Academic Coaching as Measured by Student Perceptions of Grit, Academic Self-Efficacy, Academic Commitment, Time Management, and GPA.

Elizabeth Ann Gravley

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ACADEMIC COACHING AS MEASURED BY STUDENT PERCEPTIONS OF GRIT, ACADEMIC SELF-EFFICACY, ACADEMIC COMMITMENT, TIME MANAGEMENT, AND GPA

by

Elizabeth Ann Gravley

A Dissertation
Submitted in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy

Major: Counselor Education and Supervision

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Dedication

This work is dedicated to my husband, Ray Gravley. He has provided unending encouragement and unwavering support during my entire doctoral program. He has been my biggest cheerleader and stabilizing force since I was 16 years old. I could not have completed this doctorate without his enduring love and easygoing spirit.
Acknowledgements

Many have been instrumental in my journey as a doctoral student. I want to individually thank my doctoral committee, including my chair, Dr. Steve Zanskas, committee members, Dr. Dan Lustig, Dr. Richard James, and Dr. Jade Xu. These talented educators were always available to encourage and guide me when I encountered obstacles and changes of direction along the way. They have taught me all that I know about this process and without them I could not have completed my doctorate. My children, Chris, Robin and her family, Brandon, and Daniel have been my most important life blessings and have always understood when I was temporarily unavailable to them because of time commitments to my research. My parents, Jim and Betsy Batchelor believed in my abilities and have always understood my drive and determination to succeed. Also important to my success are my sister and brother-in-law, Dr. Lee Edwards and Rick Edwards, my brother and sister-in-law, Jimmy and Maxine Batchelor, my niece, Jaimie Batchelor, my sister-in-law, Cathy Petropoulos, and my late brother-in-law, Jimmy Petropoulos. My late in-laws, Callie and Cecil Gravley were always interested in my progress and I regret that they are no longer present to celebrate with me. Finally, and most importantly, I want to thank my husband, Ray, for his incredible patience and support during this long and sometimes stressful struggle. Together we have learned so much about each other which I have discovered is the most important outcome of this process. Completing my doctorate has been one of the most important learning opportunities of my life and even though it was a long process, I am so glad that with God’s guidance and with the help of influential others, I persevered.
Abstract


This study examines how academic coaching influenced at-risk college students’ academic performance. Academic coaching places one student with a trained academic coach, who attempts to outline an academic plan with the student. The student contracts with the academic coach and they meet biweekly to assess progress and to discuss experiences and issues. Such an intervention was performed in the fall 2016 semester at a southern, urban, public university (Center for Academic Retention and Enrichment Services [CARES], 2017).

One way to examine academic coaching as an intervention and to determine efficacy is to measure students’ sense of grit, academic self-efficacy, academic commitment, and time management before and after an academic coaching intervention. This researcher used archival data provided by the Office of Institutional Research (2018) and from the academic coaching program at the study university in the form of a questionnaire provided to students both before the coaching intervention and again at the end of the intervention. This researcher proposed that the scores would show an increase in these areas and the set of variables might serve to predict GPA. This researcher used t-tests and multiple linear regression to analyze the data.

Significant differences were found between pre-test and post-test scores of academic self-efficacy and those of academic commitment. Both variables exhibited a significant decline in the mean scores following the academic coaching intervention. There was also a significant difference between the pre-test and post-test scores of the GPA measurements of the intervention term (Fall 2016), exhibiting an increase in GPA. Additionally, there was a significant difference between the pre-test and post-test scores of the academic year GPA (Fall 2016 to Spring 2017)
exhibiting an increase in GPA. The regression model using the change scores between Fall 2016 intervention term GPA as the initial dependent variable, and difference scores of grit, academic self-efficacy, academic commitment, and time management as independent variables, was not significant. The second regression model using the change scores of Spring 2017 GPA and Fall 2016 GPA as the dependent variable with difference scores of grit, self-efficacy, academic commitment, and time management as independent variables, was not significant.
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Chapter 1: Introduction

Overview

Student attrition is a problem for students and for institutions alike. Students have a goal of graduation and institutions have a responsibility to this student goal. However, some variables, such as student demographics, are not within student or institutional control. Such demographics include first-generation, low income, and minority students. It is known that first-generation, low-income, students from minority backgrounds may differ in their level of preparation for college than the average enrolled student (Aikens & Barbarin, 2008; Atherton, 2014; Chen, 2016; DeNicco, Harrington, & Fogg, 2015; Fain, 2016; Horn & Kojaku, 2001). These differences affect retention and completion rates in ways that include for example, lack of guidance by parents who have no college experience (Atherton, 2014; Cataldi, Bennett & Chen, 2018), and lack of funds with which to pay for college and living expenses that may be greater than those who are not at-risk (Adelman & Gonzalez, 2006; Bishop, 2016; Hurtado & Carter, 1997; Sandoz, Kellum & Wilson, 2017; Tinto, 2006; Wolniak, Mayhew, & Engberg, 2012; Xu, 2017; Xu & Webber, 2018).

Institutions have been working with at-risk students on academic warning to assist them increase their GPA to an acceptable level to retain and graduate (Capstick, 2018; Capstick, Harrell-Williams, Cockrum, & West, 2019; Quality Enhancement Plan, 2015). Academic coaching is one intervention that can be used to work with at-risk students to increase their GPA (Capstick, 2018). Academic coaching as an intervention focuses on providing students with the skills required to succeed and avoid being placed on academic probation or face expulsion. Recognizing student personal attributes of grit, academic self-efficacy, academic commitment, and time management may be helpful to students. These variables can be fostered by academic
coaches in the hope that these attributes would increase following the academic coaching intervention and possibly be predictive of a rise in GPA.

**Retention, persistence, and graduation**

Student retention and graduation are the goals of students who enroll in college (Tinto & Pusser, 2006). High school students apply to universities with this goal in mind. Statistics report that one out of three college students do not return to college for the second year (U. S. News and World Report, 2017). The graduation rate of all initially enrolled full-time students seeking a degree and beginning a four-year college educational pursuit in 2012 with a six-year completion was approximately 62% (National Center for Educational Statistics, 2020). In 2005, the rate of completion was approximately 59% (National Center for Educational Statistics, 2013). There is a disparity in gender (Chen, 2016; Lee, Flores, Navarro, & Kanagui-Munoz, 2015; Combs, et al., 2010), as within the six-year period in 2012 females graduated at a greater rate of 65%, while males graduated at a rate of 59% (National Center for Education Statistics, 2020). In 2005 females graduated at a rate of 61%, while males graduated at a rate of 56%. These statistics show that the completion rate has not shown much improvement in the last ten to fifteen years. Tinto (2012) reported that enrollment has more than doubled (from almost 9 million to over 20 million from 1980 to 2012 respectively, while completion has only increased slightly (Tinto, 2012).

To move in a positive direction towards retention and completion, studies have been conducted regarding how academic, social, and institutional interventions such as tutoring, freshman seminars and living learning communities affect student success. To date, however, there is a paucity of information about the student characteristics that affect student success within the students’ own perceptions. Having the passion along with the perseverance to pursue education (Duckworth, 2016), along with the belief that one can achieve success (Bandura, 1977;
Commitment to academic goals (Locke, 1968; Locke & Latham, 1990; 2002) and having the ability to use time wisely (Britton & Tesser, 1991) are also vital for success. The concepts of grit (Duckworth, 2016), academic self-efficacy (Bandura, 1977; 1997), academic commitment (Locke, 1968; Locke & Latham, 1990; Locke & Latham, 2002), and time management (Britton & Tesser, 1991) exhibit these student perceptions and may influence students’ drive to succeed. Universities could focus on these variables with interventions that might increase perceptions of students’ own view of grit, academic self-efficacy, academic commitment, and time management. An increase in these variables might result in an increase of GPA.

Student retention in higher education has been studied for many years (Shapiro, et al., 2016; Stewart, Lim, & Kim, 2015; Tinto, 1993). Retention is defined as returning to the same university the next fall semester after completion of the first year. Retention at public universities in 2017 was 63% within institutions at which there was less selectivity in college candidates. In more selective public institutional environments, the retention rate was 97% (National Center for Educational Statistics, 2017). There is a 34% difference in retention rates between public and private institutions. Students may need assistance in public universities to begin to close this gap.

At-risk students typically do not enroll in colleges that are considered elite. These elite institutions are usually expensive, more selective, and the most talented students traditionally enroll. Elite institutions usually have higher completion rates. Among students who attend these institutions, however, the students with lower income do not complete at the same rate as the higher income students. Higher income students in this group complete at a rate of 90%, while those in the lower income group complete at 76% (Carnevale & Rose, 2003; Tinto & Pusser, 2006). Further impacting completion, statistics indicate that students from a low-income group
do not usually attend high achieving public high schools and are not usually academically prepared for higher education (Fain, 2016; Aikens & Barbarin, 2008).

While retention is defined as returning to the same institution the fall semester following a student’s first year, persistence is defined as returning to any college (National Student Clearinghouse Research Center, 2017). In 2015, statistics show that one student in eight may transfer to another institution by their second year. Asian college students had a higher total rate of persistence of 84.2% (11.3% enrolling in another institution after the first year; 72% returned to the same university as the previous fall semester). Information regarding Caucasian students continuing college as transfer students in the fall 2016 was 13.7% (National Student Clearinghouse Research Center, 2017). The lowest rate of persistence according to the 2015 Clearinghouse report includes Black students (total of 66.9%; 12.4% transferring to another institution; 54.5% returning to the same institution). This report included 79% of students identifying with racial and ethnicity statistics. This percentage represented less information gathered for than for all full-time students reported by schools to the Clearinghouse (National Student Clearinghouse Research Center, 2017).

**Issues that contribute to low retention and completion**

Several aspects of college influence retention and completion, including academic, social, and institutional issues (Braxton & Hirschy, 2005; Cabrera, Castanada, Nora, & Hengstler, 1992; Donhardt, 2013; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Meeuwisse, Severiens, & Born, 2010; Pascarella & Terenzini, 1977, 1980, 2005; Shapiro, et al., 2016; Stewart, Lim & Kim, 2015; Terenzini, et al., 1994; Tinto, 1993, 2006; Tinto & Pusser, 2006; Xu, 2017; Xu & Webber, 2018). These three issues bring different perspectives to the discussion of completion, retention, and transfer of students. Academics are important, as without successful learning, a student will...
not be able to progress efficiently in school, often transferring to another campus (Goldrick-Rab & Pfeffer, 2009). Students are also impeded by lack of social connections or find themselves at risk of isolation on campus (Tinto, 2006, 2017) Institutional concerns are also on students’ minds as they want to be connected to the university by caring staff and faculty (Braxton, Hirschy, & McClendon, 2004; Tinto, 1987). Students make decisions based on these issues to continue or leave college, remain at an institution, or transfer to another institution to complete their degrees.

Academically, instructors may have a detrimental impact on student retention if instructors have little expectations that their students will achieve (Rendon, 1994). College students need to be certain that there will be teaching of good quality, appropriate advising within a supportive environment, and specific paths to assure student involvement (Astin, 1999; Braxton, Hirschy, & McClendon, 2004, Tinto & Pusser, 2006; Xu & Webber, 2018). Research has shown that students who are more successful at academics will remain at the same institution (Goldrick-Rab & Pfeffer, 2009), thus increasing social and institutional connections.

Socially, cultural, and racial differences may divide students into separate groups and this division may be perceived as isolation from majority students on campus (Harper & Quaye, 2007; Park, 2012; Pike & Kuh, 2006; Tinto, 2006). Additionally, the college culture may be quite different from family culture, and students may feel isolated from family while at school (Kuh & Love, 2000; Tinto & Pusser, 2006). Social integration is extremely important to the initial commitment to education. Students bring certain personal characteristics to college, such as race/ethnicity, ability, gender, socioeconomic status, college preparedness, and self-efficacy. These individual characteristics influence the desire to obtain a degree and can influence a student’s institutional commitment (Braxton, Hirschy, & McClendon, 2004), which, in turn, affects social activities. Students want to be socially connected on campus (Tinto, 2006; Kuh &

Institutionally, each student needs to perceive that the university is concerned with student needs as evidenced by faculty and staff support (Braxton, Hirschy, & McClendon, 2004; Tinto, 1987). Support from instructors and staff who exhibit a caring manner while facilitating a sense of belonging may positively affect students’ decisions to remain in college (Braxton, Hirschy, & McClendon, 2004; Tinto, 1987; 2017). Students may profit with assistance from university personnel who show genuine interest and care about students (Terenzini et al., 1994; Tinto, 1975; Xu & Webber, 2018).

Institutions and students view student retention differently. Much of the retention research has been done from the point of view of the institution and how institutions can increase student retention. While institutions often see retention as a financial objective, students do not think about retention itself. Students’ perspectives of the objective are different than simply keeping students in school. Students speak about persistence and doing whatever is necessary to persist to complete a degree, even if it means to transfer to another university. As a student must have the desire to complete a degree, the institution can help students retain, complete, and remain motivated by attending to their needs. To achieve persistence towards a degree, from the students’ perspective, institutions can focus on increasing self-efficacy, sense of belonging, and improved curriculum (Tinto, 2017).

Additionally, several issues affect certain groups of students. Students who arrive at college from families who have lower income (Adelman & Gonzalez, 2006; Bishop, 2016; Hurtado & Carter, 1997; Sandoz, Kellum & Wilson, 2017; Tinto, 2006; Wolniak, Mayhew, & Engberg, 2012); students who are the first to attend college in their families (Atherton, 2014;
Cataldi, Bennett & Chen, 2018); are underrepresented minority students (Adelman & Gonzalez, 2006; Musu-Gillette, et al., 2017; Niu, 2015); are academically underprepared students (Aikens & Barbarin, 2008; Atherton, 2014; Chen, 2016; DeNicco, Harrington, & Fogg, 2015; Fain, 2016; Horn & Kojaku, 2001); or those who have undocumented disabilities have a more difficult time acclimating to the new social, academic, and cultural environment (Richman, Rademacher, & Maitland, 2014; Terenzini, et al., 1994). Students who come to college with academic deficits (Terenzini et al., 1994) may be underprepared for higher education and arrive on campus with a need to take remedial courses before beginning freshman classes (Chen, 2016; Saxon, Sullivan, Boylan, & Forrest, 2005; Terenzini, et al., 1994).

Remediation courses are important student resources (Venezia, Kirst, & Antonio, 2004), as nearly half of students entering higher education institutions take such courses. Additionally, as many as 90% of students attending institutions that serve students with low income take remedial courses (Venezia, et al., 2004). Remedial courses help students become better prepared for further college work; however, they also slow the progress of underprepared students. Such students must take these courses in addition to those that count toward degree programs. Faculty and staff might be helpful in determining the continued need for remedial classes by mentoring and by recommending additional tutoring in areas of deficit.

Institutions have tried interventions, such as freshman seminars, seminars regarding financial aid, faculty mentoring, learning communities, and even focusing on the climate of the campus to assist students; however, institutional leaders still do not have the answer of how to best retain students and help them graduate (Tinto, 2017; Tinto & Pusser, 2006). One of the reasons for this issue is that many variables are not within an institution’s ability to change, such
as high school GPA, past experiences in high school, and student family makeup and characteristics (Tinto & Pusser, 2006; Xu & Webber, 2018).

**Reasons students leave higher education**

Students decide to leave higher education for many reasons. Psychological issues, structure of the student’s family, academic ability, social integration issues, and student values that differ from the college (Christie & Dinham, 1990) are often issues that cause students to leave (Bishop, 2016). Other reasons include student background and precollege issues such as level of parent education, socioeconomic status, and high school grade point average (Bean, 1981; Hossler & Vesper, 1993; Ishitani, 2006; Pantages & Creedon, 1978; Tinto, 1987; 1993). Additionally, financial concerns can become overwhelming and lead to students leaving college (Xu, 2017; Xu & Webber, 2018).

Students must leave their home surroundings, even if they commute to campus daily, and acclimate to a new social and cultural environment in an institution at which they may not feel comfortable. This fact is especially true of first-generation students (Moore, 2006; Terenzini, et al., 1994) who are the first in their families to enroll in college. First-generation students typically do not receive the guidance to navigate college as students who have parents who attended college (Atherton, 2014; Cataldi, Bennett & Chen, 2018).

**Financial issues.** Financial concerns continue to be a source of problems for many students (Xu, 2017; Xu & Webber, 2018). Students who are from other cultures, have low income, and are first-generation students may have additional problems paying for college. It has been suggested that lower income students typically graduate at a lower number than those in a higher income bracket (National Center for Educational Statistics, 2003; Tinto & Pusser, 2006). Enrollment has grown, but completion has not. For example, students who began college in
1995-1996, whose families had an income level of less than $25,000, completed a 4-year degree within six years at only 25% (National Center for Educational Statistics, 2003; Tinto & Pusser, 2006). For the higher income students whose families earn above $70,000, the rate of completion is much greater at 56% (National Center for Educational Statistics, 2003; Tinto & Pusser, 2006).

Students who do not return to college after the first year may have experienced issues with finances. They may have worked simultaneously along with studying and maintaining acceptable grades (Carnevale, Smith, & Strohl, 2013; Xu & Webber, 2018). As the financial responsibilities rise, the critical choice between continuing college or choosing to work fulltime must be made (U. S. News and World Report, 2017; Xu & Webber, 2018).

**At-risk students.** At-risk freshman college students are being admitted to higher education and are determined to be at-risk of completion by university standards. Such students may need assistance in areas. Many situations place students in a category of risk including: earning less than a 2.0 GPA in their first attempt to perform college work; students who have minority status (Adelman & Gonzalez, 2006; Musu-Gillette, et al., 2017; Niu, 2015); and those with first-generation status (Atherton, 2014; Cataldi, Bennett & Chen, 2018). Further, students who may be at risk include those who have Pell Grant eligibility designated as low-income (Adelman & Gonzalez, 2006; Bishop, 2016; Hurtado & Carter, 1997; Sandoz, Kellum & Wilson, 2017; Tinto, 2006; Wolniak, Mayhew, & Engberg, 2012), academically underprepared students (Aikens & Barbarin, 2008; Atherton, 2014; Chen, 2016; DeNicco, Harrington, & Fogg, 2015; Fain, 2016; Horn and Kojaku, 2001), and those who have undocumented disabilities (Richman, Rademacher, & Maitland, 2014).

With these at-risk admissions, there is a greater chance of failure if certain basic deficits are not addressed. For example, many at-risk college freshmen lack organizational skills, are
often procrastinators, and may not initially comprehend the amount of work that will be expected from a university level program (Perna, 2002; 2005). Other overwhelming student concerns about college include living away from home for the first time, becoming accustomed to roommates, scheduling classes, academics, commuting to classes, and work schedules (Astin, 1999; Tinto & Pusser, 2006). Further, students need to have positive social networks, understand the culture of the campus (Kuh & Love, 2000), and are expected to have developed good organizational skills. Students should also possess coping strategies for issues related to acclimating to college in an effective way (Richardson, King, Garrett, & Wrench, 2012).

As illustrated above, there have been studies regarding failures of first year at-risk students using demographics, such as first-generation, low-income, and minority students, as well as students earning less than a 2.0 GPA. There have been studies about interventions for such students. Much less is known about how and why interventions designed for these students may be working.

**Academic coaching as a possible solution**

One choice of campus intervention found to help struggling students is academic coaching (Bettinger & Baker, 2014; Capstick, 2018; Center for Academic Retention and Enrichment Services [CARES], 2017). Academic coaching is a one-to-one or group relationship between academic coaches and students. Academic coaches assist students with resources, study skills, time management, psychosocial needs, and overall guidance for academic success (QEP, 2015). SMART (specific, measurable, action-oriented, realistic, time-framed) goals are selected with students in collaboration with the academic coach with follow-up throughout the experience. (Capstick, 2018). Working with an academic coach, the student will be more successful than navigating the unknown system of higher education alone. Academic coaching
can be a calming, supportive influence on a struggling student. Students may feel that an academic coach is a partner on which they can rely (Bettinger & Baker, 2014; Capstick, 2018; Center for Academic Retention and Enrichment Services [CARES], 2017). Academic coaching strategies are usually designed for academically struggling students who do not present with issues related to more serious clinical problems (Grant, 2003).

Academic coaching may be one solution to the confusing issues that freshmen students often face (Capstick, 2018; London, 1989; Terenzini, et al., 1994). One-on-one conversations between students and academic coaches can provide necessary guidance to students, while showing that they care about students’ wellbeing and self-concept (Terenzini et al., 1994). Students may benefit from having a relationship with a trained coach on campus (Gessnitzer, Schulte, & Kauffeld, 2016; Potts & Schultz, 2008) when they are not sure where to go for information or help with issues, both academic and personal. Academic coaches can assist students with ways to think ahead and prepare for upcoming assignments. Additionally, academic coaches assist students with important decisions that they should make regarding their education. For example, Adelman and Gonzalez (2006) suggested that students who choose to remain in college, who avoid dropping and repeating classes, and those who enroll in summer classes are more likely to graduate. Further, students who attend part-time are less likely to graduate (Adelman & Gonzalez, 2006). Working with coaches can help students learn to think more effectively along the way with these and other choices, using the concepts of grit (Duckworth, 2016), academic self-efficacy (Bandura, 1977, 1997), academic commitment (Locke, 1968; Locke & Latham, 1990, 2002), and time management (Britton & Tesser, 1991).
Significance of the study

The significance of this study is that while at-risk students enroll in and attend higher education institutions, they often need additional guidance to be successful. Academic coaching is one way for such guidance to be provided at no additional cost to the student above tuition. The overall goal of the academic coaching program at the study university included ways to increase GPA, so that students would move from academic warning status and return to regular status to continue their education. Goals of the academic coaching program focused on the discussions of grit, academic self-efficacy, academic commitment, and time management as these skills may be predictors of academic success (Quality Enhancement Plan, 2015). These skills were measured before and after the intervention to determine whether changes in grit, academic self-efficacy, academic commitment, and time management predict a change in GPA.

Retention and completion are two especially important pieces of higher educational pursuit and success. Further, the transition from high school to college is difficult for some, as the requirements and expectations for each are quite different (Laskey & Hetzel, 2011). In high school, there is traditionally more structure, as well as more teacher and parental involvement with homework and classwork. In college, classes usually do not meet every day; there is typically less teacher involvement and the impetus to complete schoolwork and personal scheduling falls completely on the student. Many students leave home for the first time and have feelings of isolation not knowing anyone at their new institution. These feelings are especially true of first-generation students (Terenzini, et al., 1994). For the at-risk student, the differences may cause extreme difficulty with retention from semester to semester.

If an intervention, such as academic coaching, helps students to reach their potential, by increasing abilities of grit, academic self-efficacy, academic commitment, and time management,
the result will be higher rates of retention and completion. For students who are at-risk, this may mean the difference in completion of college goals or dropping out of college.

The present study

In 2015, administrators at a public urban university located in the southeastern United States with a significant population of at-risk students chose to address the struggles students were having during their first year at college (Quality Enhancement Plan, 2015). At-risk status is defined by this university as students earning less than 2.0 GPA on a 4.0 scale. Many of these students were also eligible for a Pell Grant (low income) (Adelman & Gonzalez, 2006; Bishop, 2016; Hurtado & Carter, 1997; Sandoz, Kellum & Wilson, 2017; Tinto, 2006; Wolniak, Mayhew, & Engberg, 2012); or may be the first to go to college in their families (first-generation) (Atherton, 2014; Cataldi, Bennett & Chen, 2018); and some were members of underrepresented minorities (Adelman & Gonzalez, 2006; Musu-Gillette, et al., 2017). The members of the Quality Enhancement Plan (QEP) (2015) chose to implement academic coaching to determine the usefulness of the program to students (Center for Academic Retention and Enrichment Services [CARES], 2017).

The QEP (2015) was developed and implemented to increase retention and completion of enrolled students. The purpose of the QEP was to help students develop academic goals towards academic success. Further goals were to learn skills related to academic self-efficacy, grit, academic commitment, time management, organization, study skills, and accessing resources such as programs or staff to help navigate the educational system (Quality Enhancement Plan, 2015).

This plan included using academic coaching as an intervention to positively influence student success. The QEP measured success by increased retention resulting in increased
completion rates. A pilot study was conducted to begin to build the academic coaching program for at-risk students at the study university in 2014. Results of the 2014 pilot study indicated that when students actively participated in eight or more academic coaching sessions, they earned a 2.5 GPA in the semester, which was higher than students who did not participate in the program (Quality Enhancement Plan, 2015). Some GPA improvement was also true of students who took part in the program but did not reach the goal of eight sessions. Actively engaged students who attended at least seven sessions could expect a one-point increase in GPA for the semester during the academic coaching intervention (Quality Enhancement Plan, 2015).

An outcome of student participation in academic coaching should be measured. Outcomes of student attitudes regarding aspects of grit, academic self-efficacy, academic commitment, and time management were measured by a Qualtrics (2013) online survey given by the academic coaching program in the fall semester of 2016 (Qualtrics Software, 2013). If students could increase perceived levels of grit, academic self-efficacy, academic commitment, and time management as a result of participating in an academic coaching intervention, they might see a positive change in grade point average (GPA) and experience success in their academic pursuits.

This study was designed to examine archival records of a semester-long academic coaching intervention showing results of student perceptions regarding the experience. This researcher examined changes in these students’ thinking using self-reported measures of grit, academic self-efficacy, academic commitment, and time management. Change in GPA was calculated and was used to determine whether changes in thinking resulted in an increase of GPA.
**Statement of the problem**

Student retention and graduation rates should be improved. Statistics at the study university show that the one-year retention rate for the 2013 first-time freshmen cohort was 77.7%; the four-year graduation rate was 32.1%; and the six-year rate of graduation enrolled fulltime was 53.1% (Office of Institutional Research, 2018). The national average is 62% for 4-year public institutions with a 6-year graduation rate (National Center for Educational Statistics, 2020). Nationally, for Black students, the six-year graduation rate was 36%; for first-generation students 40%; and for students with low income 38% (National Center for Educational Statistics, 2017). These statistics suggest that minority, first-generation, and low-income students would benefit from interventions to increase success rate.

Students who begin college and subsequently earn less than a 2.0 on college work often need guidance to progress. An intervention designed to help such students may result in higher retention and graduation rates. Academic coaching is one intervention that focuses on increasing GPA using goals individually tailored to each student’s needs.

The members of the QEP chose academic coaching as the vehicle to provide the needed assistance to struggling students placed on academic warning status (students who earned less than a 2.0 GPA). It is hypothesized that academic coaching could be used to get these students back on track and moving toward retention and completion after a less than productive semester. The academic coaching program at the university is known as Academic Coaching for Excellence (ACE). The director was tracking the success of the academic coaching participants by sending email survey links at the beginning of the semester; providing supervision for graduate students providing academic coaching; and finally, by emailing a link to follow-up surveys at the end of the academic coaching experience. The surveys were designed to measure
student attitudes about their levels of grit, academic self-efficacy, academic commitment, and
time management skills as related to program goals of increasing GPA. This study used archival
records collected during the fall 2016 and spring 2017 semesters.

**Purpose of the study**

The purpose of this study was to determine if the perceived levels of grit, academic self-
efficacy, academic commitment, and time management of at-risk college students will improve if
the students participate in a one-semester academic coaching experience. This researcher studied
whether grit, academic self-efficacy, academic commitment, and time management are rather
stable characteristics for college students or whether one could experience a change in the level
of these characteristics within an at-risk identified college population while participating in an
academic coaching intervention. Further, this researcher studied whether this change predicts or
explains a difference in GPA.

**Basic assumptions**

As the participants of this study fall in the at-risk category of earning less than a 2.0
GPA, as identified by the study university in the first 59 hours of college attendance, and fall into
several demographic groups considered at risk, this researcher made a basic assumption. This
assumption is that the coaching intervention would improve the grit, academic self-efficacy,
academic goal commitment, and time management scores of the students. Secondly, the
combination of the set of variables indicating change in each of the scores would have a positive
relationship with change in GPA. The results and follow up of these assumptions are given in the
results and discussion chapters.
Summary

At-risk students are enrolling in higher education but may need extra guidance to succeed. Such at-risk students include those of first-generation status, those with low income families, and those in a minority status. These at-risk categories have particular issues when it comes to academic success.

As institutions are interested in helping such students, the focus, in part, of this study was academic coaching. Academic coaching may be an intervention that will help students retain and graduate. The intense focus was on personal variables of the students. These variables were the concepts of grit, academic self-efficacy, academic commitment, and time management with the outcome variable of GPA.
Chapter 2: Literature Review

Overview

Students may fail at their first attempt during the first year of college and reasons include the need for extra attention to academic, social, institutional, and emotional issues. This chapter outlines the literature pertaining to the challenges of students to remain in college to completion, as well as the population and demographics of at-risk students. Each subject is outlined separately within the literature review. The factors of grit (Duckworth, 2016; Duckworth, Peterson, Matthews, & Kelly, 2007), academic self-efficacy (Bandura, 1997; 1977), academic commitment/goal setting (Latham & Locke, 1991), and time management (Britton & Tesser, 1991) may be important to college retention and completion. Using the intervention of academic coaching (Capstick, 2018; Bettinger & Baker, 2014; Robinson & Gahagan, 2010), these four components (grit, academic self-efficacy, academic commitment/goal setting, and time management) were compared and GPA was calculated before and after the intervention to determine whether a change in GPA was achieved. Additional constructs outlining the need for extra guidance for at-risk students are explored (Dweck, 2007, 2010, 2015; Schreiner, 2010).

Factors affecting college retention and completion

Research suggests that social, academic, and institutional factors affect college retention and completion rates (Tinto, 2006, 2017; Xu, 2017; Xu & Webber, 2018). Tinto began in 1975 to study the role that the student plays in higher education. He originally suggested that the student was the catalyst to become engaged with the institution and stated that students should initiate that integration. Later, a shift in thinking occurred and it was hypothesized that the institution could play a much larger role in the educational arena to help students (Tinto, 1975, 1993, 2006; Tinto & Pusser, 2006). Institutions could provide a higher quality educational experience by
employing instructors that know their subjects well and who could offer increased personal contact while relating to students in a positive way. These interactions between instructors and students should include both formal and informal meetings. Additionally, smaller class size is important to students (Braxton, Hirschy, & McClendon, 2004; Pascarella & Terenzini, 2005; Xu, 2017; Xu & Webber, 2018). It has been suggested that faculty members should be provided opportunities that foster instructional improvement by offering workshops and personal development classes (Xu, 2017; Pascarella & Terenzini, 2005).

The first year of college can be challenging (Tinto & Pusser, 2006), as those who earn fewer than 20 academic credit hours during the first year have one-third less chance for completion of a college degree than students who earn 20 academic credit hours or more (Adelman & Gonzalez, 2006). Additionally, first-generation students are less likely to score as high as on standardized tests such as SAT/ACT and other tests of preparedness for college (Atherton, 2014, Choy, 2001; Contreras, 2005; Steele & Aronson, 1995). Further, an important predictor of college retention is high school GPA, which is highly correlated with college success in the first year, college GPA, and graduation (Nettles, Theony, & Gosman, 1986; Ting & Robinson, 1998; Zwick & Sklar, 2005).

Many at-risk freshmen enter college largely unprepared for the many challenges they face, partially because of their limited preparatory experiences as high school students (Adelman & Gonzalez, 2006; Atherton, 2014; Cavanagh, 2004; Moore, 2006; Venezia, Kirst, & Antonio, 2004). These students may also have lower ability scores in academics (Contreras, 2005; Steele & Aronson, 1995). First-generation students (Hicks, 2003), students who have not decided upon a major (Korschgen & Hageseth, 1997), and academically underprepared students (Chen, 2016; DeNicco, Harrington & Fogg, 2015) may require guidance early in their freshman year. Faculty
and other staff can provide this guidance for first-year students (Commander, Valeri-Gold, and Darnell, 2004). Westrick, et al., (2015) suggested that the first academic year is the most important predictor of success for the following two academic years. Further, a study done by DeNicco, Harrington, and Fogg (2015) regarding freshmen students beginning at a community college and continuing to graduation from a four-year college found that the first academic year and the credits earned during that year, were high predictors of student retention. Such students need guidance for a successful college experience, socially, academically, and institutionally. Faculty could improve student experience by focusing on those unmotivated or reserved students who need extra help but may not ask. They could examine student motivation and determine how students are learning rather than primarily focusing on teaching methods and subject content (Astin, 1999).

University officials are interested in assisting students early in their college careers before they begin to falter (Hoops & Artrip, 2016; Ishitani, 2016; Wathington, Pretlow, & Barnett, 2016). The academic coaching experience is an early intervention for struggling students. Research has suggested that interventions put into place early in the semester may not be as effective at predicting academic success than those at the midpoint and beyond (Galyon, Blondin, Yaw, Nalls, & Williams, 2012; Gore, 2006). However, interventions that are longitudinal for the entire semester and include coaching and counseling relationships can aid such struggling students. Research regarding academic coaching programs suggests that coaching/counseling interventions that begin as the semester starts will allow students and coaches to develop the coaching relationship immediately, rather than waiting until the students are struggling to provide a supportive relationship at a more stressful time (Quality Enhancement Plan, 2015).
Social aspects of college affect the educational experience. Both social and academic realms could be positively affected by the institutional faculty and staff assisting the students with their deficiencies. Students would have a better knowledge base from which to work, as they would feel supported by instructors (Braxton, Hirschy, & McClendon, 2004). Students could build better peer relationships along with developing a sense of belonging on campus, which Tinto and Pusser (2006) suggested is so vital to success in college.

Another issue resulting in poor college performance is the lack of student decision-making skills (Braxton, Sullivan, & Johnson, 1997; Giedd, 2010). Parents and other important adults in students’ lives have typically provided guidance to students during the years before college admission and many students have not experienced the need to make important decisions by themselves. Upon college enrollment, students may not have as much parental guidance and this lack of guidance becomes an issue (Braxton, Sullivan, & Johnson, 1997). Further, first-generation students do not typically receive as much information regarding the subject of higher education because their parents did not attend college and have not had that experience (Atherton, 2014; Cataldi, Bennett, & Chen, 2018).

Further, as students are underprepared for many choices that they must make when they attend college, another reason that may explain a portion of this unpreparedness is reported by the medical community. Neuroimaging studies report that the frontal lobes of students’ brains are not fully developed until approximately the mid-twenties (Giedd, 2010). The frontal lobes are important to an individual’s executive functioning, which includes impulse control, judgment, and decision-making skills (Giedd, 2010). Most students will either be graduating or have already seen many failures along the way prior to this frontal lobe maturation. Especially for at-risk students, this maturation is too late to help students with executive functions so important for
success in college. An intervention of additional guidance may help students guide students when making decisions in college.

**At-risk college students**

Students come to college with different backgrounds, opportunities, interests, and abilities (Terenzini, et al., 1994; Tinto & Pusser, 2006). Some students may be determined to be at-risk academically, as evidenced by earning less than a 2.0 GPA on a 4.0 scale. At-risk students are less likely to graduate with a four-year degree (Adelman & Gonzalez, 2006; Ishitani & DesJardins, 2002; Xu, 2017). They may be struggling financially and may include students who are first-generation (Atherton, 2014; Cataldi, Bennett & Chen, 2018), are underrepresented minority students (Adelman & Gonzalez, 2006; Musu-Gillette, et al., 2017; Niu, 2015; Terenzini, et al., 1994; Tinto & Pusser, 2006), and are low-income students (Adelman & Gonzalez, 2006; Bishop, 2016; Hurtado & Carter, 1997; Sandoz, Kellum & Wilson, 2017; Tinto, 2006; Wolniak, Mayhew, & Engberg, 2012). Bronfenbrenner (1979) proposed that there is a gap between the environment from which at-risk students come and the environment at a more affluent college or university, thus causing social confusion for these at-risk students who may be unsure of how to fit in (Braxton, Doyle, Hartley, Hirschy, Jones, & McClendon, 2013; Bronfenbrenner, 1979; Maruyama & Furco, 2014; Tinto, 1993). In addressing this gap, research has suggested that more emphasis should be placed on more accessible public institutions where many at-risk college freshmen enroll (Adelman & Gonzalez, 2006).

**First-generation students.** As first-generation college students are the first in their families to enroll in higher education (Atherton, 2014; Cataldi, Bennett, & Chen, 2018), they may have several issues when attending college. Research suggests that such students may be more vulnerable than those who have college educated parents and may experience academic
difficulties (Strand & Council of Independent Colleges, 2013). Recent research has also suggested that this may not always be the case (Capstick, 2018).

First-generation students, like all students, must decide what path they will pursue following high school graduation, whether it involves going into the labor market and utilizing training or pursuing college. Students may decide to examine a college path even though their parents have not attended college. One reason that students choose a college path include, for example, that they believe that a college degree is more necessary for future careers than it once was when a high school diploma would lead to a good job (Carnevale, Smith & Strohl, 2013; Garriott, Hudyma, Keene, & Santiago, 2015; Kuh, Cruse, Shoup, Kinzie, & Gonyea, 2008; Perna, 2002; Terenzini, et al., 1994). Further, pursuing a degree satisfies personal as well as social goals of students (Baum, Ma, & Payea, 2010).

Students may choose to enroll in college for reasons other than their own desire to attend which may lead to lack of progress or drop out. One of these factors that influences students to choose a college path includes parental influence (Wang, 2012). Parents may believe that a successful career will follow the attainment of a college degree. Some parents may not have had the opportunity to choose college for themselves and want their children to have that chance. As there may be a certain parental expectation, students may choose college to make their parents proud (Bui, 2002) and to help their families and communities progress (Terenzini, et al., 1994). These influences stem from families or important others and may not be the choice of the student who must do the work.

Many parents of first-generation students may resist the separation that a college student goes through to attend post-secondary education (Terenzini, et al., 1994). Students may view success as assimilating into the college environment and want to break away from family, while
others may not wish to do so (Terenzini, et al., 1994). First-generation students’ parents tend to be less supportive in decisions made about attending college and may not understand how the college entrance process works. Further, they may be confused regarding what is expected once their student is attending college (Billson & Terry, 1982; Choy, 2001; York-Anderson & Bowman, 1991). Vargas (2004) suggested that first-generation students and their parents may not make the connection between high school grades and programs of study. They may not realize the deficit of having lower standardized test scores and how these scores relate to upcoming college requirements. For them, this realization of deficits comes later when students do not make satisfactory progress in college and this realization can cause extreme confusion and frustration (Vargas, 2004; Atherton, 2014).

First-generation students are more likely to experience guilt from their chance to become the first of their families to go to college (Covarrubias & Fryberg, 2015; Ishitani, 2003; Lubrano, 2003; Piorkowski, 1983; Spurlock, 1985; Whitten, 1992). Covarrubias, Romero, and Trivelli (2015) suggested that such students experience guilt which can result in symptoms of depression and lower self-esteem (Covarrubias, et al., 2015). Further, students may not experience life satisfaction due to the disconnection and judgment of family and friends for choosing to attend college (Davis, 2012; Garriott, Hudyma, Keene, & Santiago, 2015). However, Garriott et al. (2015) agreed with Prospero and Vohra-Gupta (2007) when suggesting that motivation to attend college may have been higher in those first-generation students who ultimately achieve academic success (Prospero & Vohra-Gupta, 2007; Garriott, et al., 2015).

For first-generation students, going to college is like moving from one culture to a dissimilar new culture (Moore, 2006). Additionally, family members may believe that the college student is moving away from cultural roots during college pursuits and this may be
somewhat upsetting for families (London, 1989; Terenzini, et al., 1994). Tinto (1975) suggested that for ultimate success, students need to adapt to the college environment for a successful transition from family to school. Later, he suggested that institutions should offer greater support to students and assist this adaptation to the environment (Tinto, 1993, 2006). Students must adapt to a new culture, academics, and a new social environment (Terenzini, et al., 1994; Tinto & Pusser, 2006). These cultural, academic, and social changes along with navigating familial issues can be confusing to the new freshman (Wang, 2012).

It has been argued, however, that keeping family ties is important, as students who persist in college may need familial support (Braxton, Sullivan, & Johnson, 1997). Contrary to this point is the fact that first-generation students may not receive as much understanding from parents and families as those who have parents who have had the college experience. Subsequently, they find that leaving the home culture is much harder (York-Anderson & Bowman, 1991). These students may have a more difficult time transitioning to college life and need more support on campus (Wang, 2012). Students having a mentoring relationship perform better with effects lasting even after the college experience concludes (Potts & Schultz, 2008; Smith, 2009); however, having a mentor that has a different perspective than family may cause confusion as well. Both family and mentor messages given to students can be helpful when both views are balanced by the student (Wang, 2012).

First-generation students often struggle with asking for help as many want to succeed using their own efforts. Wang (2012) suggested that the availability of a mentor early in the college experience would help students who are not performing as well as they would like. Some students reported that they would talk to a mentor about college courses but were hesitant to talk about life issues and stressors (Wang, 2012). Some students tended to mix their families’ and
mentors’ assistance, while others kept the relationships separate and set a higher priority for one over the other (Wang, 2012).

Students first in their families to attend college typically do not receive much guidance and cultural or social capital from parents or from influential others regarding college enrollment and attendance (Atherton, 2014; Cataldi, Bennett, & Chen, 2018; Cushman, 2007; Terenzini, et al., 1994). A way to better the experience and success of first-generation students because of this parental deficit include programs that identify and provide outreach for such students. Two programs that provide this type of outreach that originate in high school and that continue in college include TRIO and Upward Bound (Atherton, 2014; Gullatt & Jan, 2003).

University and college leaders identify the importance of support for first-generation and even for students who have parents who have college degrees, as this support increases positive feelings when adjusting to college life. Institutions could connect students with helpful persons on campus or to persons of importance to the student. For example, senior level student mentors would be helpful for incoming students, especially those who are from the same minority group (Xu & Webber, 2018). Those working with students would be helpful by exploring students’ self-efficacy (Terenzini et al., 1994) and their expectations of college outcomes. These aspects appear to be helpful in predicting satisfaction with college and progress in academic areas (Garriott, Hudyma, Keene, & Santiago, 2015; Terenzini, et al., 1994).

**Students from low income families.** Financial difficulty is one of the most prevalent reasons that students drop out of college (Federal Student Aid, 2014; St. John, Kirshstein & Noell, 1991; St. John, Andrieu, Oescher, & Starkey, 1994; Tinto & Pusser, 2006; Xu, 2017; Xu & Webber, 2018). This fact is especially true for low-income students (Federal Student Aid, 2014). For example, in 2006, students whose family income ranged from $20,000 to just under
$35,000 were 72% more likely to end their education prematurely than for those making $50,000 (Ishitani, 2006). Conversely, higher risk low-income students graduate at a lower rate than those with a greater income, but some researchers have found that it may not be a significant difference (Bishop, 2016).

Institutional assistance can be provided in the form of financial aid, including work-study jobs on campus. The work-study program has an added benefit, as it also helps students become involved with others on campus (Astin, 1975; 1999; Tinto & Pusser, 2006; Wilkie & Jones, 1994) and increases student attachment to the university (Astin, 1999). Additionally, institutions can arrange scholarships or paid internships with businesses in the local area to help students with expenses (Xu, 2017; Xu & Webber, 2018). Research suggests that retention is increased if students gain financial assistance (Chen, 2012; DesJardins, Ahlburg, & McCall, 2002; Singell, 2004; Xu, 2017; Xu & Webber, 2018).

Students from families with low income often have these financial difficulties in addition to issues faced by other students who are deemed at risk (Federal Student Aid, 2014; St. John, Andrieu, Oescher, & Starkey, 1994; St. John, Kirshstein & Noell, 1991; Tinto & Pusser, 2006 Xu & Webber, 2018). They often must supplement Federal and State financial aid packages, and their families may not have the extra funds to assist. Students often must work fulltime, which may not leave enough time for study and may have a negative effect on college completion (Billson & Terry, 1982; Carnevale, Smith, & Strohl, 2013). Working is often a challenge as many off-campus employers do not understand that for students, education must come first. Further, students may have enough money for tuition, but may lack funding for housing and books. Also, it is difficult for students to engage in activities on campus if they live at home (off campus) or work too many hours (Astin, 1999; Tinto, 2006). Non-working students enrolled in
on-campus engagement programs may be provided with funding that assists with these needs. For students who work, there may be little time for participation in such programs in addition to their family, college, and work commitments (Astin, 1999; Tinto, 2006).

Other financial factors influence student performance in college (Tinto, 1997). One such consideration for students is place of domicile during college (Astin, 1999; Morris, 2012; Tinto, 2006). Students who can afford to live on campus have a greater chance to become involved in campus activities and can become more socially connected with both faculty and peers (Pascarella & Terenzini, 2005). Further, they may hold part time jobs on campus which increases involvement leading to higher retention (Astin, 1999). Students who live on campus away from home and family distractions may spend more time during the week studying and are able to work on assignments long-term rather than working on them immediately before they are due. Research has suggested that students who develop individual study methods perform better as there is time in the evenings that they often spend alone when they could study (Morris, 2012). However, maturity level mitigates these results (Morris, 2012). Students who need extra guidance and work with a coach may be able to gain this maturity to develop better study skills.

If finances do not permit students to live on campus or independently in an apartment or house situation, they must live at home with families. This can result in a risky situation because the student remains under family influence whose members may not understand the workload or commitment that must be made for success at college. Commuter students may be called upon to help with family responsibilities (Leppel, 2002) when they should be focused on study and attending class. Class time is often the only time that students receive instruction and social engagement as they have other responsibilities that take up any extra time (Astin, 1999; Tinto, 1997, 2006; Tinto & Pusser, 2006). They miss classes due to having sick relatives or childcare
situations. Students sometime feel that out of obligation, they have no choice other than to assist their families (Leppel, 2002) and will risk grades or attendance to do so. They need additional outside guidance to place priorities and to make these decisions as they arise (Astin, 1999; Giedd 2010).

**Minority students.** Even though more minority students are enrolling in college, they fail to complete degrees at the same rate as non-minority students (Carey, 2004; Tinto & Pusser, 2006; Xu, 2017). These statistics are slowly improving in certain groups, however. For example, in 2017, the National Student Clearinghouse reported that majority Whites (completion rate of 63.2%) and minority Asian students (completion rate of 62%) had the greatest completion rates. Latino students graduated at a rate of 45.8% while Black students graduated at 38%. By comparison, in 2002, minority students (grouped together as Latino/Black), earned college degrees at 46% in six years (Berkner, He, & Cataldi 2002). Additionally, in 2002, it was reported, that Latinos experienced the least rate of retention and completion (Astin & Oseguera, 2005; Berkner, He, & Cattaldi, 2002), however, by 2017 Black students had the lower rate. Minority students are often from lower income families and feel that they have more financial issues that may lead to less social integration (Braxton, Hirschy, & McClendon, 2004). Research has suggested that Black students have less experience than majority students and less knowledge regarding higher education, application processes, and less funds with which to pay for educational expenses (D’Augelli & Hersberger, 1993; Xu, 2017; Xu & Webber, 2018). Factors that affect students’ retention and academic performance include institutional environments that are not adequately supportive of students, students feeling socially isolated, and having instructors that have low expectations for minority students (Oseguera, Locks, & Vega, 2009). There is a need to identify programs to assist with retention of these students who
may be experiencing other factors affecting college progress and are graduating at lesser rates than non-minority students (Bok, 2006; Tinto, 1997).

**Institutional financial issues**

Keeping students enrolled and graduating are important funding issues for colleges and universities (Holler, 2006). Once student enrollment was the focus of university administrators’ attention regarding funding. As graduation rates did not improve, there was a shift of focus, and outcomes regarding retention and graduation also became important measures of success. From the years 1979-2007, many states reviewed performance-based funding for colleges (Miao, 2012; Smith, 2015). States attempted to work toward a performance-based system; however, found that the early attempts were somewhat flawed, and some states discontinued their efforts (Miao, 2012; Smith, 2015). In 2010, performance-based funding was again implemented in several states including Tennessee, Ohio, Pennsylvania, Indiana, Washington State, and Louisiana. Each state runs their programs in different ways, but the outcome for all are progress and completion rather than simply enrollment (Miao, 2012; National Conference of State Legislatures [NCSL], 2015; Ordway, 2015; Sanford & Hunter, 2011; Tennessee Higher Education Commission [THEC], 2015). As university officials want to see retention and completion rates rise, they are interested in finding ways for students to achieve these outcomes. In this way, there will be more qualified individuals prepared for careers and jobs (Miao, 2012). Having more jobs will, in turn, increase essential economic gains as Davidson (2014) warned that, the United States was experiencing a decline in the global economy. There are opponents to Performance-Based Funding (PBF), as research has not found substantial support for PFB; however, the research goes on to determine ways to fund higher education (Smith, 2015).
**College program assistance**

College and university administrators have attempted to help students who have enrolled in their institutions. Deil-Amen and Rosenbaum (2003) suggested that of all colleges, vocational and career colleges in general, do a good job of acclimating students to their programs. Ideas for improving students’ skills from more career-oriented schools include improving the structure of courses, providing intentional oversight of progress, implementing a system of information that could alert counselors to problems, offering better counseling opportunities, and assisting with issues outside of the college environment (Deil-Amen and Rosenbaum, 2003). Students who learn how to cope with college issues can increase their expertise with focused practice (Deil-Amen and Rosenbaum, 2003).

Conversely, often in vocational and junior colleges, students often change focus, have little skill in navigating the college system, and with making related decisions. They have little experience with making choices about college and need guidance (Giedd, 2010). Junior colleges and technical colleges often have a different focus from universities in that they may offer two-year stand-alone degrees, as well as transfer degrees. For this reason, guidance may be different from universities, and intervention should be tailored to each type of institution. However, as junior colleges are modeled somewhat on bachelor-level colleges (Deil-Amen & Rosenbaum, 2003), future studies may show that these same challenges relate to those in four-year institutions, as well.

**Academic coaching**

The intervention of academic coaching is a means of providing a beneficial point of contact and the view that a coach as a friendly, caring person at the university who can help find resources and answer questions (Terenzini, et al., 1994). Academic coaching is characterized as
an intervention to address issues of GPA, organizational skills, resource identification, emotional problems, and any issues that the students need/want to discuss (Bettinger & Baker, 2014; Capstick, 2018; Quality Enhancement Plan, 2015). Academic coaching employs individuals to work with students on a one-to-one or group basis. Academic coaches establish a plan to work on issues that have caused a student to struggle in an academic setting. Such an intervention has been put into place by universities to assist students (Bettinger & Baker, 2014; Capstick, 2018; Capstick, Harrell-Williams, Cockrum, & West, 2019; Quality Enhancement Plan, 2015).

At the study university, students who served as coaches were graduate assistants in a counseling or counseling-related program assigned to the academic coaching program. These coaches received tuition and a monthly stipend for their work with the at-risk students. Some graduate students might have been completing a practicum experience with academic coaching and received only class credit for their coaching endeavors. Practicum students were equivalent in education and training with the other graduate students working as coaches. Together, the student and the academic coach determined a plan to remediate difficulties, which might have contributed to the student’s previous lack of progress. The written plan outlined specific goals to be met and provided each student with the name of the academic coach and the coach’s contact information. The student and coach signed the written plan, and the student received a copy. The plan was reviewed during coaching sessions to determine progress (Quality Enhancement Plan, 2015).

Students may need a little “nudge” as some individuals need help with decisions with which they have little experience and receive little feedback (Giedd, 2010, Thaler & Sunstein, 2009). Often students may not understand situations in which they find themselves well enough to make decisions on their own (Thaler & Sunstein, 2009). As this idea also adds to the
definition of an at-risk student, this help may be provided by an academic coach in an academic coaching intervention. Parents have been influential in students’ lives prior to college, but college is an event that students must learn to navigate for themselves. Students must develop the skills needed for one day completely being self-sufficient and functioning in a career. Academic coaching may foster student emotional growth and may help students to begin to make important decisions on their own, rather than relying on family or other influential people, who may not understand the college experience and challenges. Because of academic coaching support, students may gain maturity with decision-making skills, which is vital to their college careers (Giedd, 2010; Capstick, 2018; Robinson & Gahagan, 2010).

Academic coaching has shown to be effective at colleges and universities (Capstick, 2018; Robinson & Gahagan, 2010; Vanacore & Dahan, 2019). It has been demonstrated that students who attend at least seven academic coaching sessions while taking them seriously could expect up to a one-point increase in GPA in the semester in which academic coaching was provided (Quality Enhancement Plan, 2015). Academic coaching offers students assistance with a myriad of issues related to academic goals, including developing self-awareness, identifying strengths, examining interests, and identifying values (National Academic Advising Association, 2017, a, b).

Moore (2006) described many challenges that students face as “academic culture shock.” Some challenges may include limited understanding of how to study, not learning to study due to doing well in high school with little effort, lack of organizational skills, inability to manage time, having more freedom than in high school as classes do not span an entire day (Laskey & Hetzel, 2011), and other individual student differences (Robinson & Gahagan, 2010). An academic coaching program may involve a plan that encompasses three parts: self-assessment, reflection,
and goal setting to define and remediate academic deficits. Assessments provide a baseline measure; reflection helps to identify strengths and challenges; and goal setting is a concrete process to identify goals that are used as a roadmap to success (Robinson & Gahagan, 2010).

For students, both social and academic engagement with campus activities provided by the institution is an important aspect of successful college life (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). However, researchers have suggested that social engagement is more important to beginning freshmen than for students who are already academically struggling and on probation (Robinson & Gahagan, 2010). For those who struggle, an academic plan seems to be more important in getting the students back on track for retention and completion (Robinson & Gahagan 2010). Academic coaching focuses on such academic plans (Quality Enhancement Plan, 2015).

Research has reported that at one location during 2007-2008 for students who were facing student financial aid loss due to poor performance, that there was 92% improvement in GPA for students who participated in academic coaching. The following year (2008-2009) it was reported that for those who participated in academic coaching, there was a 40% reduction in students facing suspension than was expected. Additionally, 10% of students decided to meet with their coach again after the initial coaching commitment period (Robinson & Gahagan, 2010). Similar results were revealed in another university study for students determined by the university to be at-risk, from the years of 2014 to 2017. Academic coaching was found to be effective in increasing GPA when students actively participated in the program (Capstick, 2018). In fact, students participating in academic coaching were more likely to increase GPA to an acceptable 2.0 than those who did not participate (Capstick, 2018; Capstick, Harrell-Williams, Cockrum, & West, 2019).
**Evidenced-based coaching strategies.** As there have been limited studies regarding evidenced-based coaching strategies (Smither, 2011), Gessnitzer, Schulte and Kauffeld (2016) conducted research regarding practices that coaches can use with students. This research, along with previous research by Gessnitzer and Kauffeld (2015), is one of the few studies that outlines what happens in a coaching session concerning communication between the coach and students. Overall, coaches assist students by using language that promotes self-efficacy in coaching sessions (Gessnitzer & Kauffeld, 2015; Gessnitzer, Schulte, & Kauffeld, 2016). Self-efficacy is important for students to develop to become self-reliant with decision-making towards academic success. Students may benefit from a more directive approach using solution-focused language in the beginning of the coaching relationship, followed by less directive approaches as the coaching intervention progresses (Gessnitzer et al., 2016), thereby gradually shifting responsibility to students. Although the first coaching session usually involves goal setting using supportive direction from the coach, in later sessions, it may be more helpful for the coach to use supportive language and open-ended questions with the basic counseling skills of unconditional positive regard, congruence, and empathy (Gessnitzer et al., 2016; Rogers, 1957).

In this way, students learn to use language showing self-efficacy as they progress in the coaching process and can take personal responsibility by believing that they can achieve their goals (Bandura, 1977, 1986, 1989, 1994, 1997; Gessnitzer et al., 2016). Once students learn to respond to coaches with language showing self-efficacy and begin to take responsibility, it may be detrimental for coaches to continue using directive approaches. Coaches should begin to inhibit such directive language in future sessions to give the student a more active voice in the coaching relationship (Gessnitzer et al., 2016; Rogers, 1957). Coaches can shift their coaching methods to be less directive as students realize improvement and begin to choose more self-
efficacious language on their own. As students move toward their own self-efficacy, they use more self-focused language and begin to actively pursue their goals. Open questions based on solutions may be better than open questions based on problems (Grant, 2012).

Person-Centered Counseling (Rogers, 1957) may enhance the academic coaching experience with students and is used in some academic coaching programs (Capstick, 2018). Rogers (1957) developed this theory to assist struggling clients (viewed by Person-Centered Counseling) as the experts on their own issues, rather than counselors. In fact, the role of the counselor is to be a facilitator to bring these issues to the consciousness of clients so that they can realize what may be troubling them. The tenets of Person-Centered Counseling include unconditional positive regard, congruence, and empathy and this form of counseling is designed to be a supportive experience. These are core counseling skills recognized in the counseling profession and can facilitate relationships between counselors and clients. Person-Centered Counseling is non-directive (Rogers & Carmichael, 1942) and is used to promote self-actualization so that clients will be the truest versions of themselves. An important aspect of this type of counseling is the premise that clients have whatever resources needed within to heal themselves and a practitioner can facilitate growth and understanding without judgment (Rogers, 1957). As such, this type of interaction fits well with students utilizing academic coaching as they often need unconditional acceptance, empathy, and knowledge that the coach is genuine and trustworthy in their interactions.

Students presenting with learning disabilities (LD) and Attention Deficit/Hyperactivity Disorder (ADHD) also benefit from academic coaching (Richman, Rademacher, & Maitland, 2014). Academic coaches may be able to assist students with learning issues to use executive function and self-determination (Giedd, 2010) to better set goals and ultimately achieve success
in college. Academic coaches may be able to positively affect retention and graduation of these students by using supportive actions. Some studies have been completed; however, more studies should be done with this population (Richman, Rademacher, & Maitland, 2014).

Educational transitions at any stage are often exceedingly difficult. For example, it might be expected that both female and male students making the transition from middle school to high school would experience stress (Barber & Olsen, 2004) as a function of changes in level of education. Such students participated in a coaching experience to determine stress level, and the researchers found no increase in stress levels after students completed this coaching experience (Dulagil, Green, & Ahern, 2016). Research suggests that coaching delivers more favorable feelings of wellbeing for female high school students (Dulagil et al., 2016). Students’ levels of cognitive hardiness were increased, which showed that students were more committed. A possible explanation for the reaction of the students is that the changes may have been viewed and accepted as challenges to be met instead of as detriments (Dweck, 2016, 2015, 2010; Schreiner, 2010). Further, the students felt as if they had greater control over life situations following the academic coaching intervention. (Dulagil et al., 2016).

Students have stated that greater self-efficacy predicts a successful coaching experience (De Haan, Duckworth, Birch, & Jones, 2012). Thus, students’ perceptions of a positive relationship with their coach may influence their own personal perceptions of self-efficacy (Baron & Morin, 2009; Theeboom, Beersma, & van Vienen, 2013). Students begin to gain a sense of trust with their coach, and this relationship was found to be important to the development of self-efficacy (Baron & Morin, 2009; Theeboom, et al., 2013). For students to be successful in goal attainment, they must verbalize their own intentions (Gessnitzer, Schulte, &
Kauffeld, 2016; Natale & Diamante, 2005). Research has shown that it is easier to speak personally about self-efficacy when one has trust in the coach (Gessnitzer et al., 2016).

**Working alliance.** The term, working alliance, suggests that a bond exists between individuals working together towards a goal. The working alliance has been effective in coaching and in college classrooms (Gessnitzer & Kauffeld, 2015; Meyers, 2008; Owen, Quirk, Hilsenroth, & Rodolfa, 2012). Such a relationship based on trust between students and coaches or instructors may be helpful for the success of the experience (Potts & Schultz, 2008). However, a surprising finding by some researchers is the suggestion that bonding between coach and student may make little difference (Gessnitzer & Kauffeld, 2015). Owen and colleagues (2012) and Meyers (2008) suggested that when working with students using the working alliance approach, while the strength of the relationship is important, the focus on goals and related tasks is more important. Additionally, while self-efficacy perceived by the student is a component of coaching efficacy, self-efficacy is affected by the goals and tasks chosen as well. Research has suggested that if students select goals and initiate the agreement with their coach, the coaching experience is more successful. Conversely, if the coach is the initiator of agreement with a goal, the opposite is true (De Haan, Grant, Burger, & Eriksson, 2016). This idea supports the premise that students may prefer to be more active in the coaching process. Further, although the personality of the coach as matched with the student is important, it may be less important than was previously believed (De Haan, Grant, Burger, & Eriksson, 2016).

As coaches work with students, it is important that coaches make certain that they stay in touch with the experience of each student throughout the coaching process. Additionally, coaches should assess the comfort of the student during the coaching process for the student to increase self-efficacy (Baron, Morin, & Morin, 2011). The relationship between coach and
student, the context of the situation, and the individual characteristics of the student and coach should be continually examined.

There are many approaches to coaching and no one strategy works with every situation. Coaching has many facets and there are several theory-driven choices with which to work. Having a variety of methods is considered a strength and coaches need to be continually flexible and tailor methods used to meet the student’s needs (Cox, Bachkirova, & Clutterbuck, 2014).

**Coaching and counseling**

As trained coaches may be graduate students in counseling or counseling-related studies, a comparison between coaching and counseling should be made. Literature exists outlining the similarities and differences of both activities. Evered and Selman (1989) provided a description of coaching based on the Hungarian meaning of the word, suggesting that the purpose of coaching is to help a student with goals or to move from the present operational level to a new level in the direction of chosen goals (Evered & Selman, 1989; Van Kessel, 2006). Therapy or counseling was specified by Evans (1981) as related to its root word, *therapeia*, which means to be present with clients in their work together (Evans, 1981).

Research has shown that there is overlap between coaching and counseling (Goodstone & Diamante, 1998). For example, both coaching and counseling require that coaches/counselors develop positive relationships of trust with clients, communicate and listen well, work within the moment, increase awareness with the client, and choose goals including client input with plans to achieve them (Hartman & Zimberoff, 2014). Coaches follow ethical guidelines outlined by the coaching profession, the International Coaching Federation (Gebhardt, 2016), and can work with clients to remediate problem behaviors or to educate clients about proper functioning within a
role. Counselors follow ethical guidelines, as well, and are overseen by the American Counseling Association, as well as other credentialing organizations.

Overall, coaches work with clients in such a way to teach the student to be responsible for improvement (Natale & Diamante, 2005). These same attributes and working styles can apply to counseling, as counseling uses relationship, congruence, unconditional positive regard, empathy (Rogers, 1957), awareness, effective communication, decrease in behavioral issues, and work toward therapeutic goals to improve functioning. Both can involve one-on-one or group sessions to achieve goals (Natale & Diamante, 2005; Richman, Rademacher, Maitland, 2014). Research suggests that coaching assists students with self-awareness, the ability to self-manage emotions, academic pursuits, and social aspects, all of which can lead to feelings of wellbeing (Richman, et al., 2014). The same is true of counseling (Rogers, 1957).

Some students have difficulty accessing help, and this may influence their access to coaching or counseling. Garriott and colleagues (2017) suggested that a student’s own view of pursuing help may affect whether that student will seek counseling (Garriott, Raque-Bogdan, Yalango, Ziemer, & Utley, 2017). For example, first-generation students have usually adopted a more interdependent personal view based on previous family style; however, they may need to take an independent stance in college (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). First-generation students may perceive that becoming more independent will help to ensure a successful college transition. They have had to depend more upon themselves and their beliefs, using previously developed grit, as well as self-efficacy, rather than counseling during their work in college and reject the idea of counseling (Garriott et al., 2017). Further, some higher risk students exhibit lower levels of resiliency, as well, and may have greater difficulties than can be dealt with at a counseling office on campus. Such students may not feel comfortable
enough to pursue help (Bishop, 2016). Academic coaches can refer students to outside counselors for assistance when needed (Quality Enhancement Plan, 2015).

Model agility is used in coaching following flexible solutions to individual needs (Kauffman & Hodgetts, 2016). Model agility is the ability to evaluate a situation, choose methods or theories for use, and apply such methods within a coaching relationship (Kauffman & Hodgetts, 2016). The four psychological theories utilized within model agility are cognitive behavioral, positive psychology, adult development, and psychoanalytic (Kauffman & Hodgetts, 2016). These theories and others are seated at the core of the field of counseling, as well. Research shows that coaches who can employ more than one approach to coaching are better able to help their students (Kauffman & Hodgetts, 2016). Additionally, coaches who are trained in the psychological theories are better able to recognize issues and are more likely to choose the best methods for use to proceed with a student. Although not every coaching relationship requires utilizing psychological/counseling techniques and some issues can be solved without using psychological methods, there are situations in which thinking about student issues in more than one way is beneficial (Kauffman & Hodgetts, 2016).

Coaches tend to focus on identifying academic solutions right away using solution-focused methods without exploring deeper issues with the student. If such deeper psychological work is necessary, coaches typically refer those individuals to counselors, who are better trained to handle more in-depth issues (Bluckert, 2005). Counseling often deals with more complex personal, pathological, and dysfunctional clinical issues. Counselors examine students needing intensive emotional or psychological assistance to become better functioning individuals (Gebhardt, 2010; Grant, 2003; Natale & Diamante, 2005; Spinelli, 2008). Counselors typically spend more time on background and presenting issues before going into much deeper-seated
issues (Spinelli, 2008). Coaches are more focused on academic issues with some focus on emotional problems (Bluckert, 2005).

Both counseling and coaching can benefit students by helping them learn better emotional control and understanding that emotions are a normal part of life functioning. Coaches, as well as counselors, are partners with students (Rogers, 1957). Students are viewed as able to benefit from coaching as they have the potential to gain resources and manage their organizational deficits. This potential may be increased with goals that are attainable when strategies are in place to enhance student self-awareness. When such strategies are put into place, students will learn how to become effective leaders, further enhancing academic success (Natale & Diamante, 2005; Spinelli, 2008; Gebhardt, 2010).

Slight differences in coaching and counseling, for example, include that academic coaching is mainly used with students who would benefit from training in academic skills and organization as related to education. These coaching students do not typically have deeper pathological issues on which to work with their coaches. Those who need more intensive help are typically referred to counselors. Counselors can focus on these issues for more complete, in-depth treatment (Spinelli, 2008).

Spinelli (2008) agreed with Jopling (2007) that there is a “fuzzy logic” in which both counseling and therapy overlaps with coaching. Spinelli offered that coaching and counseling/therapy will move in a direction of agreement rather than of differences and that a new name may emerge between the two disciplines (Spinelli, 2008; Jopling, 2007). In fact, research has also suggested that most future coaching theories will rely somewhat on psychological theories and that there may be more similarity between the disciplines (Bachkirova & Cox, 2005; Spinelli, 2008).
Gebhardt (2010) suggested that there are “quagmires” in the future relationship between psychology/psychotherapy and coaching. These issues include roles played by coaches and clinicians, educational differences including essential competencies, training, licensing/credentialing, and certifications (Gebhardt, 2010). Confidentiality and how it is achieved; bodies that govern each discipline; and fees for service are other areas of concern. Gebhardt warned in 2010 that these issues should be examined for both disciplines to continue to develop and avoid ethical and legal pitfalls.

**Student engagement.** Coaching can be a form of student engagement on campus provided by the institution. Student engagement in college has been identified as one positive predictor of success. In fact, Tinto (2006) suggested that the first year of college is the time when decisions are made to remain or leave an institution, thereby making that first-year experience one of the most important (Tinto, 2001, 2006; Upcraft, Gardner, & Barefoot, 2005). Research has suggested that students who participate in educational engagement activities are more likely to be retained through the first year to the second (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). More recent research has suggested that although engagement is important, more effective methods to assist struggling students might be in quality of academics and financial assistance (Xu, 2017). These two areas appear to help students with more immediate needs.

Scores on SAT/ACT measures are important predictors of first year college achievement; however, research suggests that they are not as important as engagement experiences in college, such as dorm life, campus work opportunities, and other new experiences (Kuh, Cruce, Shoup, Kinzie & Gonyea, 2008). Further, engagement offers the advantageous effect of remaining at the same institution rather than transferring to another university (Kuh et al., 2008). It was previously shown that students who transfer to another educational institution only added 7% to
the six-year graduation rate of 51% during the years 1995-1996 (Berkner, He, & Cataldi, 2002).
Transferring to another university may disrupt the ongoing engagement and commitment process (Berkner, He, & Cataldi, 2002).

Student engagement interventions focusing on student success include learning communities (U. S. News and World Report, 2017), mentoring (Crisp, Baker, Griffin, Lunsford, & Pifer, 2017; Garvey, 2004), freshman seminars, tutoring (Higgins, 2004; Hodges, 2001; Laskey & Hetzel, 2011), study labs, summer bridge programs, (Atherton, 2014; Thayer, 2000; Tinto, 2003, 2006; Tinto & Pusser, 2006), and other programming forms of student engagement. Programs such as TRIO and Upward Bound (Atherton, 2014; Gullatt & Jan, 2003) have been attempted with some success. These programs have built confidence in student abilities (Atherton, 2014; Thayer, 2000) along with providing better decision-making abilities using mentoring (Crisp et al., 2017). Research has shown that programs that focus on the student transitional experience with emphasis on academic progress increase academic outcomes (Hoops & Artrip, 2016). More personal assistance provided with engagement activities drawing on strengths rather than pointing out weaknesses may prove to be beneficial (Dweck, 2010; Schreiner, 2010). Student engagement interventions help prepare college students to react more effectively to overwhelming situations in which they find themselves (Dweck, 2010, 2015, 2016; Stephens, Townsend, Hamedani, Destin, & Manzo, 2015). Further, if students happen to be from disadvantaged backgrounds, academic engagement interventions may help them to recognize that these backgrounds have provided them with a certain level of strength (Stephens, et al., 2015). Programs that focus on interventions such as academic coaching within the university setting may assist students to access those strengths.
Variables that may affect success

Measurable variables can outline perceptions of students in college. Student perceptions of variables such as their own levels of grit, academic self-efficacy, academic commitment, and time management may be important to retention and completion. There is research available regarding the individual variables, however, there is little research on the effect of the set of these variables, and whether they influence student success, as measured by GPA. Together, these concepts might be examined by an academic coaching program and could be used to determine students’ thinking and feeling about their experiences during an academic coaching intervention.

Grit. Grit is a concept that was proposed by Angela Duckworth and was initially studied by Duckworth, Peterson, Matthews, and Kelly (Duckworth, 2016; Duckworth, Peterson, Matthews & Kelly, 2007). Duckworth and her team wanted to determine if the concept of grit is important to success. Grit is operationally defined as “passion and perseverance for a long-term goal” (Duckworth, 2016; Duckworth et al., 2007, p, 1087). Research has suggested that individuals do not effectively use their brains’ entire functional capacity and those who work harder show more success (James, 1907). Duckworth and her associates (2007) stated that there are individuals who have talent and are intelligent but fail in the pursuit of their goals. On the other hand, there are individuals who are not as intelligent per IQ scores, but work extremely hard and are passionate about their goals who earn more success than their supposedly smarter counterparts. Duckworth and colleagues (2007) studied individuals to determine if grit may be responsible for this difference.

Researchers have examined populations to answer several questions about the concept that Duckworth calls grit. Talent and achievement have been examined to determine whether one
is correlated to the other. Personality and achievement have been assessed to determine whether
The Big Five model of personality concept of Conscientiousness is related to grit (McCrae &
Costa, 1987). Conscientiousness, one of the Big Five model of personality factors (Goldberg,
1990; McCrae & Costa, 1987; Tupes & Christal, 1992), is considered the closest of all the five
factors to grit, and research has suggested that conscientiousness is correlated to success in
academics (Chamorrow-Premuzic, Furnham, & Ackerman, 2006; Kelly & Johnson, 2005;
Lounsbury, Sundstrom, Loveland, & Gibson, 2003; Phillips, Abraham, & Bond, 2003;
Scepansky, & Bjornsen, 2003; Trapmann, Hell, Hirn, & Schuler, 2007). However, Duckworth
suggested that grit is dependent on staying focused on a goal for a very long period, while
conscientiousness and self-control, which is a subtype of conscientiousness, are more intense for
a certain time rather than the long-term (Duckworth, Peterson, Matthews & Kelly, 2007;
achievement and stated that individuals often will choose goals that are manageable and that will
lead to positive feedback. Research has shown that individuals possessing grit do not need
constant praise and are probably aware of their level of grit as manifested by how they stick to
long-term goals (Duckworth, et al., 2007). They may choose more difficult goals, rather than
simply manageable ones; however, they have the passion and perseverance to complete them
(Duckworth et al., 2007). One issue that has been reviewed is whether grit is a stable trait or if it
can be increased. Literature has described grit as a trait instead of a state, which means that one
may originally present with a certain level of grit; however, Duckworth et al. (2007) suggested
that grit is a trait that can be increased.

There have been studies about passion and perseverance regarding goals for many years.
Galton (1892) stated that ability alone is not enough for success. Galton wrote that one needs
excitement towards a goal plus ability, as well as the desire to work hard to reach important goals (Galton, 1892). Other studies by Cox (1926) showed similar results and added confidence in one’s ability, strong character, and persistence as factors of success (Cox, 1926). Terman’s work with highly intelligent children suggested that IQ was not the best predictor of success, but that non-cognitive assets were more predictive of those who attained their professional goals. He suggested that the assets that the children displayed of “perseverance, self-confidence, and integration towards goals” were what mattered most (Terman & Oden, 1947, p. 351). Howe (1999) also found that perseverance is as important as mental ability and thought that the difference might be in personality (Howe, 1999). Ericson and Charness (1994) suggested that the difference in goal achievement was due to practice for an exceptionally long time of at least 10 to 20 years (Ericson & Charness, 1994).

Duckworth and colleagues (2016, 2007) had several hypotheses. These hypotheses included, whether grit is correlated with conscientiousness (McCrae, & Costa, 1987), whether IQ is correlated with grit, and if grit scores could predict success for goals. They studied adults, students, military members, and spelling bee participants. (Duckworth, Peterson, Matthews & Kelly, 2007; Duckworth, 2016).

Using the Grit Scale, Duckworth, and Quinn (2009) detailed those who displayed more grit than others and who were more apt to succeed. They found that those with scores higher in grit were more successful in activities about which they felt passion. As they felt this passion, those with grit were better able to persevere through failures to gain new direction for successes. Duckworth and colleagues reported that they did not study a possibly related construct, self-efficacy (Bandura, 1977), and they recommended future studies in this area (Duckworth, Peterson, Matthews & Kelly, 2007).
Duckworth (2016) suggested that grit may be even more important than either talent or cognitive ability. In support of this idea, research suggests that children with average ability who show an interest in a direction should be supported, just as children who test in the gifted and talented range are supported (Duckworth, 2016; Duckworth, Peterson, Matthews & Kelly, 2007). Individuals should teach children that failure and subsequent refocus is expected along the way to great achievement (Blackwell, Trzesniewski & Dweck, 2007; Duckworth, 2016; Duckworth, Peterson, Matthews & Kelly, 2007; Dweck, 1999, 2007).

Studies suggest that individuals who score higher on grit generally have more education, are older in some instances, and have had fewer changes in career (Duckworth, Peterson, Matthews & Kelly, 2007). Some individuals with lower IQ levels have higher levels of grit and make better grades (Duckworth, Peterson, Matthews & Kelly, 2007). Stamina and hard work for an extended period is important, along with a real passion for the activity. Passion along with perseverance are predictive of success and achievement (Duckworth, Peterson, Matthews & Kelly, 2007).

According to Duckworth (2016) using grit to achieve goals includes several important points. Talent, while important, is not as important as grit. Grit level can be determined and can predict success using the Grit Scale. Passion is extremely important to grit because if one is not passionate about a goal, there is less chance of achieving it. Intentional practice makes a difference in success. Having perceived control of one’s life direction is a quality of one who has grit. Hard work is also part of grittiness, as those who have grit will practice, thereby achieving success. Parental support of children with examples of perseverance and passion is important to success. After school activities and other environments showcasing grit are important in further developing grit (Duckworth, 2016).
Schreiner (2010) studied resilience and thriving, which are related to grit through students working hard and becoming successful. Schreiner noticed that while some students barely achieve success in college, others excel. Schreiner (2010) suggested that the difference in excelling and simply progressing in higher education may depend on the focus on strengths rather than deficiencies. While two students with similar backgrounds enroll in college, there may be a strong difference in how successful they become. One student thrives while another student minimally progresses. Both graduate, but one receives the benefits of a sense of belonging and a feeling of wellbeing that leads to retention semester after semester. According to Schreiner, the thriving student gains more from the college experience by engaging in college life. These thriving students have a more positive worldview and usually are more content with life, both presently and in the future (Schreiner, 2010).

When negative situations arise, Schreiner (2010) suggested that thriving students are more likely to have the skills to solve problems, are more persistent, and more successful in school. Schreiner posited that by helping students find their abilities, rather than focusing on things that they find difficult, faculty and staff can change students’ perceptions of themselves and they ultimately perform better. Freshman college students may find themselves in a different environment in which they feel that they have little control. This feeling may not be true as students can develop positive attitudes when they feel supported by school personnel (Braxton, Hirschy, & McClendon, 2004). Schools have historically focused on prevention of failure to assist students. Schreiner suggested that colleges could make the transition from prevention of failure to promotion of success. In this way, students make more than simply good grades and graduate. They could learn many other skills that will help them in their future lives, such as coping with challenges and making positive contributions (Schreiner, 2010). In keeping with
Schreiner’s work, academic coaching may assist at-risk students to achieve their goals by focusing on things they do well while decreasing the activities that do not work.

**Further grit research.** Other research suggests that grit may not be related to academic success. In fact, Crede, Tynan, & Harms (2017) suggested in their metaanalysis of grit, using 584 effect sizes from 88 samples including 66,807 participants, that grit is highly correlated to conscientiousness and may not be a separate concept. Additionally, they suggested that grit is not a strong predictor of academic success. Further, as Duckworth suggested that grit is made up of the lower order factors of passion and perseverance, Crede, Tynan, & Harms (2017) stated that the factor of perseverance explains more of the construct than the passion aspect. They suggest that the higher order structure of the grit variable was not supported. (Crede, Tynan, & Harms, 2017). Bazelais, Lemay, and Doleck (2016) found in their study with a first-year physics class at a two-year college regarding grit that grit did not significantly influence academic performance. The study did, however, support that previous performance influences future performance (Nettles, Theony, & Gosman, 1986; Ting & Robinson, 1998; Zwick & Sklar, 2005).

Critics offer that correlations in studies between grit and conscientiousness have been found that range from $p = .92$ with a sample size of 1165 college students (Reed, Pritschet, & Cutton, 2012), $p = .95$ with a sample size of 88 (Engel, 2013); and $p = .98$ with a sample size of 322 (Meriac, Slifka, & LaBat, 2015). These high correlations further support that grit may not be a separate concept than conscientiousness. Grit may simply be a rebranding of the conscientiousness construct. Grit and growth mindset (Dweck, 2010) were examined in a study by Bazelais, Lemay, Doleck, Hu, Vu, & Yao (2018). This study was based on how grit and growth mindset were related to academic performance in a study of two-year science college students. As previous performance predicts future performance, the researchers controlled for
this variable. They found no significant results that linked grit and growth mindset to academic performance. Growth mindset (Dweck, 2010) is discussed in the next section.

**Academic self-efficacy.** Bandura’s Social Cognitive Theory (1997, 1977) helps to explain motivation and regulation of behavior using both internal (self) and external (social) means. A major part of this theory that deals with the internal motivation of the self is self-efficacy. Academic self-efficacy is a concept that includes motivation and the belief that persons can organize and move in a direction towards positive personal academic goals and actions (Bandura, 1997, 1977).

The concept of self-efficacy has been used to study many issues, such as cessation of smoking, addiction and relapse, weight loss planning with subsequent change of behaviors (Conner & Norman, 1995; Povey, Conner, Sparks, James, & Shepherd, 2000), as well as educational pursuits (Pintrich & DeGroot, 1990; Robbins, et al., 2004). Bandura stated that people who believe that they can succeed (high self-efficacy) are more driven towards goals than those who do not believe that they can succeed (low self-efficacy) (Bandura, 1986, 1994, 2006). Maddux (2002) suggested that the higher the level of self-efficacy, the greater the chance that one will attribute that success to his or her own striving. Tinto (2017) pointed out in educational goals, however, that those beginning school with a good personal sense of academic self-efficacy meet hardships at school which may result in a perceived loss of that academic self-efficacy. Thus, academic self-efficacy measured later in a semester may be a more valid evaluation of the construct (Gore, 2006).

Academic self-efficacy has been studied in college environments (Robbins, et al., 2004) and this work has been used to improve the self-efficacy of students in coursework (Pintrich & DeGroot, 1990). Research has shown that those who exhibited greater levels of self-efficacy
were more successful in academic pursuits (Cheon-woo Han, Farruggia, & Moss, 2017) in part, because the successful students believed in their own abilities (Honicke & Broadbent, 2016; Maddux, 2002). Other studies have shown that students who exhibit greater self-efficacy often choose more challenging tasks and develop strategies to deal with difficult courses. They showed persistence in academic pursuits (Mega, Ronconi, & De Beni, 2013). Using Duckworth’s language, they may be showing a greater persistence level, which Duckworth calls grit (Duckworth, 2016; Duckworth, Peterson, Matthews, & Kelly, 2007; Duckworth & Quinn, 2009).

Students who score higher on academic self-efficacy tend to put more effort into tasks related to academic goal acquisition. This increased effort may translate into academic success (Honicke & Broadbent, 2016). Research has suggested that intervention provided early might positively affect the success of students (Honicke & Broadbent, 2016).

Growth mindset, a concept by Carol Dweck, may also be helpful in academic coaching and with developing self-efficacy. (Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 1999, 2007). Growth mindset focuses on process rather than content in learning. There are opportunities for growing learning capacity by understanding that subject mastery follows a process of successes and failures along the way. As most academic coaching focuses on what works well, rather than focusing on what does not work, and that learning is a process, rather than an end-product (Dweck, 1999, 2007; Blackwell, Trzesniewski, & Dweck, 2007), growth mindset fits with academic coaching. Within the bi-weekly meetings of academic coaching sessions, coaches can check in with students about the process and progress of their semester. In the coaching relationship, students can receive validation from the coaches showing that they can be successful; that they have important opinions; and that they are worthy of the time and effort spent with them by the faculty and staff (Terenzini et al., 1994). Students can bring questions or
problems that they are experiencing, and the coaches can work with the students to determine the best solutions. In this way, students working with academic coaches may use growth mindset to learn new strategies and improve problem-solving abilities within a supportive environment (Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 1999, 2007).

Growth mindset is based on the idea that intelligence is fluid and can be increased (Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 1999, 2007). Research shows that it is possible to teach students to develop a growth mindset rather than a fixed mindset by simply focusing on the positive. Although it has been shown that that family income is a good indicator of achievement in school, and that those who come from low income families usually show poor academic performance, this supposition can be changed using the growth mindset concept (Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 1999, 2007, 2010). Those who come from lower income families typically have a fixed mindset as that has been the family worldview. A fixed mindset is a belief that intelligence is set, seen as a gift, and cannot be changed (Claro, Paunesku, and Dweck, 2016). Having a growth mindset may be a protective factor for those who come from lower income backgrounds and may mitigate poor academic performance. Those with a fixed mindset do not typically perform as well as those who possess a growth mindset, and students can be taught to adopt a growth mindset to achieve success. Many families who are poorer exhibit a fixed mindset, but students from poorer families who have a growth mindset, perform better (Dweck, 2016). Learning can be improved by counting the perceived failures along the way as learning opportunities. There is the concept of “not yet” (Dweck, 2014, September, Video File). The power of “not yet” helps individuals to value attempts to learn as a journey along the way to completion rather than as failures when they do not succeed right away. The emphasis is on process, not result (Dweck, 2016).
A growth mindset is not related to effort. While effort is important, having a growth mindset is more than that. According to Dweck (2010, 2015, 2016), telling students that if they try harder, they will be successful may not be the best course of action. Instead, students need to know that with effort, they can learn the material that they are studying, and while effort is important, learning is a process. As they try, they will learn, and using the growth mindset approach, they will achieve. Challenging students to attempt things that are difficult will help them develop the ability to solve problems in the future. Students with a fixed mindset shy away from challenges, while those with a growth mindset look forward to the chance to think about different ways to process information. Research has suggested that students’ perceptions of their abilities play a large role in their achievement (Dweck, 2010, 2015, 2016). Students who thought that they could use opportunities to “grow their brains” (Dweck, 2014, September, Video File) performed better than those who thought that they did not have the intelligence to solve problems. Students who perceived that they were less intelligent did not tend to look for other answers after they failed to arrive at the correct ones and sometimes just gave up. There are differences in perception of the growth mindset versus a fixed mindset and students need to be open to valuable feedback to think differently, which is consistent with the growth mindset (Dweck, 2010, 2015, 2016). Dweck’s research views the process of learning rather than the outcome as more important (Dweck, 2010; 2016).

**Academic commitment.** Academic commitment is defined as a type of goal commitment (Hollenbeck, Williams & Klein, 1989) that includes motivation (Locke & Latham, 2002), which is important in achieving goals. Academic commitment used in the educational realm is closely related to specific goal setting and is used in this work as either academic commitment or goal commitment. Either term may be used to describe academic commitment. Edwin A. Locke
(1968) researched goal setting and suggested that when individuals were instructed to do the best that they could, they achieved less than if the individuals set their own specific goals. He also suggested that choosing harder goals resulted in better results and higher achievement of goals. Further, motivation is dependent on the intentions and goals of the individual making the choice to succeed (Locke, 1968, Locke & Latham, 2002).

When an individual chooses a goal and does not put effort into achieving it, it may be because the individual is no longer interested in the goal, leading to a lack of motivation (Locke, 1968). Individuals must accept a difficult goal initially, or they might give up if it becomes very hard. Individuals may have decided that the goal is unattainable or that it is a goal that they no longer wish to pursue (Stedry, 1960). Tinto (1975) suggested that the reward for attaining a goal may affect goal completion. For example, if a student no longer thinks remaining in an institution and completion of a degree is worth the time and effort, he or she will not persist in college (Tinto, 1975). Additionally, task instructions given must be accepted and then transformed into specific goals for ultimate success (Locke, 1968). Further, if a person has already chosen a goal, that individual would not agree to harder goals set by another (Stedry, 1960).

Literature suggests that setting specific goals is important to success for students who participate in academic coaching (Bettinger & Baker, 2014; Quality Enhancement Plan, 2015). For example, if student is attending college with no real goal of completion, it may be more difficult for that student to finish college (Locke, 1968; Stedry, 1960; Tinto, 1975). As students who participate in academic coaching have earned less than a 2.0 GPA, there may be a question of whether the students really want to attend college (Locke, 1968; Stedry, 1960; Tinto, 1975). There may have been an expectation of parents that the student attend college and the student
may be acting to please or appease parents (Bui, 2002). Because it may not have been the individual goal of the student to pursue college, and motivation for study is the responsibility of the student, it is important that the academic goals of students be explored.

There is a positive relationship between goal commitment and task performance. Further, studies have shown a stronger relationship for harder goals as compared to easier ones (Klein, Wesson, Hollenbeck, & Alge, 1999). Identified results that positively support the relationship between commitment for goals and task performance include how much the goal is desired; what would happen positively because of the attainment of the goal; and the amount of individual motivation possessed by the person choosing the goal (Klein et al., 1999). Research has suggested that those with increased ability also have increased commitment. Additionally, for those who had a choice in creating the goal; who had satisfaction with the task; who had experience in the task; and who experienced constructive feedback results were positive for commitment. Finally, when mentors use constructive feedback, the method used was important in exhibiting an increase in commitment (Klein et al., 1999).

**Time management.** Students who are struggling academically may have issues with time management (Gupta & Chitkara, 2018; Hartwig & Dunlosky, 2011; Weinstein, Lawrence, Tran, & Frye, 2013). Kitsantas, Winsler and Huie (2008) conducted a study that found among variables of motivation, time management, and self-regulation, time management was the strongest predictor of academic success. Moreover, if students cannot manage their time, they encounter more stress academically (Macan, Shahani, Dipboye, & Phillips, 1990; Misra & Mckean, 2000). Krumrei-Mancuso, Newton, Kim, & Wilcox (2013) found that time management is essential for success with college work thus supporting the work of Kitsantas, Winsler and Huie, (2008). Gupta and Chitkara (2018) conducted a study with 153 academic participants to
determine how time management affects students’ daily lives. They found that both short and long-term strategies of time management, were significantly positive predictors of academic performance. The researchers recommended to make students aware of their initial time management abilities and help them learn strategies to better manage their time. To meet this time management goal, those working with such students can help them plan their time (Gupta and Chitkara, 2018).

Useful time management tools include calendars (Putnam, Sungkhasettee, & Roediger, 2016) or diaries that show how students use their available time (Astin, 1999). Included in this calendar or time diary might be time spent in class, time spent at work, time spent on homework or study time, time spent with friends, time spent sleeping, and any other activity that is identified. These journal or calendar types of time management resources can be a source of support for students as students do not often realize how they spend their time. Coaches or other academic professionals working with students may be able to determine if the issue is conflicting activities, study issues, or lack of motivation that is negatively impacting academics (Astin, 1999). Students should be reminded that waiting to study at the last minute may result in lower grades and that regular study should happen in daily increments as the semester progresses (Carpenter, Cepeda, Rohrer, Kang, & Pashler, 2012; Putnam, et al., 2016). Adopting such study habits reflects that students may be able to commit to longer goals towards success rather than to pursue short-term gratification (Bembenutty, 2009).

Macan, Shahani, Dipboye, and Phillips (1990) found that time-management is a complex subject. Students who perceive that they have control over their time self-reported better performance, satisfaction with life and work, and less somatic complaints (Macan, Shahani, Dipboye, & Phillips 1990). Components of time management include choice of goals, goal
prioritization, tasks chosen from goals, task prioritization, creating to-do lists to carry out tasks, task scheduling, and finally, completing tasks (Britton & Glynn, 1989; Britton & Tesser, 1991). Britton and Tesser (1991) suggested that time management abilities may affect GPA. Importantly, time management skills may be taught (Hall & Hursch, 1982). Studies reflect that students who understand that they can prioritize their own time feel that they are more in charge, which, in turn, improves self-efficacy and the ability to persevere (Bandura, 1989; Britton & Tesser, 1991).

Poor use of time and procrastination may result in a lower level of academic achievement (Steel, 2007). Students on academic probation typically are less able to set and prioritize goals, and rate higher on procrastination. These issues are related to lack of self-regulation and may be remedied by teaching these skills and strategies (Hensley, Wolters, Won, & Brady, 2018). Academically underprepared students find that if their planned time usage is not efficient, they may have difficulty with grades and achievement (Gabriel, 2008). Poor time use affects students of all levels of preparedness, from those who participated in honors courses (Neumeister, 2004) to those who were more academically challenged (Cole, Goetz, & Willson, 2000). As it affects nearly all students, time management is an important skill upon which college personnel should focus (Hensley, et al., 2018). Thibodeaux, Deutsch, Kitsantas, and Winsler (2017) suggested that students arrive on campus as freshmen prioritizing socialization above academics and work. Students initially think that they will spend more time in the second semester planning for academic work following the more enticing socialization period of the first semester. Those who were more self-regulated tended to show greater strides in use of time toward academics. Students who did not perform academically as well as they had planned, lowered their expectations of GPA, and did not increase time management strategies over time. Thibodeaux
and colleagues (2017) suggested that time management should be part of programs that assist students and can remind students that effective time management and properly administered self-regulated learning will help them stay on task for that important first college year and beyond (Thibodeaux, Deutsch, Kitsantas, & Winsler 2017).

Conclusion

The process of academic coaching can use and be measured by the concepts of grit, academic self-efficacy, academic commitment, and time management. These concepts can help at-risk students recognize that having perseverance and passion towards goals, while believing that they can achieve and set appropriate goals using effective time management strategies, will move their educational pursuits along a continuum of success. Academic coaches can use coaching and counseling methods with students in sessions to help them increase GPA and progress toward retention and ultimate college completion. Using the work of Dweck (2010) and Schreiner (2010), along with the work of researchers such as Duckworth (2016), Bandura, (1977, 1994, 1997) Locke (1968), Locke and Latham (1990), and Britton and Tesser (1991) as central focuses of their work, academic coaches may be able to train students to be independent, look at positives, work proactively, and understand that learning and achievement is a process, not an end goal.

Research questions

Two questions regarding the academic coaching intervention were proposed. There was an overarching question regarding the pre-test and post-test design of the study specifically examining the differences in the variables over the semester of intervention. Another question regarded the prediction of the end of term GPA by the perception variables of grit, academic self-efficacy, academic commitment, and time management. These research questions are:
1. How did scores of at-risk college students participating in an academic coaching intervention change between the pre-test and post-test on the measures of grit, academic self-efficacy, academic commitment, time management, and GPA?

2. What is the prediction relationship between changes in the levels of grit, academic self-efficacy, academic commitment, time management, and subsequent change in GPA following a semester-long academic coaching intervention?

The at-risk students participated in a one-semester academic coaching intervention in the fall of 2016 and took the Duckworth Grit Scale Inventory to assess grit level (Duckworth & Quinn, 2009); the Motivated Strategies for Learning Questionnaire to assess academic self-efficacy (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1991, 1993); the Goal Commitment Scale to assess academic commitment (Hollenbeck, Williams, & Klein, 1989; Klein, Wesson, Hollenbeck, & Alge, 1999); and The Time Management Scale to assess time management (Britton & Tesser, 1991) before and after the intervention. Score differences were used to examine whether measures of grit, academic self-efficacy, academic commitment, and time management predict a change in the fall 2016 end of semester GPA and the end of spring 2017 semester GPA.
Chapter 3: Methodology

Overview

This chapter outlines the methodology chosen to collect and analyze the archival data to answer the research questions. Included in this chapter are the research questions, participant characteristics, intervention, and instrumentation. Sample questionnaire items are provided regarding student perceptions of grit, academic self-efficacy, academic commitment, and time management. Data analysis includes data screening, data summaries, inferential statistical techniques, and data presentation (tables).

Intervention. Students who earned less than a 2.0 on a 4.0 grading system in their freshman or sophomore year (up to 59 hours of study) were placed on an academic warning status within the study university. To remediate and return to good standing, these students must participate in an academic coaching program staffed by graduate students in counseling or similar disciplines. As these graduate students were trained in counseling techniques and theories, it is expected that they will bring expertise to their roles as academic coaches, in effect, marrying the two schools of thought.

For the purposes of this study, academic coaching is defined as a one-to-one experience with a trained counseling (or related major) graduate student who would meet with the student for 45 minutes every other week for a period of one semester. As students met biweekly with their coaches, the expectation was that students forged relationships with the coaches and confided in them regarding their needs. A large part of the experience was to set goals with the students on which to work during the intervention semester.

Prior to the beginning of the fall 2016 semester, the QEP program director and the graduate student assigned to the program sent out an email in which a link to the Qualtrics
survey was provided. This survey was used as a pre-test to assess the beginning attitudes of the students in four areas of interest: grit, academic self-efficacy, academic commitment, and time management. Subsequently, the students participated in an academic coaching intervention in which a flexible plan was outlined to assist the individual student’s needs. Some of the session topics covered include: time management and organizational skills; study skills; grades and homework; identified resources such as financial aid, support staff, faculty, and counselors (Astin, 1999) on campus and off campus; mental health and management of stress; individual tutoring and how to access this service; motivation; choosing a major; college attendance; and issues and challenges pertaining to the individual student. Also offered were topics spanning the semester that dealt with more indirect topics regarding grit, academic self-efficacy, and academic commitment (Quality Enhancement Plan, 2015).

Finally, the students took a post-test of the same measures as the pre-test when the treatment was complete. This information was gathered by the coaching program staff and treated as archival data. This archival data was provided to this researcher from the Office of Institutional Research (OIR) at the study university (Office of Institutional Research, 2018.). Additionally, the director of the QEP submitted a letter of support for the analysis of the associated archival data. Institutional Review Board (IRB) approval was sought for the archival study for subject protection. Upon final review, the IRB granted approval for the study. The IRB number assigned is IRB #: PRO-FY2017-204. See Appendix F.

Participants and demographics. The site of the study is a large urban public four-year university located within in the southeastern United States. This urban area has a poverty level of 26.9% with over 60% Black minority residents (U. S. Department of Commerce Census Bureau, 2013). The university has a population of over 20,000 students of which 70% are undergraduate
students. Enrollment during the study averaged approximately 40% Black and Latino students (Office of Institutional Research, 2017). Students at this university largely commute to campus; however, there are also residential students who reside in several dormitories and in on-campus apartments.

Participants include English-speaking college students who were at least 18 years of age who have earned less than a 2.0 grade point average (GPA) during their first 59 hours of college. Demographic information regarding the 88 study participants is presented in Table 1. Among them, twenty-nine students were members of all three at-risk groups (first-generation, Pell eligible indicating lower SES, and minority status). Forty-nine students were members of both Pell eligible and minority groups. There were thirty-three students representing both minority and first-generation status and thirty-three students representing both first-generation and Pell eligible status. See Table 1 below.

Table 1

<table>
<thead>
<tr>
<th>Fall 2016 Demographics (N = 88)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Pell</td>
</tr>
<tr>
<td>No Pell</td>
</tr>
</tbody>
</table>

In the sample, there were 50 Black, 26 White, one American Indian/Alaska Native, two Asian, three Hispanic Latino, and six multiracial students. The final sample of 88 participants included in the analysis were those who attended at least one session and who completed both
pre-test and post-tests out of 283 responses gathered by the QEP director using Qualtrics (2013). Approximately 69% of the initial responders (195) failed to respond to both pre-tests and post-tests.

According to the A Priori Sample Size Calculator for Multiple Regression, with an anticipated effect size of 0.15; a desired statistical power level of 0.8; using four predictor variables; with a probability level of 0.05; the minimum required sample size is 84 (Soper, 2006). The minimum required sample size was met with 88 student records in the sample.

**Instrumentation**

The shortened version of the Duckworth Grit Scale (Grit-S) was used to measure pre-test and post-test scores of students’ perceived level of grit (Duckworth & Quinn, 2009). The QEP director chose the Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich, Smith, Garcia, and McKeachie to measure the pre-test and post-test scores of students’ perceived level of academic self-efficacy (Pintrich, Smith, Garcia, & McKeachie, 1991). To assess the perceived academic commitment of students, the director chose the Goal Commitment Scale developed by Klein, Wesson, Hollenbeck, and Alge (1999). Finally, the Time Management Scale (Britton & Tesser, 1991) was used to examine student perception of how they manage their time. The QEP director at the university collected the data regarding the above instruments both before and after the intervention during the fall 2016 semester.

**The grit scale.** Duckworth and colleagues developed the Grit Scale, which was used to determine passion and perseverance for the long-term goals of participants. The instrument is sound psychometrically and has face and predictive validity for both adults and adolescents who are working toward different types of goals. The original grit scale, the Grit-O (Duckworth, Peterson, Matthews, & Kelly, 2007) is a 12-item scale that quantifies the amount of passion and
perseverance for long term goals that respondents exhibit. A shorter 8-item version ($\alpha = .83$) of the original Grit Scale (Grit-S) was developed by Duckworth and colleagues (2009) and validated using four different populations of adolescents and adults. The Grit-S showed through confirmatory factor analysis that there are two factors in the structure of the concept. These include Consistency of Interest and Perseverance of Effort with internal consistencies ranging from $\alpha = .73$ to $.79$, and $\alpha = .60$ to $.78$, respectively. These loaded as a second order latent factor correlated $r = .59$, $p < .001$ (Duckworth & Quinn, 2009). The Grit-S scale consists of eight questions with four questions that are reverse coded. As Grit-S is shorter and retains the predictive validity of Grit-O, the Grit-S was chosen by the Quality Enhancement Plan (QEP) director for this study.

Grit sample questions include:

*New ideas and projects sometimes distract me from previous ones* (reverse coded)

*Setbacks don’t discourage me.*

The answer choices are based on a Likert scale from one to five. They are:

1 = *Very much like me*, 2 = *Mostly like me*, 3 = *Somewhat like me*, 4 = *Not much like me*,
5 = *Not like me at all*

See Appendix A for entire scale.

The academic self-efficacy scale. The Motivated Strategies for Learning Questionnaire (MSLQ) Scale (Pintrich, Smith, Garcia, & McKeachie, 1993) is a questionnaire that can be used to assess academic self-efficacy. The MSLQ scale (Pintrich, et al., 1993) was originally created to address learning in one class but was chosen by the QEP in this case to determine learning across a semester for students placed on academic warning. The MSLQ includes a total of 81 questions measuring two constructs: motivation and learning strategies. The MSLQ is further
divided into 15 subscales with six subscales corresponding to motivation and nine subscales corresponding to learning strategies. Each of the subscales can be used independently, or with each other, depending upon the needs of the researcher. To compute the scores for each subscale, one calculates the mean of the items within that subscale, with the indication that the higher the mean, the better the score (Duncan & McKeachie, 2005). Items on various subscales are worded to be reverse coded.

The creators of the MSLQ conducted one confirmatory factor analysis for the items connected to the motivation construct and one confirmatory analysis for the items connected to the learning strategies. The analyses indicated adequate factor validity (Pintrich, Smith, Garcia, & McKeachie, 1993). Further, Cronbach’s alpha statistics were conducted with the scales and nine of fifteen were relatively robust (above .70) with the highest value corresponding to the Self-Efficacy for Learning and Performance scale (.93). (Pintrich, et al., 1993).

Of all the subscales, the Self-Efficacy for Learning and Performance Scale exhibits a higher correlation with final course grade \( (r = .41) \) than the other 15 subscales. This subscale consists of eight items having zero negatively worded items and has a coefficient alpha of .93. (Pintrich, Smith, Garcia, & McKeachie, 1993). This correlation was an important consideration in the choice of the subscale. This relationship with final course grade was important in considering improvement in GPA after the academic coaching experience. Additionally, a complete 81-item scale would be too lengthy and cumbersome for the students in academic coaching to complete; therefore, the choice to use the Self-Efficacy for Learning and Performance Scale was made. It was the best match for the motivational and self-efficacy concepts being reviewed by the academic coaching program. The MSLQ used in this study is measured with a Likert-type scale with five answer choices (Duncan & McKeachie, 2005).
Sample questions include:

*I believe I will receive excellent grades in the classes that I take at the university.*

*I’m certain I can understand the most difficult material presented in the courses at the university.*

Answer options include:

1 = Very much like me, 2 = Mostly like me, 3 = Somewhat like me, 4 = Not much like me, 5 = Not like me at all

See Appendix B for the entire scale.

**The academic commitment scale.** The original Goal Commitment Scale was created by Hollenbeck, Williams, and Klein and was referred to as the Hollenbeck, Williams, and Klein (1989) Measure of Goal Commitment on Complex Tasks (Klein, Wesson, Hollenbeck, Wright, & DeShon, 2001). The original Hollenbeck, Williams, and Klein (1989) scale had nine items and was thought to be unidimensional; however, some researchers questioned the dimensionality of the scale because of small sample sizes used in its creation (DeShon & Landis, 1997). To determine dimensionality, a meta-analysis was performed of 17 samples with 2918 participants using confirmatory factor analysis to clarify which questions best fit the model testing goal commitment (Klein et al., 2001). A five-item scale emerged that best described the important pieces of goal commitment, including complexity of task, origin of goal, and equality in timing of measurement (Klein et al., 2001). There are three out of five items designed to be reverse-coded. This five-item scale (alpha = .74) was used in data collection for this study.

Sample questions include:

*It’s hard for me to take college seriously. (reverse code)*

*I am strongly committed to getting a college degree.*
Answer options include:

1 = Very much like me, 2 = Mostly like me, 3 = Somewhat like me, 4 = Not much like me, 5 = Not like me at all

See Appendix C for entire scale (five and nine-item scales).

**Time management scale.** This scale was developed by Britton and Tesser (1991) to assess individuals’ effective use of time and how this effective use affects success. The scale has a Cronbach alpha of .88 and consists of 11 questions that are all positively worded (Britton & Tesser, 1991). The QEP was granted permission to use this scale (Quality Enhancement Plan, 2015).

Sample questions include:

*I plan my day before I start it.*

*I spend time each day planning.*

Answer options include:

1 = Very much like me, 2 = Mostly like me, 3 = Somewhat like me, 4 = Not much like me, 5 = Not like me at all

See Appendix D for entire scale.

**Data collection**

Archival data from the fall semester 2016 was used to answer the research questions.

This researcher requested the archival data pertaining to this academic coaching experience from the Office of Institutional Research. This data contained an Excel spreadsheet showing GPA before and after the intervention and the number and date of academic coaching sessions completed. The spreadsheet also showed questions and answers from the Qualtrics (2013) survey and demographic data of the sample.
Data screening

This researcher screened the data for normality, missing values, and outliers. There were no missing values identified. Two outliers were found in academic commitment and they were removed prior to analysis. Likert-scale data has been used with parametric statistics in many behavioral studies and is acceptable for use with these types of studies (Martin, personal communication, 2016).

Assumptions for dependent samples $t$-tests were examined prior to analysis. Normality was violated in the variables of academic self-efficacy and academic commitment, but because the sample size was sufficient (88), and the fact that $t$-tests are robust to violations of normality, the analysis continued. All other assumptions were met.

Multiple regression assumptions of linearity, normality and homoscedasticity were examined prior to conducting the analysis of the data. Normality was violated, however, because of sample size and the fact that multiple regression is robust against violations of normality, the analysis continued. All other assumptions were met. See Figures 1 and 2 for Regression 1 and Figures 3 and 4 for Regression 2. In addition, Variance Inflation Factors (VIFs) were calculated to detect the presence of multicollinearity between predictors. High VIFs indicate increased effects of multicollinearity in the model. All VIFs were less than 2.00 indicating no issues with multicollinearity (Menard, 2009).
Figure 1. Regression Model 1 Q-Q Scatterplot for Normality of the Residuals

Figure 2. Regression Model 1: Residuals Scatterplot Testing Homoscedasticity
Figure 3. Regression Model 2: Q-Q Scatterplot for Normality of the Residuals

Figure 4. Regression Model 2: Residuals Scatterplot Testing Homoscedasticity
Analysis. For analysis, this researcher used the Statistical Package for the Social Sciences (SPSS) by International Business Machines (IBM) version 26 and Intellectus Statistics (2020).

Dependent-samples t-tests were conducted utilizing a pre-test and post-test design to determine whether there was a statistically significant mean difference between the pre-test and post-test levels of GPA, grit, academic self-efficacy, academic commitment, and time management. All 88 students who provided answers to both pre-tests and post-tests at the conclusion of the intervention and attended at least one session were included in the data analysis.

Two separate multiple linear regressions were run to predict GPA first from the intervention semester (regression 1 = change/difference scores for the fall 16 BOT and fall 16 EOT) and second to predict GPA for the year term (regression 2 = change/difference scores for the fall 16 BOT and spring 17 EOT) using change/difference scores of grit, academic self-efficacy, academic commitment, and time management.
Chapter 4: Results

Overview

This chapter outlines the statistical results of the analyses conducted. The chapter is arranged in sections to answer the two research questions.

Descriptive Statistics

The number of coaching sessions attended varied from a range of one to eight with a mean of approximately four sessions. See Table 2 below. The mean high school GPA was reported at 3.0178 with a minimum value of 1.01 and a maximum of 4.03. Eighty-one students took the ACT composite. The mean score was 20.88 with a minimum score of 14 and a maximum of 33. Three students took the SAT composite. The mean score was 896.67 with a minimum score of 800 and a maximum of 970. See Table 3 below.

Table 2

Frequency of Participation

<table>
<thead>
<tr>
<th>Number of Sessions</th>
<th>Gender</th>
<th>Class</th>
<th>Generational Status</th>
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<tr>
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<td>2</td>
<td>6</td>
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<tr>
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Note. Number of sessions attended by students represented by Sessions
First Generation represented by First Gen
Table 3

Descriptive Statistics

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<th>Variable</th>
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<th>M</th>
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<tr>
<td>Fall 2016 EOT GPA</td>
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<td>Spring 2017 EOT GPA</td>
<td>72</td>
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<td>Grit Pre-test</td>
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<tr>
<td>Grit Post-test</td>
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<tr>
<td>Number of Coaching Sessions</td>
<td>88</td>
<td>3.88</td>
<td>2.196</td>
</tr>
<tr>
<td>ACT Composite</td>
<td>81</td>
<td>20.88</td>
<td>3.89</td>
</tr>
<tr>
<td>SAT Composite</td>
<td>3</td>
<td>896.67</td>
<td>87.369</td>
</tr>
</tbody>
</table>

Notes: BOT represents beginning of term; EOT represents end of term

Research Questions

Research Question 1 asks if there is a difference in perception of students self-reported levels of grit, academic self-efficacy, academic commitment, and time management and in GPA. Dependent samples $t$-test analyses were conducted with each of the four variables chosen to exhibit changes in student perceptions and in GPA before and after the academic coaching intervention.

Research Question 2 asks whether the changes in the levels of grit, academic self-efficacy, academic commitment, and time management had predictive power on GPA at two
points in time (intervention semester and entire year). Two separate multiple linear regressions were run to predict GPA first from the intervention semester [regression 1 = difference scores for the fall 16 beginning of term (BOT) and fall 16 end of term (EOT)] and second to predict GPA for the year term (regression 2 = difference scores for the fall 16 BOT and spring 17 EOT) using difference scores of grit, academic self-efficacy, academic commitment, and time management.

Table 4

Variable Definitions

<table>
<thead>
<tr>
<th>PostPreGrit</th>
<th>Difference between pre-test and post-test grit scores (intervention term)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PostPreACADSelfEfficacy</td>
<td>Difference between pre-test and post-test academic self-efficacy scores (intervention term)</td>
</tr>
<tr>
<td>PostPreACADCommitment</td>
<td>Difference between pre-test and post-test academic commitment scores (intervention term)</td>
</tr>
<tr>
<td>PostPreTimeManagement</td>
<td>Difference between pre-test and post-test time management scores (intervention term)</td>
</tr>
<tr>
<td>Differencefall16BOTfall16EOTGPA</td>
<td>Difference in GPA scores (intervention term)</td>
</tr>
<tr>
<td>Differencefall16BOTSp17EOTGPA</td>
<td>Difference in GPA scores (academic year)</td>
</tr>
</tbody>
</table>

T-Tests

To answer question one, this researcher examined a difference in the pre-test and post-test scores of grit, academic self-efficacy, academic commitment, and time management from the beginning of the fall 2016 term and the end of fall 2016 term. Also included were the differences between the outcome variable of GPA. Beginning of term was notated BOT. End of term was notated EOT. GPA was measured before the intervention of academic coaching began [beginning of 2016 term (BOT)] and after the intervention concluded [end of 2016 term (EOT)]. GPA was also measured for the academic year 2016-2017. Results are presented in Table 5.
Two-Tailed Dependent Samples t-Test Grit

A two-tailed dependent samples $t$-test was conducted to examine whether the average level of grit had significant difference before and after the intervention.

**Results.** The result of the two-tailed dependent samples $t$-test was not significant based on an alpha value of 0.05, $t(87) = -0.26$, $p = .799$, indicating that there was no significant change in the level of grit before or after the intervention. See Table 5 below.

Two-Tailed Dependent Samples t-Test Academic Self-Efficacy

A two-tailed dependent samples $t$-test was conducted to examine whether the average level of academic self-efficacy had significant difference before and after the intervention.

**Results.** The result of the two-tailed dependent samples $t$-test was significant based on an alpha value of 0.05, $t(87) = 2.33$, $p = .022$, indicating students’ academic self-efficacy had significant difference before and after the intervention, with the level before the intervention being significantly higher. See Table 5 below.

Two-Tailed Dependent Samples t-Test Academic Commitment

A two-tailed dependent samples $t$-test was conducted to examine whether there was a significant difference in students’ academic commitment before and after the treatment.

**Results.** The result of the two-tailed dependent samples $t$-test was significant based on an alpha value of 0.05, $t(85) = 2.01$, $p = .048$, indicating students’ academic commitment had significant difference before and after the intervention, with the level before the intervention being significantly higher. See Table 5 below.

Two-Tailed Dependent Samples t-Test Time Management

A two-tailed dependent samples $t$-test was conducted to examine whether there was a significant difference in students’ time management before and after the treatment.
Results. The result of the two-tailed dependent samples $t$-test was not significant based on an alpha value of 0.05, $t(87) = -1.03, p = .305$, indicating that there was no significant change in time management before and after the intervention. See Table 5 below.

**Two-Tailed Dependent Samples $t$-Test GPA Intervention**

A two-tailed dependent samples $t$-test was conducted to examine whether there was a significant difference in students’ GPA before and after the treatment.

**Results.** The result of the two-tailed dependent samples $t$-test was significant based on an alpha value of 0.05, $t(87) = -4.06, p < .001$, indicating students’ GPA for the intervention term (fall beginning of term 2016 to fall end of term 2016) had a significant difference, with the level at the end of the fall 2016 term being significantly higher. See Table 5 below.

**Two-Tailed Dependent Samples $t$-Test GPA Year**

A two-tailed dependent samples $t$-test was conducted to examine whether there was a significant difference in students’ GPA for the academic year 2016-2017.

**Results.** The result of the two-tailed dependent samples $t$-test was significant based on an alpha value of 0.05, $t(71) = -5.46, p < .001$, indicating students’ GPA for the academic year 2016-2017 had a significant difference, with the level at the end of the spring 2017 semester being significantly higher. See Table 5 below.
Table 5

*Two-Tailed Dependent Samples t-Tests of Pre and Post Measures*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Pre</th>
<th>Post</th>
<th>T</th>
<th>df</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grit</td>
<td>3.56</td>
<td>0.61</td>
<td>3.57</td>
<td>0.68</td>
<td>-0.26</td>
<td>87</td>
</tr>
<tr>
<td>Academic self-efficacy</td>
<td>4.17</td>
<td>0.63</td>
<td>4.01</td>
<td>0.78</td>
<td>2.33</td>
<td>87</td>
</tr>
<tr>
<td>Academic commitment</td>
<td>4.72</td>
<td>0.42</td>
<td>4.61</td>
<td>0.50</td>
<td>2.01</td>
<td>85</td>
</tr>
<tr>
<td>Time management</td>
<td>3.51</td>
<td>0.91</td>
<td>3.61</td>
<td>0.90</td>
<td>-1.03</td>
<td>87</td>
</tr>
<tr>
<td>Fall 16 BOT vs. Fall 16 EOT</td>
<td>1.76</td>
<td>0.62</td>
<td>1.95</td>
<td>0.62</td>
<td>-4.06</td>
<td>87</td>
</tr>
<tr>
<td>Fall 16 BOT vs. Spring 17 EOT</td>
<td>1.78</td>
<td>0.64</td>
<td>2.12</td>
<td>0.62</td>
<td>-5.46</td>
<td>71</td>
</tr>
</tbody>
</table>

*Note.* $d$ represents Cohen's $d$.

**Linear Regression 1 Analysis Intervention**

A linear regression analysis was conducted to assess whether the differences in levels of grit, academic self-efficacy, academic commitment, and time management significantly predicted the change in GPA during the intervention semester of fall 2016.

**Results.** The results of the linear regression model were not significant, $F(4,79) = 1.25, p = .295, R^2 = 0.06$, indicating that the change in grit, academic self-efficacy, academic commitment, and time management did not explain a significant proportion of variation in GPA. Since the overall model was not significant, the individual predictors were not examined further. Table 6 summarizes the results of the regression model.

**Linear Regression 2 Analysis Year**

A linear regression analysis was conducted to assess whether the levels of grit, academic self-efficacy, academic commitment, and time management significantly predicted the change in GPA during the academic year 2016-2017 GPA.

**Results.** The results of the linear regression model were not significant, $F(4,79) = 2.22, p = .074, R^2 = 0.10$, indicating that grit, academic self-efficacy, academic commitment, and time management did not explain a significant proportion of variation in GPA. Since the overall
model was not significant, the individual predictors were not examined further. Table 6 summarizes the results of the regression model.

Table 6

**Linear Regressions**

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>95% CI</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable: Differencefall16BOTfall16EOTGPA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Intercept)</td>
<td>0.22</td>
<td>0.05</td>
<td>[0.11, 0.32]</td>
<td>0.00</td>
<td>4.13</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>PostpreGRIT</td>
<td>-0.03</td>
<td>0.11</td>
<td>[-0.24, 0.19]</td>
<td>-0.03</td>
<td>-0.24</td>
<td>.808</td>
</tr>
<tr>
<td>PostPreACADSelfEfficacy</td>
<td>0.01</td>
<td>0.09</td>
<td>[-0.17, 0.19]</td>
<td>0.01</td>
<td>0.10</td>
<td>.920</td>
</tr>
<tr>
<td>PostPreACADCommitment_r_outliers</td>
<td>0.17</td>
<td>0.11</td>
<td>[-0.04, 0.39]</td>
<td>0.19</td>
<td>1.58</td>
<td>.117</td>
</tr>
<tr>
<td>PostPreTimeManagement</td>
<td>0.06</td>
<td>0.07</td>
<td>[-0.08, 0.20]</td>
<td>0.11</td>
<td>0.86</td>
<td>.391</td>
</tr>
<tr>
<td>Dependent Variable: Differencefall16BOTS17EOTGPA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Intercept)</td>
<td>0.03</td>
<td>0.11</td>
<td>[-0.19, 0.24]</td>
<td>0.00</td>
<td>0.24</td>
<td>.814</td>
</tr>
<tr>
<td>PostpreGRIT</td>
<td>-0.09</td>
<td>0.22</td>
<td>[-0.53, 0.36]</td>
<td>-0.05</td>
<td>-0.39</td>
<td>.699</td>
</tr>
<tr>
<td>PostPreACADSelfEfficacy</td>
<td>-0.08</td>
<td>0.19</td>
<td>[-0.45, 0.30]</td>
<td>-0.05</td>
<td>-0.40</td>
<td>.690</td>
</tr>
<tr>
<td>PostPreACADCommitment_r_outliers</td>
<td>0.57</td>
<td>0.23</td>
<td>[0.12, 1.02]</td>
<td>0.29</td>
<td>2.52</td>
<td>.014</td>
</tr>
<tr>
<td>PostPreTimeManagement</td>
<td>0.02</td>
<td>0.14</td>
<td>[-0.27, 0.30]</td>
<td>0.02</td>
<td>0.14</td>
<td>.892</td>
</tr>
</tbody>
</table>

*Note.* Variable definitions found in Table 4

**Summary**

Results indicate that GPA scores for both the intervention timeframe (fall 2016 beginning of term through fall 2016 end of term) and for the academic year (2016-2017) were significantly higher following the academic coaching experience. Academic commitment and academic self-efficacy scores were higher at the beginning of the intervention than when evaluated at the end. These results suggest that students began the intervention semester with a greater sense of academic commitment and academic self-efficacy than they exhibited at the end of treatment. There were no significant changes in level of grit nor time management for the intervention time.
frame. Additionally, the set of variables (grit, academic self-efficacy, academic commitment, and time management) was not significantly predictive of GPA during the intervention nor for the academic year. Academic commitment was significant alone, however as the regression models were not significant, this finding did not suggest additional information about the predictive power of the set of variables.
Chapter 5: Discussion

Overview

This chapter contains discussion of the study results on academic coaching in relation to previous research and the application of the study variables to the process. The chapter also contains recommendations for further research, recommendations for future practice, and a discussion of the study’s limitations. Further studies are recommended to confirm findings in other institutions and enhance the ability to generalize findings to other settings.

Research Question One

Academic self-efficacy. Academic self-efficacy mean pre-test scores were greater than post-test scores, noting a perceived loss of academic self-efficacy following the intervention. Believing in one’s abilities is a trait that is considered essential in higher education. Students must perceive that they are able to perform college work and work hard to earn passing grades to be successful (Bandura, 2017, 2006, 1986, 1994). As a possible explanation of this perceived loss of academic self-efficacy, Tinto (2017) suggested that students may arrive on campus with a good sense of academic self-efficacy but encounter negative issues over the semester. These issues may result in a loss of some of their academic self-efficacy.

Student at-risk categories are not conducive to promoting self-efficacy. For example, the parents of first-generation college students may be unable to provide guidance about college expectations (Atherton, 2014; Cataldi, Bennett, & Chen, 2018;). Many students from low income families (Adelman & Gonzalez, 2006; Bishop, 2016; Hurtado & Carter, 1997; Sandoz, Kellum &; Tinto, 2006; Wilson, 2017; Wolniak, Mayhew, & Engberg, 2012) or students with minority status (Adelman & Gonzalez, 2006; Musu-Gillette, et al., 2017; Niu, 2015) may lack resources or role models. As self-efficacy scores were greater prior to the intervention than at the end of
the intervention, the at-risk students in this study may not have understood the demands of college and eventually realized that they were academically unprepared (Aikens & Barbarin, 2008; Atherton, 2014; Chen, 2016; DeNicco, Harrington, & Fogg, 2015; Fain, 2016; Horn and Kojaku, 2001). Another possible explanation is that once students were placed on academic warning, they realized that they were unprepared for college-level studies, began to believe that they were incapable, and experienced decreased motivation (Locke, 1968; Stedry, 1960).

**Academic commitment.** Academic commitment pre-test scores were greater prior to beginning academic coaching, indicating a lack of improvement in student perceptions of academic commitment. Student GPA and academic achievement are indicators of academic retention and commitment. Students make decisions about dropout regarding commitment to both the institution and to academic achievement (Chen, 2012; Pascarella & Terenzini, 2005; Tinto, 1987). This researcher’s results may stem from the timing of the academic coaching intervention. As students were within their first 59 hours of study, their perceptions of commitment to educational goals may not have formed at this time, especially likely because students had earned less than an acceptable 2.0 GPA. A longitudinal study using pre-test scores as a baseline and testing at regular intervals throughout a student’s educational career could provide information regarding the average time needed for students to develop this perception.

Academic coaches might emphasize the importance of academic commitment, showing students who earned less than a 2.0 GPA, that if they remained committed to their education, they will gradually improve until achieving a degree (Dweck, 2016). Dweck outlined, students may be experiencing the “not yet” of academic performance (2014, September, Video File). Academic coaching may provide students with ways to better identify issues to cope with negative situations and would assist students with decision-making skills (Dweck, 2016;
Schreiner, 2010; Giedd, 2010), as well. Students would be guided by academic coaches to
develop an understanding that education is a process that requires persistence, and that learning
can arise from mistakes (Dweck, 2016). Although students exhibited a decrease in their
perception of academic commitment in this study, the current research may begin to offer
guidance regarding flexible structure and curriculum of the academic coaching programs of other
universities. Students might show an increase in academic commitment post-test scores once
structure and curriculum of academic coaching sessions are further explored and used in
following semesters.

**Grit.** Students’ level of grit did not improve following participation in the academic
coaching intervention. As there was a lack of statistical significance concerning grit, results may
be related to the level of grit that the students had developed prior to entering college. Students
may have already developed grit early in their lives being at-risk demographically and residing in
environments where using grit is a way of coping with everyday life. Many of these students
came from three areas of identified risk: first-generation, Pell Grant eligible/low-income, and
minority students. Such students have overcome obstacles from their at-risk backgrounds to
pursue higher education. For example, challenges of at-risk students include being first-
generation students who have parents with no college experience (Atherton, 2014; Cataldi,
Bennett, & Chen, 2018;); being low-income students who must locate sufficient educational
funding over and above living expenses (Adelman & Gonzalez, 2006; Bishop, 2016; Hurtado &
Carter, 1997; Sandoz, Kellum & Wilson, 2017; Tinto, 2006; Wolniak, Mayhew, & Engberg,
2012); and being minority students who may have difficulty leaving the home culture (Adelman
**Time management.** The variable, time management was not significant for improvement over the academic coaching intervention; however, time management remains problematic for many students. Resolving time management issues may take more than one semester of academic coaching to achieve lasting improvement. This time management struggle may explain the lack of significant difference found in the pre-test and post-test scores. The process of learning time management skills is begun by the academic coaching experience, and these skills will improve in the coming semesters with the practical knowledge gained by the experience. More research is needed on the methods and prescribed curriculum that works with at-risk populations (Capstick, 2018). Such curriculum would be used to develop effective time management skills in each academic coaching program.

**Research Question Two**

**GPA.** The GPA of the students represented in the study improved over the intervention semester and through the following semester. The process of this improvement in GPA was unclear for this increase. The two regression models did not show that the variables of grit, academic self-efficacy, academic commitment, and time management provided an explanation for the increase in GPA. A plausible explanation for the lack of intervention effect is that the time period of the data collection was during the formative stages of the program and might have uncovered several issues that may have been present. For example, the initial training of academic coaches was brief (four to six hours), provided by the director of the program in one day. The training focused on administrative training regarding the use of the computer appointment system and appropriate program paperwork. Actual academic coaching session training to work with students was brief. Even though coaches were students in counseling or
related programs and had counseling knowledge, they were not trained by professional academic coaches.

Student records showed that there were differing levels of compliance to attend sessions. The average student attendance was 4.4 sessions. Literature shows that serious students who attend seven sessions could expect a one-point increase in GPA (Capstick, 2018; QEP, 2015).

As the curriculum was flexible, treatment provided by coaches was not consistent. The underlying concepts of grit, academic self-efficacy, academic commitment, and time management were stated goals of the program; however, it is possible that the academic coaches did not focus on these in a concrete manner. This was not a uniform way to teach and evaluate these concepts. Further, as the coaching sessions were approximately 45 minutes in length and the students and coaches met every other week, more frequent meetings might have been of benefit.

Data collection may have also negatively impacted the results. As online data collection was used, to increase participation, the surveys might have been provided during the initial and final coaching sessions under the supervision of the academic coach, as survey participation was inconsistent. Sixty-nine percent of students chose not to answer both online pre-test and post-tests. Giving the pre-test survey during the first coaching session and the post-test survey during the last coaching session may have insured that students answered both assessments in a more consistent environment in the presence of the academic coach as a proctor. More participation would have resulted in a larger sample size and may have influenced the outcome of changes in grit, academic self-efficacy, academic commitment, and time management in predicting GPA.
Coaching was performed in an open setting with little privacy. It may have been hard for students to concentrate on their session with others talking so close by with their own coaches. They may have become distracted in such an open area with no private office space.

There were no binding consequences for not attending coaching sessions. Coaches could reschedule students and send email reminders, but if the students did not come, the director would place them on registration hold. The student had to come in once to meet after the hold was placed for it to be released, but this hold had to be released by the end of the semester.

**Recommendations for future research**

A longitudinal study using grit, academic self-efficacy, academic commitment, and time management might be conducted with at-risk students from their freshman through their senior year. Conducting a longitudinal study of student perceptions may reveal more change from when they were new students not knowing what to expect and displaying naïve perceptions of grit, academic self-efficacy, academic commitment, and time management. In other words, students may have discovered what they did not know in the beginning of their college careers.

Participation in academic coaching may result in learning new ways of coping and organization, which might lead to perceptual change by the time that students have completed their degrees. This benefit would be a lifelong one, usable in many situations. An additional benefit using longitudinal information includes that colleges and universities could use the information provided to more effectively administer academic coaching and other student support programs designed to help students over time (Capstick, 2018).

There has been criticism of Duckworth’s (2016) concept of grit. They include that grit may be a rebrand of conscientiousness. Grit is highly correlated with conscientiousness and may not be a separate concept which supports the work of Crede, Tynan, & Harms (2017), Bazelaïs,

Crede, Tynan, & Harms (2017) further suggested that grit is not a higher order factor needed for success which does not support the work of Duckworth (2016). Crede, Tynan, and Harms (2017) also suggested that Duckworth’s most important second order factor may be perseverance rather than the two second order factors identified by Duckworth as passion and perseverance. In this study, there was no difference in grit levels after the intervention, and it was not a predictive variable regarding GPA. These results do not support Duckworth’s work that grit is important to success for long-term goals. These results were supportive of the research of Crede, Tynan, and Harms (2017). As an extension of grit studies, more research should be conducted to further isolate this variable to identify and determine the contribution of grit to a study of students’ success. A second question might be whether grit is truly a separate higher order factor as Duckworth suggests, or it is simply another way to use conscientiousness. A third question might be to measure perseverance alone, rather than in combination with passion, to determine its ability to predict success.

Session topics used in the academic coaching intervention might be researched that better assess the students’ attitudes regarding the efficacy of academic coaching. Questionnaires and coaching sessions investigating learning styles, career interests, resilience, and locus of control might capture the experience in a more complete way. Additionally, because research suggests that academic coaching is successful as a student success program (Vanacore & Dahan, 2019; Capstick, 2018; Bettinger & Baker, 2014; Robinson & Gahagan, 2010), employing mixed-methods including both quantitative and qualitative approaches (observations, interviews, case studies, and focus groups, for example) may provide more comprehensive results.
Other variables to consider include number of academic coaching sessions completed and when these sessions occurred. Students may have completed sessions in a different manner than the coaches suggested. In other words, students have not begun their sessions in the beginning of the semester as recommended by their academic coaches, and to remain compliant with the program, students scheduled sessions from the middle of the semester to the end. Some students may have only attended a minimal number of sessions. Attending a minimal number of sessions would not provide students with the intended structure and space between sessions or provide the content needed at the appropriate time in the semester. Students who chose the minimal session route may not have realized the importance of the academic coaching sessions and understood too late that the more sessions completed in a timely manner, the better results they could achieve by the end of the semester. To increase participation, academic coaches might provide positive reinforcement for attending sessions, which in turn, may influence GPA.

Other variables not studied may have a more salient effect on retention and graduation. For example, the influence of peers within an informal mentorship or peer support group with at-risk students might result in higher GPAs. Students may learn from their more-prepared peers how to navigate the educational experience. There is an implication for some at-risk students’ families that one should pursue a job rather than go to college. An intervention that includes families along with students might help families understand commitment and workload at college. A brief intervention might occur simply by comparing students who receive a letter stating that they have been placed on academic warning to those who do not receive such a letter because they remain in good standing. Additionally, those students who do not participate in academic coaching might serve as a control group to those who participate in academic coaching. Grade point averages might be compared before the intervention begins and again after
the intervention concludes to determine if there is a significant difference in GPA. Using these interventions alone or in combination might provide an expansion of the academic coaching program.

Finally, if research on academic coaching included more mainstream students who are not considered at-risk, the perceptions of students who are not at-risk might serve as a control. For example, students could elect to participate in academic coaching, or this service could be extended to certain disciplines to determine whether academic coaching makes a difference in the student perceptions of the variables of grit, academic self-efficacy, academic commitment, and time management. This data may be used to fine-tune the academic coaching experience of students and could assist program directors who structure the service.

**Recommendations for future practice**

Future practice with academic coaching may employ tailoring academic interventions to each higher education institution (Capstick, 2018). For example, an intervention that works at one location may not be as effective at another. Even an intervention such as academic coaching, which is similar in scope across institutions, must be tailored to students at each university. Program evaluations are extremely important to ensure that interventions are well designed for the at-risk students served (Capstick, 2018).

The academic coaching curriculum can also be tailored to assist at-risk students realize that learning is a process, and not simply an end-product (Duckworth, 2016; Dweck, 2010; Schreiner, 2010). In this study, there was flexibility in the curriculum and coaches chose the topics that they felt best assisted their students. Coaches included the goals of the program, but there is no way to know if they placed equal emphasis on each variable. If the curriculum had more structure along with flexibility, the coaches could work on learning as a process using grit.
and self-efficacy. Coaches may make a difference while working with students by helping them begin to believe in their abilities and experience success as a result (Bandura, 1986, 1994, 2006; Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 1999, 2007; Schreiner, 2010).

In this study, variables of academic self-efficacy and academic commitment suggested a decrease in these student attributes. These results did not support the work of Bandura (1977, 1997) regarding academic self-efficacy or Locke and Latham (1990, 2002) regarding academic commitment. Additionally, levels of grit and time management were not significantly different after the intervention. These results did not support the work of Duckworth (2016) regarding grit or Britton and Tesser (1991) regarding time management. Additionally, the set of the variables did not predict GPA. These results did not support the work of those who suggested that time management is a strong predictor of academic success (Britton and Tesser, 1991; Gupta and Chitkara, 2018; Kitsantas, Winsler and Huie, (2008); Krumrei-Mancuso, Newton, Kim, & Wilcox (2013). It is possible that as coaches were given autonomy in academic coaching sessions to present content that they deemed most helpful, they may not have covered the content in the same way or may have concentrated on other content. Concentration on presenting these concepts in a more uniform manner might be more helpful to students. In this way, coaches might help improve students’ sense of grit, academic self-efficacy, academic commitment, and time management. As a result, students may be able to work through challenging situations to achieve academic success. This belief may be especially important to students who are at-risk. Using academic coaching, students may be guided to view challenges as opportunities to grow (Dweck, 2010; Lee, Sheldon, & Turban, 2003; Schreiner, 2010).

Attending college requires motivation which is related to academic commitment and goal setting (Locke, 1968; Locke & Latham, 2002). If this commitment and goal attainment wanes
once students are placed on academic warning status, students may decide that college is not the right fit for them. Explanations for dropping out of college include insufficient academic preparation (Aikens & Barbarin, 2008; Atherton, 2014; Chen, 2016; DeNicco, Harrington, & Fogg, 2015; Fain, 2016; Horn & Kojaku, 2001) or having enrolled due to parental pressure rather than personal interest (Bui, 2002). An academic coach would be able to work with such students without judgment using core counseling skills (Rogers, 1957) to determine next steps, whether it be to recommend tutoring in difficult subjects or to inquire about career assessments and career requirements. Academic coaches can use counseling and coaching skills to help students decide in a responsible way whether to remain at an institution or to leave for other pursuits.

Limitations

Limitations include the use of a self-report instrument, small, but adequate sample size over the course of one semester, use of a convenience sample, and maturational effects of the students themselves. The small sample size limits generalizability, and internal validity constructs indicate that the results may not reveal that the treatment itself had an impact on the change in the GPA.

The design is appropriate for the research questions, but it might be made stronger by obtaining information from other sources rather than simply through a survey. Information was obtained through archival records, but more information could be accessed through a case study design or by using qualitative methods such as interviews with the participants, observation, and focus groups.

As the questionnaire developed was a self-report instrument, student answers might have been subject to social desirability bias (Paulhus, 2002, 1991). As students had been placed on academic warning due to earning less than a 2.0 GPA for their first 59 hours of study, they may
have answered the survey questions in a manner that would show them in a more positive light to their coaches (Paulhus, 2002; 1991). Students may have resented being referred to academic coaching, not recognizing the value of the experience. As a result, students may not have read the questions well and may have carelessly given erroneous answers (Paulhus, 1991; Kurtz & Parrish, 2001). Thus, the reported scores may have been affected by bias (Johnson, 2005).

**Conclusion**

Academic coaching is an intervention that supports students attempting to make satisfactory progress in higher education. In the present study, at-risk students had experienced less than successful semesters resulting in being placed on academic warning status. The study university used academic coaching to remedy this situation, thus the goal was for students to increase GPA to an acceptable GPA of 2.0 or better. To increase GPA, this study examined whether variables of grit, academic self-efficacy, academic commitment, and time management predicted or explained GPA in the academic coaching intervention. Although the outcome variable GPA increased for both the intervention semester as well as for the 2016-2017 academic year, the variables of grit, academic self-efficacy, academic commitment, and time management did not suggest involvement in this increase.

Although the variables of grit, academic self-efficacy, academic commitment, and time management did not suggest involvement in GPA increase, there were other positive aspects. Mean program GPA increased and successful students who had participated in the academic coaching intervention either gained an increase in GPA or returned to good-standing leading toward graduation. Also, as a successful intervention (Capstick, 2018), academic coaching assists students in moving through the college process in a time-efficient way. As a result of having participated in academic coaching, more students might be retained and graduate in a
timely manner, thus reducing waste of financial resources for both the student and the institution. Improved college completion and graduation would affect the current funding focusing on completion rates (National Conference of State Legislatures [NCSL], 2015; Ordway, 2015, Sandford & Hunter, 2011; Tennessee Higher Education Commission [THEC], 2015). Finally, having college graduates provides the workforce with educated employees possessing the credentials needed for a myriad of careers (Miao, 2012), thus supporting the stability of the U. S. and global economy (Davidson, 2014).
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Appendix A

Grit Scale (Duckworth & Quinn, 2009)

1. New ideas and projects sometimes distract me from previous ones (reverse code).
2. Setbacks don’t discourage me.
3. I have been obsessed with a certain idea or project for a short time but later lost interest (reverse code).
4. I am a hard worker.
5. I often set a goal but later choose to pursue a different one (reverse code).
6. I have difficulty maintaining my focus on projects that take more than a few months to complete (reverse code).
7. I finish whatever I begin.
8. I am diligent.
Appendix B

Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1991)

1. I believe I will receive excellent grades in the classes that I take at U of M.
2. I’m certain I can understand the most difficult material presented in the courses at U of M.
3. I’m confident I can learn the basic concepts taught in the courses at U of M.
4. I’m confident I can understand the most complex material presented by the instructors at U of M.
5. I’m confident I can do an excellent job on the assignments and tests in the courses at U of M.
6. I expect to do well in the courses that I take at U of M.
7. I’m certain I can master the skills taught in the courses at U of M.
8. Considering the difficulty of courses and teachers, I think I will do well in the courses here.
Appendix C

Five-Item Goal Commitment Scale used in this study (Hollenbeck, Williams, & Klein, 1989; Klein, Wesson, Hollenbeck, & Alge, 1999; Klein, Wesson, Hollenbeck, Wright, & DeShon, 2001).

1. It’s hard for me to take college seriously (reverse code).
2. I don’t care if I finish college or not (reverse code).
3. I am strongly committed to getting a college degree.
4. It wouldn’t take much for me to drop out of college (reverse code).
5. I think that a college education is a good goal for me.

For Reference Only:

Nine-item Goal Commitment Scale (Hollenbeck, Williams, & Klein, 1989)

1. It’s hard to take this goal seriously.
2. It’s unrealistic for me to expect to reach this goal.
3. It is quite likely that this goal may need to be revised, depending on how things go.
4. Quite frankly, I don’t care if I achieve this goal or not.
5. I am strongly committed to pursuing this goal.
6. It wouldn’t take much to make me abandon this goal.
7. I think this goal is a good goal to shoot for.
8. I am willing to put forth a great deal of effort beyond what I’d normally do to achieve this goal.
9. There is not much to be gained by trying to achieve this goal.
Appendix D

Eleven-Item Time Management Scale used in this study (Britton & Tesser, 1991).

1. I plan my day before I start it.
2. I have a set of goals for each week ready at the beginning of the week.
3. I spend time each day planning.
4. I write a set of goals for myself for each day.
5. I make a list of things to do each day.
6. I make a schedule of activities that I have to do on workdays.
7. I have a clear idea of what I want to accomplish during the next week.
8. I try to schedule my best hours for my most demanding work.
9. I keep important dates (e.g., exam dates, research paper due date, etc.) on a single calendar.
10. I set deadlines for completing my work.
11. I have a set of goals for the entire semester.
Appendix E

Letter of Support

April 12, 2017

Jessica McMorris
Research Support Services
The University of Memphis
315 Administration Bldg.
Memphis, TN 38152-3370

Dear Ms. McMorris,

It is my pleasure to write this letter of support for the project entitled “Academic Coaching with At-Risk Students as Measured by Grit, Academic Self-Efficacy, and Academic Commitment”. This work will contain important research towards improvement in internal student engagement toward completion of a bachelor’s degree in at-risk students. Interventions to acclimate students to their new college environment, such as living learning communities, freshman seminars, and extended orientation, among others, have all been attempted as students enroll in college. This study is an attempt to view another important intervention, academic coaching, and may enlighten administrators regarding possible reasons students succeed while participating in academic coaching.

It is well documented that students who are at risk, in areas such as First Generation, Minority Status and compromised socioeconomic status (SES), do poorer in college because of limitations that these students face. They often must work outside of class, have little financial resources, and lack of college role models as they may be the first in the family to pursue a college degree. Academic coaching is an intervention used to help students navigate the often-confusing college environment. Academic coaches may provide guidance in these areas and can link a student to resources within the college environment.

Even though studies have been performed on academic coaching and other interventions, there has been little research on the mechanisms involved in academic coaching that may assist students. This study uses the measures of Grit, Academic Self-Efficacy, and Academic Commitment to identify student perceptions about college achievement. Using archival data, this study attempts to determine whether there is a relationship between student perceptions in these areas and grade point average (GPA) in an academic coaching situation.

The results of this study could impact programs in other institutions when implementing an intervention such as academic coaching. This research is important to the goal of retention and graduation of at-risk students. Therefore, I am happy to support this research.

Sincerely,

Colton Cockrum, Ed. D
Appendix F
IRB Approval Notice

Institutional Review Board
Office of Sponsored Programs
University of Memphis
315 Admin Bldg
Memphis, TN 38152-3370

March 2, 2018

PI Name: Elizabeth Gravley
Co-Investigators:
Advisor and/or Co-PI: Stephen Zanskas
Submission Type: Initial
Title: Using Grit in an Academic Coaching Situation on a College Campus
IRB ID : #PRO-FY2017-204
Exempt Approval: March 1, 2018

Approval of this project is given with the following obligations:

1. When the project is finished or terminated, a completion form must be submitted.

2. No change may be made in the approved protocol without prior board approval.

3. Exempt approvals are considered to have no expiration date and no further review is necessary unless the protocol needs modification.

Thank you,
James P. Whelan, Ph.D.
Institutional Review Board Chair
The University of Memphis.