to engage deeper in their responses. Each student was separated into an individual case study which ultimately comprised the entire focus of this research. This study reflected a six-step design detailed in Table 4.

Table 4

#### *Research Design*

Step	Description
1	University setup: IRB, Sampling, Contact Info
2	Participant Contact: Invitations, Set up Interviews, Consent Forms
3	Gather Data: Student, Family, Faculty Interviews
4	Data Analysis: Transcription, Themes, Additional questions
5	Follow-up Interviews: Students only
6	Final Data Analysis: Discussion, Validation of qualitative findings

Table 4 reflects each of the sequential steps to this research process. Steps one and two from the research design were all completed prior to the commencement of the interview process. Steps three and four were conducted simultaneously, with the researcher conducting interviews and transcribing the interviews independently. From the transcription and analysis, themes were derived and the second interview protocol, specifically designed for students exclusively, was developed. Step five consisted of follow-up interviews with students, while final data analysis was detailed to fulfill step six of the research study process.

### **Case Study 1: Remi**

**Student perceptions – Interview 1.** Upon initial introductions, the researcher could sense that Remi was a kind, smart, but timid student. He was very willing to participate in the research, and his first interview took place on campus at University 1. Remi, a psychology major and German minor, began his college career at a community college to better prepare him and give him structure for the expectations at a 4-year university. He communicated that he initially thought he would be a computer science major; but after working through some of the courses at community college, he determined that psychology would be a better fit.

Remi stated that he could spend as much as 70 hours a week re-reading, studying, and completing required class assignments. He implied that this time requirement could be overwhelming and very difficult for him to work through. Remi communicated that Study Central and As-U-R meetings were essential to keeping him on track. As-U-R is the official name of the program designed by College STAR at University 1 to support students with learning differences. In addition, he shared that he did not have a job while he was attending postsecondary schooling because his focus was on doing well in school.

He did, however, have a job each summer while he was home.

Upon entering a 4-year university, Remi enrolled with 30 credit hours from community college. He registered for 16 hours his first semester in 4-year postsecondary school, which he said, “was a very bad idea.” He quickly discovered this schedule was too ambitious and said, “each semester after that was been between 13 and 15.” He shared that while in college, he worked harder than ever before; and sometimes he would become frustrated because he would get a B or C in a course, where he felt he had worked so hard and felt as if he earned an A. Remi also shared that he enjoyed spending time in the gym. “I enjoy working out a lot. So I’ve taken somewhere between four and six PE courses.” Taking multiple physical education classes was a reprieve from his more rigorous major and minor course load. Remi did not enroll in summer courses, maintaining a typical fall/spring semester schedule while he was attending postsecondary schooling.

As stated previously, Remi enjoyed his physical education courses while attending postsecondary schooling. These courses served as relief from the rigor and demands of attending postsecondary schooling. Remi stated that his minor, German, was difficult for him. He was born in Germany; however, he did not maintain the language once he moved to the United States. In addition to his German courses, he shared that Conservation Psychology was rigorous; he felt the professor did not project a fair/equitable approach, and she appeared to give “favoritism” towards the students who performed well in her class. Nevertheless, Remi persevered and successfully completed his minor. With his regimented schedule Remi did not mention any benefits of UDL by his professors; however, he noted his most beneficial courses were courses from his major. Courses such as Personality, Perception, and Social Psychology were a more

positive experience for Remi, and he related his success in these courses to his enjoyment of working with others. Remi expressed that his relationships with his professors varied. He felt his relationships with his German professors were the most positive. He stated that each of his professors were willing to provide the accommodations he needed, although two seemed reluctant. In the classes that were challenging for Remi, he said, “I enjoyed getting to understand material, even though it was difficult.”

**Family perceptions.** Remi’s parents were unable to participate in this research study. The researcher spoke with him during the initial interview, encouraging him to reach out to his parents. The researcher also followed up with emails to Remi, reminding him to contact his parents. He never provided the parental contact to the researcher, even when asked. In the second student interview, Remi stated to the researcher, “My parents are very busy, and I was unable to get a hold of them to see if they would be able to do your interview.”

**Faculty perceptions.** Remi’s professor works full-time as a psychology professor on University 1’s campus. He met the researcher on campus to conduct his interview face to face. Remi’s professor teaches three courses per semester. For his courses, he stated that the amount of required time varies depending on where they are in the course. He encourages students to use the course website, do the readings, and participate in class discussions. Remi’s former professor shared that he does not give a specific number of hours for studying, and he always encourages students to read aloud if they do not understand the material. He said there are maybe five or six students who take advantage of time that he offers: 50% of the students are A students; and the other 50% are struggling students. He also stated that it is likely that for the middle students he never sees outside of class, a C is good enough for them. There are typically two or three

students in a class of 35 who require accommodations. These accommodations consist of extra time for tests or providing another environment that is less distracting for tests.

Being a psychology professor, Remi's former professor discussed how he told his students, "You can make it; you can do it." He feels that he needs to ask students how they are doing in his class, make recommendations for how they can be more successful, and explore these recommendations. Oftentimes, Remi's professor said that he suggests moving students to be in closer proximity to the teacher, explaining his website, providing encouraging questions, and being available during office hours.

As far as barriers, Remi's professor appeared to practice tough love. He stated that getting used to the expectations of his courses is difficult for students; however, he always tries to set goals that make his expectations clear. He does not want the first test to come as a surprise; he wants to provide a good set of notes, and he tries not to use PowerPoint. He said that using PowerPoint provides students with a crutch, and they do not hold the same responsibility for a course as they do when they do not have detailed teacher notes.

Looking back and moving forward, Remi's professor's advice to students is as follows: "Go up, introduce yourself, identify that you have this particular aspect that may interfere with class performance, and just be very honest about it." In addition, he suggests students ask what they can be doing from the very beginning of the course to assist them in being more successful. He encourages students to discuss their individual needs with professors, and he encourages them to take advantage of the time faculty members have to offer for students. He said that not many faculty members refuse to accommodate a student.

**Student perceptions – Interview 2.** Remi's second interview appeared to be a



much more comfortable setting than the first. This interview was taken in person as well. He knew the researcher at this point, and he was more relaxed and engaging than the first interview. Remi was very open with his responses, discussing his interactions with As-U-R more in depth and providing additional details of his college experience.

Remi stated that when he started his mentor meetings, they lasted anywhere from 30 minutes to an hour. During these meetings, he said that his mentor would help him study for classes, cheer him on, and assist him in every aspect of being a college student. Remi has learned to problem solve independently; and during his last year of college, he participated in study hall as well as having mentor meetings once a week. He did not share if he had the same mentor throughout his time at University 1 or if he had multiple mentors.

Remi stated that Study Central was very beneficial as a whole for him. At Study Central, Remi said his mentor, the director, and other students ensured he completed assignments, even when he was going through challenging times. There was always someone available to listen when he needed to talk, and he really enjoyed being a participant in College STAR.

Remi suggested that the university make it possible for As-U-R to obtain a bigger space, so more people can benefit from the resources it provides. Remi valued the opportunities he received from As-U-R and focused most of his energy on doing well in school. It was difficult for him to develop any detailed suggestions. He was very precise in his response, not providing additional recommendations other than space.

Remi was in school longer than either of the other two students interviewed. When asked to provide advice to other students with learning differences, he shared, “while studying is very important and should come first, try to make some time to have a

bit of fun.” He expressed how he wished he had made more time to get to know people, walk the Parkway, and go to more school events. Before College STAR, Remi had a lot of negative experiences in college; however, after spending the past 3 years in the program, he said it has “helped him find his way.”

## **Case Study 2: Evie**

**Student perceptions – Interview 1.** Evie’s first interview was conducted in person on the campus at University 1. She was excited to participate and began sharing her college experiences almost immediately. Evie was originally planning to be an art management major; however, after much decision-making, she became a marketing major and decided to minor in art. Evie communicated that she did not love being a marketing major but having the art minor helped level her experiences. “It was a nice relief from my business classes.”

Time was a huge factor for Evie as well. She described spending 3-5 hours per course each week on easier courses and as many as 8-10 hours each week on more challenging courses. In addition, she would have to prepare 2-3 weeks in advance for exams. When completing her art minor, Evie shared that a project may take her anywhere from 20-30 hours to complete. Evie has worked during the summer while in college, and she also attempted to have a job during the fall semester of her senior year; however, having a job and spending multiple extended hours on school work was overwhelming, and she decided that she could not work and be successful in school.

Evie shared,

It was kind of engrained in my brain my whole life that I was going to go to college, it is the stereotypical pathway, to go from high school to college, and I felt like if I didn’t then I wouldn’t succeed as much.

She further indicated that she wanted to ensure she created viable possibilities for her future. Her workload was paramount to her success in college as well. Evie shared that although she oftentimes had a course load of 16-17 hours, she found balance in having some major courses, some minor courses, and a couple of 1-hour courses. Having the 1-hour courses allowed her to focus more on the courses that were more challenging and required a more significant degree of study time. Evie took one summer course between sophomore and junior year and four courses between junior and senior year. The summer she took four classes was the summer she remained in the town where University 1 is located, as opposed to traveling home; and Evie took two online classes and two classes on campus. College STAR was available during summer, but it was much quieter on campus than fall and spring semesters. She did not elaborate on her summer experience.

Evie, however, enjoyed her minor classes much more than her major classes. Having art classes supported her mindset and motivation and impacted her ability to succeed in other courses. Painting, Drawing, Foundation classes, 2D, Scrapbooking, Sculpture, and Woodshop were all beneficial for Evie. She stated that Cultivating Creativity was her best class while in college, and her professor was “a really positive light” during her time at University 1. In regard to her major, Evie had one professor who was extremely influential. She stated that “he would help me with my resume and was always super willing to be there for any of his students and help people actually want to learn.” Having this professor was imperative to Evie’s confidence and understanding of real-world situations, because the “Business School doesn’t always connect things back to the real world.” This professor, however, would apply situations so that his students could learn better. It was evident through the interview that Evie’s professors sought to utilize UDL to meet the growing needs of their students. As far as

accommodations, Evie was clear in stating that her professors took note of her concerns, and they were willing to provide her with the accommodations she needed to be successful.

**Family perceptions.** The parent interview for Evie took place via telephone, with both Evie's mother and father participating. Both parents felt close to Evie and expressed that they talk less when things are going well; but when she is in need, they talk more often. They also stated that Evie is a homebody and enjoys just hanging out either at home or close to home with her family. One of the key points mentioned was that Evie sometimes overanalyzes a situation or event and her parents help her process these difficult situations. Both of Evie's parents work full-time. Before college, Evie had a college-aged student who would pick her and her brother up from school and complete homework and afternoon activities with them. Her parents worked really hard to ensure they hired the right person and that this person knew Evie's and her brother's education was a priority. Building these essential skills of completing tasks and following directions was essential for Evie as she moved to college. Evie's parents shared that Evie does not want to fail, and she is very independent. They encourage her to retain a tutor or practice speeches ahead of time with them if needed. During her time at University 1, Evie called her dad for assistance with homework, while she called her mom for emotional support. She has a positive relationship with her parents and always communicates with them about what she should do.

Evie's parents shared they paid for her college tuition, and they also provided her with an allowance. Her parents detailed the expectations they had for Evie, sharing that she was to retain a 3.0 grade point average each semester in order for them to pay. If it was below this marker, the parents said that a "good discussion was necessary." They

wanted Evie to learn that the point of college was to “get a job that you like and make money to support yourself.”

Evie’s mom detailed how As-U-R made a huge difference for Evie in her ability to get things done, her anxiety level, and her organization. She shared that through the program, Evie built friendships with people who understood her same challenges. Her mom said that she empathizes but does not know that she truly understands. Evie’s mom also said that the weekly required meetings with Evie’s mentor were crucial for Evie. The 1-hour per week mentor meetings and required study hall resulted in a significant difference for Evie. Looking at grades and academic and personal schedules and making a plan with a calendar were specific aspects of the meeting that were beneficial for Evie. The mentor meeting with As-U-R also allowed Evie to discuss grade situations. Her mom shared that Evie and her mentor would talk about the situation and decide what they needed to do. The greatest benefit was that there were no excuses with the mentor, as there would be with parents.

“For kids with these challenges, I feel like it’s the difference they need,” said Evie’s mom about College STAR. Furthermore, she explained how students would probably make it without the program, but that College STAR has made a tremendous difference for her daughter, and she would recommend it to anyone who needs that additional support. She even has a son who is a part of the program and a nephew who will be enrolling. Evie’s mom also recommended that future students build relationships with their professors. Evie had an art professor who took interest in her work and in Evie as a student. This professor essentially became another mentor for her. Evie’s mom expressed how this professor not only built her confidence but continually boosted her confidence even when the course ended.

**Faculty perceptions.** Due to demanding schedules, it was difficult to arrange an in-person interview for Evie's professor; however, he did take an afternoon to conduct a phone interview with the researcher. He was full of personality and provided a lot of valuable information. Being a business professor in an ever-evolving society allows for real-life experiences to take place while learning. Evie's professor explained how he requires 8-10 hours of outside work in which students work on teams. His objective is to make it manageable but attractive enough for them to want to do the best they possibly can. He feels that when his students leave University 1, much of what they do will involve team dynamics and that is why he uses this approach. In addition, Evie's professor shared that all the courses he teaches have students who receive accommodations. He too, in similarity to Remi's professor, stated that many of the accommodations he has requested by students are for testing needs. Evie's business professor expressed how his department seeks to be accommodating for all students regarding addressing an issue a student is working through and any additional needs documented. He said,

The professors are incredibly accommodative. Now I can only speak to my department, but generally my department is very, very accommodative. I hate to use that word because it sounds as though you are providing the student special treatment, but you're not. You're just accommodating a particular issue they may be working through or have.

Of the courses he teaches, he said he has had up to six students who may require accommodations. He collaborates with his students who need additional time for exams (most common accommodation), students who need the exam on the computer versus paper/pencil, and those who need an individual test space or separate setting.

Being available to any student and/or any team who needs additional support to complete the required coursework is a key factor to the success of Evie's business professor's students. He strives to give support to his students in meaningful ways. This support includes helping them prepare their resumes and prepare for job interviews, as many of them will enter the workforce. During the interview, he said about his students, "I expect them to generate a return on their investment. In other words, that seat that they are occupying is a highly valued piece of real estate, if you will." In general, rather than presenting students with just academic content, Evie's professor contextualizes information to real-world scenarios, case studies, and storytelling, which engages the students, holds their attention, and brings real-world evidence to the content itself. Her professor stated that Evie embraced his philosophy and style of teaching. His goal is to use the Socratic method to prompt heavy engagement and conversation, knowing that it is extremely granular and promotes critical thinking.

Professors need to invest in how they prepare for class, how to make the content relevant, and how to prepare all students for the opportunities ahead, were the thoughts expressed by Evie's business professor. Furthermore, when offering advice to professors, he said,

It's simple. I think anyway. From the stand point of an instructor, or professor, however you want to classify them. They need to listen to the student. And not stereotype or judge. And be open to suggestions from the student with respect to how the accommodation itself should be or could be structured.

Then, for students, his response was to remind them that they must have a willingness to learn and be able to trust and share their situations with professors. All in all, he said students and professors "have to work as one."

**Student perceptions – Interview 2.** Evie was the most open of the three students interviewed. Although she expressed herself as an introvert, she was very thorough in her responses. Evie oftentimes asked the researcher if she answered the questions the way she needed to or if she needed to provide additional details. Evie’s second interview was conducted over the phone, but it was still very productive.

Evie’s experience with mentors varied; however, she expressed that overall, they were beneficial. Evie had three mentors while in the program. She conveyed how her first year was awesome and that she became her mentor’s friend. Evie stated that her mentor knew when to be serious, and she knew exactly how to handle whatever Evie needed (academic and personal life); however, Evie’s second mentor was nice but not a good fit for Evie. She expressed how it was difficult for her to build relationships and this hindered her motivation regarding completing tasks. Evie stated the mentor did not push her as hard as she felt like she needed. Evie’s third mentor was “very candid” with her; she always asked about Evie’s needs, and she was honest with her. Evie said they had a “nice balance.”

Providing more in-depth experiences, Evie conveyed much about Study Central and the director of the As-U-R program as key, positive aspects that benefitted her time in college. She shared how valuable relationships evolved through the director of As-U-R setting the tone for College STAR. Evie talked extensively regarding receiving comfort from particular individuals and being around others who were similar to her. She said with College STAR, there was a community to go to where she was able to gain confidence and realize there are other people who struggle and have similar challenges. Evie said this relatable concept allowed her to develop new friendships with others in the program. One key piece of her interview was her statement regarding the director. Evie



said, “If there wasn’t someone like [the director], then it would make the program completely different.” Her only negative experience evolved around her second mentor. Evie said that she would try to give more help than she actually needed, and the mentor had difficulty recognizing Evie’s needs.

With regard to the future, Evie expressed that having more people who spend time in the College STAR area would make it more “visible” for others. She said she would like to see more students taking advantage of the program and the resources College STAR has to offer. Evie hopes the university will find ways to recruit more students who would benefit from the program. Moving forward as College STAR continues to grow, Evie discussed the need for building relationships. She said that as it is, it has been difficult to foster a community. Evie suggested possible events for students to bring everyone together, motivating others to come possibly once a month for students to get to know each other.

Evie loved her experiences in college. Her advice to other students, “Never give up on yourself. Stay true to who you are.” While she stated that this was a cliché response, she felt that it was important for others to hear. She shared that she has a hard time accessing parts of her brain but for students to remember they can do it and they should never think of themselves as stupid. Evie expressed the need for students to find what type of study strategies work best for them. For her, repetition was the easiest way to study; while the best way to study for her was to read notes/slides after class, write extra notes, and actually speak her notes out loud. Evie’s perspective revealed that just because a student has a disability or learning difference does not mean that he or she cannot do things like everyone else or learn like everyone else. It just takes motivation. Evie stated, “I have realized this because of programs like this. I have gained confidence

in myself, and I can see that with my interactions with professors.”

### **Case Study 3: Lilly**

**Student perceptions – Interview 1.** Lilly was the third participating student in this case study. Her initial interview had to be rescheduled from in person to videoconferencing. Lilly was a Special Education, Adapted Curriculum major and she did not declare a minor while completing her postsecondary education. Lilly worked one to two shifts per week during her junior year with a family who had three boys, all with Down syndrome. She was also a volunteer on campus, leading a campus ministry for a group of girls.

Lilly offered detailed insight with regard to how time impacted her academically and how it related to the needs of her path of study. She, too, described the immense amount of time she would spend completing assignments and preparing for exams, noting that she knows it takes her longer than the average student to complete assignments; and trying to figure out how to manage her time and be a full-time college student was challenging.

Once she completed her general education requirements, Lilly’s major courses followed a specific schedule. Having a schedule for her major courses aided in determining which courses and how many hours she would take each semester. Lilly stated that she enrolled in 15 and 16 hours most semesters and that one or two of her courses were always more challenging. In addition, she stated that more than 16 hours would have been too demanding, and she did not feel she would have been successful had she taken more. She also expressed that looking back, she wished she had taken less hours during prior semesters to reduce her level of stress. Lilly did not take any summer courses while she was attending postsecondary schooling. Similar to Remi, she

maintained the typical fall/spring semester schedule.

Lilly's courses in the Special Education, Adapted Curriculum major followed a special program order and provided her with a specific schedule each semester. Initially, during her general education courses, Lilly shared that she did not like British literature and did not feel like these types of courses were beneficial. On the other hand, she truly enjoyed and felt that she benefitted from her assistive technology course and classroom management course. She also shared that although her law class regarding students with learning differences was difficult and hard to apply, the case studies were helpful in that they pertained to previous students and how the problems were resolved. Lilly truly enjoyed the professors in her major courses, sharing that being a student with specific learning needs in a program designed for students with learning differences, all her teachers were exceptionally accommodating, and all her professors developed their courses on the premise of UDL. Experiencing UDL in her courses, Lilly was able to feel successful and develop meaningful relationships with her professors.

**Family perceptions.** The parent interview with Lilly's mother took place via telephone. Lilly's mother provided significant insight into her experiences with Lilly while she was in college. Lilly is close to her parents as well. She has a strong relationship with her mom; and although her mom expressed that Lilly is independent, she does seek advice from her. They communicate on a regular basis, maintaining a strong relationship. Lilly's mom shared that Lilly had an IEP from the very beginning of her school career. She stated that as a parent, it was vital that she was involved with the educational decisions being made for Lilly. Ensuring she had the right accommodations and modifications as well as outside tutoring was part of her involvement as a partner in Lilly's education. Lilly's mom stated that Lilly attended public school until middle

school, and then the family made an academic change. Lilly transferred to a private school which offered a smaller learning environment, and teachers ensured attention needed to their students. Lilly attended private school until college. When deciding where to attend college, Lilly's mom shared that Lilly knew she wanted a smaller school, however not too small. Lilly's mom always encouraged Lilly to advocate for herself and communicate with her professors.

The scenario was much the same for Lilly and her college expenses. Lilly's mother shared that Lilly's college was paid for and that she was given additional money for personal needs. Lilly's mom did share that Lilly had a part-time job while attending college, stating this was minimal income and it was Lilly's choice to have this job. Although Lilly's parents told her she did not have to work while in school, her mom detailed Lilly's experiences working with a family who had children with special needs and how this impacted Lilly's desire to work with students.

The schedule was a big concern for Lilly going in to college. Modifications used from the very beginning helped with the transition to college. Trying to balance courses and figuring out how to manage homework, read for classes, and prepare all contributed to her academic experience. Being accepted to College STAR provided Lilly with the additional supports she needed. Lilly's mom shared that professors were willing to meet with Lilly whenever she needed them to. Her mom also shared that Lilly might not have known there were so many other people with learning differences like her if it was not for As-U-R. Lilly's mom said that Lilly spoke at the fundraiser held on campus for College STAR, providing examples from her experience and teaching others not to be ashamed that you learn differently. Lilly's mom also shared how Lilly's personal experiences will help her as she becomes a teacher for children with special needs. Additionally, she

expressed how Lilly buddies up with students who have similar or more severe learning differences than her and who are also a part of As-U-R. Her mom shared that this is beneficial for Lilly, and it helps other students become more involved.

As stated by Lilly's mom, her advice to other families of students with a learning difference was,

Encourage your students to do it. Even if you don't think they can do it, encourage them. If they don't try you don't know that they can't succeed. All they can do is try. If they can't or don't have the drive it will be hard. But if they have the drive and resources to help them they will get through.

Lilly's mom also shared that if parents can prepare students for college, they should. Her mom explained the initial shock of living in a dorm and sharing bathrooms as well as the culture shock of being on a college campus was a surprise for Lilly. Fortunately, Lilly was academically prepared, and she adjusted well, especially with the smaller classes. Her mom encouraged families to seek out what a college has to offer and encourage their child to be involved with their professors, campus activities, and any other supports that may be available.

**Faculty perceptions.** As an assistant professor of special education, Lilly's professor was very involved with her learning experience. This interview was initially scheduled to take place in person on campus at University 1 but was rescheduled and took place via telephone. Creating Inclusive Learning Communities, Assistive Technology, and Introduction to Developmental Disabilities are some of the courses she teaches. Lilly's professor described her ability to recognize students who have a disability or learning difference as stronger, due to her educational background. She said, "I would say at least 25% of my students either have a diagnosed disability or learning

difference, it's a large percentage," whereas only 5% of these students are actually registered with the ODS and receive accommodations. Evie's professor discussed students who come to college without documented needs:

A lot of them, they receive bad advice and when they're maybe a junior in high school, they say "Oh I don't need this document anymore" and then they come to college without anything in place from high school, and it's basically impossible to get services or support at that point, which really breaks my heart.

Being a special education professor, Evie's instructor also shared how she tries to reach out to the other students she can see struggling and recommend resources for them.

Similar to Remi's and Evie's professors, she noted that extended time on testing and reduced distraction testing environments are among the most common accommodations.

In addition, lecture notes, adapted materials for vision impairments, and paper/pencil copy versus online format for exams are requested.

Lilly's professor is trained in UDL and seeks to engage all her students in ways they are not always engaged in other courses. She is teaching future teachers; and in the College of Education at University 1, she is held to a very high standard. This professor explained how she is evaluated on her presentation of material and her ability to engage students. To do this, she shared that she uses a wide variety of educational material as well as a lot of collaborative learning in her courses. She seeks to make her courses interesting and tries to look at student perspectives and how they feel sitting in her class. Her goal is to support student development and create additional ways to support them if needed. Lilly's professor described how Lilly was very involved in her academics and she wanted to succeed while in college. Furthermore, she also discussed how not all students have these expectations, which makes it challenging when teaching them.

Lilly's professor described her own experience: "Let go of the rigidity, what we think about rigor, like I know a lot of people feel like if I provide accommodations I am reducing the rigor of my course. That's not true at all." She shared that many of the students at University 1 are very thoughtful, and professors need to offer a few additional minutes of one-on-one time and be a little more patient. For professors who are not well-versed in serving students with disabilities or learning differences, she suggested spending time to look at effective ways for teaching all students. In the last 5 years, Lilly's professor discussed the huge increase she's seen in anxiety because of the ever-increasing expectations placed on students; but she closed with this statement in regard to students, "Are they taking care of themselves?"

**Student perceptions – Interview 2.** Lilly's second interview was conducted in person on campus at University 1. Similar to Remi, Lilly's experience with her mentor was excellent. She shared that every aspect of having a mentor was beneficial for her. Lilly met with her mentor for a minimum of 30 minutes one time each week while she was participating in College STAR. During their time together, Lilly and her mentor focused on peer editing, looked at the week ahead, and broke down her schedule. Lilly expressed that being able to figure out where to begin, setting goals for her week, and developing a plan to complete assignments were essential components to her relationship and the success with her mentor while in college.

From start to finish, Lilly used accommodations while she was in college. These accommodations began before she entered College STAR and continued throughout her college career. Lilly said she probably would have dropped out without the resources provided by College STAR. She stated the supports she received and her mentor were encouraging; she developed trust with her mentor and now knows her personally. Lilly

said without these supports, she would not be where she is today. Study Central did not offer any direct benefits for Lilly, but she does not feel negatively about not having that connection. Overall, Lilly's experiences in college were positive, leaving her with a few ideas for the least beneficial aspects of college.

Lilly quickly made the recommendation for College STAR to be more visible. She said, "I wish the location was more accessible, closer to the library, and more publicized." She feels many students are not aware of College STAR, and they are not connected with the ODS. Lilly feels that transferring to the As-U-R program ensures students become more connected, adding a social aspect that is oftentimes overlooked. Lilly wants to see College STAR pull more students in and build a community, offer seminars for students, and expand on connecting students. One vital piece of information she provided was that she would recommend a more centralized location and additional professional development for students as they prepare to graduate. Focusing on their majors and providing supports for resume building and interviews would serve the program well. Furthermore, Lilly shared that helping students prepare for transitions, teaching them to "not be afraid to ask for help and ask for supports," and providing them additional nonacademic supports would be crucial to their confidence and preparation for future endeavors post-graduation.

Lilly was more soft spoken and apprehensive, and she stated these characteristics posed many challenges for her growing up. During her interview, she expressed how she knows she needs help; however, a lot of times she does not know where to start. Her experiences inspired her advice for others, "Don't be afraid to ask for help." She recommended that students seek out resources that colleges have to offer. Although she is a part of College STAR, she shared that not many students know about this resource



and that she learned about it from a friend. Lilly also encouraged students with disabilities or learning differences of any type to talk to their professors and share with them regarding their difference/disability. She recommended building a relationship so they can be supportive. Her strongest piece of advice was, “learn to not be afraid to advocate for yourself.”

### **Cross-Analysis of Case Studies**

Shifting focus from three different case studies to a cross-analysis of spoken interviews allowed the researcher to delineate themes and discuss more in depth the overarching perceptions of College STAR from students, family, and faculty members. Every interview had an impact on this research, providing individualized responses and input to experiences that took place in college and the impact of College STAR. Experiences from the students who participated were provided as well as the experiences from family members and professors of Remi, Evie, and Lilly. Each of their experiences detailed the interactions they had with students who have learning differences.

### **Student Interviews – Interview 1**

Remi, Evie, and Lilly were all engaged and responsive during the initial interview. Interview one with students took place prior to any other interviews. It was conducted to gain deeper insight into college experiences from students with learning differences.

**Study Central and mentors.** College STAR developed its own tutoring center, Study Central, for students who are a part of this initiative. College STAR also provides students with mentors once they have been accepted. Both Study Central and having a mentor were revealed as valuable supports for the students interviewed in this case study. Study Central offers students additional academic support for most courses; however,

there are a few courses that are not covered at Study Central. Nevertheless, students do have access to tutors for difficult courses. Remi and Evie confirmed their time at Study Central was extensive when they first began College STAR; however, as they learned techniques and strategies, the time they spent in the center decreased. Lilly did not utilize Study Central other than for her mentor meetings.

Mentors are available at Study Central for students participating in College STAR. Participating students including Remi, Evie, and Lilly meet with their mentors for at least an hour each week. All three students discussed Study Central and stated their mentors played a role in their success while in college. The mentor experience was different for each of the three students, with mentors providing the additional support they felt they needed. These topics were explored more in depth during the second student interview.

**Time.** For the students participating in this case study, time was the most repeated/most common theme derived from their interviews. Each student discussed how much time was spent on homework, preparing for exams, and working on projects. Evie shared that it felt as if her time commitment on studies was at least one and a half times longer than the average student. Remi and Lilly were less specific, but both shared their work took them longer to complete; they had learned to acceptance for this difference. Evie said,

It takes me a long time to get stuff done. I might even spend more time doing work than I even mentally realize. A homework assignment that should take me 30 minutes, will take me an hour and a half. Always. That's just how it is.

Remi explained his studying by saying, "Studying has always been hard for me no matter what because it takes me a long time to understand material." Lilly said, "It just takes me

a lot longer to do things than an average student and it's always been like that." Table 5 represents how many minutes were spent on the theme *time* throughout the first student interviews. Time was determined based on the overall number of minutes each student spoke of time-related factors during the first student interview.

Table 5

*Minutes – "Time" – Interview 1*

Student	Number of minutes per student that "time" was mentioned during interview (approximate)
Student 1 – Remi	4 minutes 10 seconds
Student 2 – Evie	8 minutes 30 seconds
Student 3 – Lilly	7 minutes 25 seconds

Table 5 details the number of minutes each student referred to a topic that related to time as a factor for them while in college. The three students were all very willing to share their stories; however, Evie's interview was the longest at approximately 48 minutes, and she spent the longest talking about time. Remi's interview was the shortest, and he spent the least number of minutes focused on time.

**Workload and summer school.** To be considered a full-time student at the undergraduate level, students must be enrolled in a minimum of 12 hours of coursework. These 12 hours consist of general education requirements, major requirements, minor requirements (if applicable), and free electives. For the students participating in College STAR, their workloads were very similar. With an average of 15 hours each semester, the participating students sought to carry workloads that were most feasible to meet their educational and personal needs, while still ensuring they were meeting and securing the requirements for obtaining their degree. Table 6 represents the number of credit hours each student took while in college.

Table 6

*Course load Hours*

Student	Least	Number of Hours	
		Most	Typical
Remi	13	16	13-15
Evie	13	17	16-17
Lilly	14	17	15-16

Table 6 represents the number of load hours each of the three interviewed students took while in college. This table details the least number of hours taken, the most number of hours, and the typical number of hours taken as stated by the student for what they felt was most appropriate for their learning styles.

**Courses, professors, and accommodations.** Ensuring the students enrolled in the appropriate courses, developed relationships with their professors, and learned to advocate for themselves at a higher level was essential for Remi's, Evie's, and Lilly's success. Although they had vastly different experiences with regard to courses, this was expected due to their declared majors and minors; however, they all expressed positive interactions with the majority of their professors and further expressed that the relationships they developed were crucial to their positive experiences at University 1. Remi, Evie, and Lilly discussed the accommodations they needed while attending college; and while most of their experiences were positive, they each shared challenges as well. College STAR provided them with a community of students who had similar experiences in college, many of whom sought the same accommodations as the students interviewed. The top three most commonly used accommodations by the students interviewed are detailed in Table 7.

Table 7

*Top Accommodations Used by College STAR Students*

<u>Top 3 Accommodations Used by College STAR students</u>	
1.	Extended time on testing
2.	Separate setting for testing
3.	Seating in close proximity to professor during class

Table 7 provides the accommodations that were represented most often during the student interviews. Each of these accommodations were used when the students were in high school and furthermore carried over to their college experiences. Remi, Evie, and Lilly expressed how these accommodations helped with their anxiety and stress levels when preparing for and taking exams.

**Family Interviews**

Family members contribute to the experiences students have in college as well. For the three students participating in College STAR, their family members were contacted for interviews. Unfortunately, Remi's family was unable to participate in the interview process, and little was revealed regarding the impact his family had on his college experience. Remi did share that his parents were supportive, but they were very busy; and he did not talk to them, nor see them, very often. However, Evie's and Lilly's parents were very willing to provide insight regarding their children and the experiences they had being a parent of a student with learning differences. Both Evie's mother and father participated in the interview; and Lilly's mother participated, responding with regard to the experience of her and Lilly's father. As with the student interviews, the themes from the family interviews were delineated from the interview questions.

**Family relationships and involvement.** From the initial struggles of school when Evie and Lilly were younger, their parents expressed the need for additional

support. Evie's mother phrased it like this: "We are a family unit that depends on one another, and as you grow, you become more dependent on one another." Additionally, Lilly's mother expressed how she and Lilly's father began to see a need for supplementary support for Lilly in her middle school years. Lilly's mother continued by sharing that the relationship between Lilly and her parents grew deeper as she got older and has offered the additional support Lilly needed in college. Although both girls chose to go to school away from home, the family support they received was crucial. Evie was approximately three and a half hours from home, while Lilly was approximately two hours away.

**Finances.** Financial support yielded a similar theme in this case study. Finances are fairly straightforward; and although both families explained it differently, Evie and Lilly received significant financial support while they were attending college. Finances were questioned through the family interview, which allowed the parents to explain how they supported their student in college. Evie's parents developed stipulations for their children, requiring them to maintain a 3.0 grade point average in order for them to support college tuition. Lilly's parents were less specific, but her mother shared they did not have to set requirements because Lilly was self-motivated and wanted to be successful on her own. In the end, both families provided similar support for Evie and Lilly.

**College STAR.** As-U-R is the student-centered portion of College STAR, providing students with executive function challenges or other disabilities with supports and resources they need while attending college (College STAR, 2017). Strategic tutoring and peer mentoring, learning strategy instruction, drop-in assistance, quiet study rooms, specific training, access to assistive technology, transition assistance, and

coordination of individualized services are some of the supports provided for students (College STAR, 2017). When interviewing Evie's and Lilly's parents, As-U-R was a repeating factor mentioned to providing the students with supports they needed while in college.

Evie's parents discussed how not only does Evie benefit from As-U-R, but her younger brother does as well. They shared that having the mentor, tutoring hours, and other supports were critical for Evie. Additionally, her parents shared that it was critical for Evie to see she was not alone in her struggles. Having first-hand experience with other students who have similar and different learning differences provided Evie with immediate confirmation that other students faced struggles as well.

As for Lilly, her mother shared parallel experiences for her daughter. Lilly's mother described the mentor provided through As-U-R as "a relationship that Lilly really benefitted from." Furthermore, she shared that Lilly's mentor provided her with great support and confidence while Lilly was in college. In addition to the mentor, Lilly's mother shared the study hours were valuable for Lilly and helped to hold her accountable. One experience Lilly's mother shared she was exceptionally proud of was when Lilly spoke at a benefit for College STAR. At the benefit, Lilly spoke to help raise awareness by providing her experiences with As-U-R and meeting students who had similar difficulties with learning.

### **Faculty Interviews**

There were three faculty members interviewed for this case study. Each faculty member was responsible for teaching at least one course taken by the interviewed students. The themes developed in this section of the data collection were also derived from the interview questions.

**Training.** Although professors teach students with learning differences on a regular basis, there are educators who are trained to better support these students. When teaching at the collegiate level, it is imperative that students and professors develop an understanding of needs and how students thrive on the support they receive. Training can range from departmental professional development to university-wide professional development. In addition, there is potential for an independent initiative where professors attend continuing education courses or professional development outside of the university to learn up-to-date approaches for teaching students with learning differences.

Future professional development provided by College STAR was mentioned by each of the professors. Remi's and Evie's professors expressed they would like to learn more about the initiative and learn more about providing additional supports to participating students. They seek to provide their students with the livelihood they need to be successful in college, and they have an innate desire to learn through various avenues. Although Evie's professor has not had any professional development from College STAR, he said he "absolutely" would be interested.

Lilly's professor was quite involved with College STAR, participating as a professional development module creator. She was initially sought out and hired to assist in creating online professional development modules for College STAR. These modules were made available through the College STAR website, offering technology and instructional strategy practices for educators. All the modules were designed to support faculty interacting with students who have high-incidence disabilities. Other resources were made available for instructors, including videos and contact information as well as additional online resources.



**Courses, accommodations, and influential factors.** Professors are responsible for a variety of courses within their departments. Their courses may vary on a semester-to-semester basis, but they are typically covering the same subject. Their responsibilities include the ability to differentiate instruction for various learning needs, which encompasses the needs for accommodations within the classroom and on curriculum-based assessments or exams. Although each of the three interviewed professors teach in different colleges within University 1, they all are experts in their field and each are willing to provide students with accommodations they need to be successful while attending postsecondary schooling.

Professors see many factors as having an impact on student learning in college. These factors may vary from course to course and student to student; but overall, the professors interviewed expressed several similar factors that had an impact on the students they taught with learning differences. Whether it was time spent on assignments outside of class, the interpretation of expectations for college courses, or the environment built by the professors, the three professors interviewed offered valuable insight regarding influential factors to their experiences with students who have learning differences at University 1. Table 8 compares the various strategies each professor used for the students interviewed.

Table 8

*Strategies Used with College STAR Students*

Professor	Strategies used with College STAR students
Remi's Professor	Seated in close proximity to the teacher Explaining website Encourages questions Available during office hours
Evie's Professor	Socratic method of instruction Real world scenarios, case studies, story telling Available when student needs Open to suggestions from his students
Lilly's Professor	Reaches out to students with and without identified needs Utilizes UDL Collaborative learning Provides module guides and online resources 1:1 conversation during office hours

Table 8 suggests that the professors interviewed used many of the same strategies to support students participating in College STAR, but there were some that were different.

**Advice.** Corner to corner across the campus at University 1, the interviewed professors shared advice for other students with learning differences and other professors who teach/taught these students. The professors all had varying backgrounds with a unique set of skills closely related to their courses. Each of the three professors were firm in their stance that it is imperative students learn to advocate for themselves and reach out to professors from the very beginning. The professors shared that students with learning differences need to make professors aware of their needs; that oftentimes, the professors will not know when their students need help, especially if they are not registered with the ODS. Even then, it is the student's responsibility to communicate with their professors and explain their learning needs. As more and more students need

support, Lilly's professor shared that she felt like there was more of a disconnect, and this could possibly be caused by "the technological divide."

### **Student Interviews – Interview 2**

Following the initial student interviews, the data were transcribed and recorded to establish consistent themes. From the initial interviews, the researcher was able to develop a follow-up interview protocol for students. With the follow-up interviews, the researcher asked more thought-provoking questions and challenged students to a higher level of thinking. The second interviews were approximately 30 minutes, with varying lengths due to the response rates of each student. Upon completion of these interviews, the information collected was transcribed and analyzed by the researcher. Similar to the previous findings from students, families, and faculty, the questions developed for the second interview yielded the themes for this data report. In the second interview, students expressed what college would have been like without College STAR, detailed their experiences with their mentors, discussed possibilities for their futures, shared the most beneficial and least beneficial factors of College STAR, and developed ideas for the future of the program. Their responses are explained in more detail in the following sections.

**Without College STAR.** Each of the students were transparent in their responses to what their postsecondary experience would have been like if they had not participated in College STAR. Remi shared,

When I first joined As-U-R, I was close to losing my sanity, because of the hardships I was going through. So, without it I don't think I would have done as well, it has a lot to do with my trust and how I have had to rebuild, since I don't trust easy anymore.

Evie spoke very openly, stating that

I think if I didn't participate I would have had a harder time keeping up with my assignments, and getting things done. I have become apathetic towards my schooling the past couple years. Without College STAR and motivation, I would not have kept up. The mentor checking in with you every week made me keep up with everything better.

As for Lilly, she giggled and responded by saying she “probably would have dropped out,” without As-U-R. She explained that the supports provided and her mentor were very encouraging. She explained how she trusted and knew her mentor on a personal level, and she said she would not be where she is today without her college experiences and As-U-R.

**Mentoring.** Mentors were a key factor to the success of the students interviewed for this research. Each student participant expressed the impacts of the relationships they developed with their mentors and how the mentor provided unbiased, direct support for them while they attended college. Their mentors were imperative in supporting the challenges each student faced with executive functions. Each mentor provided strategies to assist them in paying attention better, organizing and planning school and personal demands, initiating tasks and staying focused, and regulating emotions and self-monitoring. All of these are contributing factors to difficulties students with learning differences face. Finding a balance between classes, homework, and a personal life was a definitive challenge for each student. Students shared how their mentors assisted them with these challenges and how it was their mentors who held them accountable, ensuring their focus and success while attending University 1.

**Future.** For the students in this case study, both Evie and Lilly took the typical 4

years to graduate college. Remi, however, began at a community college before transitioning to a 4-year university. Each student's majors were different, thus perpetuating a variety of ideas for their futures.

The narrative below depicts a full snapshot of the responses students provided when asked about their future. When asked the following questions, each student responded candidly: "Are you considering graduate school/would you consider graduate school if College STAR was available? What do you feel you would need if you were to further your education? If you choose not to enroll in any further schooling, what are your goals as you enter the workforce?"

Remi's response was,

I have been considering graduate school, but at the same time I feel it wouldn't be feasible for me knowing the amount of time I have had to put in to all my work. And knowing that I've had to study anywhere up to 70 hours a week has been hard. And I feel I wouldn't be able to do all that again. If I was to do grad school, I would definitely choose University 1 as my choice.

He also shared that he would "100%" participate in College STAR. Furthermore, Remi explained how this university was a good environment for him. He was not able to pinpoint what his exact needs would be if he decided to further his education, but he did say maybe a better "head on his shoulders" would be a good start. Over the next several years, Remi has hopes of moving to Alaska and joining the Air Force. He desires to work as an officer; potentially further his education; and learn an additional language, German and/or Italian. He said his mother and siblings speak both of these languages.

Evie was not sure about graduate school. She emphasized the only reason she would attend would be to further her art minor. As for having College STAR available in

graduate school, Evie said, “I would go either way because I would be motivated.” If she chose to attend, she discussed the need for money and a plan in knowing that if she decides to attend graduate school, she would secure a job she would want when she completed her program. Evie said, “I need a purpose, or it would be a waste.” She could not think of additional resources and discussed that accommodations would depend on the classes she needed and the resources available. If she chooses not to go to graduate school, Evie was clear that she did not want to work behind a desk; she wants to be interacting with people and building relationships. She expressed that passion would lie in her decision-making. Independence was a huge factor for Evie, along with managing how to travel, having new experiences, and having free time outside of work. If she decides to work, it is a priority for her to maintain her job and be happy in the work she conducts. Ultimately, being stable in her life, being happy, and having a good sense of her plans are paramount; ensuring that she is not worrying about too much was the vision Evie imagined for her future.

Lilly was not sure what her future holds. Looking back, she reiterated how she wished she had taken smaller course loads because many semesters she felt she was spread too thin. Lilly knew for certain that if she stayed at University 1, she would continue to utilize College STAR and have a mentor. Lilly struggles with confidence and exhibits self-awareness. She seeks to believe in herself and the strengths other individuals state she embodies. Lilly has a desire to continue learning. She has hopes of traveling and having new experiences; however, she is not confident enough to do this independently. Lilly feels that sometime in her future she will work within a camp setting for students/individuals with disabilities. She stated, “I love that environment.”

## Concluding Ideas

Students with learning differences spend time navigating every academic and social experience. For the students participating in this research, working memory, planning and organization, task initiation and flexibility, emotional control, and self-monitoring (College STAR, 2018) were all contributing factors to their college experiences. Table 9 details the frequency each of these executive function challenges were mentioned or referenced during the two student interviews that took place.

Table 9

### *Factors Contributing to College Experiences*

Executive Function Challenges	Students			
	Remi	Evie	Lilly	Total
Working Memory	4	12	11	27
Planning/Organization	8	15	10	33
Task Initiation/Flexibility	5	11	8	24
Emotional Control	2	6	6	14
Self-Monitoring	6	8	9	23

Table 9 offers a numerical depiction of the executive function challenges faced by the students in this research. Each student shared experiences and contributed to their case study in an individually unique way. Mentors played a large role in ensuring that these executive function challenges were addressed, and a plan was developed for the students. Remi, Evie, and Lilly each expressed how their mentors helped them think outside the box and prepare for their academic and social demands on a weekly basis, sometimes more often if needed.

In determining the positive and negative aspects that influenced the experiences of Remi, Evie, and Lilly, the results were unique. Each of the three students expressed the great benefits As-U-R provided them as students. It was difficult for any of the

students to provide a negative connotation to any particular aspect of their experiences.

Table 10 details the major themes derived from this case study. Each theme evolved from the questions asked during the interview process. The themes are broad in nature but overall encapsulate the perceptions of students, parents, and faculty members.

Table 10

*Frequency of Themes*

Theme developed from interviews	Frequency from student interviews	Frequency from parent interviews	Frequency from faculty interviews	Total frequency
Time	22	8	12	42
Mentor(s)	19	11	3	33
Study Central	14	7	2	23

Although the interviewees spoke of the themes listed in Table 10 most often, they also shared experiences from other aspects of being a student participating in College STAR, a family member supporting this student, or a faculty member who taught this student. The experiences shared throughout the interviews truly brought light to the effect of time, mentors, and Study Central and its impact on students participating in College STAR.

### **Summary**

In the 4 years since its introduction in 2014, College STAR has evolved tremendously. College STAR not only works to support students with learning differences while they are in college, it seeks to provide additional supports to family members of these students as well as faculty members who teach at the university. While working through the various aspects of this initiative, it has been adjusted and modified to meeting the growing needs for students. Continuing to listen to students, families, and faculty will be imperative as College STAR strives to meet the growing needs of its



students.

Interviewing students, family members, and professors allowed for the strengths and needs of College STAR to emerge. For students, time and workload were huge factors in determining how to be successful in college. In addition, courses, professors, and accommodations were essential to their overall mindset and ability to work through coursework. Furthermore, Study Central and the mentors had an impact on the success of students participating in College STAR. All three students expressed their sincere appreciation for As-U-R; and in one form or another, each of them was able to say they would not be where they are today without this program.

Family members shared similar experiences. Evie's and Lilly's parents participated in the family interviews, both expressing their solid relationships with their children, their ability to finance college for their students, and how College STAR provided Evie and Lilly with the additional support they needed to be successful. Both sets of parents described the mentors as playing a vital role in the success of their students.

College would not be what it is today without the ever-present faculty members who shape courses, lives, and futures for students. For the faculty members who taught Remi, Evie, and Lilly, each was very different. From 8 years in higher education to 32 years in higher education, these professors offered valuable insight into supporting students with disabilities and learning differences. They were all adamant that students seek to advocate for themselves by building relationships with their professors and letting their professors know what their needs are in the classroom. Although only one of the three professors actually received training from College STAR, they were all interested in future professional development and giving support to their students.

Giving student-to-student advice allows for a connection to be made. When students are able to share their experiences with others, they cultivate a sense of trust. Every student who participated in College STAR had a different experience while in college, yet every student spoke freely about their time attending postsecondary school. Students were able to provide both positive experiences and experiences they learned from to ultimately produce the qualitative data for this research study.

## **Chapter 5: Discussion**

### **Introduction**

The purpose of this research was to provide a case study that delineated the successes and challenges of students with learning differences attending a 4-year university. Along with unveiling particular themes, the researcher set a goal to determine if any gaps existed in the services needed to help students be successful. The research investigated how students with learning differences navigated the university system and also investigated the impact of family members and professors on students. All interview responses were analyzed to determine the layers of support for student success. These layers embodied experiences from all aspects of college from start to finish.

Upon entering postsecondary institutions, Krupnick (2014) discussed staggering statistics that revealed 94% of students in high school with learning disabilities receive some type of support, while only 17% of college students seek this support. Being able to authenticate the needs of students can be challenging, but it is an essential component to ensuring the success of the professor as well as the success of the students needing support. This case study was able to cross-analyze how students worked with professors while in college, determining what supports from professors were most beneficial, along with other aspects of their college careers.

### **Summary of Findings**

The findings of this case study are summarized in the responses to the following research questions.

**Research Question 1: What are current student, family, and professor perceptions of College STAR, as investigated using interviews?** The collected and analyzed interview data produced student perceptions that were positive and thankful for

College STAR. Without College STAR, all three students independently stated they do not know where they would be, and they each felt like they would not have made it through college without As-U-R. Family members also provided positive remarks regarding College STAR, expressing the difference it made in Evie's and Lilly's experience while attending postsecondary schooling. Families felt that they could speak about the positive impact of this program because of the strong relationship they hold with their daughters. Being able to communicate with family while in college was essential to understanding the impact of College STAR. Although the professors did not know as much about College STAR, each of them could speak to the integrity and passion their students had for learning. They built relationships with their students to better understand their needs and support them through accommodations and additional tutoring.

Students truly felt that time played a huge impact on their college experiences. Having College STAR allowed them to find reprieve through their mentors, as they sought advice and talked through school and personal schedules. In addition, the interviewed students discussed how maintaining a feasible workload with regard to course hours was imperative to them finding a schedule that worked for their various ways of learning. Each of the students interviewed had a different major, but all three of them spoke highly about the professors they had and the accommodations they were provided. Accommodations may vary on a case-by-case basis; but having professors who were willing to talk with them and ensure they had the support they needed gave them confidence and helped them focus their energy on doing well in college.

However, on a negative side, Evie shared that some students do not take advantage of the resources College STAR has to offer. She discussed how they need to

do so. Evie added that increasing their motivation is necessary because “there’s a lot of people on the waiting list and the program needs to find a way to get people to want to be there.” Lilly on the other hand expressed that although resources were made available, she felt that “more supports for preparing students for the transition after college” were needed.

Attending college is a mix of positive and negative experiences for all students. For students with learning differences, college can impose new and unfamiliar circumstances that are difficult to navigate. Every college student’s time in college comes to an end. The end for each student will vary; it may come after the norm of 4 years, or it may take longer. The relationships between parents and their children can vary greatly depending on many factors. For students with learning differences, these relationships were determined to be foundational to the success of Evie and Lilly while they pursued their postsecondary degree. Expenses invoked as part of college can be overwhelming. Not only do students have to think about paying for tuition, they must think about paying for books, housing, food, personal items, and any additional expenses that may arise.

The professors interviewed for this case study were from three different colleges within University 1. Each of the professors taught vastly different courses, yet each of the professors was able to discuss how they tailor their courses to meet the needs of their students. UDL was an essential component, especially for Lilly’s professor who represented the College of Education. As far as College STAR, Remi’s and Evie’s professors could only speak to their experiences with these particular students, but both were interested in learning more and possible professional development. Lilly’s professor helped create initial modules for College STAR and is actively involved in

helping support these students. Not all experiences are as positive as the experiences Remi, Evie, and Lilly had with professors, but being able to notate and discuss the impact of their professors provided this research with valuable information.

**Research Question 2: Which supports offered by As-U-R were identified by participating students as contributing to their academic success while attending postsecondary schooling?** From beginning to end, several factors were extracted from the interviews that yielded a constructive impact on a student's ability to successfully complete their degree while in college. College STAR in and of itself provided the students in this case study with the additional support to help them be confident, advocate for themselves, and organize their course load in a manner that was not overwhelming or judgmental. Furthermore, the mentors assigned through As-U-R provided students with the constant connection between classwork and expectations and gave them an individual they could trust and rely on for guidance and advice. The mentors were assigned to the students, and each mentor provided individualized support to assist Remi, Evie, and Lilly with their college careers.

In addition, Study Central, or the tutoring center for As-U-R students, was a calm environment where two of the three students expressed they could focus on their work and get additional help if needed. Study Central is located in the As-U-R building, away from other distractors on campus. The one student who did not use Study Central expressed that if it was in a more centralized location, she feels she would have been more apt to use it. Being able to work in an environment and be a part of a program with other students who have similar needs to the students interviewed in this case study was noted as a positive, definitive factor that contributed to the success of the students.

Maintaining an average course load of approximately 15 hours was also beneficial

to the students participating in College STAR. Having this number of hours was too many at times; but overall, the students expressed that for the most part, they were able to keep up with their work. Learning how to build relationships with their professors was monumental in their success while in college. Building these relationships allowed them to seek the accommodation support they needed for each course as well as the support they needed in understanding notes, preparing for exams, and ultimately preparing for their futures.

All three students expressed the passion they had for College STAR and the tremendous impact it had on their ability to focus in college, overcome the many demands of college, and ultimately finish their 4-year degree from college. Evie explained it in these words: “Just because you have differences doesn’t mean that we can’t do things like everyone else, and learn like everyone else, it just takes a lot more motivation and care. It’s definitely an important thing to gain confidence.”

## **Conclusions**

Even though College STAR is still in its infancy with regard to establishing a campus-wide support for students with learning differences, the interviews from this study described much success in its formative years. College STAR has set a foundation upon which to grow and improve through various avenues. Not only will the mentor and Study Central support remain intact, but these interviews allowed students to discuss a need for a larger, more centralized location, expressing the potential a new location could provide. In addition, finding ways to promote the benefits of this program across campus would allow additional students to participate, experience, and learn the value of As-U-R.

## **Connections to Previous Research**

Although students with disabilities are attending postsecondary institutions, they

continue to remain behind their peers in accessing college at rate of 45%, compared to 53% of their peers without disabilities; and the retention rates for students with disabilities attending postsecondary institutions continue to present concerns (Madaus & Shaw, 2010). However, through this research, it can be concluded that University 1 is making great strides in the right direction to provide students with learning differences the support they need to be successful in college. College STAR is following the recommendation of Huger (2009), where the author discussed the importance of addressing the individual needs of students with learning disabilities, as the number of these students continues to rise.

Several skills that relate to the responsibility of executive function have been identified: working memory, planning and organization, task initiation and flexibility, emotional control, and self-monitoring (College STAR, 2018). There are additional skills that relate: inhibition and impulse control, task monitoring, and more specifically organizing materials (related to the environment); however, these were not considered to have an impact on the students interviewed. Moreover, Cooper-Kahn and Dietzel (2017) detailed how individuals with learning differences will struggle to plan a project and comprehend the extent of how long a project may take to complete. Discovered through this case study, difficulties such as these were supported and monitored through an ongoing mentor partnership.

Similar to Pingry's (2007) research where it was noted that distraction-reduced testing and extended time increased the likelihood of graduation for students with cognitive disabilities and mental disorders, students in this interview also mentioned taking their exams in an alternate location and having extended time to complete assignments and/or assessments. The positive satisfaction students with disabilities had



by developing relationships with their faculty, fellow students, and staff was discussed by Smith (2015). As in Smith's research, this case study also proved that relationships were direct contributors to positive educational experiences for students with learning differences.

On the opposite side of benefits lies challenges. As discussed by Herbert et al. (2014), when students do not know how to self-advocate, self-regulate, or use self-knowledge, it makes it very difficult for them to be successful in postsecondary settings. The students and professors in this case study expressed the same ideas, discussing how it is a challenge to retain support if students do not ask for it, and it is difficult to provide support if a student does not discuss the need. The interviewed parents in this study also suggested how learning to advocate for themselves and focus on their individual needs was difficult for Evie and Lilly to learn, but once they did, it made all the difference.

Due to the simple fact that interviews of this nature regarding College STAR and As-U-R at University 1 have not been conducted for research prior to this case study, it is difficult to make connections to previous findings; however, it can be noted that the relationships students build with their professors as well as other students in a university setting have the ability to impact their decision-making. Oftentimes, students learn about College STAR from other students and in turn apply to the program where they learn to get more connected with the university and develop the relationships with their professors to request the accommodations they need to be successful in school. As more research is conducted on College STAR, it will become fruitful and supply future researchers with ways to connect the program and additional research findings.

### **Delimitations**

The scope of this research was limited to three College STAR students in the last

semester of their college education. Five students from University 1 were invited to participate in the study. College STAR was implemented during the 2014-2015 school year; therefore, documentation relating to experiences of students who have participated in College STAR has not previously been conducted. Age was not considered as a factor in the research. Specifics regarding diagnosis of each student, demographics, and previous educational institutions were not considered.

### **Limitations of the Study**

The research study focused on students who were in their last semester of college as participants of College STAR, not the eligibility to College STAR. The information previously listed as delimitations did not contribute to their responses. In addition, personal attitudes and/or opinions may have contributed the internal validity of this research. Consequently, multiple interviews of multiple participants were conducted, and interview questions were worded to reduce the threat of internal validity related to personal attitudes and opinions.

Additionally, this research was only a sample of the students from one university who have been to college and stayed in college and in turn may not reflect the experience of all College STAR participants; as such, the generalizability of these findings is limited. Only three students accepted the invitation to participate; therefore, this research may be viewed as a preliminary study. The information for participating family and faculty members was provided by the students. Evie's mother and father participated; Lilly's mother participated; and Remi was unable to talk with his parents with regard to their participation.

### **Scholarly Significance**

College STAR remains in its formative years of existence. This research will

provide the director of the program at University 1 with deeper insight to the firsthand experiences of students, their family members, and their professors. Additionally, it will extend information that can be used on the other two campuses that participate in College STAR. Once the research has been shared, it has the potential to impact all three campuses.

### **Recommendations for Future Research on College STAR**

The interview data collected from students were most relevant in providing guidance for future research. The interviews were conducted through face-to-face conversations, videoconferencing, and teleconferencing and ranged from 23-48 minutes depending on how engaged the interviewee was in the conversation and their comfort level. It is recommended that the interviews last a minimum of 30 minutes to allow the researcher to gain more information and develop an atmosphere that is comfortable for interviewing. Interviewing more than three individuals from each of the three categories would also provide the option to analyze the data more in depth and compare perceptions from a larger population.

Since College STAR has had few graduates at this point in the program, a future study to meet with students several years after graduation would allow them to reflect more on their experiences and describe how their experiences in college helped shaped their future. Likewise, following students more closely while in college over the course of multiple years would provide a deeper, more thorough understanding of the experiences they have, both positive and negative, and allow for appropriate adjustments to be made throughout the course of their college career.

**Recommendations for Universities 2 and 3.** This case study focused solely on one campus that houses College STAR, yet there are two other campuses in the state that

have College STAR. The other two campuses may be represented differently; however, it would be interesting to cross reference interviews from all three campuses and detail the results. To ensure that all aspects of College STAR are represented at each campus, conducting interviews with students, families, and professors would be necessary.

**Advocacy and professional development.** Another recommendation for future research would be to increase advocacy and professional development at the postsecondary level. Not only do students need to know how to advocate for themselves, professors need to know how to advocate for students if necessary. It is also essential that professors are provided with appropriate professional development. Although it is not usually required, it would be beneficial to research the effects of professional development tailored specifically for College STAR on students and how professors feel it impacts their learning environment. To include an additional layer for future research, comparing the services and supports provided to students with learning differences as well as faculty members who work with these students in public versus private universities and colleges could provide stimulating qualitative data.

### **Summary**

Since its inception in 2014, College STAR has focused its energy on providing supports to students with learning differences at the collegiate level. The passion this program exudes has allowed it to impact students and empower them to be successful. Although there continues to be areas for improvement, it is clear through this study that this program was designed, followed, and ultimately created for success. As more students with disabilities and learning differences enter college, they will become more aware and engaged in the supports available to them.

University 1 seeks to continue growing College STAR and hopes to reflect their

program ideals in ways that attract more universities across the United States and the world at large. Advocating for the academic needs of students is imperative moving forward with the growth of College STAR. Embracing the philosophy of College STAR and ensuring the university system is well informed regarding the benefits College STAR affords students with learning differences will highlight the need to implement additional College STAR initiatives.

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Appendix A  
Informed Consent Form

## **Gardner-Webb University IRB Informed Consent Form**

### **Title of Study**

Students with Learning Differences from College STAR: A Case Study

### **Researcher**

Zoe Nulty – Exceptional Children's Teacher: Guilford County Schools, Doctoral  
Candidate: Gardner-Webb University

### **Purpose**

**The purpose of the research study is...** to gain a better understanding of the supports and barriers to student success from students at one university in North Carolina who utilized College STAR while in college. The research will also interview families and professors to gain an outsider's point-of-view.

### **Procedure**

**What you will do in the study:** The researcher will conduct private interviews with current students, as well as, their family members, and former professors. Audio and videotapes will be utilized for recordings to assist the research with transcription of information post-interviews. Participants will have the option to skip any question that may make them uncomfortable, or stop the interview at any time. Students will be interviewed two times. The first interview will last approximately 60 minutes, with the second interview lasting between 30-45 minutes. One interview will be conducted for family and faculty members, with interviews lasting approximately 60 minutes.

### **Time Required**

It is anticipated that the study will require about 90 *minutes* of your time if you were a direct participant in College STAR, and approximately 60 *minutes* if you are a family or faculty member.

### **Voluntary Participation**

Participation in this study is voluntary. You have the right to withdraw from the research study at any time without penalty. You also have the right to refuse to answer any question(s) for any reason without penalty. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identified state.

### **Confidentiality**

The information that you give in the study will be handled confidentially. Your information will be assigned a *pseudonym*. The list connecting your name to this *pseudonym* will be kept in a *locked file*. When the study is completed and the data have been analyzed, this list will be destroyed. Your name will not be used in any report.

**Anonymous Data**

The information that you give in the study will be handled confidentially. Your data will be “de-identified” which means that your name will not be collected or linked to the data. Because of the nature of the data, it may be possible to deduce your identity; however, there will be no attempt to do so, and your data will be reported in a way that will not identify you.

**Risks**

Possible risks for this research include students, family, or faculty perceptions being directly linked to each participant. Pseudonyms will be used to protect the identity of each participant. In addition, a possible risk might be the digital recording of each interview being leaked. The researcher will complete all transcriptions of the interviews, which will be password protected, and deleted at the conclusion of this research study. A counselor will be available upon request if a student has any negative response to participation.

**Benefits**

There are no direct benefits associated with participation in this study. However, it does have the potential to benefit future college students. The study may help us to understand the factors that contribute to the success of students with learning differences at the collegiate level. The Institutional Review Board at Gardner-Webb University has determined that participation in this study poses minimal risk to participants.

**Payment**

You will receive no payment for participating in the study.

**Right to Withdraw from the Study**

You have the right to withdraw from the study at any time without penalty. If you choose to withdraw from the study, your audio (or video) tape will be destroyed.

**How to Withdraw from the Study**

- If you want to withdraw from the study, please inform the researcher of your choice and you may leave the interview session.
- There is no penalty for withdrawing.
- If you would like to withdraw after your materials have been submitted, please contact:

**Zoe Nulty**, Researcher  
**(336) 402.0662 or hznulty@gmail.com**

**If you have questions about the study, contact the following individuals:**

Department: Doctoral Candidate  
 Gardner-Webb University  
 Boiling Springs, NC 28017  
 Researcher Telephone Number: (336) 402.0662  
 Researcher Email Address: hznulty@gmail.com

Faculty Advisor Name: Dr. Jenny Sabin  
 Department: College of Education  
 Gardner-Webb University  
 Boiling Springs, NC 28017  
 Faculty Advisor Telephone Number: (336) 587.1163  
 Faculty Advisor Email Address: jennytsabin@yahoo.com

**If you have concerns about your rights or how you are being treated, or if you have questions, want more information, or have suggestions, please contact the IRB Institutional Administrator listed below.**

Dr. Jeffrey S. Rogers  
 IRB Institutional Administrator  
 Gardner-Webb University  
 Boiling Springs, NC 28017  
 704-406-4724  
[jrogers3@gardner-webb.edu](mailto:jrogers3@gardner-webb.edu)

**Voluntary Consent by Participant**

I have read the information in this consent form and fully understand the contents of this document. I have had a chance to ask any questions concerning this study and they have been answered for me.

\_\_\_\_\_ I agree to participate in the interview session(s). I understand that this interview may be audio and video recorded for purposes of accuracy. The audio and video recording will be transcribed and destroyed.

\_\_\_\_\_ I do not agree to participate in the interview session(s).

\_\_\_\_\_ Date: \_\_\_\_\_  
 Participant Printed Name

\_\_\_\_\_ Date: \_\_\_\_\_  
 Participant Signature

You will receive a copy of this form for your records.



## Appendix B

### Blank Consent from University 1

**Research Participation Consent Form**  
**College STAR: As-U-R Student Support Program**

**Purpose of Research.** Previous studies strongly suggest that college students with cognitive deficits of various sorts face unique challenges in academic and personal adjustment. Executive functioning challenges (EFCs)—which are largely defined by chronic difficulties in judgment, planning, and behavior regulation—are one such form of cognitive deficit that is commonly observed in those with (e.g., Attention-Deficit/Hyperactivity Disorder, Specific Learning Disability) and without psychological diagnoses. As EFCs tend to relate to success in many common academic tasks in college, it is important to develop and evaluate interventions for students with this type of cognitive difference.

This study seeks to evaluate the efficacy of the As-U-R program, a component of the College STAR initiative at (ASU). As-U-R provides services geared toward assisting undergraduates with EFCs to be successful at ASU. This research focuses on the results that are achieved by you and other students in the As-U-R. Specifically, throughout your affiliation with the program, you will occasionally be asked to complete various assessment measures or provide access to information including:

- computer-based tasks,
- questionnaires,
- self-report measures,
- focus groups,
- interviews, and
- standardized assessments
- Appalachian records (major, status, GPA, etc.)

The purpose of these assessments is primarily to evaluate any baseline symptoms or impairment and any progress in (a) personal adjustment, (b) cognitive and academic skills, (c) psychological well-being, and (d) disciplinary outcomes that may coincide with participation in various As-U-R activities. As-U-R staff regularly collects these student data for the purpose of evaluating and improving the program. This informed consent process seeks your consent to confidentially use these data for research, as well.

In the course of your participation in As-U-R, you will work regularly with As-U-R personnel including the As-U-R Student Support Director, College STAR Co-Directors, and undergraduate and graduate research assistants (both paid and volunteer). In order to facilitate communication between the As-U-R personnel with whom you work, after each strategic tutoring session, the person with whom you worked will summarize that session in an electronic contact log. The

summary may include the strategy introduced or practiced, your progress in mastering the strategy, modifications made to adapt to the requirements of the specific task, and your application of strategies learned to academic or life tasks. This information will help As-U-R personnel to work together to support the development of effective and efficient strategies and executive functions and monitor your progress in these areas.

**Duration of Participation.** Consent to participation in this research will continue for the duration of your enrollment in As-U-R or until which time you revoke consent.

**Risks to the Individual.** There are minimal foreseeable risks, either physical or psychological, associated with your participation in this research. The surveys you will complete relate to the constructs noted above and include questions about your behaviors (including mental health history) and current and past adjustment in school, at home, and in other situations. Personal embarrassment is possible should such data be inadvertently disclosed or stolen and represents the principle risk. Note that at any time during As-U-R evaluations, you may choose to skip questions that you deem as stressful; this will not affect your standing in the program, whatsoever. Overall, though, agreeing to participate in this research poses no greater risk than you would typically encounter during the As-U-R program given that your progress will be monitored for planning and evaluation purposes in any event.

**Benefits to the Individual or Others.** While there is no additional direct benefit to you for participation in this study (beyond access to the As-U-R program support and services), the information derived from this project may have important societal benefits. Specifically, the information gained may contribute to efforts to improve the services that other students with EFCs receive, both at ASU and elsewhere.

**Compensation.** Beyond the benefits of your participation, there is no monetary compensation for participation in this study.

**Voluntary Nature of Participation.** Your consent for confidential use of this data for research is completely voluntary, and you may discontinue participation at any time without the loss of any benefits which would otherwise be provided to you as a participant in As-U-R. Declining to participate or to answer any specific question(s) will have no adverse effect on any of your grades or overall standing at ASU.

**Confidentiality.** All information relating to your performance during this study will be kept confidential. Forms and other test data that you complete will be stored in the As-U-R administrative office in a locked cabinet or password-protected, encrypted database (as appropriate). To the extent possible, identifying information (e.g., your name) will not be included on test or questionnaire forms. Instead a participant code will be used. Your name will never be used in any publication or presentation of results. In fact, after data collection has been completed, participant codes will be the only identifier noted in the electronic database that will be used for data analysis and other research purposes.

**YOU HAVE HAD THE OPPORTUNITY TO READ THIS CONSENT FORM, AND YOU ARE PREPARED TO PARTICIPATE IN THIS RESEARCH. IN ADDITION, YOU ACKNOWLEDGE THAT YOU ARE EIGHTEEN YEARS OF AGE OR OLDER.** (If you are under eighteen years of age, you should not continue.)

\_\_\_\_\_  
Participant signature

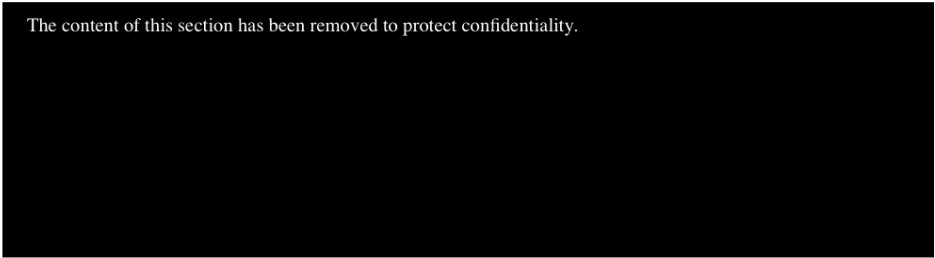
\_\_\_\_\_  
Date

\_\_\_\_\_  
Participant full name (print)

\_\_\_\_\_  
Experimenter signature

\_\_\_\_\_  
Date

The content of this section has been removed to protect confidentiality.



Thank you for consenting to participate in our study.

## Appendix C

### Interview Protocols

### **Interview Protocol: Student**

Thank you for participating in this research. We will begin by reviewing the consent form and reminding you that you have the right to withdraw from this research at any time. It is my honor to talk with you to gain a better understanding of the factors that contributed to your experience as a college student participating in College STAR.

#### **Questions:**

- 1. Tell me about your college experience, (major, minor); (years at university); (where did you live?); (work?), what is your most memorable academic experience from college?**
- 2. What were the factors that contributed to your decision to attend postsecondary schooling?**
- 3. Approximately how many hours of coursework did you take each semester? Did you attend summer school?**
- 4. Tell me about the courses you took in college. What courses do you feel were most beneficial to your success? Least beneficial? Who were your professors for these courses? Did you receive any additional tutoring sessions or attend the tutoring center for As-U-R? If yes, how many hours per week/semester?**
- 5. If you could offer advice to other students with learning differences attending postsecondary schooling, what would you say?**

### **Interview Protocol: Family Member**

Thank you for participating in this research. We will begin by reviewing the consent form and reminding you that you have the right to withdraw from this research at any time. It is my honor to talk with you to gain a better understanding of the factors that contributed to your student's experience as a college student participating in College STAR.

#### **Questions:**

- 1. Tell me about your relationship with the student previously interviewed and tell me a little bit about yourself and your family. You can include any information that you are comfortable with sharing.**
- 2. Describe your involvement in the student's education before college, and then during college.**
- 3. How did you support your student while they were in college? e.g.- Did you provide academic support, financial support, housing support?**
- 4. Can you describe any factors that contributed to your student's experiences in school? Did you have to encourage your student to seek additional support while in school, or did they do so independently? If you encouraged them, what tactics did you find most beneficial?**
- 5. If you could offer advice to other families of students with learning differences attending postsecondary schooling, what would you say?**

### **Interview Protocol: Faculty Member**

Thank you for participating in this research. We will begin by reviewing the consent form and reminding you that you have the right to withdraw from this research at any time. It is my honor to talk with you to gain a better understanding of the factors that contributed to your student's experience as a college student participating in College STAR.

#### **Questions:**

- 1. Please share your current job title and name of courses that you teach.**
- 2. How many years have you been teaching at a higher education institution? How many years collectively?**
- 3. Have you ever received specific training from College STAR on supporting students with disabilities or learning differences? If yes, please describe. If no, would you be interested?**
- 4. How many courses do you teach that involve students with learning differences, and/or students that receive accommodations? Please share these courses.**
- 5. What factors can you share that contributed to the experiences students have in your courses? Were there any specific barriers you recall for your students?**
- 6. Approximately how many hours of coursework do you require your students to complete outside of class time? Do you provide tutoring hours after class for your students? If so, do students attend these hours?**
- 7. Did you have students request accommodations? If so, can you please describe what accommodations you provided?**
- 8. If you could offer advice to other students or professors of students with disabilities or learning differences attending postsecondary schooling, what would you share?**



**Interview Protocol: Student**  
**Interview #2**

Thank you for participating in this research. We will begin by reviewing the consent form and reminding you that you have the right to withdraw from this research at any time. It is my honor to talk with you to gain a better understanding of the factors that contributed to your experience as a college student participating in College STAR.

**Questions:**

- 1. What do you think would have been different in your postsecondary experience if you had not participated in College STAR?**
- 2. Are you considering Graduate School/would you consider Graduate School if College STAR was available? What do you feel you would need if you were to further your education?**
- 3. If you choose not to enroll in any further schooling, what are your goals as you enter the workforce? Where do you see yourself in one year, five years, ten years?**
- 4. What aspects of Study Central did you benefit from the most? What aspects were the least beneficial?**
- 5. Tell me more about your mentor. How many times a week did you typically meet? What aspects of having a mentor were most beneficial? What aspects were the least beneficial?**
- 6. What do you want to see change with College STAR as it evolves over the coming years? Was there anything you wish this program had provided while you were at ASU? Is there anything else you'd like to share that I haven't asked about?**