

ISSUES FOR STUDENTS WITH
EXECUTIVE FUNCTION CHALLENGES IN COLLEGE

A Dissertation
by
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Abstract

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This research investigates executive functioning challenges faced by students in college. This research responds to a gap in the literature within college student development theories about the development of college students with learning differences, specifically executive function (EF) challenges. Five students with EF challenges were involved in a series of interviews throughout and concluding their first semester at a four-year, public institution. The transcripts were coded and analyzed to identify themes to describe their development through college student development vectors using Chickering and Reisser's (1993) theory as well as their perceptions of college for students with EF challenges.

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Table of Contents

Abstract	iv
Acknowledgements	iv
Chapter 1: Introduction	1
Background	3
The First Year Experience	4
The Transfer Student Experience.....	6
Accommodations in College.....	7
Problem Statement	9
Purpose and Research Questions	13
Significance of the Study	13
Definition of Terms.....	13
Accommodations	13
Agency	14
Attention Deficit Hyperactivity Disorder	14
Executive Function	14
Identity	14
Learning Disability	15
Student Success.....	15
Chapter 2: Literature Review	16
History of Executive Function Challenges	16
Issues Impacting College Students with EF Challenges.....	20
Laws in Education.....	20
Impact of Laws	24
Identification and Classification	25
Disclosure	27
Discrimination.....	29
Transition from High School	30
Psychosocial and Social Issues	31
Academic Issues.....	34
Conceptual Frameworks	35
College Student Development	35
Transition Theory.....	39
Disability Theory	41
Queer Theory	43
Agency	44
Summary.....	45
Chapter 3: Methodology	46
Cross Case Analysis.....	47
Setting	48
College Functioning Program	48
Participants.....	49
Data Collection Method.....	53
Archival Data	54
Interviews.....	54

Data Analysis	56
My Role as the Researcher	57
Ensuring Trustworthiness	59
Deriving Implications for Practice.....	60
Chapter 4: Findings.....	61
Identity Development.....	61
Social Interactions.....	62
Relationships.....	65
Campus Resources	72
Time Management	78
Summary for Research Question 1	82
College Experience	86
Executive Functions.....	86
Procrastination	87
Academic Preparedness	91
EF Interactions with Campus Environments	95
Summary for Research Question 2	99
Conclusion of Findings	100
Chapter 5: Discussion and Conclusions.....	102
College Student Development	102
Transition	103
Agency	104
Implications.....	106
College Functioning Program	106
Transition Experiences.....	107
Theory	107
Questions for Future Study	108
Limitations of the Study.....	109
Concluding Thoughts.....	110
References.....	111
Appendix A: IRB Interview Consent Form	124
Appendix B: Letter of Introduction	126
Appendix C: Interview Questions.....	127
Vita.....	130

Chapter 1: Introduction

The everyday life of a college student can be chaotic. Each day can hold a different class schedule, with assignments, tests, and papers due at various times throughout a semester. For many students, college is their first time away from a more structured home and school environment, so they need to begin to plan their own time, set goals, begin and complete projects, and be responsible for their overall day-to-day needs. These are some of the tasks with which a student with executive function challenges struggle more than the average college student.

I have worked in higher education at multiple universities, specifically in college housing, for 22 years. I have served as a resident assistant, a hall director, a full time coordinator, assistant director, and associate director. In my time in the field, I have had the opportunity to work directly with college students in educational and academic programming, community living, and crisis intervention. Throughout my Master's program in Counseling/College Student Personnel, I worked specifically with the freshmen experience and college transition. I have worked with learning communities, which are smaller, specialized populations of students. I have taught at both the undergraduate and graduate levels. I have supervised staff of many levels, and conducted student behavior and crisis interventions.

As I have learned more about students with learning differences, attention deficit hyperactivity disorder (ADHD), and overall executive functioning (EF) challenges, I have wondered: Is there any difference in the overall college experience of these students compared to students without these characteristics? General student services seem to be doing these students a disservice by simply meeting their required accommodations through an office of disability services (ODS). With this research, I explore ADHD and learning differences as a base of research to ultimately delve further into EF challenges. Because EF challenges are not diagnosed

in the *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (American Psychiatric Association, 2013), there is little research to examine the possible issues students with EF challenges may face as they transition to college. Since students with ADHD and learning differences can sometimes also have EF challenges, the research affecting those groups in college will help bridge the gap to discuss the importance of exploring issues in college for students with EF challenges.

There is little theory about cognitive development, psychosocial development, or the development of identity in college for students with executive functioning challenges, including learning disabilities and ADHD. Executive functioning challenges are even more difficult to examine, again, since they are not discussed in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013). The number of college students included in this population is unknown since it is not assessed or included in the DSM-5. Additionally, a primary text used in teaching student development theory, *Student Development in College* (Evans, Forney, Guido, Patton, & Renn, 2010), covers foundational theories as well as social identity models for subgroups in college, but not for a group with executive function challenges such as students with learning disabilities or ADHD. An estimated 2 to 8% of college students identify as having ADHD (Green & Rabiner, 2012). Subpopulations covered by this primary text include racial identity development, ethnic identity development, multiracial identity development, sexual identity development, and gender identity development. Faith and spirituality are also covered, but there is no mention of cognitive differences, particularly EF challenges (Evans et al., 2010).

On college campuses across the country, some level of services and/or accommodations for students in need are available typically through an office of disability services or learning

assistance program; however, other student services professionals may not be prepared to assist these students or refer them appropriately for assistance. The findings of this research help higher education personnel to understand the environment and culture in which students with executive functioning challenges find themselves. Additionally, this study adds to the research base for college student development and identity development in college, testing existing theories against the lived experiences of students with EF issues. I hope that this initial exploration of experiences of students with EF will inspire other researchers to pursue this vein of research on a larger level to help define theories of development for these students.

Overall, my hope is that this research contributes to students with EF challenges having a positive college experience. The result will be that they come to college and persist through to graduation. After graduation, they will be prepared as citizens to live their lives fully. Already potentially inhibited by EF challenges, the lack of a college degree can impose additional hardships on students economically and socially. If this research can help universities in their efforts to support these students through to graduation, the long-term implications for students could be meaningful. The following research questions will guide this study:

1. How does an executive functioning challenge influence students' identity development?
2. How are students' perspectives of college shaped by their EF challenge?

Background

This study was conducted to explore the transition to college for students with EF challenges. In order to better study this transition, it is important to have a clear understanding of issues of transition in college for freshmen and transfer students, as well as the accommodations students may use during their time in college.

The First Year Experience. Emphasis on the first-year experience in higher education in the United States began with the founding of Harvard in 1636. There were no upper-class students that first year, but there were reports of students being beaten by Harvard's first president, Nathaniel Eaton. After Eaton left Harvard, reports of initiation and hazing of first-year students by older students remained constant through the following years. In 1850, with a new president, Harvard began arranging tutors "to counsel and befriend the younger lads" (Dwyer, 1989, p. 30). During the colonial period, teaching fellows met with a group of freshmen and taught them all the subjects as a class, much like some of today's first-year seminars. Students spent four years doing everything together, from eating to sleeping to studying with the same tutor. The faculty began playing an important role in students' lives, and in 1860, the Harvard faculty was able to abolish the week of hazing endured by first-year students in the past. In 1889 a Board of Freshman Advisors was formed at Harvard to work on improving orientation, counseling, and social activities for freshmen (Dwyer, 1989).

Around 1910, the first college orientation classes began to address the adjustment problems first-year students were experiencing. Other orientation type classes followed at Boston College and Reed College, with more emphasis on learning how to study and on subjects such as current events and critical thinking. Gordon (1989) pointed out "by 1930 it was estimated that one-third of the colleges and universities were offering such courses, and by 1938 nine out of ten freshmen were required to take them" (p. 187). In the 1960s and 1970s there was a move in college curricula to add these types of programs to many more universities (Gordon, 1989).

In 2011, the National Resource Center for the First-Year Experience and Students in Transition conducted a survey of first-year programs in the United States. In this survey, 87.3% of campuses reported having a first-year seminar (Keup & Petschauer, 2011). General goals of

these seminar courses were (a) to ease transition and adjustment of students to the college environment, (b) develop students' academic skills, and (c) provide an orientation to campus resources and facilities. Topics covered in seminar courses included time management, career planning, campus facilities and resources, academic skills, and diversity. Other services included in First-Year Experience (FYE) offices often include academic advising, tutoring, career planning, campus tours, major choice advising, and mentoring programs (National Resource Center for the First-Year Experience and Students in Transition, 1997).

The overall goal of FYE offices is to help students succeed in their first year in college. Over 14,300,000 students are enrolled in 2-year and 4-year colleges in the U.S., at an average cost of \$10,000-\$20,000 per year in tuition depending on the institution (ACT Reporting Services, 2012). Unfortunately, only 67% of these students will make it to their second year in college (ACT Reporting Services, 2012). Of all who begin college, only 48% will graduate from a public 4-year college, and 63% from a private school (ACT Reporting Services, 2012).

In terms of the cost, a public institution in 2017 averages about \$10,000 for tuition only, and half of all college students borrowed from federal loan programs. Out-of-state students are paying an average of \$25,000 for tuition while students attending private institutions are averaging \$50,000 per year for tuition (National Association of College Admission Counseling, 2018). Students must still pay the loan money, even if they drop out (Siedman, 1999). The highest tuition for a public institution for an out-of-state student is listed at over \$40,000 for the University of Michigan – Ann Arbor (Smith-Barrow, 2014). Some of the financial consequences affecting higher education institutions resulting from the dropout rate include lost tuition and fee revenue, reduced campus and community spending, costs to make up the losses, and the financial burden to parents and students.

As colleges and universities continue to work to retain and graduate students, there is a lack of understanding in how to assist students with executive functioning challenges. With no outward indication of a disability, this population of students can be difficult for professionals in higher education to identify and work with because of the differences they bring to the institution and the lack of knowledge and training in how to assist them. There are no specific first year services to help these students in their unique transition to college. For a variety of reasons, including higher quality services and supports at the high school level, an increasing number of students with executive functioning challenges are arriving at college (Schlegelmilch, 2015). Some are successful, but many are not. It is important that colleges and universities that accept these students understand why some students with learning differences, including EF challenges, complete college while others do not.

The Transfer Student Experience. Some transfer students may go through a similar experience to new freshmen if they have lived at home while taking college courses. Others have experienced a more traditional college experience but still have challenges in their new college environment. Townsend (2008) points out the transfer process has two distinct parts: application, matriculation, and course choices at the new institution, but then they also have the adjustment to the new institution once on campus.

The first part of the transition can be frustrating for students. There are institutional delays that may cause setbacks down the road, such as courses that will not transfer or courses that transfer with a different amount of credits that will not meet the new institution's requirements. Pre-requisites may not be available at the community college level or may change at the new institution causing the student to need to take additional courses to enter their major (Packard, Gagnon & Senas, 2012). Timeline may also be a concern for transfer students as the

application process takes time, as does the review of the student's courses and transcript. Many transfer offers are sent to students after many traditional student deadlines have passed, including some course registrations and on-campus housing options (Townsend, 2008).

Once they arrive on campus, students then need to begin the social and academic adjustment to their new environment. Differences in campus culture and climate, academic rigor, and often campus and class sizes will be an adjustment (Lanaan, 1996). Specifically, students are often entering directly into courses in their major, and the change in academic rigor can be significant. For students with EF challenges, these adjustments can create additional setbacks because they struggle more with the adjustment.

Similar to incoming freshman students, campus involvement, relationships with faculty and staff, and connections to peers are important in the successful transition for transfer students (Wang & Wharton, 2010). Involvement in campus activities helps students connect and feel part of the university. Failing to become involved in campus life can lead to greater rates of attrition (Tinto, 1993).

Accommodations in College. For students with disabilities, the transition to college can be even more critical than for other students. In K-12 schooling, students with disabilities may receive accommodations necessary to progress through each educational level. Individualized Education Programs (IEPs) show the student's current performance, assist students and staff to set goals, assess accommodation needs, consider how the student will work with peers, and measure a student's progress. These IEPs are individualized for each student. When Mamiseishvili and Koch (2011) reviewed the factors contributing to the persistence of students with disabilities in college, they found that specific services and accommodation were associated with a higher level of persistence. Mamiseishvili and Koch, like Tinto (1975), Astin (1984), and

Pascarella and Terenzini (1991), found that students with disabilities who were engaged in at least one social activity on a college campus persisted at a significantly higher rate than those students who were not engaged outside of the classroom.

Due to legislation mandating accommodations and protections from discrimination, universities have experienced an increase in the number of students with disabilities admitted to their institutions (Costello & English, 2001). Costello and English (2001) point out “a sub-group within this expanding population that demonstrated the most dramatic increase has been individuals with learning disabilities. This group represents approximately one-third of the matriculated students with disabilities entering post-secondary education” (p. 1).

Even though more are attending college, students with learning disabilities and ADHD are not necessarily noticed in the classroom as needing additional assistance, as their disabilities are not often physically evident. Additionally, these students may not want to disclose their disabilities or seek accommodations (Janiga & Costenbader, 2002). Services that are common among institutions to accommodate students include alternative testing and extended time testing, tutoring services, readers, note takers and scribes, registration assistance, and other adaptive services. Additional services needed for students with learning disabilities include knowledge about their own strengths, weaknesses, values, and aspirations in order to aid decision-making and the knowledge and confidence to advocate for services and accommodations (Janiga & Costenbader, 2002).

Lightner, Kipps-Vaughan, Schulte, and Trice (2012) found that a number of students with learning disabilities are not informing their institutions of their learning disabilities in order to gain accommodations because they did not have time, they lacked knowledge of the resources available, they wanted to establish an identity separate from their disability, and/or they felt that

things were going well and did not require any assistance. Lightner et al. also found that students using disability services had a significantly higher GPA and number of earned hours by the middle of their sophomore year than students who did not inform their institutions of their learning disabilities. The initial reports on GPA and hours earned from the students' first-year were similar, possibly due to the transition to college and the time in which they were beginning to be connected with disability services. Although this research has some bearings for higher education, Lightner et al. suggest high schools better assist students with learning disabilities in preparing for and being knowledgeable about their transition to college.

A student's transition to college may be tumultuous because of the amount of change, challenge, and development that takes place. The combination of student's academic needs, social transition, and responsibility for accommodations can make the transition even more challenging. In the review of the literature in Chapter 2, these areas of concern, including discriminations, transition from high school, psychosocial and social issues, and academic issues are reviewed specifically for students with executive functioning challenges.

Problem Statement

The National Joint Committee on Learning Disabilities (1998) recommended research to examine performance differences among individuals with learning disabilities in terms of their academic and psychosocial development. Since college is both academic and social in nature, English and Costello (2001) cited Carroll and Johnson Brown (1996) to suggest, "That college students with learning disabilities presented support needs that were psychosocial as well as academic in nature" (p. 1). Accommodations for academic needs can be covered through an office of disability services; however, social support on campus is more difficult to come by.

In the collegiate setting, the responsibility for students with disabilities shifts from the school to the student. As Chickering and Reisser's (1993) psychosocial theory base suggests, college students work to develop competence, manage emotions, and develop appropriate levels of independence. Students needing accommodations must find the resources they need for accommodations on their own, as the institution does not do it for them once they are admitted.

English and Costello (2001) attempted to combine the existing literature concerning college student development; specifically, they linked Chickering and Reisser's (1993) seven vectors to students with learning disabilities: "The specific research question employed in this study was: Is there a difference in the psychosocial development between university students who had self-identified as having learning disabilities, and their peers who had not?" (p.2). Kronick's (1986) psychological viewpoint of a person moving from intact to learning disabled points out the developmental issues one faces in the process of being labeled with a disability. Depending on the timeline of where the student is in their disability identity development, there may be an impact on their college student development.

Other than Kronick's (1986) work, most literature about the transition to college for students with disabilities is about the differences in law and accommodations. Most of these accommodations are in the areas of testing and academics; less information is provided about the out-of-class college experience. Reugg (2003) cited an earlier study by Haager and Vaughn which stated that an estimated 35% to 75% of students with learning disabilities also have social deficits. There are not, however, specific accommodations that can often be made for one with a social deficit.

The Employment and Disability Institute (2011) show that only 12.2% of people (ages 21-64) with reported disabilities have a college degree compared with 30.8% of people without a

disability. People with disabilities also make less money in the workforce (Employment and Disability Institute, 2011). People with disabilities are not attending and/or completing college at the same rate as people without disabilities; therefore, they are more likely to make less money to provide for themselves and/or their families (Employment and Disability Institute, 2011). In general, people with disabilities are not attending college, which correlates to making less money in the work force. In primary and secondary education, the school, along with the student's parents or guardians, have taken on the responsibility of accommodations and academic needs. For students with disabilities, the transition into the first year of college can be complex because the responsibility for accommodations and the transition to college rests on the student. Students (and parents) are often unprepared or not informed of all of these changes because the laws and rules change between high school and college.

Additionally, people with ADHD, in particular, are less likely than individuals without disabilities to attend college (Quinn, 2013). For those who do attend college, students with ADHD have higher dropout rates compared to those without the disorder (Quinn, 2013). In addition to the attrition concerns, students with ADHD self-report higher levels of challenge in their transition to college, primarily because they were not prepared to advocate for themselves (Quinn, 2013). The transition to college may present difficulties for college students who may have been successful in high school. In addition to academic concerns, Rucklidge, Brown, Crawford and Kaplan (2007) found that adults with ADHD might also show evidence of comorbid psychosocial concerns, including depression and anxiety. Although many ADHD students are counseled to access appropriate documentation to obtain accommodations and reduce course loads each semester, such activities have financial implications for students and their families.

Executive dysfunction challenges can be substantial and are a key identifier for ADHD. Students with ADHD generally have difficulty self-monitoring, managing time, estimating time, goal setting, and learning from past experiences to move forward successfully (Stamp, Banerjee & Brown, 2014). In 2009, Meaux, Green, and Broussard pointed out that most studies about students with ADHD in college focused on students in the classroom but did not address general coping and self-management outside of the classroom.

Executive function (EF) challenges can be difficult to analyze because they are not necessarily a distinct process; instead, they are a collection of processes that work alongside other brain functions and cognitive processing. EFs assist people in moving forward to accomplish goals, and using past experiences to make changes for future decisions (Keeley, 2003). Keeley (2003) characterizes EF disorders by the following:

...difficulty with planning and organization, trouble identifying what needs to be done, problems determining the sequence of accomplishment, difficulty carrying out the steps in an orderly way, difficulty beginning tasks, problems maintaining attention, trouble evaluating how they are doing on a task, difficulty taking feedback or suggestions. (p. 11)

Each of the tasks mentioned are essential in college. In addition to the EF difficulties, the continued procrastination that develops as a coping mechanism can lead to lower academic performance and progress, lost opportunities, increased health risks, and difficulty forming and keeping meaningful relationships (Rabin, Fogel, & Nutter-Upham, 2011). It is likely that the combined effect of all these issues is that the collegiate success of students with EF is compromised; however, whether or not such is true has not been studied. This research will address this gap.

Purpose and Research Questions

The purpose of this study is to examine the identity development of students with EF challenges and the academic and social experiences of the students. The following research questions will guide this study:

3. How does an executive functioning challenge influence students' identity development?
4. How are students' perspectives of college shaped by their EF challenge?

Significance of the Study

For the purpose of this study, I interviewed students with executive function challenges about their experience transitioning to college. My goal was to produce a basic understanding of the experiences of students with EF challenges as they entered their first semester of a four-year, public institution. Through case study analysis, I identified themes of how these students are developing from the experience. As I am interested in how our practices in higher education affect students with executive function challenges, I hope to contribute to higher education's ability to assist these students in their transition. Additionally, my research explores connections among these students and college student development theory.

Definition of Terms

The purpose of this section is to define and offer a basic understanding of key terms in this study.

Accommodations. Services provided on college campuses so students with disabilities have equal access and the opportunity to be involved in the classroom and other campus programs and activities.

Agency. The human capability to influence one's functioning within a society through intentionality, forethought, self-regulation, and self-reflectiveness. Bandura (2001) explains, “The core features of agency enable people to play a part in their self-development, adaptation, and self-renewal with changing times.”

Attention Deficit Hyperactivity Disorder (ADHD). ADHD is often first diagnosed after observable hyperactivity in children and includes inattention and impulsive behavior (Biederman, Mick & Faraone, 2000). Symptoms of attention deficit can include: fails to give close attention to detail; has difficulty paying attention in tasks or activities; does not seem to listen when spoken to; does not follow through on instructions; fails to finish schoolwork or job duties; has difficulty organizing tasks and activities; loses things necessary for tasks or activities; and is easily distracted (American Psychiatric Association, 2013).

Executive Function (EF). Executive functions are the processes used to manage oneself to begin and reach a specific goal (Welsh & Pennington, 1988). EF challenges are not in the *Diagnostic and Statistical Manual of Mental Disorders*, but are defined in this paper as issues with the completion of these processes.

Identity. Erickson’s (1959/1994) definition of identity was “a direct perception of one’s own consistency and continuity over time...and that the associated perception that others, as well, recognize this consistency and continuity” (p.18). For the purpose of this paper, identity is defined as how individuals understand who they are, how that understanding connects with how others think of them, and how individuals use their experiences to make decisions and define values based on the context of their environment.

Learning Disability (LD). A disorder which affects a student's use of language and may be noticeable in a student's ability to complete certain academic tasks, including reading, listening, comprehension, writing, and mathematics (Fletcher, Lyon, Fuchs, & Barnes, 2007).

Student Success. For this study, student success is defined as completion of course work with an appropriate level of understanding and a passing grade to be able to move forward in the curriculum.

Chapter 2: Literature Review

Because there are not specific identity development theories in regards to college students with learning disabilities, ADHD, or EF challenges, it is important to consider other theories and student experiences to help frame the development of students with EF challenges in their experiences. In order to provide a clear introduction of issues for students with EF challenges in college, I include in this section specific content knowledge about college and EF challenges, including history, laws, and identification. Next, I cover areas of the college experience and transition, including disclosure, discrimination, transition from high school, psychosocial and social issues, and academic issues. Lastly I will look at the foundational college student development theories to give a historical context of the development of identity formation in college students. I will look to transition theory, overarching disability theory, and queer theory to bring in more recent studies about how people see themselves.

History of Executive Functioning

As early as 1966, literature about executive functioning has focused on the functions of the frontal lobes and the prefrontal cortex. Over time, these functions have been discussed from both the neurological field and from the psychological field. In 1988, Welsh and Pennington specified three components of EF:

- a) an intention to inhibit a response or to defer it to a later more appropriate time; b) a strategic plan of action sequences; and c) a mental representation of the task, including the relevant stimulus information encoded in memory and the desired future goal-state (p.202).

For college students, each of these components should be a part of everyday life, so the impact of EF challenges could be great. Since these three components are all internal processes, it is difficult to test for them.

Testing for EF is a debated topic. Typically, neuropsychological testing is used without direct observation or self-reporting from patients. Published studies about EF use testing and batteries, and research has shown these to have only moderate to lower reliability (Barkley, 2012). “An executive function test should measure executive functions, that is: planning ahead, logical thinking, acting in accordance with hypotheses, checking one’s behavior (self-monitoring), and flexibly changing one’s hypotheses or actions” (Kovács, 2015). Since all executive functions are measured in these multi-faceted tests, assessment of executive functions is difficult, and finding specific functional challenges is even more difficult (Kovács, 2015). Additionally, EF challenges are often a symptom for ADHD in children and adolescents. By the time these students get to college, many students may not have been diagnosed specifically with EF challenges because it is so difficult to assess.

ADHD is often first diagnosed in children, as they begin to falter in the elementary school classroom. Hyperactivity is a primary symptom that is most noticeable at the childhood and adolescence ages. There is research looking at differences in ADHD and how symptomology changes as a person ages. For many, hyperactivity and impulsivity are less likely to persist (Beiderman, Mick & Faraone, 2000). EF challenges, however, are more likely to persist. Once the student has moved past hyperactivity as a symptom, the assumption is sometimes made that ADHD will no longer be a concern in college. While EF challenges are difficult to assess, learning disabilities have become more studied throughout time.

Originally, it was thought that the brain was one, single organ of the body and it supplied energy to the rest of the body. In the early 1800s, Gall (as cited in Hallahan & Mock, 2003) began sharing his research that different areas of the brain controlled specific functions of the

body. As research on the brain continued through the decades, connections were made between brain injuries and loss of specific bodily and language functions (Hallahan & Mock, 2003).

Initially, what we know now as learning disabilities were thought to be the result of some type of brain injury or dysfunction. A person who could score as average or above average intelligence, while presenting behavioral and/or learning difficulties confused doctors and researchers. From early studies, the focus was on neurological dysfunction and processing shortfalls. In the 1950's, the focus moved towards an emphasis on learning and social deficits (Fletcher et al., 2007). Clements (1966) introduced a formal definition for this brain dysfunction:

In 1962, a definition of “minimal brain dysfunction” was formalized as:

children of near average, average, or above average general intelligence with certain learning or behavioral disabilities ranging from mild to severe, which are associated with deviations of function of the central nervous system. These deviations may manifest themselves by various combinations of impairment in perception, conceptualization, language, memory, and control of attention, impulse, or motor function

(Clements, 1966, p. 9-10). With the creation of the Association for Children with Learning Disabilities in 1964 and the first federal law mandating support for children with learning disabilities in 1969, more learning disabilities were diagnosed in the 1960's and 1970's than ever before. From this point, the American Psychological Association (APA) separated the learning and behavioral issues in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III), and the U.S. formalized a definition of learning disabilities through the Office of Education in 1966. The problem with the U.S. Office of Education's definition is that it mostly defined learning disorders without identifying specific criteria. This definition states that

“LDs are heterogeneous, reflect problems with cognitive processing, and are not to be commingled with other disorders that represent exclusionary conditions” (Fletcher et al., 2007). The problem for college students, then, is that the definition makes it difficult to create resources and outreach to specifically target individuals with learning disabilities.

Because of the diverse and varied experiences, and observable behaviors of people with learning disabilities, a consensus on the true definition of learning disabilities is difficult to maintain. An agreed upon definition would need to include so many subgroups that the definition has become very broad and tends to say what learning disabilities are not, instead of what they are. Typically, learning disabilities are listed as the absence of specific traits or abilities, instead of symptoms stating a particular behavior exists. Additionally, it is difficult to separate an agreed upon definition of a learning disability from general differences among people (Gerber, 2000). Fletcher, Morris, and Lyon (2003), point out the need to look at the individual person and inherent abilities as well as the environment and a person’s response to the environment and teaching. Gerber (2000) reiterated this thinking by pointing out that learning disabilities continue to develop along with the student and are paired with ongoing learning. For executive functioning challenges, how does ongoing learning assist with the development of executive functioning? The National Institutes of Health (NIH) provide some basic definitions for the issues discussed in this paper. The NIH defines learning disabilities as disorders that affect students’ abilities to understand or use language or math, and/or may include issues with physical coordination and focus (Vickers, 2010). The Individuals with Disabilities Education Act (IDEA) (2004) defines a learning disability as:

...a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself

in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. (Section 1401, p. 30)

If one were to put EF challenges and learning disabilities on a continuum, EF challenges do not quite meet the threshold of a learning disability as students with EF challenges do not lack the understanding of language or the ability to listen, think, speak, write spell or do math as listed above. Instead, their inability to plan ahead, to think logically, to check their behavior, and to be flexible in the midst of change, affect their ability to complete the work needed to show their learning in these areas.

Issues Impacting College Students with EF Challenges

Students with learning disabilities and ADHD are not necessarily noticed in the classroom as needing additional assistance, as their disabilities are not often physically evident. Additionally, these students may not want to disclose their disabilities or seek accommodations (Janiga & Costenbader, 2002). Academic services are common among institutions to accommodate students in the classroom setting and to meet academic requirements. Additional services needed for students with learning differences are less common and less known to the students who may need additional services.

Laws in Education. In primary and secondary schools, applicable laws for students with learning disabilities include the Individuals with Disabilities Education Act (IDEA) (2004) and Section 504 of the Rehabilitation Act of 1973. In 1975, Congress enacted IDEA to ensure that education was appropriate for all children, specifically and including children with disabilities. The law has been revised many times over the years (National Institutes of Health, 2016). One of the important pieces of IDEA is the Individualized Education Program (IEP). The IEP states goals for the student and sets about how the school will attend to the student's individualized

needs. The IEP is created once a student has been evaluated and diagnosed with a disability covered by IDEA. Key school administrators, teachers, psychologists, parents, and students are involved in the creation and ongoing evaluation of the IEP (Vickers, 2010).

The IEP must state when services will begin, how often they will be provided, where they will be provided, and how long they will last. The information required in an IEP includes how a child is currently doing in school. Evaluation results from tests and assignments as well as observations by parents, teachers, and other staff are included in the statement of current performance. Annual goals are included for the child, which may be academic in nature, or can also address social or behavioral needs. Special education services provided, such as modifications to the curriculum, supplementary aids and services, and professional development for the staff, must be listed in the IEP, as well as the extent to which a child will participate in classroom activities with nondisabled children IEP (Vickers, 2010).

Students with an IEP participate in state and district achievement tests unless no part of the general curriculum applies to them. The IEP states which modifications are needed for these tests, as well as testing options for tests that are not appropriate for the child. When the child is around the age of 14, the IEP will address courses needed to reach long-term goals after school. Around age 16, the IEP concentrates on transition services needed to help the child prepare for finishing school (Vickers, 2010). However, there is no functioning IEP that covers beyond K-12 education, even in state supported schools.

In 2004, IDEA was updated to the Individuals with Disabilities Education Improvement Act (IDEIA). Some of the changes that were enacted with this update included a new model for eligibility, evaluation of the whole student, including academic, social and emotional needs, and the right for parental refusal of services.

Section 504 of the Rehabilitation Act of 1973 protects qualified individuals with disabilities from discrimination. Section 504 requires schools to meet the needs of students with disabilities and to provide them with appropriate education, similar to students who do not have disabilities. Some examples of appropriate services may include learning in regular classrooms, with or without supplementary services, or special education (U.S. Department of Education, 2011).

According to IDEIA and Section 504 of the Rehabilitation Act of 1973, students should be identified by the school and supported by teachers and parents. The primary responsibility for arranging accommodations belongs to the school. Teachers may alter assignments or the pace of instruction for students with disabilities. Testing may include changes to the test format as well as the time available to take tests. Lastly, tutoring and other support may be available as a part of a student's accommodations.

In higher education, IDEIA requires a Summary of Performance (SOP) as a child transitions out of the K-12 realm into higher education. Other than the transition piece, IDEIA does not apply in higher education (Eckes & Ochoa, 2005). The laws that govern educational accommodations are the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. Similar to Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act "guarantees equal opportunity for individuals with disabilities in employment, public accommodations, transportation, State and local government services, and telecommunications" (U.S. Department of Education, 2011).

With these laws, students are required in higher education to self-disclose their disability and can only be given accommodations if they have paid for and received appropriate evaluations and documentation. This documentation must demonstrate the need for specific

accommodations. Additionally, this criteria itself can be more difficult for students from lower a socioeconomic status. Responsibility for making arrangements belongs to the student. Parents and school administrators are not involved in the process, outside of the campus disability office. In college, professors are not required to change the curriculum or modify assignments. Typical accommodations include extended time on testing or a different testing environment for students who require these accommodations. Tutoring and other study services are not part of a disability office on a college campus. They must be sought out and used by the student.

All of these laws have affected higher education today. Because of IDEIA, ADA, and Section 504, students who may have never graduated from high school are graduating and moving on to college. In addition, students, parents, and institutions are much more aware of the laws because of the media representation and the focus on very public cases involving discrimination (Rothstein, 1993).

Because of the increase in legislation involving learning disabilities in K-12 and the collegiate setting, administrators, instructors, and students have all been affected. Courts have made decisions through different lenses, making the process for all very confusing. Training is lacking for teachers and administrators in both K-12 and college education in the area of learning disabilities and best practices, which may also impact a student's accommodations and best practices in teaching (Herr & Bateman, 2003).

Since EF challenges may not be documented in the same way as other disabilities, receiving accommodations can be difficult. Students with EF challenges may benefit from an IEP in K-12 settings, but there are not necessarily accommodations on a college campus that would apply.

Impact of Laws. Beginning with the admissions process, students with learning disabilities may already be at a disadvantage in gaining entry to and graduating from an institution of higher education. In a typical admissions process, test scores are taken into account, but testing is an area where students with learning disabilities struggle. In addition, standardized tests generally show that a student has had extended time or other accommodations (Mangrum & Strichart, 1988), which discloses to the institution that the student may have a disability. At this point, a student must already make a decision about disclosure – if the student uses additional time on the test, it will be shown on the results, if not, the student may not score what is needed for admission.

With the ADA and Rehabilitation Act of 1973, students are required in higher education to self-disclose their disability when seeking accommodations. Until a student discloses a disability, an institution does not know who may need accommodations. At times, students with learning disabilities do not disclose their disability because they fear it may somehow affect their admission. Consequently, some are then denied admission to the institution because other admissions factors were not taken into account (Mangrum & Strichart, 1988).

In addition to accommodations in the admissions process, students may also need accommodations elsewhere in their academic journey. Institutions are not required to change essential requirements in a program or dilute the curriculum; however, academic requirements may be modified to ensure there is not discrimination based on a disability (Mangrum & Strichart, 1988).

Some of the more common adjustments made for students with learning disabilities include alternative testing. Accommodations may include extended time on tests, papers and other projects, readers, and alternate testing locations. Another accommodation may be in note

taking. Students with learning disabilities may be granted permission to record lectures and/or receive transcriptions of lectures in order to assist with remembering information and being able to use it later (Mangrum & Strichart, 1988).

Although some accommodations are quite common, Section 504 requires an institution to make reasonable accommodations. Accommodations are considered on a case-by-case basis. An institution will not be able to provide accommodations for a student and may not be required to in some cases. If an accommodation is found to cause undue hardship for the institution, financially or otherwise, they may not be required to provide the accommodation. Another case where an institution may not be required to provide an accommodation is for safety. Should a disability make it unsafe for a student to continue – often in the medical field, if the disability makes it possible for the student to injure others – the institution may not be required to provide an accommodation (Rothstein, 1993).

Identification and Classification. Since both learning disabilities and EF challenges lack complete and agreed upon definitions, and ADHD symptoms can change with age, each of these challenges can be difficult to classify. The IQ-achievement discrepancy model first looks at the discrepancy between students' achievement and cognitive ability. It looks at the difference between an aptitude or IQ test and a test of achievement (typically reading or math). The IQ-achievement discrepancy model considers unexpected low achievement, even if a student may have strengths across different areas, but also unexpected weaknesses in some core areas that lead to the low achievement. The student does not meet the classification for intellectual disability or other reasons for the low achievement (Fletcher et al., 2007).

The other model, Response to Intervention (RTI), is similar to the discrepancy model, but it continues to look at the student's progress over time. If intervention cannot help the student

move forward in their learning or understanding of a core area, then the underachievement may be due to a learning disability (Fletcher et al., 2007). Each of these deficit models uses unexpected low achievement as an indicator of a learning disability. Students with intellectual disabilities, sensory disorders or other communication concerns would typically not be included in the definition of learning disabilities because their general cognitive abilities are below average. People with learning disabilities generally have average or above-average cognitive abilities, but a gap between ability and academic performance.

In addition to learning disorders, students may also be diagnosed with a co-occurring or comorbid issue, making it more difficult to classify the learning disability. Factors that research has shown may affect the tests and indicators used in classification may include socio-economic status, race, and inadequate instruction (Fletcher et al., 2007). Fletcher et al. (2007) recommend a combination of the low achievement model, and the RTI model. The intra-individual model that includes an examination of individual differences on measures of cognitive function, also taking into account possible other factors listed above (Fletcher et al., 2007).

One such comorbid issue can be ADHD. As mentioned, the hyperactive/impulsivity symptoms of ADHD decline with age; however, a student with executive functioning challenges will continue to perform poorly on EF tasks compared to students without ADHD (Howard, Strickland, Tamm, Hinshaw, Murray, Swanson, & Arnold, 2016). ADHD classifications can also be controversial, as some view ADHD as the result of poor parenting or character (Buchanan, 2011). In addition, professionals continue to interpret symptoms differently and see some ADHD behaviors as common, although exhibited at an uncommon degree (Buchanan, 2011).

Since EF is a symptom of LDs and ADHD, it is not necessarily classified on its own. In ADHD patients, EF challenges are more often self-reported than identified through cognitive testing. Stern and Maeir (2014) found a 96% prevalence of EF deficits in adults with ADHD. Once a student has been diagnosed with or has received accommodations for an LD, ADHD, or an EF disorder in high school, one of the first steps in the transition to college is the decision to disclose.

There are tests aimed to assess EF functions, but as an emerging theory, they differ in both construction and underlying theory. Some tests are able to identify specific components of executive functioning levels, but most do not take into account the context in which the EF is being evaluated. Additionally, social and other factors may affect executive functioning and need to be taken into account in future testing (Chan, Shum, Touloupoulou, & Chen, 2008).

Disclosure. As previously mentioned, disclosure of disabilities is at the discretion of the student. In order to receive accommodations, however, a student must disclose. Some students are not comfortable disclosing an invisible disability such as a learning disability, ADHD, or other EF challenges and may bypass any opportunity for accommodations to help them in their college career: “They think in broad strokes about what it means to have a disability, and conclude that it does not apply to them” (McManmon, 2012, p. 18). Students may simply want to be able to pass as normal or as a member of the majority and may choose not to disclose to maintain that identity. Others may have heard stories of or experienced for themselves oppression due to their disability (Trammell, 2009). In the end, there are both positive and negative outcomes of disclosing a disability to an institution. For some students, the positive outcomes may not outweigh the negative implications of disclosure including discrimination and social distance if they are perceived as different from their peers (Trammell, 2009).

A typical first step in receiving accommodations is disclosure to an Office of Disability Services. From there, however, it is usually the student's responsibility to discuss the disability and needed accommodations with each faculty member individually. At this point, if students fail to perform well in a class, students may ask themselves if they are at fault for the failure, should they even be in college, and did the faculty member discriminate against them? (Trammell, 2009). This broad range of thoughts may discourage the student from continuing for fear they cannot handle the academic load or if they feel oppressed.

Kranke, Jackson, Taylor, Anderson-Fye, and Floersch (2013) offer reasons for not disclosing a disability including not only the stigma and possible discrimination, but also the lack of knowledge regarding available services. In addition to students lacking knowledge that services may exist, students may also be unable to understand how to seek out and obtain appropriate accommodations for themselves (Kranke et al., 2013). It has been noted that, not only do the laws require students to take responsibility for disclosing the disability and asking for accommodations, the laws prohibit university faculty and staff from asking if a student has a disability and from providing accommodations until the student seeks services (Quinlan, Bates & Angell, 2012).

Through qualitative analysis, Quinlan et al. (2012) discuss the environment instructors can create for students to feel more comfortable in disclosing their disability and requesting accommodations. Students reported that instructors who are perceived as rigid rule followers will not be open to accommodating students' needs; therefore, students are too intimidated to ask for accommodations. Another student reported that an instructor denied the existence of a learning disability and challenged the student to think more highly of herself, and to not let the learning disability define her (Quinlan et al, 2012).

Another barrier to students disclosing their disability and receiving accommodations is the formal accommodations language used across universities on syllabi. In Quinlan et al. (2012), students shared that the sentence on the syllabus informing a student who needs accommodations to contact the office of disability services on campus, sends the message that the instructor is unwilling to be approached for assistance since the language is perceived as required and not accommodating.

That last piece of disclosure relates to the queer theory notion of “passing” (Starkweather, 2010). In order to be seen as a peer, students may choose not to disclose for social and relationship reasons. Students may see college as a place to start over, without any labels hanging over their heads.

Discrimination. Even if students have made it through the admissions process, disclosure, and accommodations, there may still be obstacles. One of the potential areas of concern is with faculty. Faculty consider themselves to have positive attitudes toward students with learning disabilities, and many feel that they are providing appropriate accommodations for students (Cawthon & Cole, 2010). Some faculty members are unsure about their responsibilities in providing accommodations for students but are generally comfortable with meeting with students to discuss their needs (Cawthon & Cole, 2010). Students, however, do not feel the same about their interactions with faculty. If faculty try to help them succeed, students may feel that the faculty member believes that the student cannot succeed on their own and that the student is incompetent. Additionally, some students felt that their needs have not been met because they cannot access appropriate information, faculty members are unwilling to help them, or accommodations provided by the institution were somehow not helpful. Overall, students with learning disabilities may feel that they are being discriminated against (Cawthon & Cole, 2010).

Transition from High School. As if the inconsistent definitions, laws, difficult decisions about disclosure, and concerns about discrimination are not enough, the transition from high school to college is traditionally already a trying time. In high school, parents often intervene to help students stay organized and on task, which may cover EF challenges. Once the student leaves home for college, these skills may be more noticeably impaired (Dyslexia Help, 2016). Herbert and Mitchell (2007) point out that students with ADHD and/or EF challenges can do the work but are challenged to complete the work. Students know the basics about how to study, take tests, and write papers, but without the structured home environment, quiet study space, and taskmasters (i.e., parents), starting and completing the work becomes difficult (McManmon, 2012).

As Mooney and Cole (2000) pointed out, students with learning disabilities may not recognize their strengths in some areas of learning. As students begin thinking about college, feelings of incompetence may limit them in their considerations for college. Because students with learning disabilities are also in various stages of development, they may lack a clear understanding of their disability and may be in denial that the disability may have an impact on their college aspirations (Cowen, 1993). Similarly, Shaw-Zirt, Popali-Lehane, Chaplin, and Bergman (2005) also suggest lower self-esteem in college students with ADHD, as well as poorer academic and social adjustment.

In addition to their feelings about college, students with learning disabilities may not have received the academic and social preparation to attend college. Some have not taken any college prep courses and have not received career counseling to explore areas of interest that may require a college degree. Additionally, some students with learning disabilities have not developed strategies to help them learn and study (Cowen, 1993).

The last key transition issue is social transition, which requires students to live more independently than they may be used to. They may lack social skills to connect with their peers or to behave appropriately in some social settings. The flexible environment of a college campus and academic work may also cause some transition concerns because many students with learning disabilities have not developed independence (Cowen, 1993). One specific category of learning disabilities that may hinder social transition is the nonverbal learning disorder. Students with a nonverbal learning disorder may have strong verbal skills, strengths in memory, attention to detail, listening skills, and vocabulary development. Issues arise, however, in terms of nonverbal communication. People with a nonverbal learning disability may grapple with transition, visual representations, intuition, and dealing with feelings (Lipkin, 2009). Understanding facial expression, tone of voice, body language, and other social cues may make the social transition more difficult, leading to feelings of isolation.

From a college administrator's point of view, students with learning disabilities may not be adequately prepared for college. Administrators point to an inability to advocate for oneself; a lack of understanding of the differences between high school and college; limited awareness of their own academic strengths, weaknesses, and needs; and a lack of appropriate documentation needed for accommodations (Cawthon & Cole, 2010).

Psychosocial and Social Issues. College students with LD, ADHD, and EF challenges may have more difficulty with the adjustment to college more than their peers. Some studies have shown that the adjustment concerns are both academic and psychological. ADHD students may have higher levels of depression and rates of overall distress. ADHD students also report lower social skills, including inappropriately direct communication, a focus on the negative, and assertiveness (Fleming & McMahon, 2012).

It is possible that students with learning disabilities will experience limitations socially as their disability could slow developmental stages needed to move forward as adults. Particular concerns may include identity formation, intimacy, and independence (Kranke et al., 2013). Kranke et al. (2013) cite research about the stigma associated with disclosing a disability, both from the institution and one's own feelings. The same study shared that students felt embarrassed at having to disclose a disability to the faculty and felt that some faculty members were unresponsive to their accommodation requests.

Mooney and Cole (2000) discuss the feelings associated with being diagnosed as having a learning disorder and/or ADHD. They share feeling ashamed and unintelligent, as well as at fault for their inability to learn. Although both tested very strong in some areas, the academic world was set up based on testing and grades, which made them feel that they could not succeed. All of these feelings helped them to hate school at an early age (Mooney & Cole, 2000). Policastro (1993) points out that these feelings may also be due to an inability to problem solve. This issue itself may lead to feelings of failure and frustration. Orr and Goodman (2010) interviewed a number of students in postsecondary education identifying as having a learning disability. The prevailing theme was the impact of the learning disability on their emotions, identities, and self-concepts. Similar to Mooney and Cole's (2000) notes, participants spoke of feeling unintelligent, embarrassed, and ashamed of their learning disability (Orr & Goodman, 2010).

An issue that Mooney and Cole (2000) advise students in through their writing is work and study habits. Mangrum and Strichart (1988) also reported that college students with learning disabilities have concerns in this area. Specifically, concerns with organizing oneself to study

and complete tasks, beginning the work, completing work on time, using appropriate resources, and following directions are common: these are all executive functions.

Mangrum and Strichart (1988) continue to dig into the social and affective world and share difficulties in those areas as well. Some of the areas in which Mangrum and Strichart (1988) identify as social difficulties include creating and maintaining relationships with friends and family, relating to authority figures, understanding and following appropriate social cues, and knowing how to behave and what to say in situations. Feelings and emotions associated with a learning disability may also include self-concept and esteem, feelings of competence, motivation, frustration, anxiety and anger, as well as trust of others (Mangrum & Strichart, 1988).

For students with nonverbal learning disorders specifically, issues outside of the classroom may be a bigger transitional difficulty than learning in the classroom. Living on campus may cause additional stress because of the constant social interactions and living with a roommate. Social relationships and a lack of understanding about these relationships may lead a student with a nonverbal learning disorder to be taken advantage of in social situations (Lipkin, 2009). Students with executive functioning challenges may have similar experiences because of their inability to process information while controlling behaviors (McMannon, 2012).

Overall, students with learning disabilities may have difficulties in many areas outside of the classroom: organization, the ability to meet deadlines, lower self-esteem, higher anxiety, and poor interpersonal skills (DaDeppo, 2009). In her study, DaDeppo (2009) found that the social integration into college for students with learning disabilities did not predict the students' grades, but had an impact on their intent to continue with their education. Similar to other work with

first-year students, that social impact may trump the academic difficulties for students. This holds true for students with learning disabilities (DaDeppo, 2009).

Academic Issues. Mangrum and Strichart (1988) share characteristics of learning disabled college students, divided into 7 categories: cognitive, language, perceptual-motor, academic, work habits, study habits, and affective. Using the Wechsler Adult Intelligence Scale (WAIS), college students with learning disabilities scored the lowest in abilities usually learned in school or at home as well as the ability to remember using listening and visual skills. In written language analysis, college students with learning disabilities performed poorly across the board – writing mechanics, organization of the writing, development of thought and style (Mangrum & Strichart, 1988). Reading and writing differences for students with learning disabilities is distinct. Students with learning disabilities may have challenges making meaning from reading and being able to question the authority of the text. Similarly, the cognitive process behind writing for students with learning disabilities may limit their ability to articulate their ideas and share meaning (Policastro, 1993).

Perceptual-motor deficits are more common with younger students with learning disabilities; however, there may be some noticeable deficits in college students with learning disabilities as well. Some difficulties may include dealing with three-dimensional figures, finding information on a page, and fine motor skills. Other overarching academic difficulties may include reading, spelling, handwriting, and math (Mangrum & Strichart, 1988).

Academic concerns for students with ADHD and/or EF challenges may not be as recognizable as a student with a stand-alone learning disability. College students with ADHD and EF disorder tend to have lower academic performance, not because they cannot do the work,

but because they tend to not complete the work (Herbert & Mitchell, 2007). As stated, the lack of organization, completion of tasks, and time management lead to impaired academic functioning.

Conceptual Frameworks

For this study, I examined foundational college student development theories to give a historical context of the development of identity formation in college students. Miles and Huberman (1994), defined a conceptual framework as “a visual or written product, one that explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them” (p. 18). I also looked to transition theory, overarching disability theory, and queer theory to bring in more recent studies about how people see themselves. These theories explain development of various identities in college, to work around the lack of theories that directly discuss learning differences, specifically EF challenges.

College Student Development Theory. College student development theory helps student services professionals understand the challenges facing college students as they develop intellectually, emotionally, and socially. These theories explain why the transition to college can be fairly smooth for some and difficult for others. Enrollment in higher education in 2012 was 14.3 million students (ACT Reporting Services, 2012). Due to the number of students who do not persist from first-year to second year, the first year of college has a great impact.

Student development theories provide student affairs practitioners with information about the cognitive, affective, and behavioral domains of college students (Evans, Forney, Guido-DiBrito, & Patton, 2010). Unfortunately, with regard to students with disabilities, there is a gap in this literature. College Student Educators International (formerly American College Personnel Association, ACPA) Standing Committee for Disabilities and Research noticed, “There are no

published articles that have a model of student development specifically for students with disabilities” (Lynn Meade, 2006, through personal communication with Dr. Rebecca Cory). Some people, according to Cory, apply minority and gay, lesbian, bisexual, and transsexual theories to this group. Serebrini, Gordon, and Mann (1994) attempted to make comparisons among existing student development theories and students with disabilities and reported some basic assumptions about intellectual, psychosocial, and career development. They argued against the broad application of theory and concluded that in absence of a student development theory; existing student theories can be used to at least provide some guiding principle.

Tinto (1975), along with Astin (1984), and Pascarella and Terenzini (1991), proposed that involvement in both the academic and social aspects of college life helps students to persist from their first year of college into their second. Students need to engage with faculty in the classroom as learners and become members of the academic community on campus. They must also engage in the community outside of their classrooms. Specifically, involvement with faculty and staff outside of the classroom and connections made within the institution are highlighted as success factors in retention. Students assess their social aspects of college life through interactions with their peers, sense of fit at the institution, and involvement with campus organizations. This assessment helps students decide about whether or not to persist at the institution (Tinto, 1975). Mamiseishvili and Koch (2011) looked at these factors to determine if the same factors influenced students with disabilities in persistence to their second year of college and found they did.

The foundational theories on which many current theories are based in college student development come from William Perry and Arthur Chickering. For the purpose of this study, Chickering and Reisser’s (1993) vectors, specifically the first five of the seven vectors, will

provide a lens through which to view the development of first year students. Chickering first proposed his theory of identity development in 1969 and based it on the original work of Erikson (1994/1959); it was revised in 1993 with Linda Reisser. Erikson defines identity as “how individuals organize their experiences within the context of the environments in which they are situated” (Torres, 2011, p. 187). Erikson says that growth in identity development comes about as individuals balance their sense of self within their environment. Chickering’s theory proposes 7 vectors through which students move in college in their development of identity: 1. Developing competence, 2. Managing emotions, 3. Moving through autonomy toward interdependence, 4. Developing mature interpersonal relationships, 5. Establishing identity, 6. Developing purpose, 7. Developing integrity (Chickering & Reisser, 1993). First year students will generally begin to work through the first five vectors as they transition into college (Chickering & Reisser, 1993), so those are the vectors I used as a framework to view the data.

The first vector, developing competence, involves gaining skills in three main areas: critical thinking and reasoning, physical wellness and activities, and communication and people skills. Managing emotions is the second vector, which involves individuals both recognizing and accepting their own emotional responses in addition to controlling and expressing them appropriately. Chickering and Reisser’s (1993) third vector is much like a pendulum swinging from dependence to independence to interdependence. Students may initially develop a strong sense of self-direction and independent problem solving, and then come to realize the importance of connections with others. In vector four students learn to appreciate differences and develop the ability for lasting personal relationships, both friends and partners. Finally, in vector 5, students are more comfortable with themselves and develop a sense of self in regards to appearance, gender, and sexual identity, which is more secure due to their connections with

significant others (Evans et al., 2010). Chickering uses these vectors to “describe major highways for journeying toward individuation—the discovery and refinement of one’s unique way of being—and also toward communion with other individuals and groups, including the larger national and global society” (Chickering & Reisser, 1993, p. 35).

Little of the literature I examined addresses college student development for students with disabilities or EF challenges. The theoretical assumption guiding this study is that how college students with EF challenges develop in college may be different from the students in Chickering and Reisser’s work as they navigate relationships, interdependence, and both academic and social competence.

For students with executive functioning challenges, Chickering and Reisser’s (1993) vectors provide a valuable framework for studying the identity development of these. Identity markers, which should be noticeable in the students’ interactions with the social environment of the college campus. For instance, A student with executive functioning challenges may be challenged by typical social norms such as being on time to classes, events, and programs; following through on tasks and social commitments; group study environments; and general social norms.

According to Chickering and Reisser (1993), there are seven key influences in the collegiate environment that can add or subtract from a student’s development: 1. Institutional objectives, 2. Institutional size, 3. Student-faculty relationships, 4. Curriculum, 5. Teaching, 6. Community, and 7. Programs and services (Chickering & Reisser, 1993). Each of these influences can be noted as important pieces to the experience of students from diverse communities. Researchers have used Chickering and Reisser’s work to examine the development of various groups, including women, students from various racial and ethnic groups and sexual

identity; however, their work has not been examined in terms of students with learning disabilities.

Transition Theory. Whereas Chickering and Reisser (1993) offer insight into the development of traditional college students, Conley (2010) looks at the strategies and behaviors students use in their transition to college. To look at the transition from high school to college, Conley (2010) presents a four-dimension model for determining how prepared students are for college and careers. The four areas identified are key cognitive strategies, key content knowledge, academic behaviors, and contextual and awareness skills. Key cognitive strategies are intentional behaviors students need to think through and tackle learning. These are behaviors students will use repeatedly for a variety of learning situations to help them gain an understanding of topics. Specific key cognitive strategies include problem formulation, research, interpretation, communication, and precision and accuracy. These cognitive behaviors allow a student to develop strategies for complex problems, to identify appropriate resources to help solve problems, to analyze and interpret commonalities and differences among different perspectives, to communicate a conclusion, and to know what type of precision and accuracy is necessary for the subject matter at hand (Conley, 2010).

Key content knowledge, the second of the four areas, is the foundational understanding of basic academic knowledge and skills, including reading, writing, English, math, science, social sciences, world languages and the arts. These core academic subjects are needed for students to succeed in entry-level coursework in a college setting. Reading and writing are seen as overarching academic skills, while the others are core subjects where an understanding of basic concepts, principles, methods, and techniques are necessary (Conley, 2010).

The next area, academic behaviors, is a key piece that will affect students with executive functioning challenges. Self-awareness, self-monitoring, and self-control are behaviors needed for success in college. Unlike the key cognitive strategies, these behaviors are not connected to any content area. Study skills, time management, test taking strategies, finding and using resources, note taking, and group work are all examples of academic behaviors needed to succeed in college (Conley, 2010).

The last of Conley's (2010) areas is contextual skills and awareness, or college knowledge. This area includes information about how college operates as a system and a culture. Understanding college culture and operations is a transition concern for first-generation college students, as they do not have the guidance from home to navigate this piece of the transition. Norms, traditions, and values are some types of this information, but so are processes including financial aid, applications, admissions, clubs and organizations, housing, accessing resources, and other general needs and expectations (Conley, 2010). Considering Conley's (2010) four areas for transition to college for students with executive functioning challenges, there are many areas in which students with executive functioning challenges may need additional help in the transition, specifically, in developing academic behaviors, contextual skills, and awareness.

Individuals in transition may feel inadequate and incompetent because the outcomes and consequences of transition are unknown and unclear. The need to feel competent relates back to Chickering and Reisser's (1993) vector number one. The move from incompetence to competence can be difficult without needed supports in transition. Linking the theories of transition and development around the area of competence together, college transition may look different for a person who identifies as a person with a disability.

Disability Theory. Disability can be a difficult concept because it can be looked at through a medical lens, a biological lens, or understood as a social and political issue (Shakespeare & Watson, 2002). As a social and political issue, disabilities can be seen as limitations. Individuals with disabilities may face both physical limitations and social restrictions imposed by society. The World Health Organization (2011), points out that “disability should be viewed neither as purely medical nor as purely social: persons with disabilities can often experience problems arising from their health condition” (World Health Organization, 2011, p. 4). For college students with disabilities, they may lack an understanding of how their disabilities interact in an academic and social setting and may not be prepared for that experience.

The World Report on Disability (2011) argues that disability is a human rights issue because people with disabilities experience inequalities; are subject to violence, abuse, prejudice, or disrespect because of their disability, and/or are denied autonomy because of their disability.

Meade (2006) points out the gap in literature in student development theory for students with disabilities. In her review of literature by Serebrini, Gordan, and Mann (Meade, 2006), she shares their conclusions that in the absence of student development theory for students with disabilities other minority theories including lesbian, gay, bisexual, and transsexual (LGBT) identity development theories may provide some basic assumptions and guiding principles.

However, Meade (2006) goes on to look at the social construction of disabilities and how minority theories may not be applicable because they do not account for all disadvantages associated with impairments. Specifically, “focusing on the minority status accentuates the disability and further sets those with disabilities apart from other” (p. 146). Social construction is more about the perceptions and understanding of the world through the eyes of the majority non-disabled instead of the experiences and meaning making of those with disabilities (Meade,

2006). Not all disabilities are the same, and society reacts differently from one disability to another. Some disabilities are visible, whereas some disabilities remain invisible to others.

Zeroing in on learning disabilities, Dudley-Marling (2004) reminds us that educational institutions are socially constructed environments where learning disabilities and other special education labels need to be understood within the context of the environment. In this learning environment, according to Dudley-Marling, the institution may think it is better to think of a student as disabled than to think that the institution itself has somehow failed if a student has been unable to learn in that environment. In addition, the identity of a student with a learning disability may affect how the student is treated and how the student is taught, so this identity label in turn, helps construct how the teacher sees the student. This circular relationship may continue and affect the student's education experience.

Ferguson and Nusbaum (2012) discuss the definition of disability studies including the ambiguity in what and how disabilities are studied. Again, a connection is made to gender studies and race studies. Ferguson and Nusbaum share three core concepts of disability studies. The first concept suggests that disabilities are social in nature. Instead of simply focusing on a deficit of an individual, the social environment creates some of the conditions that are necessary for the disability to exist. The individual experience does exist; however, the social perspective is needed to interpret that experience (Ferguson & Nusbaum, 2012). The second concept is that the study of disabilities should be as foundational as the study of other socially constructed groups including race, gender, and class. By excluding disabilities in foundational theories, this population continues to be excluded and discriminated against. The third core concept states that because disabilities are labeled as both social and foundational, disability studies must be

interdisciplinary. It is important to cut across disciplines and branch out from just special education and social work in the area of disability studies (Ferguson & Nusbaum, 2012).

The study of disabilities must also be based on values - core concept 4. In a difficult place, those labeled as helpers in the fields of special education and social work may want to advocate for reform and change, but are seen as being a part of the oppression of people with disabilities. Lastly, core concept 5 states that people with disabilities need to be a part of the research process. There is some debate as to how this might happen and the importance of it, but overall, this underrepresented population needs to be a part of the exploration (Ferguson & Nusbaum, 2012).

Queer Theory. Another theory that proves helpful in the study of disabilities is queer theory. Helen Starkweather (2010) pulled from two theoretical frameworks to look at the social construction of disabilities - ableism and queer theory. She looks at queer theory as a way to break the binary of clear-cut groups for people. Women and men, male and female, masculine and feminine--all become fluid when separated from the social context in which they are seen and experienced. People choose to act how they want in social environments and determine what roles to play. Essentially, society has constructed expectations of gender and people with disabilities. Removing that social context removes those expectations. Starkweather defines queer as being able to “encompass any kind of identity, visible or otherwise, that can or has the potential to elude automatic social categorization based on appearance alone” (Starkweather, 2010, p. 40). So, in terms of disabilities, the strategy of separating impairment from the social context of their disability relates to queer theory. Other connections between disabilities and queer theory include “isolation, stereotyping and discrimination, and the experience of passing and coming out of the closet” (Starkweather, 2010, p. 41). The isolation can be felt because often

people with disabilities are the only people in their family with a disability and that can feel lonely. Additionally, there is a lack of role models in this population, and there is a perception of pity surrounding people with disabilities. For people with executive functioning challenges, this isolation can be felt similarly since they may feel frustration and blame about their challenges.

Another connection to queer theory is the notion of *passing behaviors* to avoid pity and some discrimination. Behaving similarly to those in the dominant culture in the given environment is a way of passing as a member of the dominant culture. In order to “come out” as having a disability, one would need to ask for a needed accommodation or otherwise identify the disability (Starkweather, 2010). Students who are starting college with executive functioning challenges may have the desire to start over again – without the monitoring possibly involved in high school from the Individualized Educational Plan and home life.

Agency. Taking each of these theoretical viewpoints into consideration, how students function within a college environment includes the roles in which they play within that environment and society. These roles affect their development and identity. (Bandura, 2001). Both disability theory and queer theory as discussed earlier play into the students’ sense of agency in this study. Agency is not only exposure to the environment and stimuli, but also the individual’s role in influencing, exploring, and manipulating the environment. By being a part of the process, individuals also produce their own experiences within the construct of the environment which they have selected and constructed (Bandura, 2001). As mentioned, both disability theory and queer theory include not only the environment around an individual, but also the role the individual plays in that environment and how they manipulate and construct the environment based on their own sense of agency. The self-directedness needed to receive

accommodations in the college environment is an example of the role of a student with learning differences or EF.

Summary

The definition of executive functioning challenges continues to evolve as the medical, psychological, and educational communities learn more about cognitive processing and behaviors of people with learning disabilities and ADHD. In higher education, students are required to self-disclose their disability and can only be given accommodations if they have paid for and received appropriate evaluations and documentation. Responsibility for making these arrangements belongs to the student. Professors, parents, and administrators are not involved in the process. Help such as tutoring and other study services are not part of a disability office on a college campus. They must be sought out and used by the student without guidance. The lack of a support system and the responsibility for accommodations may affect the ability of a student with an executive function disorder to transition easily into the collegiate environment.

Orientation and first year seminar classes play an important role in students' transitions to college. For students with EF challenges, the information covered in a traditional orientation session may not include any information about resources for students with disabilities. With general goals of first year seminars to ease transition and adjustment of students to the college environment, develop students' academic skills, and provide an orientation to campus resources and facilities, how do institutions assist students with learning disabilities to work through some of the changes from high school to college?

Chapter 3: Methodology

Drawing on disability theory within the context of college, students' relationships, and their executive functioning, this research shares the stories of the transition into the first year of college. Paul, Graffam and Fowler (2005) discuss what knowledge is and how it is formed through the constructivist lens and that "other knowledge – feminist, racial, ethnic, cultural, queer, disabled, colonial, marginalized, borderland – grant us insight into the way those different from us construct their own 'textured' realities" (Paul et al. 2005, p. 62). This cross case analysis was used to gain insight to better understand the reality of students with executive functioning challenges as they transitioned into college.

Through case study methodology, this study uses a social constructivist view, specifically within the framework of disability theory, to learn about students' experiences from their perspective and the meaning they gain from these experiences. Merriam (1988) sees case studies as a description and analysis of a social unit. Miles and Huberman (1994) see case studies as "a phenomenon of some sort occurring in a bounded context" (p. 25). The social construction of disabilities, described in disability theory, informed this study. Eisenhardt (1989) says that case studies are well suited to new research areas or research areas for which existing theory seems inadequate, which is where EF challenges fall in this research.

This research in EF challenges during the college transition is a topic that rests on the edge of other theories and research in the area of learning disabilities and general college transition. This research also provides important insight on a previously hidden problem. The goal of using case study methodology on this study is to reveal issues and experiences that have not been exposed before and may have implications on the experience of students with EF challenges and assistance offered to these students by institutions of higher education.

The purpose of this study is to examine the identity development of students with EF challenges and the academic and social experiences of the students. The following research questions guide this study:

1. How does an executive functioning challenge influence students' identity development?
2. How are students' perspectives of college shaped by their EF challenge?

The goal of these case studies is to contribute to a better understanding of the college experience for students with executive functioning challenges. Using individual interviews and archival data across several cases, I look at the students with EF challenges and the experiences of these students in their first year of college. It is important to explore the academic experience of these students because they came to college for an education; however, students spend more time on a college campus outside of class than in one, so their outside experiences also shape their transition. Connections to organizations on campus, living situations, and relationships may affect these students as much or with greater impact than classroom experiences. This research should help identify areas in which these students are faltering in order to create and implement resources that will help them be more successful.

Cross Case Analysis

To explore the stories of students with executive functioning challenges, this research turns to qualitative case study methodology (Stake, 2006). Working with a small group of students, I was interested in both their uniqueness and their commonalities as college students with executive function challenges. Individual cases were studied to learn about each unique student, issues, transition, and identity. Then, cross-case analysis was used to explore similarities and differences across the cases with a view to identify the themes that were present in each. The

central commonality of executive functioning challenges in the transition to college is organized and studied, but attention is paid to each individual student (Stake, 2006). Stake describes the tension between each individual case and the overall picture of the cases together as the “case-quintain dilemma” (p.1). It is especially important to concentrate on each individual case as if it is the only one; however, understanding that, taken together, the cases may infer some commonalities.

Interviewing as a method of inquiry in this case are a way to receive knowledge from the student and share it in printed form. Once printed, the knowledge is not only up for interpretation by the researcher, but also the reader (Barbour & Schostak, 2005). This is a complex process because the stories told in interviews by students are already a reconstruction of an experience being remembered during an interview, which may be told in different ways and can be received in different ways. In these case studies, the events and experiences of college students with EF challenges were heard and analyzed to learn how they interpreted these events and planned for the future.

Setting

The setting for this research is a mid-sized, public university in the southeast. For the institution, I will use the pseudonym Chandler State University. Each of the students involved in the interview process were members of a campus program that will be called College Functioning for the purpose of this paper.

College Functioning Program. At Chandler State, the College Functioning Program was a student support program for students who have executive functioning challenges and offered tutoring, peer mentoring, study space, and individualized services. The College Functioning

Program was funded through grant funding as well as fundraising efforts. This program was separate from the Learning Assistance Program at the institution.

In order to qualify for the College Functioning Program, students interviewed for approximately 30-45 minutes with 2 staff members. They also took the BRIEF-A (Behavior Rating Inventory of Executive Function - Adult Version), the LASSI (Learning and Study Strategies Inventory), and a small survey to collect other information that these tools may have missed. The College Functioning Program placed students in a rubric that assessed incoming freshman and transfer students at a graduation risk-level of low, moderate, or high based on these scores. Students who were identified as high risk were accepted into the program. Students in the College Functioning Program were all enrolled in a seminar course to assist them with their academic skills and current course loads. Students enrolled in this course were offered the opportunity to sign up for this study. All volunteers were participants in this study.

Participants

For this study, five college students who were identified as having executive functioning challenges were interviewed throughout their first 6 months of a four-year university. Beyond identification of executive functioning challenges, selection criteria was based on their willingness to meet during the interview times, and their status as a student enrolled full time.

Table 1 is an overview of the students, including the pseudonyms assigned to them.

Table 1

Overview of Participants

Pseudonym	Student Type	Gender	Ethnicity	Year	Major	Predicted GPA	Fall 2016 GPA
Chelsea	Transfer from 4 year college	Female	Caucasian	Sophomore	Biology	1.73	1.77
Allison	Transfer from Community College	Female	Hispanic	Sophomore	Graphic Arts	2.64	3.29
Kris	Transfer from Community College	Male	Caucasian	Sophomore	Communications, Advertising	3.42	2.48
Holli	Transfer from Community College	Female	Caucasian	Sophomore	Psychology	2.73	2.75
Aaron	Incoming Freshman	Male	Caucasian	Freshman	Communications, Electronic Media Broadcasting	2.76	3.25

I visited classes through the College Functioning Program (pseudonym) to reach out to students who have been identified as having EF challenges. The College Functioning Program is a student support program for students who have executive functioning challenges and offers tutoring, peer mentoring, study space, and individualized services. Participants self-selected into the study. Although initially expecting to work with mostly new freshmen students, those selecting into the study were mostly new transfer students. The following is a brief description of each student.

Aaron. Aaron was a new, traditional, freshman student, who self-identified as a white, male, student with Asperger's Syndrome. Asperger's Syndrome is a developmental disorder that

affects a person's ability to socialize and communicate effectively with others. Characteristics can include social and communication impairments, as well as repeated and restrictive types of behavior (Retherford & Schreiber, 2015).

Aaron was a big football fan and closely followed the Green Bay Packers. In each meeting, he was wearing Green Bay Packer clothing items. He ate Chick-fil-A in each meeting, as he was usually just getting out of, or about to head off to class. Aaron looked like a traditional college student and was slightly disheveled from wearing a winter style hat. He carried a backpack full of books and was very forthcoming with his story.

At a young age, Aaron was told that he would not go to college because he would never write or sit in a traditional classroom. He was always frustrated by this and did not believe it to be true. Aaron felt he has always had an uphill climb to come to college, and he wanted to prove everyone wrong who had told him he could not do it. While he was in college, he wanted to continue to push further and continue to prove himself.

Aaron came to this institution because he was interested in the Broadcasting program offered and his sister was a student here. Aaron's predicted grade point average prior to his first term at Chandler State University was 2.76 based on high school GPA and college entrance exams.

In his first couple of weeks of college, Aaron was working to manage the academic rigor of college. It was more work than he was used to, but he was trying to manage. He tried to break up the work so it was less overwhelming and take breaks when he could. Overall, he was enjoying the experience of being in college classes.

Allison. Allison was a transfer student who came to a four-year college after a semester at a community college in the region. Allison identified as a Latino and Black woman who

dresses more Bohemian in fashion with a pierced nose. She was very forthcoming and gave clear examples of her experiences at Chandler State University.

Allison came to Chandler State University because she had to stay in the state of North Carolina in order to be able to afford tuition. When she visited Chandler State University, she immediately felt comfortable on campus and was majoring in sociology and fine arts. Allison's predicted grade point average prior to her first term at Chandler State University was 2.64 based on high school GPA and college entrance exams. She transferred into Chandler State University on probation, with a GPA of 1.76.

Chelsea. Chelsea was a transfer student who landed at a four-year university after leaving a small, private four-year college for a community college and taking some time off in between institutions. She identified as a white female who was 23 years old from a small town. She also worked full time off campus.

Chelsea came to Chandler State University because she was interested in a molecular biology major that was not offered at other institutions closer to her home. It was an easy transfer as she had already completed her general education requirements because of the relationship her community college has with this institution. She transferred to Chandler State University with a GPA of 1.73. Because all she had left were difficult science courses, she was taking 13 credit hours after dropping a class in the first week of classes due to a pre-requisite that she had not completed.

Kris. Kris was a white, male transfer student who came to a four-year university after leaving a regional community college. Kris lived on campus as a member of a transfer residential learning community.

Kris came to Chandler State University to study marketing and advertising. Coming in from a community college, Kris jumped right into his academic classes revolving around his major when he arrived. He put a lot of research into deciding where he wanted to go to college and what he wanted to study for a major. Kris was excited about pursuing a career in television advertising. He transferred to Chandler State University with a GPA of 1.86 and completed his first semester here with a 2.48 GPA.

Holli. Holli identified as a white female, who was also a transfer student coming to a four-year institution from a regional community college. She came in with a GPA of 1.86 and a predicted GPA of 2.73. Holli was from a nearby city in the area and her family was connected at the institution, so she had always planned to graduate from Chandler State University.

Education was important in Holli's family, with her mom being an educator and a doctoral student in education. Holli had never struggled with homework or getting her work done, however, the stress of academic work had caused her to have anxiety and panic attacks over the years. Starting her college experience at a community college was a way for Holli to transition more slowly into the academic rigor of a four-year college.

Data Collection Method

In this study, the use of interviews focuses on the stories of students with EF challenges in their first year of college. Through interviews, I took notice of the whole experience of the student – as an individual having an experience, but also in context of the collegiate experience and in relationships with faculty and peers. Interviews took place during the student's initial transition to the college within the first three weeks of classes, during the end of the first semester, and again in the first three weeks of the second semester of classes. Looking at the internal individual process, the relationships, and the environment, I interpreted the experiences

of these students into the context of identity development, specifically college student development within a group of students with executive functioning challenges.

Archival Data. Archival data, including predicted grade point average and fall semester grade point average was used to shape information relevant to the research on the individual students. Since some of the research and questions included academic success, this already collected data leads to additional questions and information about the students. Students' predicted grade point average (PGPA) and grade point average (GPA) from after the fall semester of classes were reviewed to see if the students are performing as predicted by college entrance exams and high school GPA, which make up the students' PGPA's. Specifically, to figure the PGPA, Chandler State University used a proprietary formula that is a percent of students' SAT or ACT scores and their high school GPA, with an adjustment using a negative constant.

Interviews. The multiple interviews sought to elicit the experiences of students with executive functioning challenges transitioning into a four-year university. The participants' summaries presented provide their unique experiences as they transitioned to a four-year college, as well as general demographics and academic histories of the research participants. In this section, I used pseudonyms to de-identify the research participants while still maintaining personal characteristics that capture their transitional experiences into a four-year university.

Students were interviewed three times. The first interview took place in the first three weeks of the academic semester, the second in the last three weeks of the semester prior to final exams. The last set of interviews took place in the first three weeks of the spring semester after students return from the semester break and have received their grades. Because of the different experiences of the sample population, semi-structured interview questions were used to guide the

conversations but allowed flexibility in questions to gain insight into the student experience (Glesne, 2011). Topics for questioning included past high school experience, college choice, orientation, and a series of firsts throughout the first semester, including move-in, social opportunities, residence hall living, classroom experiences, accommodations, and day-to-day life. Initial data analysis led to additional questions and data collection as the study progressed.

I interviewed the students in an available office space on campus that was familiar to the students. Each interview lasted about one hour. Before the interview I received verbal agreement to the interview and the recording of it. Notes were taken during the interviews and a transcript of the interview was produced. Participants were informed about their rights as a participant in the research, including the opportunity to discontinue or take a break at any time. The participants and I discussed confidentiality and the use of a pseudonym.

Three interview protocols were initially developed for this study. The protocol that went with the first interview with teachers consisted of eleven questions asking the participant about their first few weeks of the semester. The questions asked about how they felt in both academic and social settings, as well as their descriptions of their interactions. The second protocol was created to take place near the end of this first semester. The list of questions was longer, with fourteen, and included similar experience and descriptions from the first protocol, but also asked about easy and hard parts of the semester as well as resources used throughout that semester. To begin the second and third interviews, I first reviewed my notes with the participants from their prior interview to assist with validity.

The third interviews were conducted after the participants had received their grades from the first semester and had been away from campus for winter break. These interviews were shorter, with only seven questions. In this round of interviews, participants were asked to look

back on the former semester in regards to their academic and social aspects of life, as well as changes and plans for the upcoming academic semester.

Data Analysis

Each case was analyzed to highlight transitional experiences specific to each of the five participants transitioning into a four-year university. I then conducted a cross-case thematic analysis to show the common emerging themes relevant to the two research questions that guide this study (Glaser & Strauss, 1967). Cross-case analysis looked at significant data across the cases. Using Glaser and Strauss' (1967) constant comparative model, comparisons among incidents in the data can lead to the tentative categories or themes that will result in the building of a framework. As Glaser and Strauss (1967) describe it, this process involves identifying an issue of interest with specific features, initial collection of data, additional data collection as needed from groups or subgroups, describing the rationale for selecting groups, and fostering the development of emergent categories from the data collection.

I created documents from the notes from each interview and transcripts from the interviews. These were done as soon after the event as was possible. During this stage in the analysis, the documents were read through, notes were made in the margin, and initial themes were identified. Themes were compared within and then across cases for similarities and differences. The narrative structure used to convey the data is based on the analytic strategy of developing a descriptive framework for the case (Yin, 1989).

I transcribed the data and analyzed for a general sense of the information and experiences provided. Then I coded the data into themes categorizing similarities and differences among the participants. Because of the three different interview times with each participant throughout the two semesters, time is also taken into account.

Merriam (1998) writes of two stages of analysis: within-case analysis and cross-case analysis. First, each case, or in this research, each student, was first treated as an individual case to learn about context and variables affecting the student. Since this study collected data at different times throughout the fall semester of college, data collection and analysis were simultaneous. Analysis from the first interviews leads to additional questions and data collection from subsequent conversations with students. Each individual student case was analyzed, interpreted and summarized as an individual case before looking at the cases as a whole project. The research questions are addressed for each individual case. Then, the multi-case or cross-case study built some general explanations of the experiences of the students involved in this research (Merriam, 1998). This interpretation is more compelling if multiple students have similar experiences that are shared.

I searched the data for patterns and relationships that led to the development of themes by reviewing my interview notes, transcribing the interviews, writing a synopsis of each, and then interpreting the larger meaning of the data by sorting through each narrative. According to Creswell (2009), data analysis involves “making sense out of text and data... moving deeper and deeper into understanding the data, representing the data, and making an interpretation of the larger meaning of the data” (p. 183). In that regard, I began by presenting and interpreting the participants' transitional experiences to a four-year college.

My Role as the Researcher

As a college educator, the success of students is important to me. I have been in the field of student affairs since becoming a Resident Assistant in college. For the past 17 years, I have worked with students through programming, supervision, leadership development, and crisis intervention. I have helped students to continue on their college education and worked with those

making the decision that college is not for them at this time. As a parent, I have often wondered what will happen as my child grows up and what his educational successes and challenges might be.

Students with EF challenges have been overlooked in the literature and on many college campuses. I believe their success will be aided by additional research. Because my academic background includes counseling and my role at the institution is in student services, I am situated to connect and listen to students, and I can assist students in finding appropriate resources should a crisis emerge. My role has always been one of guidance and support. As a researcher, my role continues to expand. I don't see myself as a researcher sitting apart from students and simply recording their answers to questions. I want to get to know them, listen to their experiences, and make a connection with them that may aid them in their connection to the University.

Celinska (2004) points out that students with learning disabilities may lack some of the abilities to tell complete and focused stories. The listener may need to infer and complete some of the stories based on the overall interview and information shared. Clarifying questions throughout and ongoing conversations with students will fill in the gaps to give voice to students who may have otherwise been invisible on campus. Bourdieu (as stated in Barbour & Schostak, 2005), states that the ongoing reflexivity throughout the interview process may help reduce outside influences in the research.

As the researcher in this study, it is important to serve both as an interpreter and as constructivist. The goal was to interpret the issue and find new connections among the students involved in the case study. I looked to generate meaning within the context of the college setting, interpret the data, and validate the accuracy with the participants. In this goal, constructing a view of these students to build an understanding of their development was imperative.

Ensuring Trustworthiness

Some argue that because a case study methodology focuses on such a narrow topic or small population that its results cannot be transferred to fit an entire population. This study will not attempt to generalize; rather, the case study methodology is being used to explore this topic and to look at identity development for a small population of college students.

These multiple case studies are not intended to make a broad generalization about the truth of all students with EF challenges and their transition to college. Each student has a different reality and is sharing individual perspectives rather than truth. This leads to the internal validity for this research study (Merriam, 1988).

There are six basic strategies that ensure internal validity: triangulation, member checks, long-term observation at the research site or repeated observations of the same phenomenon, participatory modes of research, and consideration of researcher bias (Merriam, 1988). In this study, I use multiple methods to collect data, including interviews and archival data. More specifically, data source triangulation was used. This involved looking at the data from a case and seeing if there was some consistency across different data sources, time, and in different situations. Prior to the start of each interview for the second and third interview rounds, notes were shared with participants from their prior interview for member checks. Member checks were not completed for the third round of interviews. For external validity, the use of multiple cases instead of just one participant was used in order to better help the reader identify possible commonalities.

Since reliability is not accurately described in qualitative research in terms of repeating results, these multiple case studies will concentrate more on consistency. In the descriptions of the cases, it is important to consistently describe the individual students and the social context for

each (Merriam, 1988). Cross-case analysis may also lead to the external validity of the study because of the triangulation of the data by looking at the different participants to find any consistency.

Deriving Implications for Practice

Through these case studies, I explored themes of how these students are developing their identity from the experience of college. After summarizing the experiences of students, I looked to see if there were connections among these students that may lead toward further study in college student development theory and identity development in college. By examining the experiences of students with EF challenges in college, I hoped that other researchers would be interested in pursuing this vein of research on a larger scale to help define some theories of development for these students.

Chapter 4: Findings

This study sought to explore college with students who have executive functioning challenges through the lens of college student development identity theories. My hope was to add this population of students in college student development identity discourse. The following overarching research questions guided this study:

1. How does an executive functioning challenge influence students' identity development?
2. How are students' perspectives of college shaped by their EF challenge?

In this chapter, I describe themes relevant to the above research questions as reflected in the data obtained from the archival data, interview notes, and transcriptions. Each participant was first analyzed as a single case. Common themes were identified across the cases with regard to addressing the research questions. To identify themes, I searched for patterns in the data through analysis of the transcribed interviews and interview notes. As students commented on similar experiences, I included them as a theme. I then worked to present and interpret the participants' experiences to bring forth commonalities within and among the participants.

Identity Development

The first research question, how executive functioning challenges influence identity development, explored identity development of these students with EF challenges. This question arose based on the need for learning differences, specifically EF challenges, to be included in the literature for college student development. I began by reading interview data related to the academic and social experiences of the students through the framework of Chickering and Reisser's (1993) college student development theory. In analyzing the data, some common patterns regarding the students' identity development began to emerge. These themes emerged as unique experiences about which they spoke when answering questions about their academic and

social lives throughout their semester. The primary themes that emerged were social interactions, relationships, use of campus resources, and time management. As discussed in Chapter 2, Chickering and Reisser's (1993) college student development theory uses vectors to describe the identity development of college students throughout their college experience. Vectors 6 and 7 are not discussed for these students, as they are not salient.

Social Interactions. The participants in the study spoke about their social interactions, how they felt about their social lives and general social experiences. In their responses, some shared that they began college at a place of discomfort as they navigated the new social settings, while others were more confident in the process or did not engage in the social environment of college. Aaron, Allison and Chelsea spoke of initial social interactions, while Kris and Holli did not, therefore they are not included in this theme.

Socially, Aaron worked at trying to get involved. He lived off campus with his sister and was trying to get involved with basketball or football games on campus when he first arrived. He spent time at the recreation center trying to find other students with whom to play pickup basketball games: "There's a few people that I know from high school that I have classes with here, but other than that I'm basically having to start all over again."

Aaron was trying to meet new people by playing intramurals, but he did not initially feel like he belonged. He began to question himself about why he was not making new friends. He recognized that he was not speaking up and approaching new people to try to start conversations and get to know them:

I would reach out and talk to and maybe have a shorter conversation than I'd wanted to.

And I think for a lot of that I was very hard on myself. And I would get one or two

things that were socially off kilter. That completely ruined that I could have made a friend and I just blew it. A lot of it was I was beating myself up thinking I could be hanging out with someone right now but I blew it. But I didn't take the time to go and ask them what they were doing or where they were going and I could be hanging out with someone at the Rec Center right now.

At the start of the semester, Aaron showed that he was struggling in interpersonal competence, vector 1. He resisted joining in conversations and making conversation with new people. He was unsure how and where to meet new friends since he was living off campus and in a new environment.

Describing herself as an introvert in high school, Allison did not initially get involved in anything on campus. When she attended the Club Expo on campus, which highlighted each of the clubs and organizations on campus for students to join, she signed up on some email lists but did not plan to get involved. She did go to a Hispanic Student Association (HSA) meeting but did not really connect as they expected all members to speak Spanish:

I was interested in the Hispanic Student Association to meet other Hispanic students. But they all speak Spanish and it's not the best thing when you look the part but can't play the part because I don't speak Spanish so I am lacking. In the back of their head they're thinking I should know this stuff because I am Hispanic. That was scary for me and I just felt very uncomfortable.

Socially, Allison's roommate pointed out how outgoing she was. Allison was surprised by this as she has always described herself as an introvert. She felt being connected to other students and some organizations made her more outgoing and more confident in her daily life. She didn't have the money available to socialize a lot off campus, so she got to know students in

her classes and spent time with them listening to music and attending things on campus that were free. As Allison recounted the semester once it had ended, she felt the last few weeks were the best. She felt confident and connected to a number of other students on campus:

In middle school I would not even look at you because I couldn't make eye contact because people were intimidating. Just being in a room with someone else was scary to me. But now it's just like, hey, how are you? It's a lot easier now. Yeah, I think I've become a lot more social and I'm confident lately. I don't even know when that happened. I'll comment dumb things in class just to loosen the tension and make jokes. I still need to work a lot on my own self-esteem, but I like to make people laugh.

Allison started the semester in a more developed place than Aaron did in terms of her interpersonal competence. She was comfortable reaching out to groups and other students to look for ways to engage in the campus environment. She acknowledged that throughout the semester, these first interactions did not result in long-term relationships, but she felt confident in her abilities to join and interact with other students.

Since she came from another area in the state, Chelsea came to her current institution only knowing one other person. She went to the gym with him about 4 times per week. He taught her the bus routes and helped her to find her apartment and roommate. She had a roommate and lived in an apartment off campus. Chelsea and her roommate were not social together since she spent so much time out of the apartment at work off campus:

Making friends is on a different timeline than high school since I grew up with the kids I went to high school with from elementary school and middle school and was always stuck with the same people and accepted them as they are. You've had plenty of years to develop that relationship. It's hard to make friends as a transfer student. I'm not with a

lot of other people in my living quarters living off campus.

Chelsea said she had years to develop those relationships, where here in college she was living off campus, concentrating on her academics and working. She had not devoted any time to making new friends. She admitted the hardest part of coming to this institution was moving away from her friends and family.

As Chelsea continued to work full time off campus, she found that a number of her co-workers were also students. Although she did not consider them friends or part of a social circle, she was able to gain academic advice from them in terms of classes and professors to take, as well as test and exam copies to help her study. She found group projects to be very stressful as often the group would wait until the last minute to work on the project and she never knew if everyone was going to follow through on their parts.

Viewing Chelsea through the lens of college student development theories, she was difficult to place in terms of her competence in social settings, as she had no interest in creating social interactions. Chelsea was comfortable in her work environment, possibly because this was where she spent most of her time. In that environment, she was able to begin conversations with colleagues about her academic work and get advice and feedback from them. Her stress level in group projects, however, led to the conclusion that she was not comfortable in social interactions in her classes and was unable to build relationships that led to trust in her group members.

Relationships. The participants were asked throughout the semester about their social interactions, how they felt about their social life and general social experiences, and how their relationships were developed or changed over time. Relationships were coded separately from general social interactions and relationships were defined as a more long term or ongoing time spent with others. Connections to campus and developing relationships were noted as an

important part of the transition for both new freshmen and transfer students, and each of the students discussed various levels of success with this.

Aaron was surprised at the level of homesickness he experienced in his first few weeks of college:

I didn't expect that I was going to be (homesick). I didn't think I was going to feel like I didn't belong and I began to feel like I was invisible. I know that I'm not because I'm getting out there and doing stuff, but I didn't know that it was going to overload me socially that much. I thought, wow, this is not as easy as I thought it was going to be.

Aaron worked throughout the start of the semester to put all of this in perspective. He tried not to be so hard on himself and kept a good balance of work while still having fun. Connecting with friends from high school on the weekends also helped Aaron with his transition. He felt that it was a boost that he was close enough to home to be able to jump in the car and be back with the friends with whom he has spent the last 4 years in high school. Working on academic work throughout the week was driven by the desire to go home on the weekends:

I know I have guys back home, but they're on a different path. We are trying to get home when we can and meet up. I think having that as a back up is a tremendous boost. For one I am not staying up here on the weekends. I can drive an hour and fifteen minutes back home and be with the guys I spent the last four years with. I think that's big. But in order to do it I have to maintain a work ethic so that I won't be swamped over the weekend so I will have time to drive home.

As the semester progressed, Aaron connected with the basketball team managers and made friends in a number of his classes. In our second meeting, he described himself as

immersed in the campus life. He felt like he knew someone most places he went and even if he did not, he still felt a part of the campus community:

I made friends and connections with four or five of the managers on the basketball team. I spent time at the Rec Center looking for pickup games and met people. I talked with people in classes and began to make friends. By October I would say I was finally immersed in campus life. I feel like I'm part of the community so much more than I was when I first arrived on campus. I think that's a big part of it is that I feel like I'm a part of this place even though I am just a student. I started to stay up here a lot more on the weekends and trying to get myself immersed in the community and I would stay to be here for home football games.

In looking back through his semester, Aaron felt like these campus connections and feelings that he was a member of the community solidified in early October. This was when he felt he was no longer homesick and purposefully got involved in activities on campus over the weekends instead of heading home. He expected to make friends very quickly and was surprised that it took until October to really make friends.

Looking to his future, Aaron wanted to continue to keep connected to other students through the recreation center because it was where he felt most at home on campus. He continued to work with the program that provided him an academic mentor because he liked that there was always someone for him to talk to and help him with his classes. He also felt that the mentor acted as a buffer and told him to get to his homework when he started slowing down too much. They helped him keep a more realistic perspective to what he needed to do and how long it would take.

Aaron articulated that his shift from feeling lonely to having a group of friends on campus happened at a specific time in the semester. Being able to continue relationships with his high school friends from home, while building and maintaining new relationships on campus was an example that Aaron was making commitments that will endure through changes and distance, which were indicators of development through vector 4.

Allison had a number of intersecting identities that seemed to be playing out throughout her experience on campus. She identified as having EF challenges; she was transitioning to a four year college; she identified as female; and she identified as bi-racial. Allison was exploring these different identities throughout her semester. She first tried the Hispanic Student Association, but that was not a good fit for her because she did not speak Spanish. After racial incidents on campus, Allison went to a Black Student Association (BSA) meeting. In that meeting, she felt there was a needed topic being covered and a plan to protest at the upcoming football game. She felt connected to the cause as well as the students and did not feel pressure to be someone other than herself. She felt the group was much more casual and accepting of everyone. She decided not to officially join, but to participate when there were conversations in which she is interested:

I went to the Black Student Association because I felt it was a good topic they were talking about. They were talking about things happening on campus that were targeting minorities and stuff. So I went there. It was very casual, so even though I wouldn't sign up to be a member of the organization, I did participate in the protest at the football game by sitting through the national anthem behind the field goal with my sign.

Outside of classes, Allison felt she had many opportunities in which to engage, but had not created close connections with other students. The campus was much larger than her

previous environments and the people with whom she talked and interacted felt short-term.

Allison was concerned these relationships would be short term because she worked with them on a project or sat with them in class at the time, but that would change next semester since they would have different classes and would not interact in that classroom environment. As Allison described how relationships changed with the new semester, her experience sounded isolating and made it difficult for her to engage in longer term relationships with the constant change every few months:

When it comes to college, there are people that I talk to now in my classes. Then next semester they are going to be completely different. I'll probably just see them every once and a while walking around campus. But that's it. Yeah, it's surprising coming to college because it's a whole new environment from what I'm used to.

Allison missed home and began by going home every other weekend, but that was too expensive. As the semester progressed and she stopped going home due to finances, she really felt on her own and that she was an adult. This was a scary and sad realization for her that her family was no longer the same unified group because she was not there. Additionally, Allison tied this back to her academics because her mom used to push her to complete her homework and in college, she was responsible for herself.

As the semester continued, Allison met some students in a group project with whom she felt connected and they ate together after class and hung out even after the project had ended. They even did a Secret Santa gift exchange before final exams. In the last set of interviews, Allison was still unsure if these class relationships would continue or dissolve since they were no longer in class together. Allison was still working through how to maintain relationships over

time and with changes of proximity and schedules. Although she had developed strong social skills, she had not yet been able to develop relationships that she could depend on.

In our last meeting, Chelsea spoke again of not being connected with anyone socially on campus:

Oh I really don't have any social stuff at school. I guess the only socialization I get is when I go to the gym like three to four times a week for a couple of hours. I usually work 60 hours a week depending on if I work on the weekend. I really just want to finish my degree so I can move back home and start my life.

Her priority was to simply complete her degree. She had no interest in getting to know other students or being involved on campus. She wanted to get her degree finished and move on from college life. Similar to her interpersonal competence, Chelsea identified all of her relationships as back at her home. These continued to be strong relationships that have stood the test of time and distance, but left her lacking a support system and ability to create new relationships in her college environment. Her focused time spent on her academics and her job limited her time available to get to know others well enough make any lasting commitments.

Kris is an outlier in this theme as he did not identify relationship building as being a challenge for him, but he did see his social life as being a huge distraction to his academic work. He really enjoyed living on campus and creating a community. There were always people around with whom to hang out, even if you were not going out to do something specific. Kris enjoyed being social, but had not really joined any clubs or organizations:

I feel like I've done a pretty good job with the friendships that I've made. I live on campus and spend a lot of time hanging out with friends there. We eat meals together and socialize together. In order to get any work done, I have to go somewhere else

because my dorm is where I socialize so I never get anything done there. I went to a couple of club things at the start of the semester, but I'm mostly in my dorm doing things with people I love.

Later in the semester, Kris reflected more on his role in his community:

I'm pretty easy to get along with. It's interesting and it's easy to have people around you all of the time. And I'm the kind of person when I'm with people I want to be my true self personality-wise. I feel with everyone living together you just want to get along just the same as I did with my family when it was just me and my sister and parents.

With Kris' close proximity to his floormates in the hall, he was able to move past first impressions and have more appreciation of individual differences and similarities while being his true self. This was a good representation of his ability to develop relationships.

Coming from an urban campus, Holli connected with some of the students who started the same time as she did. However, after the first month passed, those relationships waned. Holli admitted that she did not put energy into the relationships because she would only be in college for two years:

I know you're going to go through cycles of friends and you go to a new place, you meet some people, you hang out for a month and then you find that it fizzles out. I guess I just have the mindset of like two years and it's not quite as important to me. I was coming from Charlotte so I was living in the city and most of my friends were older than me.

Now I moved to a smaller town and most people around me are younger than me, so I am a little low on the social side of things.

As the semester progressed, Holli worked harder to connect to others on campus:

Trying to immerse myself that first semester was pretty difficult. The easiest part of the

semester was just being able to enjoy it. I was really excited to be on campus and the culture and the community. I think I was just ready for that. It's a lot of fun and I just try to be on campus as much as possible. So yeah, I have made some friends that way I guess. I would say it needs some work, but I got my foot in the door. I'm kind of shy, so unless it's something that I'm really passionate about or know a lot about, it's hard for me to connect sometimes. So I'm still working on that.

Holli was in the midst of developing mature relationships. At the start of the semester, she shared that relationships were not important to her. As the semester progressed, she was more involved in campus life and made some friends. She had not moved all the way to long term, healthy relationships as she shared that she still felt disconnected, but she recognized that she had started that process and was working on maintaining longer-term relationships in college.

In vector four (Chickering & Reisser, 1993) students learn to appreciate differences and develop the ability for lasting personal relationships, both friends and partners. Each of the students interviewed reflected different levels of relationships as they transitioned to the institution. Most of them expressed that making connections and finding friends was difficult initially and took more time than they had anticipated. Some were still not at a place to say they had made meaningful connections and relationships after their first semester.

Campus Resources. In the second round of interviews, participants discussed what campus resources they were using. The inclusion of this topic sought to assess participants' agency in managing their own transition. Their answers to this question all pointed to the College Functioning Program as being an important resource in their transition. The participants also shared a number of other resources they had accessed.

Chickering and Reisser's (1993) third vector is much like a pendulum swinging from dependence to independence to interdependence. This vector is important for students to begin moving toward their own identity development as they navigate themselves in connection to others. Chickering and Reisser maintain that students may initially develop a strong sense of self-direction and independent problem solving and then come to realize the importance of connections with others. In this study, the early identification of a program to assist students with EF challenges helped these students to be proactive in their use of resources on campus. Some of the resources the students identified using included Counseling and Psychological Services, the Tutoring Center, the Office of Disability Services, the Library, the Office of Student Engagement and Leadership, the College Functioning Program, and other faculty and staff members.

When Aaron had reached out to students, staff, and faculty on campus, he said he felt supported. He was asked by others to join them in the dining hall; he was able to text classmates with questions as needed; and he met with faculty for class projects as needed. Once he heard of it, joining the College Functioning Program was important to Aaron:

As soon as I heard about it and what it did, I knew it was college and I knew it was going to be hard. And I remembered how much of a boost it was to have a tutor, mentor type person in high school. I've always liked having that sort of a buffer between me and the professor. I have to have someone to keep me on track because I am so naïve and so needy that I can lose focus. A lot of times I need somebody to say hey get on it. A lot of times I need help with stuff. Not just to stay on track but to finish the work, even if I am focused.

Throughout the first semester, Aaron showed growth from looking at the College Functioning Program as a requirement to a resource that he used only as he needed. Aaron felt he had learned to do his work and managed his time more independently:

Keeping everything structured in that I have a buffer so if I'm off track somebody will tell me hey get on it. And that's the best thing for me is not only do they keep me on track, but they're there to make sure I don't have too lofty of expectations. They keep things in a realistic perspective of what they know I can do and when they know I need help. I know there's somebody in here anytime I need someone to talk to who can help me out when I need it.

Joining the College Functioning Program on campus helped Allison focus on her academics. Being required to sit at scheduled study tables benefited her time management because there was someone to help her keep track of the hours she should be studying instead of being distracted by social media and other social activities. Allison felt that everyone should be aware of the program and not just advisors. She wished a professor had pointed her in this direction earlier when she was initially struggling. Her mom actually signed her up and Allison was nervous about the program but found it to be a huge help for her:

The program definitely helps when considering the resources available. Study hours would benefit everybody. Because if you're on your own, you have your own time and can get distracted. Here, I don't have my phone out and my laptop has a timer for me to keep working and I can't get on Facebook or anything.

After beginning the program Allison learned about additional resources to use on her own, such as Grammarly for paper editing, Google drive for group projects, Google Keep for making lists, and Forest for staying focused since it blocked her from leaving her work to get

onto other computer applications. In the College Functioning Program class, Allison learned how to take good notes, both in class and when studying. She also learned about mind mapping and ways she learned best. She found that she was a visual learner, so she invested in colorful pens so she could color-code all of her notes:

I didn't really take into consideration the different things that can affect your learning. So when it came to different teachers you have and the different styles we have can definitely affect how you are taking in the information. So when I started to take a class but I couldn't follow the professor, I changed to a different section with a different professor and found that I understood him much better because of how he connected with the class differently than just reading slides to us.

Aaron and Allison both shared clear examples of moving through autonomy toward interdependence, vector 3. They both started needing someone to keep on track, but throughout the semester recognized that they became more self-directed. The continued use of resources after becoming more self-directed is an indicator that they were able to recognize the usefulness of the College Functioning program without having to rely on it for all academic requirements.

Joining the College Functioning Program on campus was an idea Chelsea learned about from her roommate, who was already a member of the program. She was aware that she procrastinated, but she really wanted to learn and do well in her classes. In high school, Chelsea followed a strict schedule and was able to complete homework and projects during class time. There were not additional outside-of-class projects or online assignments. She also felt that high school teachers worked harder to engage students and helped push them through, whereas in college you had to engage in the material yourself and motivate yourself to complete things:

I guess the way they cover the course material it is always around the same time. So it's like I have three tests at the same time and it is very stressful. Being in the program has given me more options and things I can do. When I have an hour between classes I can use that time to complete assignments and catch up on things.

Chelsea had developed through some of vector 3 but still wanted the structure and oversight of someone else to direct her to complete her work. She was still getting ideas on how to be a more independent student, such as using the smaller snippets of time between classes to complete readings and other smaller assignments, but still needed the structure of required study tables to help her focus on her academic requirements.

Kris tried to form closer relationships with his faculty by having coffee with some. With one faculty member, he talked to her about the syllabus and curriculum for a new class that was taught in the department. He was frustrated by an assignment that required the student to create advertising using graphics programs with which they were not familiar:

I've got one teacher that's been pretty personable and I've been able to vocalize some of my struggles and challenges and she sees that I need to take action on improving those areas, especially in her class. It's a class I would really like if it was my only class and I didn't feel pressured to turn in work at a certain time while having so much other stuff in two of my other classes. Another teacher I get coffee with – she's also my advisor. We talked about an assignment and she was willing to take my feedback so I feel like I could give her more input based on her style of teaching.

In addition to developing his professors as resources, Kris used Counseling and Psychological Services and the tutoring center on campus. Looking back over his semester, Kris hoped to complete work that was more academic on weeknights to leave his weekends free for

his social life. He felt that he was so used to procrastinating and stressing himself out, that he just continued that behavior because he described it as easier than changing:

I've gone to the Counseling Center and I meet with a tutor in the Tutoring Center. Those things here are way better than at my community college. I've used my resources on campus to transition to being here and get used to being a part of things. I think it's been a good way to go to reach out and ask for what I need.

Kris was great at accessing resources, but he didn't show a desire to change based on feedback from those resources. He was not dependent on those resources; however he was not showing strong academic skills. His use of resources were more a reflection of his development in vector 1, developing competence, than it was for vector 3, interdependence.

Holli was a very independent student. She tried not to lean on resources or campus programs for her academic progress. Holli did procrastinate, but she could generally plan her work in order to complete tasks and homework on time. When Holli stopped planning and became unfocused, she began to spiral downward in both her academics as well as her emotional wellbeing and anxiety:

I love the library and the College Functioning Program. It helps me more than I anticipated. I'm not the usual candidate because I'm pretty good at doing my own homework but it really helps to have somebody to touch base with every week. She's been amazing. She's super encouraging and she really makes me feel like I can do this and I can be here and succeed, so that's what makes it helpful.

Holli used counseling services on campus to assist with her anxiety, but she became involved in the College Functioning Program on campus so that she would have somewhere to go when she was off track. She used the mentor there to get herself back on track and follow her

study plan for the semester. Holli came to the institution with an already developed vector 4. She was more independent earlier on in her transition than the others and then reached out for resources as she needed them to stay on track.

Time Management. The next theme, time management, is defined as how the participants used their available time to progress in their academic work, make social connections, and complete other responsibilities. Participants brought up time management in their interviews, though it was not a specific question. For some participants, it was more closely related to vector 1, developing competence. Time management is an area where they need to be competent, and use their critical thinking and reasoning skills. For others, time management was new for them, as they had always depended on another person for this, such as a parent or teacher. This description of time management ties in more closely with vector 3, gaining interdependence.

Aaron did well in this area of transition to college. After initially realizing there was more work than he was used to, he realized that:

It's really more how you manage it, kind of. You need to crunch it up so you are not overstressed. Take breaks here and there and make sure you're getting done what needs to be done. I'm getting done what needs to be done. But I'm still enjoying the experience.

Aaron worked to be sure he was completing work every night, regardless of the due dates so that he would have some free time when he wanted to be more social. In both vectors 1 and 3, he showed that he was managing his time well and was not dependent on another person to tell him to get his work done.

Motivation was Allison's biggest issue in managing her time. In order to focus on her studies, she needed to be in the library or a lounge space and away from other distractions. Getting motivated to pack things up and head to one of those places was difficult, but once she was in her space, she was able to manage her time. Allison was most excited about the next semester because she would get to concentrate on her art and had more art classes on her schedule. Even her writing class was creative writing, so she felt like she would enjoy the work. Allison felt that she had mastered a lot of resources in that first semester and planned to start working out more and eating healthier as she progressed into her next semester. She felt that she needed to schedule her free time so she stayed on task so she planned to schedule in exercise in the future:

I guess when it comes to free time you have to use it wisely because you don't want to wait until the last minute to do the work. For me it is easy to do all of the art, but not the other classes that I don't enjoy as much. It's still like you have to kind of push through it. Have your textbook open and get three chapters in and then you can get back to the stuff you really want to do or you can make friends in those classes so you have someone to study with for the stuff you need to push through. Even if you talk about other things, you get at least thirty minutes of studying in that you otherwise wouldn't. You have to know when to rest and when to push yourself.

Outside of the initial procrastination, Allison was able to come up with techniques to complete her work. Once she started an assignment, she would switch among assignments so as she would get bored or stuck with one, she would move to another. This helped her from stopping her work altogether. This method showed her critical thinking and understanding of what needed to be completed, and was a good example of vector 1, developing competence.

Her main goal was to use her time differently and use a planner as a visual to help her keep track of everything until the end of the semester:

I'm trying to better myself and manage my time differently. That's my one goal. I know what can be achieved maybe towards the end of the semester. Overall it's one heck of a process so far. I realized yesterday that I'm taking easy classes which kind of bugged me a little bit but I'm really working hard in one class.

Near the end of the semester, Allison shared that overall she felt the semester went well. She felt that she learned not to procrastinate as much as she had in the past by using her resources and working in the College Functioning Program area or in the library where there are fewer distractions. She also learned to choose project topics that were of interest to her so that she was more excited about completing them, instead of something that was boring or too easy.

Using a calendar, Chelsea worked to schedule out her time for work, academic responsibilities and social time. What she had not anticipated, however, was the amount of time she would need to devote to her academics:

For the most part I tried to do all of my assignments on time. But sometimes when I didn't understand what the assignment was or what the teacher was asking, I didn't have the time to go and ask for help. I signed up for tutoring in all of my classes, but if I procrastinated on the assignment, I didn't have time to go over it with the tutor before it was due sometimes. Simply using a planner doesn't work. I knew when things were due, but I still had to work to stay on top of things.

Chelsea also said that because she did not connect to other students in her classes, she did not have them to ask for help when she did not understand something. For Chelsea, time

management was a reflection of her challenge with developing competence in both her ability to prepare for her classes and to connect to other students for study sessions or help.

Partly because of his active social life, Kris struggled the most with his time management. Throughout the course of his day, he was unable to remember where his time went throughout each day:

I've gotten most of my stuff turned in OK, but I could be doing a lot better. As far as that goes, I think if I could just figure out how to manage my time better and not waste a lot of hours throughout the day, I would be doing better. The hours of the day just go up in smoke. At the end of the day I have only had a couple of classes, but I didn't manage to get anything done. But I was busy all day.

Kris really grappled with vector 1, developing competence, with his time management. He was not able to think through his day in a way to plan for the work that needed to be done. He did not focus on the hours during the day when he was free and felt that he wasted that time. Although he recognized this as an issue, he did not attempt to change this behavior throughout the semester.

Holli, like Aaron, has developed a good sense of how to manage her time:

I plan my study hours and that was how I did pretty well last semester is I planned when to study. After I fell behind in some of my classes because I spent all of my time on one, I had to change how I planned my study hours and keep better track that I was focusing a little on all of them instead of just one so that I wouldn't fall behind again.

She showed a good level of competence and was able to change her study behaviors during the semester when things were not going well for her. This change in behavior was a good indicator of her critical thinking and reasoning.

Time management is especially important for students with EF challenges as they navigate their multiple, and sometimes competing priorities. For Aaron, he used social time as his motivation to get his academic work done. Holli's motivation was to not fall behind again in her coursework. Both Allison and Kris wrestled with motivation to get going on their work and plan time for it, while Chelsea did not seem to prioritize time for her academics over her off campus job.

Summary for Research Question 1. Using Chickering and Reisser's (1993) theory on college student development, Aaron's experiences showed that he was developing through the first vector, developing competence, by gaining skills in critical thinking and reasoning, physical wellness and activities, and communication and people skills. He showed this through his managing of academic work, wellness activities, involvement in university activities, learning to reach out to other students to make friends and to faculty and staff as needed for assistance. Managing emotions is the second vector, which involved both recognizing and accepting his own emotional responses in addition to controlling and expressing them appropriately. Aaron's transition to college and management of his initial feelings of homesickness and loneliness showed his recognition of and dealing with emotions.

Also for his future, Aaron hoped to exercise more to help relieve some of his stress. Aaron's advice for other students was to start academic work early because something one might think will take three hours may take three days. This approach also helped in case there were smaller assignments and projects that popped up within that time that needed to be completed.

Looking forward to the end of the semester, Aaron was a little nervous about some of his grades due to an important final exam in Psychology and a 12-page paper he had written for another class. In January, Aaron shared that he had a 3.25 grade point average and had made the

Dean's list. As exciting as the end-of-term grades were for him, Aaron also said the best part of the semester was getting used to the college experience and feeling a sense of community.

More difficult for Aaron was the ebb and flow of the academic semester in college, which was different from high school. He felt that he had to adjust more often and he felt out of sorts and stressed more often. Even though one of his grades was a C-, Aaron was proud that it was one of the highest in the class and that most of his classmates were frustrated with the amount of reading and comprehension involved in that particular class. Looking to Chickering and Reisser's (1993) vector 5, identity, Aaron showed growth in his comfort with himself both academically and socially, and showed a strong connection to others.

Allison also showed strong development in the first and second vectors. She lived on campus with a roommate but seemed to make most of her connections through her classes and exploring involvement opportunities based on her identities as a Hispanic and Black woman. Although Allison continued to struggle with her anxiety, she reached out for assistance when she felt it was going to affect her ability to present her final class presentation. She worked alongside her professor to reschedule at a time where she could be more focused and relaxed. She was able to manage successfully her academic work and finished the semester with a 3.29 GPA, compared to her predicted GPA of 2.64.

Chelsea, while managing so many off campus work hours, was the least connected to her college experience. She was not connected to her off campus roommate, although she did join the College Functioning Program on her roommate's advice. She stayed connected to her one friend here with whom she had gone to high school and did not reach out to other campus organizations. Chelsea spoke that her colleagues were also students and she received some academic help from them, but really showed no interest in connecting to campus or other

students. Allison also had a Fall GPA of 1.77, which is not much higher than her predicted GPA of 1.73. From a developmental standpoint, it did not appear that Chelsea was able to develop the competence in the areas of studying and her academic work, partly because of the lack of time devoted to it.

From a relationship and emotional standpoint, Chelsea did not necessarily struggle, although she did not make connections. She seemed comfortable being on her own and really wanted to simply finish her time at this institution so she could go back home and move on with her life there.

Kris, however, did not do well academically, although he felt exceptionally connected socially on campus. Kris stated some challenges connecting to others on campus, but meeting other students in various activities on campus helped him connect and find people with whom to socialize. For Kris, the executive functioning challenge of procrastinating and having a social life on which to focus instead was a detriment to his academic success. Kris, however, had a negative experience with group work, as he was unable to manage his own procrastination and the leadership role within the group. Someone else stepped up into the leadership role and the project moved forward, but he recognized how his executive functioning challenges affected his ability to lead.

Looking through the developmental lens, Kris seemed to struggle the most with trying to find himself and deciding what he wants to do in his future. His continued description of his spinning thoughts about life and the world in general were time consuming. He really allowed his mind wander instead of focusing on his academic work. He connected easily to friends and people with whom he lived on campus and spent a lot of time with them. Academically Kris showed a decline in his academics from a transfer GPA of 3.42 to a semester GPA of 2.48.

Holli, similar to Chelsea, mostly wanted to spend the time in college concentrating on her academic work so she could go back to her home city and continue to live her more social life there. Holli spoke most of not really needing the academic help provided by the College Functioning Program, but really needed the emotional support of the program and other counseling services due to anxiety. She seemed to use these supports as she developed more competence and confidence in her abilities to succeed academically.

Looking at her relationships, she was able to maintain her relationships in her home city and still connect to other students on campus and in her classes. She was cognizant of the cyclical nature of friendships in college as roommates and classmates change as semesters change. She seemed comfortable with that and understanding of the lower level relationships she had in college at Chandler State University.

Group work in classes went very well for Holli. Group work was not a large focus in her area of study, psychology, but her group functioned very well together and were able to present without her when she came down with food poisoning. She said it was the first group project ever in school with which she was happy, not because she did not have to present, but because of how well they worked together.

The students interviewed did not seem to struggle with typical social norms such as being on time to classes, events, and programs, following through on tasks and social commitments, group study environments and general social norms, which was discussed in the initial literature review. For these students, the connection to a mentor on campus as part of the College Functioning program to push them to be on time and continue to progress in homework and projects helped them in these areas.

College Experience

Whereas the first question in this study focused on how executive functioning challenges influence identity development, the second research question explored how students with EF challenges perceive how these challenges shape their college experience. EF disorders are characterized by difficulty with planning and organization, trouble identifying what needs to be done, problems determining the sequence of accomplishment, difficulty carrying out the steps in an orderly way, difficulty beginning tasks, problems maintaining attention, trouble evaluating how they are doing on a task, difficulty taking feedback or suggestions (Keeley, 2003). Each of these tasks are essential in college. In addition to these specific EF difficulties, procrastination is a coping mechanism often recognized in individuals with EF challenges (Rabin, Fogel, & Nutter-Upham, 2011). During the interviews, participants responded to questions about their academic and social interactions on campus, as well as their disclosure of their learning differences. First, some of the students described their enrolment in the College Functioning Program. From there, the emergent themes for this research question were 1) the impact that procrastination had on the students 2) the overall academic preparedness for a four-year institution, and 3) the campus environment.

Executive Functions

Kris and Holli did not discuss their initial knowledge of their executive function challenges. Three of the five students described their knowledge of their executive functions and their introduction to the College Functioning Program. Aaron was identified early in his life as being on the autism spectrum. He identifies executive functioning within the context of his autism:

In college it's playing out like it did in high school. Sometimes I get distracted. But other than that I have the wherewithal to be able to do the work at the college level. I had to do everything right to get here and I did; otherwise I wouldn't have got my diploma. Granted it's a lot more of a work load in college; the burden is a little heavier – or a lot heavier. But the mindset of how I do things remains the same.

Allison recognized that she was struggling and her mom signed her up for the College Functioning Program. She wasn't aware of her EF challenges until becoming engaged in the program to assist her in overcoming some of her academic challenges:

I learned how to take different things into consideration that can affect my learning. So when it came to different teachers you have the different styles of teaching and how their style affects your learning and how you're taking in the information. Study hours definitely help too so you don't have to sit down and do it on your own. Being required to go to scheduled hours is easier than trying to fit all of those hours in on your own when there are other things to do. And then like Facebook and my cell phone are just distractions that aren't allowed in study hours.

For Chelsea, the change from the rigid schedule of high school challenged her the most:

I guess it's because it's like in high school you have a very set schedule from 7:00 a.m. until 2:00 or 3:00 p.m. You follow a very specific schedule like every single class and so on. You don't have online assignments or any of that stuff. And you can do your classwork in class or your homework in class and the teachers engage you more. Whereas here you have to engage yourself to do things.

Procrastination. This theme was identified as a negative and stressful experience associated with completing the required academic work for classes. In the personal interviews,

each spoke of negative consequences of their procrastination, including stress and grades, as well as group work. Procrastination is defined as not beginning or completing coursework until just before the due date. Procrastination was a common experience shared by or those who identified coming to college with executive functioning challenges.

In the interviews, the participants described their academic experiences, described how they felt about their academic life, and described the easiest and hardest parts of their semester. In their responses, many shared differences between high school or a community college and their current four-year institution in terms of expectations and academic rigor. They also recognized time management as a challenge.

At the end of his first semester, Aaron admitted he procrastinated more than he should have. Overall, he felt that it took a little longer to get used to the college setting than he first thought. Academically, Aaron wanted to be able and relax more but continued to push himself to get the work done and then take the time to relax during breaks in his academic work. He willed himself to stay on course based on his goals for his future. When Aaron really wanted to do something fun, like a basketball game or going home to see high school friends, he put in extra work during the week to be able to reward himself with these fun activities:

Well, I've probably procrastinated a little more than I probably should have. Getting used to it has taken a while. It was a little more than I originally thought it was going to be in terms of the way some of the assignments weren't like it was in high school when you have something every day and it's quick. It was drawn out assignments and I kind of had to rewire my brain to attack this part of it at a time and take breaks here and there.

Aaron's experience showed that his tendency to procrastinate had an impact on his overall time management strategy. He was able to motivate himself to continue to make forward

progress on academic work in order to reward himself with social activities in which he wanted to be involved.

Allison spoke more of distraction concerns than procrastination itself; however, the distractions kept her from beginning or completing her coursework the same as the others identified as procrastination:

I usually like to study late at night and it's just not the best idea. When you come in it's really quiet which is my go to. I can't deal with noises like tapping or talking. I always want to put in my hours to write and then I'll get distracted. Then that distraction takes five minutes or ten minutes even if it was really only 30 seconds because it takes me so long to get back into what I was doing. I use the forest program to grow trees and it doesn't let you click on anything other than your work, so it's supposed to help, but only if I put my phone away too.

Allison's experience with her EF challenges in regards to procrastination sounded similar to a student with ADHD and their inability to focus. Allison's inability to focus caused her to not begin and progress through her academic work. Allison recognized that it was not only the 30 seconds away from her work that she lost when she was distracted, but also the five or ten minutes it took her to refocus and get back into the work to continue to move forward again.

Because of the many hours she worked off campus, Chelsea had difficulties managing her time and focusing on her academic work:

I obviously procrastinate. I've done a lot of things to try and prevent that, but I've got work and the gym and naps and homework and have to decide which of these things I'm not going to do.

Chelsea's procrastination included completing different priorities prior to her academic

work. She had a busy work schedule. Chelsea she chose to nap or exercise instead of completing her academic work when she was not at her off campus job. Since she had not prioritized her academic work, she had to find the additional time to get caught up with her academic work in order to complete it on time. Her EF challenge of procrastination was felt in other areas of her life as well. For instance, she shared that, when she was behind in her assignments, she did not sleep as needed so that she could get her assignments in on time or study last minute for an exam.

Kris's most common sources of procrastination included socializing and thinking about the impact different paths might have had on his journey in college. Kris struggled with coursework (science) that did not directly affect his major because he did not focus well on it. He identified being stuck in his sometimes-spinning thoughts about starting his work but thinking about why he needs to do it and how he might do it instead of actually sitting down to complete the work:

The weight of all of these big thoughts, that I should be doing everything, is a big distraction because I tend to think about those things a lot more and not focus on what I should be doing which is reading and doing my science and all of that stuff.

Kris' procrastination was a clear indication of his EF challenges. The inability to stop his spinning thoughts in order to begin created a sense of paralysis where he began to stress about his thoughts and feelings to the point that it was debilitating. When he was stressed, he could not begin the academic assignments. Once he forced himself to complete the work, he acknowledged that the work was not high quality.

Holli revealed in her interviews that sometimes her own studies were used as procrastination from other homework:

When I first started, I was determined to do well so I worked really hard. And then I got lazy and missed some classes and didn't do as well as I could have. The hardest part was trying to stay balanced. I would get really ahead in one class and fall behind in another. And so finally by the end of the semester I learned more how to plan to study for all of my classes all at once to stay on top of them and not let one slip.

Similar to Kris, some of Holli's procrastination was debilitating in that there was a feeling of hopelessness. At some point in the semester, she realized that she would be unable to be caught up in all of her classes. By concentrating on one at a time, she was unable to appropriately balance the workload over the entire semester. Holli's grades were lower than she wanted and she felt she was always trying to catch up.

Academic Preparedness. Another major theme related to the participants' perspectives of how EF shaped their college experience was academic preparedness. Participants shared their experiences about how much harder the work was at this four-year institution than they expected. The participants felt they were not prepared for the academic rigor based on their experiences from high school or community college. For Aaron, the workload was the difficult change, as the number of hours spent outside of class on academic work was much more than he expected. Allison had a similar feeling, including that the outside-of-class work seemed to entail new ideas and challenges that the professors had not covered or eased the students into. She described the feeling as being "thrown under the bus".

Chelsea was prepared for the amount of work, having come to Chandler State University with her Associates' Degree, but was not prepared for the level of work, especially since she took all the sciences within her major in her first semester. Kris agreed that schoolwork had always been easy for him, but his courses at the university really challenged him.

In Aaron's first couple of weeks of college, he was working to manage the academic rigor of college. It was more work than he was used to, but he was trying to manage. He tried to break up the work so it was less overwhelming and take breaks when he could. Overall, he enjoyed the experience of being in college classes. Initially, Aaron perceived an increase in the workload from high school to college:

Things aren't due immediately but that's because they're much bigger assignments. And I find that I have a lot more to do each and every night than I ever did in high school. Granted, it's a lot more workload; the burden is heavier, a lot heavier, but the mindset of how I do things remains the same, otherwise I wouldn't have gotten my diploma to be able to come here.

He described high school work as reading, worksheets, and projects that could be completed in the class or in study hall prior to the end of the school day. In college, there was more reading assigned, with all homework, papers, and projects needing to be completed outside of the classroom. Aaron estimated where he spent maybe 2-4 hours outside of school doing homework in high school; in college he spent 20-30 hours per week doing homework outside of class.

Allison felt that her classes in community college were not engaging as they were hybrid online and in person. She often forgot to complete the online portions of coursework and her grades were a reflection of that. At Chandler State University, she felt that most of her courses were relatively easy:

I did a semester at community college. I didn't do too hot there because I'm thinking all the time it's supposed to be easy just like high school but one class I didn't really pay too much attention to the classes. It was blended where it was computer and in classroom.

And, like, I would just forget to do the computer part. And then for the other class it was math and I think everyone seemed to understand it and I was just back there like, someone explain this to me because I am completely clueless.

Coming to a four-year institution, Allison was more engaged in the classroom. Instead of floating through as she did in high school and tried to in community college, she was in courses with other students learning together. There was more discussion, more contact with her faculty and she always felt she could ask questions. Online courses seemed to be the biggest hurdle for Allison in community college, so the classroom experience has had a positive impact on her transition to Chandler State University.

As the semester progressed, Chelsea felt that she had taken too many very difficult classes at the same time, enrolling in genetics, physics, and other science requirements. Coming in as a transfer student, she had already finished most of her general education requirements and had to start taking courses in her major right away. Her previous classes at the community college had not prepared her for the rigor of a semester schedule comprised of all science and math courses. Even though she only took 12 credit hours, she felt that she could have performed better. She felt that she had not previously been exposed to enough of the math equations in order to work through them correctly. Additionally, Chelsea felt that all of her classes were running on a similar timeline, causing large projects, papers and exams to be given around the same time for each class. She felt that was even more anxiety added to her already stressful semester:

It's just a constant struggle. I talk to my professors. I do my homework, but there is just the constant struggle. I think sometimes I'm really good. There's a few peaks in there, but

then it's hard to manage my time between all those courses and all the tests and then do the labs for each of them.

The fact that most of Chelsea's classes were on the same schedule for major projects and exams was especially difficult in light of her work schedule. Instead of preparing earlier and along the way for these busy times, Chelsea spent so much time at work that she waited until the tests to study and until right before due dates to try and complete the work.

Kris was surprised at how easy it had been in community college compared to this college experience. He identified finding all of his schooling up until Chandler State University to be easy for him and not requiring much outside work or time. Coming to a four-year institution, Kris felt stressed about his academics all of the time. He felt guilty at times when he was not studying. Kris worked hard to turn in his academic work on time, but he admitted that most of it was not the quality that he knows he can put out. He described himself as a huge procrastinator and that was having a negative effect on both his well - being and his academic performance:

I think you have to do more studying and better time management. And just have more willpower and discipline to get through the assignments and make it better. Community college was pretty easy and I don't know why. I guess when you're there they try and make it sound like it's really hard but just at the level that is expected from you. It feels like you've got more but you don't have to put as much responsibility into doing the work. So it's easier to just cruise through things and you don't have to hardcore study. But there is a big difference between doing that there and here.

Although Kris recognized the additional work he needed to do academically, he still did not change his academic behaviors. Instead, he continued to try to cruise through his courses, knowing that he was not turning in the quality of work of which he was capable.

EF Interactions with the Campus Environment. The third theme that surfaced in the analysis of the participants' perspectives on how EF shaped their college experience was the campus environment. The college campus environment - including peer interactions, the classroom environment, and the physical environment - plays a major role in the transition process for any student. The campus environment can either enhance or diminish college student development (Astin, 1984). Most of the participants spoke of their environment and the impact it had on them, either academically and/or socially. Aaron's Asperger's led him to seek quiet places so that he had a place to go to unwind at the end of the day and give him a break from the larger campus community. Allison's social anxiety shaped how she initially engaged in faculty interactions, and she had to learn how to interact with faculty outside of class. Chelsea's transition to campus was an overall negative experience as she was so disconnected. Being at work so many hours per week, living off campus led to Chelsea not engaging in campus activities. She simply wanted to finish her degree and move back home, instead of becoming involved on campus while she was there. Kris, on the other hand, became so involved in his campus experience that he spent too much time being social and not focusing on his academics. Holli did not speak about her interaction with the college environment. She started her time at Chandler State University like Chelsea, by not getting involved and just wanting to finish. She end up joining in on various experiences throughout her semester and, although she still just wanted to be done and head home, she had a positive experience on campus.

Because of his Asperger's and his need for personal, quiet space, Aaron lived off campus with his sister, who was a senior when Aaron started at Chandler State University. After his sister graduated, Aaron's mom planned to move in with him if he was not yet ready to be on his own. Aaron had to receive accommodations to live off campus as a freshman because freshmen are required to live on campus at Chandler State University. For Aaron, having the quiet time away from campus helped him focus on his academics, but made it more difficult to connect on campus:

Since I don't have a car here, I have to take the bus to and from campus, so once I am here for the day, I am kind of stuck here unless my sister picks me up or I have a long enough break to go home and come back to campus. I try not to do that though because once I am home I really don't want to come back to campus and I can't skip a class. So I spend a lot of time at the rec center and try to play pickup basketball and hope that I will meet people while I am there. But then I don't come to campus at night and haven't joined any clubs because then I have to figure out how to get home at night.

This environment met some of Aaron's needs for his quiet time where he could have his own space. He also saw the drawbacks in that during the day when he wanted to be more involved on campus and was hanging out in between classes and heading up to the rec center when he could. Because some of Aaron's quiet time was needed for his studies, he also looked for places on campus where he could get some of his easier homework done during the day if it did not require as much focus as he found studying on campus difficult due to so many distractions.

Allison felt that the transition to a four-year institution was not easy. Throughout her motivation and procrastination issues before coming to Chandler State University, she always felt that she had individual attention and very small class sizes in both high school and

community college. The individual attention helped her to stay on track in those previous environments. In the University environment, she felt that it was difficult to get one-on-one help when taking multiple classes and was bound by professors' office hours:

It's just kind of like here is high school and the teachers seem to want to ease you into the assignments. The teachers get comfortable with you and they know you as well. When it comes to going to college you have that summer off then you are expecting it to be like high school. College just kind of feels like they threw you under the bus because the assignments are flying from every which way and it threw me off. I have a paper here and a test there and I've never been this hectic when I was in high school.

Allison mentioned relationships with faculty as a part of the college environment for which she was not prepared. She was used to a more informal relationship from community college and smaller class sizes where she felt she knew her faculty better. She disagreed with a professor throughout the semester but felt comfortable speaking up for herself because of the confidence she gained throughout the semester in her social settings:

I've never been comfortable talking to strangers. I would be sweating and gross and nervous and shaking and it' be a mess. I didn't know how to navigate campus. Even getting food I would get nervous and think about how to avoid conversations with people. This semester getting a mentor and a tutor and taking responsibility made me feel more comfortable. It helped out with my study skills and stuff like that and it all kind of clicked.

An unexpected piece of the environment that was new to the participants were the group projects assigned in classes. In one class, Kris stepped into a leadership role for a group project. He had no idea that his EF challenges would be a detriment to this type of work. He knew that he

could do the work and had ideas about the project, but his own procrastination made it necessary for someone else to step into the role in order for them to complete the project on time. Looking back, Kris realized that he could do the work, but he was not ready to manage the group members and the time associated with that role:

I wasn't really counting on it being as hard as it was. I wasn't really able to manage all the group members. So they kind of needed another person to step into that role which was not great but it worked out. And we got everything done. We probably could've made the whole experience more meaningful if we had spread it out and managed our time better. That sort of thing I had never done before.

Although Kris was doing well socially and felt very connected on campus, his procrastination and inability to manage the group was a setback for him where he realized that he did not have the time management skills to oversee a group project.

After her first semester, Chelsea revealed that she did not do well academically. She felt at one point that she was just happy to be done with the semester so she could start over with a new one. She felt that her classes were a constant challenge and she ended the semester with a 1.77 grade point average:

The classes are huge and the expectations are huge. I'm used to community college and smaller class sizes and there are personal relationships with professors. Here you have to go and work at it and it's not just given to you.

For Chelsea, the environment was overwhelming. It felt large to her, both physically and through relationships. She had been used to smaller class sizes, which led to closer relationships among her classmates as well as her faculty. Those relationships made her feel that she had a better

grasp on the work and what she needed to get done. At the larger institution, she found the larger environment impeded those easier relationships, making the expectations feel even larger.

Summary for Research Question 2. For Aaron, his executive functions are defined within the context of his Asperger's, while Allison and Chelsea weren't really aware of EF challenges until they came to college. The patterns identified where EF challenges affected the students perspectives of college included procrastination, academic preparedness and interactions with the campus environment.

Aaron was aware of his procrastination in his first semester and used this knowledge to motivate himself. Aaron's prior knowledge of these challenges helped him to overcome them at college. Allison was not concerned with procrastination, but was not motivated by her coursework. She lacked focus in classes in which she was interested. Chelsea also identified procrastination as an issue, but did not prioritize her coursework over work, naps and, exercise. Kris admitted that he spent time socializing when he should be doing homework. He also stated that he completed his homework at the last moment, causing lower quality work than he is capable of. Holli used one class to procrastinate for her other classes and found herself behind academically trying to catch up in the rest of her classes.

In addition to procrastination, the participants in the study shared that the work at the four-year institution was more difficult than they expected. They felt unprepared for the level of work, and the number of hours they would need to spend to complete their academic work. Aaron was surprised at the amount of time required to complete work outside of class. Allison was also surprised by that as well as the amount of information students were expected to know from reading and researching independently. Because Chelsea came in with her general education requirements complete, she was taking all higher level courses and was not prepared

for the academic rigor of classes in her major. Kris also stated the academic rigor was more than he was prepared for, while Holli was not concerned with the academic transition.

Being on a college campus with executive functioning challenges was impactful to the participants in the study. Aaron was able to manage the larger, more social campus by taking personal time off campus and living with family. Chelsea and Holli also lived off campus and both stated they felt disconnected from the campus socially. Kris and Allison both lived on campus. Kris spoke most of connections he had made in his residential community whereas Allison made her connections in classes and organizations. Allison and Chelsea both spoke of the large class sizes as overwhelming and that the size made it harder to connect to faculty. Kris did well socially, however was not ready to serve as a group project leader in the large campus environment.

Conclusion of Findings

Five students with EF challenges were identified and interviewed three times over the course of a semester. I interviewed the students using open-ended questions. I employed member checks as part of each subsequent interview to ensure my interpretation of the participants' experiences were consistent with their perceptions of their experiences. In the first research question, I explored how executive functioning challenges influence identity development of transitioning college students. The primary themes that emerged were social interactions, relationships, use of campus resources, and time management. The second research question explored how students with EF challenges perceive how these challenges shaped their college experience. First I described the students' views of their EF challenges. Then, the emergent themes for this area were the impact that procrastination had on the students, the overall academic preparedness for a four-year institution, and the campus environment. In the next

section, I will connect back to the theoretical frameworks discussed in the literature review, then cover implications, questions for future study and limitations of this research.

Chapter 5: Discussion and Conclusions

The purpose of this research was to examine the perspectives of college students with EF challenges, specifically examining how their EF challenges influenced their identity development as they transitioned to a university setting. The study sought to include students with executive functioning challenges in the scope of college student development identity theories. This chapter presents the summary of findings followed by a discussion of the theoretical concepts affecting the students.

Conclusions

In this section, I provide connections with the theories discussed throughout this study.

College Student Development. College student development theories provide student affairs practitioners with information about the cognitive, affective, and behavioral domains of college students (Evans, Forney, Guido-DiBrito, & Patton, 2010). Since students with learning disabilities, specifically EF challenges, are not included in this theory base, other theorists interested in these special populations have made connections with existing theories including disability and queer theory. They have reported some basic assumptions about intellectual, psychosocial, and career development using these theories.

College student development theory suggests that involvement in both the academic and social aspects of college life helps students to persist from their first year of college into their second. For the purpose of this study, Chickering and Reisser's (1993) vectors, specifically the first five of the seven vectors, provided a lens through which to view the identity development of first year students with EF challenges.

According to Chickering and Reisser (1993), seven key influences in the collegiate environment can add or subtract from a student's development: 1. Institutional objectives, 2.

Institutional size, 3. Student-faculty relationships, 4. Curriculum, 5. Teaching, 6. Community and 7. Programs and services can all influence a student's development (Chickering & Reisser, 1993).

In the study, participants highlighted specifically student-faculty relationships, the community, and the programs and services offered as salient influences in their own experiences with the university thus far. Some struggled with relationships and forming them with their peers and faculty. Most, however, shared that the services provided by the College Functioning Program played an important role in their transition. All five of the participants were retained at the institution from their first semester there to their second, so none chose to transfer out or leave the institution based on their first semester. The key influence that was in common for them was the services and programs available through the College Functioning Program.

Transition. Conley's (2010) theory of transition points to four areas needed for the college transition: 1) key cognitive strategies, 2) key content knowledge, 3) academic behaviors, and 4) contextual and awareness skills. Students who arrive on college campuses without adequate development in each of these areas can find the transition difficult. In the study, key cognitive strategies and academic behaviors were most salient for the participants.

The students in the study were able to gain key cognitive strategies through their work with the mentors and the College Functioning Program's class on learning strategies. Most of the students came to college with the basic, needed foundational academic skills, but were not prepared for the level of academic rigor.

The academic behaviors needed to transition to college, according to Conley (2010), were also behaviors on which the students worked with their mentors. When they were unable to focus or get into gear on homework or a project, they had someone there to tell them to get to work and

talk through the needed steps to complete a project or to move forward. Another of Conley's (2010) areas is college knowledge. Because of the College Functioning Program, these students were able to more easily connect to resources on campus. If something came up for which they were unprepared, they were referred to the appropriate campus resource. For Aaron, living off campus was a necessity due to his Asperger's and some specific dietary needs. He had a place he could go back to that was quiet and freed him from the distractions he would expect in the residence halls. Living with his sister, who was also a college student, helped him to easily ask for help when he needed resources on campus.

Allison, Kris and Holli all spoke of using the Counseling Center as a resource on campus to help them talk through various life needs, including their transition to the institution. Aaron made use of disability services on campus for alternate testing for his specific learning disabilities. Kris was the most involved on campus and connected with the student programming and student leadership offices as well as his residence hall. Chelsea was the least connected to other resources on campus, again based mostly on her outside work schedule. The use of these resources shows the students role in their self-advocacy in using these resources and disclosing these needs.

Overall, the students believed that their knowledge of their executive function challenges helped them in college because they knew early on through the College Functioning Program that they would need to reach out to resources and support on campus early and often instead of struggling to do it on their own.

Agency. The term "agency" conveys roles through which an individual functions within a society and its influences: "The core features of agency enable people to play a part in their self-development, adaptation, and self-renewal with changing times" (Bandura, 2001). Both

disability theory and queer theory as discussed earlier play into the students' sense of agency in this study.

Students in the study developed their identities and lives relative to the environment in which they found themselves. Because the students were already engaged in the College Functioning Program, they were already aware of their executive functioning challenges and some of the issues they might face as they transitioned to college. These students disclosed their disability in order to reach out to a program there to assist them in college. In this environment, the students had agency over important academic aspects of their own lives, and through this agency, they were able to move themselves closer to their goals (Klassen, 2010). Agency had an overarching effect on their identity development in college and how they saw themselves in their environment. For example, Aaron and Holli identified themselves as procrastinators and had already made plans and schedules to combat that behavior, whereas Kris and Chelsea also identified as procrastinators and continued to procrastinate throughout the first semester. How the students reacted to their procrastination in the college environment was different, and it resulted in different behaviors.

Looking to queer theory, the students in this study articulated some feelings of isolation in their transition to college, but not necessarily due to their executive functioning challenges. Because of their connections to their mentors and the College Functioning Program, they were able to navigate the outside college environment without having to identify their disability challenges to peers. Some of the students, however, did discuss their desire for college to be an opportunity to start over again, similar to "passing" in the LGBTQ community, without the monitoring and social constructs of the learning disability with which they were tagged in high school.

The findings from this study supports the idea that EF challenges can affect students' college experiences, both developmentally and in academic and social environments. Moreover, educational experiences and interactions during the first semester at a four-year institution seem to be impacted by the students' EF challenges. This research provides an additional theoretical base needed to help university professionals understand students with executive functioning challenges in order for them to succeed at the college level.

Implications

This study represented only a small part of understanding how students with executive functioning challenges may perceive college and transition to the collegiate environment. I am interested in the reason that the students who volunteered for this study were mostly transfer students. Future researchers might ponder the question: Is there a specific subset of transfer students who either choose to go to community college first because of their executive functioning challenges or transfer to another institution because their EF needs are not being met at their current institution?

I have identified potential benefits for continuing to examine the needs of students with executive functioning challenges in college. Based on the findings of this study, I believe I can offer suggestions for how to assist these students as they transition to college.

College Functioning Program. My findings suggest that the connection to the College Functioning Program was positive for the participants in helping to manage their time through study skill classes and required study times, as well as in making connections to campus resources. The program also identified executive function challenges for them, which helped them to be more aware of their own difficulties around executive functioning.

The students had to self-select into the College Functioning Program, so an earlier identification of executive functioning challenges for students would be helpful, whether through K-12 testing or college entrance surveys. A greater outreach to students with EF challenges may identify them before they are struggling academically.

Transition Experiences. Both the first-year of college and the first semester for a transfer student are identified in the research as high impact times for student success in college. Services identified by the participants of this study, including the Counseling Center, Tutoring Center, Library, College Functioning Program, and the Office of Disability Services should be more visible and accessible to incoming students to support students in their transition to a four year institution. Admissions, transfer services, orientation, first-year seminar course instructors and other faculty and staff on campus should structure programs and services to facilitate discussions of these services to better reach students in need of these services.

First year services should also include general executive functioning behaviors as part of the orientation and first year seminar courses to better prepare students for success in college. First year services should use Conley's (2010) model, including cognitive strategies, content knowledge, academic behaviors, and contextual skills to prepare students for the rigor of college.

Theory. In my review of the literature, there was little reference to executive functioning challenges in college students and how that may affect their transition to college or their overall identity development and academic success. I assumed in this research that complementary identity theories such as disability theory and queer theory might give insight into the experiences of these students. While that was true, more research in and refinement of college student development theory is needed. Executive functioning is not mentioned as an academic concern for students, but neither are other learning disabilities or disability identity as it

intersects with other theories and identity in College Student Development. This research shows how Chickering and Reisser's theory of college student development can be helpful when applied to students with EF challenges.

As researchers seek to understand the multiple and intersecting identities of college students, the inclusion of students with learning differences, including EF challenges needs to be addressed. A better understanding of the development and possible challenges for these students can aid institutions in preparing for students and having resources available to them that best meet their needs. This study has also raised questions for future research related to this topic.

Questions for future study

I have identified areas of additional questions that I would be interested in pursuing in future research. First, should students with EF challenges be identified earlier in their schooling for better preparedness to college? This may help them to identify study needs and learning styles to assist them with the academic rigor needed for college. Since these students were already connected to the College Functioning Program, would their experiences have differed if they were aware of their EF challenges without being members of the Program? Completing research about the program goals and the success of students in the program may help the program grow and better meet the needs of more students. If the study were expanded to more participants would other themes emerge? Being able to compare the students with EF challenges who are participating in the College Functioning Program to those with EF challenges not in the program may help identify challenges and successes in the program and further identify resources needed for students with EF challenges. Are the feelings of isolation part of the transition to college for all students or are they heightened for students with EF challenges? Similarly, is time management a concern for all new students, or is time management highlighted

more due to EF challenges? Would the same or similar themes hold steady if the subjects were all transfer students or all incoming freshmen? Transfer students at Chandler State University are required to meet different admissions requirements, often lower GPA and testing requirements, than incoming freshman. The lower standards will likely have an impact on their transition as well as their academic and social success on campus. How do these themes compare to students who identify as having other learning differences in college? Students with EF challenges have specific challenges that specifically impact college. It would be important to look at other learning differences to see what other theories and research needs to be continued in this general area.

Limitations of the Study

In multiple case study analysis, there is an attempt to identify themes that are observed across the cases. A potential disadvantage of this qualitative approach is that the findings cannot be extended to a wider population of students without further study. Additionally, my interpretation of the results may have differed if I had spent more time with participants in the time period of the study or if I had extended the time period in which data collection occurred over the entire academic year, including all of spring semester.

Another limitation I want to focus on deals with the theories I pulled from to create my theoretical framework. The layering of college student development with disability theory and queer theory provided a foundation from which to organize my study. The answer to research question 1 was difficult to clarify, and in future studies the incorporation of additional tools to assess identity development within the first semester would be crucial. This research could have been more thorough if I had delved deeper into the various feelings of isolation that came out throughout the interviews and whether it was part of the transition to college for all students, or

the impact the EF challenges had on those feelings. I would have also liked to do more with time studies about how the students were spending their time instead of just reporting their thoughts on their time management to me. I have chosen to focus on what I thought was most valuable but there was more to explore in terms of additional stories from the students.

Concluding Thoughts

This work is a contribution to the discussion and action on assisting students with EF challenges in college and learning disabilities as a whole. The academic progress of students with EF challenges affect each of the students, their families as well as the institution and other students. Attending to the needs of these students and seeking to improve their academic success in college has a societal benefit for the future.

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Appendix A

IRB Interview Consent Form

Issues for Students with Executive Function Challenges as They Transition to College

Principal Investigator: Alicia D. Vest

Department: College of Education

Contact Information: vestad@appstate.edu

Faculty Advisor: Leslie Cook, cookls@appstate.edu

Consent to Participate in Research

Information to Consider About this Research

I agree to participate as an interviewee in this research project, which concerns the transition to college for students with executive functioning challenges. The interview(s) will take place at Study Central, in Edwin Duncan Hall. 3, 45-60 minute interviews will take place from August 2016 – February, 2017. I understand the interview will be about the transition to college student development/identity development.

I understand that there are no foreseeable risks associated with my participation. I also know that this study may benefit students with executive functioning challenges in college.

I understand that the interview(s) will be audio recorded and may be published. I understand that the audio recordings of my interview may be stored on an external hard drive in the possession of the researcher if I sign the authorization below.

I give Alicia Vest ownership of the tapes, transcripts, recordings and/or photographs from the interview(s) s/he conducts with me and understand that tapes and transcripts will be kept in the researcher's possession. I understand that information or quotations from tapes and/or transcripts will be published. I understand I will not receive compensation for the interview.

I understand my predicted grade point average, grade point average and data held by the College Star Program may be reviewed and published. I understand that these will be stored on an external hard drive in the possession of the researcher if I sign the authorization below.

I understand that the interview is voluntary and there are no consequences if I choose not to participate. I also understand that I do not have to answer any questions and can end the interview at any time with no consequences. I confirm I am at least 18 years of age.

If I have questions about this research project, I can call Alicia Vest at [(828) 262-6116] or the Appalachian Institutional Review Board Administrator at 828-262-2692 (days), through email at irb@appstate.edu or at Appalachian State University, Office of Research Protections, IRB Administrator, Boone, NC 28608.

This research project has been approved on _____(date) by the Institutional Review Board (IRB) at Appalachian State University. This approval will expire on [Expiration Date] unless the IRB renews the approval of this research.

I request that my name **not** be used in connection with tapes, transcripts, photographs or publications resulting from this interview.

I request that my name **be used** in connection with tapes, transcripts, photographs or publications resulting from this interview.

By signing this form, I acknowledge that I have read this form, had the opportunity to ask questions about the research and received satisfactory answers, and want to participate. I understand I can keep a copy for my records.

Participant's Name (PRINT) Signature

Date

Appendix B

Letter of Introduction

August 1, 2016

Dear Student,

I am writing to ask that you consider participating in a research study which will begin this year. This study is entitled Issues for Students with Executive Function Challenges as They Transition to College. I will briefly outline the proposal.

For the purpose of this study, I want to hear from students with executive function challenges about their experience as they transition to college. Through these case studies, I want to pull out themes of how these students are developing from the experience and I am interested in how our practices in higher education affect students with executive function challenges. After summarizing the experiences of students, I hope to be better able to recognize if and where institutions may be falling short in assisting these students in their transition and see if there are connections among these students which may lead towards further study in college student development theory.

The proposed research is a case study project involving interview and document review. Interviews will take place between August and February of your first year of college. This research is an effort to complete the requirements of an Ed.D. at Appalachian State University and is undertaken with the knowledge and support of my dissertation committee chaired by Dr. Leslie Cook. I am an Associate Director in University Housing here at Appalachian and have been involved with the graduate program for several years.

Please return the enclosed Consent Form to indicate your interest in participation in this research study. Depending on your response, I will be contacting you to confirm your answer. I hope that you will consider my request to focus on your transition to college.

Sincerely,

Alicia D. Vest

Appendix C

Interview Questions

Participant Name:

Interview # 1

Date:

1. Please describe your first few weeks of the semester in regards to the academic work.
2. Please describe your first few weeks of the semester in regards to your social life.
3. How did you feel as a student in high school both academically and socially?
4. What did you think would be the same in college as it was in high school? What did you think would be different?
5. What has surprised you about coming to college?
6. Can you describe any disclosure of your learning differences to the University prior to joining the College Star program?
7. How would you describe how you interact with others in academic settings, such as classrooms or group work?
8. How would you describe how you interact with others in the residence halls?
9. How would you describe how you interact with others in other social settings?
10. What has been the hardest part about coming to college for you?
11. Can you describe specific things people (faculty, staff, students) have said or done that have helped or hindered your ability to connect to them on campus?

Interview Questions

Participant Name:

Interview # 2

Date:

1. Please describe your first semester in regards to the academic work.
2. Please describe your first semester in regards to your social life.
3. How do you feel as a college student so far, both academically and socially?
4. How would you describe your academic experiences as the semester has progressed?
5. How would you describe your social experiences as the semester has progressed?
6. How have you interacted with others in academic settings, such as classrooms or group work?
7. How have you interacted with others in the residence halls?
8. How have you interacted with others in other social settings?
9. Have these interaction changed throughout the semester?
10. What has been the hardest part about this semester for you?
11. What has been the easiest part about this semester for you?
12. Can you describe specific things people (faculty, staff, students) have said or done that have helped or hindered your ability to connect to them on campus?
13. What resources, if any, have you used on campus to assist with your transition academically?
14. What resources, if any, have you used on campus to assist with your transition socially?

Interview Questions

Participant Name:

Interview # 3

Date:

1. What was the best part about last semester for you?
2. What was the hardest part about last semester for you?
3. Please describe your first semester in regards to the academic work.
4. Please describe your first semester in regards to your social life.
5. What were your grades from your first college semester? How do you feel about your grades from your first semester?
6. Where do you feel you have connected the most on campus?
7. Since completing your first semester on campus, what changes do you plan to make in your second semester?

Vita

Alicia Demerise Vest has been involved with higher education and student affairs since attending college at Drake University in Des Moines, Iowa. She began her housing career as a resident assistant. As a master's student, she continued her role in housing and residence life as a residence director. After working full time for a few years, Alicia joined University Housing at Appalachian State University. In her various roles she oversaw student leadership, academic initiatives, programming, assessment, crisis management, student behavior and supervision of staff. In 2015 she moved over to operations in University Housing where she supervises the areas of housing assignments, marketing, technology, summer conferences, and the departmental budget, while still serving as an advisor and mentor for new colleagues, supervisees, graduate students, and undergraduate students.

Alicia earned the Ed.D. in educational leadership at Appalachian. She also has a master of science in counseling and college student personnel from Minnesota State University, Mankato, and a bachelor of science in business administration with concentrations in management, marketing and insurance.