

COMMUNITY COLLEGE ACADEMIC ADVISING: A STUDY OF EFFECTS ON GPA,  
RETENTION, AND ENGAGEMENT

by

Christy Lynn Genova

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University

2020

COMMUNITY COLLEGE ACADEMIC ADVISING: A STUDY OF EFFECTS ON GPA,  
RETENTION, AND ENGAGEMENT

by

Christy Lynn Genova

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University, Lynchburg, VA

2020

APPROVED BY:

Sarah E. Horne, Ed.D., Committee Chair

Michelle Barthlow, Ed.D., Committee Member

## ABSTRACT

Although research shows the utilization of advising services can impact academic performance and provide students with a point of connection to postsecondary institutions, the effect of advising services in the experiences of traditional-aged college student attending community colleges has only recently been explored. This causal-comparative research study was designed to address the gap in literature concerning the use and effectiveness of academic advising services in community colleges. The study included a convenience sample of 99 community college students, between the ages of 18 and 24 years, from a small community college. Participants completed an online version of the Community College Survey of Student Engagement (CCSSE) and data were collected from March 2019 through November 2019. A Hotelling's  $T^2$  test was conducted to determine if the utilization of academic advising services significantly impacted participant grade point averages (GPAs), number of semesters enrolled, and level of student engagement. The results of the Hotelling's  $T^2$  test were statistically significant; therefore, post-hoc testing in the form of three independent samples  $t$ -tests was conducted. The study found that there was only a statistically significant difference in the GPAs of participants who utilized academic advising services when compared to those who did not. There were no statistically significant differences for number of semesters enrolled or level of student engagement between the two groups. Further research is recommended to determine if these results can be generalized to the overall population or if a longitudinal design may provide a clearer perspective of the effect of advising services over time.

*Keywords:* academic advising, community college, traditional student, causal-comparative, retention, student engagement, Hotelling's  $T^2$

## **Dedication**

From the snuggles and wet noses of Winnie, Summer, and Bella to the unconditional love of my parents, there have been so many factors and people who have helped move me along in this journey to get to the finish line. First, I dedicate this work to my husband, Josh. You have been on the front end of this journey for most of it and have witnessed my research benders and total self-doubting meltdowns. Thank you for always supporting my dream and encouraging me to keep going. I am the luckiest woman alive to call you my husband – I love you so much.

I also dedicate this work to my parents, Jim and Libba Genova. Dad, you are a shining example of what a father should be, and I owe so much in my life to you. Thank you for being an inspiration, teaching me that I can do whatever I put my mind to, showing me that giving up is never an option, and – above all – for loving me. Libba, thank you for loving my dad, thank you for putting up with everything, and thank you for loving me even when it seemed impossible to do so. I love both of you beyond words and am so blessed to have you both in my life.

To my siblings, nieces, nephews, the rest of my family, and those who I have lost along the way. Every single one of you is an inspiration in your own way and you may never fully understand the part you played in my journey. Just know that I am thankful for each and every one of you and I love you all very much.

Finally, to my sweet daughter Adalynn. Words could never express my love for you and how proud I am to be your Mom. You came into this world in the middle of this journey and have blessed my life more than you will ever know. I ask that you always dream. Always ask questions and seek out the answers. Believe that anything is possible and change the world. This is for you, Addy - I love you so much!

## **Acknowledgments**

I would like to acknowledge the faculty of the Longwood University Department of Psychology and the faculty of the Liberty University School of Education. You all helped instill a passion for research, finding the answer, and working to help others. I have always cherished my time as your student and would have never made it to this point if it weren't for your knowledge and willingness to teach. Thank you so much for teaching, guiding, and encouraging me to become the educator that I am today.

Thank you to my dissertation committee - Dr. Sarah Horne and Dr. Michelle Barthlow. I have been so blessed to have you two as my committee members. Dr. Horne – you have gone above and beyond any expectation I could have had for a dissertation chair. Thank you for working with me, encouraging me, and relighting my fire time and time again. Dr. Barthlow – your expertise and kindness are so valuable and helped me so much in this journey. Thank you for your knowledge, advocating for me, and helping me find solutions when I thought all was lost. I am forever grateful for both of you and could not have imagined a better committee.

Last, but certainly not least – thank you to the community college for allowing me to conduct my dissertation study at your institution. I hope that my research helps to shed light on the importance of academic advising and how these services can positively impact the experience of your students.

**Thank you to everyone who helped me fulfill this lifelong dream!**

## Table of Contents

ABSTRACT.....	3
Dedication .....	4
Acknowledgments.....	5
List of Tables .....	9
List of Figures .....	10
List of Abbreviations .....	11
CHAPTER ONE: INTRODUCTION.....	12
Overview.....	12
Background.....	12
Problem Statement.....	19
Purpose Statement.....	21
Significance of the Study .....	22
Research Questions.....	23
Definitions.....	23
CHAPTER TWO: LITERATURE REVIEW .....	24
Overview.....	24
Introduction.....	24
Theoretical Framework.....	25
Tinto’s Retention Theory .....	25
Astin’s Student Involvement Theory .....	28
Related Literature.....	30
Student Motivation and Engagement.....	30

Academic Advising.....	33
The O'Banion Model of Academic Advising.....	37
Community College Students .....	46
Summary .....	53
CHAPTER THREE: METHODS .....	55
Overview.....	55
Design .....	55
Research Questions.....	56
Hypotheses.....	57
Participants and Setting.....	57
Participants.....	57
Setting .....	59
Instrumentation .....	59
CCSSE Instrument.....	59
GPA.....	64
Retention Rates .....	65
Procedures and Data Collection.....	65
Data Analysis .....	66
CHAPTER FOUR: FINDINGS.....	68
Overview.....	68
Research Questions.....	68
Null Hypotheses.....	68
Descriptive Statistics.....	69

Results.....	70
Assumptions Testing.....	70
Hotelling's $T^2$ Results.....	74
Post-Hoc Testing.....	75
CHAPTER FIVE: CONCLUSIONS .....	78
Overview.....	78
Discussion .....	78
Overall Results.....	79
RQ1 and Null Hypothesis $H_01$ .....	80
RQ2 and Null Hypothesis $H_02$ .....	81
RQ3 and Null Hypothesis $H_03$ .....	81
Implications.....	82
Limitations .....	84
Recommendations for Future Research .....	86
REFERENCES .....	87
APPENDIX A.....	109
APPENDIX B .....	110
APPENDIX C .....	111
APPENDIX D.....	112
APPENDIX E .....	113



### List of Tables

Table 1. Participant Demographic Information.....	58
Table 2. Descriptive Statistics for GPA, Number of Semesters Enrolled, and Level of Engagement.....	70
Table 3. Levene's Test of Equality of Variances Results.....	72
Table 4. Pearson's Correlation Results.....	73
Table 5. Shapiro-Wilk's Results for Participants Who Did Not Utilize Academic Advising Services.....	74
Table 6. Kolmogorov-Smirnov Results for Participants Who Did Utilize Academic Advising Services.....	74
Table 7. Results of Hotelling's $T^2$ Test.....	75
Table 8. Results of Independent Samples $t$ -test for GPA.....	76
Table 9. Results of Independent Samples $t$ -test for Number of Semesters Enrolled.....	76
Table 10. Results of Independent Samples $t$ -test for Level of Engagement.....	77

### **List of Figures**

Figure 1. Box-and-Whisker Plots for GPA, Semesters Enrolled, and Level of Engagement.....	71
Figure 2. Scatterplot Matrix Confirming Linear Relationship (Did Not Utilize Advising Services.....	71
Figure 3. Scatterplot Matrix Confirming Linear Relationship (Utilized Advising Services.....	72

### **List of Abbreviations**

American Association of Community Colleges (AACC)

Achieving the Dream (ATD)

British Columbia Council on Admissions and Transfer (BCCAT)

Center for Community College Student Engagement (CCCSE)

Community College Survey of Student Engagement (CCSSE)

Grade Point Average (GPA)

Intraclass Correlation Coefficient (ICC)

Institutional Review Board (IRB)

Multivariate Analysis of Variance (MANOVA)

National Center for Education Statistics (NCES)

Southside Virginia Community College (SVCC)

Statistical Package for the Social Sciences (SPSS)

United States (US)

## **CHAPTER ONE: INTRODUCTION**

### **Overview**

In 2001, approximately 50% of students enrolled in United States (U.S.) higher education institutions began their college career at a community college, and in 2004, approximately 45% of first-time college students in the U.S. were enrolled in a community college (McArthur, 2005). In 2017, approximately 30% of the entire U.S. undergraduate population consisted of students enrolled in community colleges (NCES, 2018). While enrollment trends continue in an upward fashion, it is unnerving that 25% of college students in the U.S. drop out after their first year (Lefdahl-Davis, Huffman, Stancil, & Alayan, 2018). These statistics indicate that there is an astounding need to identify the most appropriate and effective services and resources that are necessary in order to ensure academic success for community college students (Bers & Younger, 2013). Community colleges are now viewed as one of the most practical options for higher education and viable pathways to bachelor's degree attainment (Cubberley, 2015). Research must be conducted in order to identify the best practices for student success and how the institutional support services in place impact the experiences of community college students. This chapter will provide a brief background of higher education in the U.S., including the historical and societal context of academic advising and the increase in community college enrollment. Additionally, the theoretical framework of this study will be discussed. The chapter will conclude with a discussion of the problem and purpose statements and the significance of the current study.

### **Background**

Institutions of higher education in the U.S. have been attempting to address issues concerning the declining retention and graduation rates of college and university students for

several decades (D’Amico, Dika, Elling, Algozzine, & Ginn, 2013; Jones, 2013; Walters & Seyedian, 2016). The number of students in the U.S. who begin their college career at a community college has remained relatively steady, and as of 2013, approximately 47% of individuals with an earned bachelor’s degree in the U.S. completed some coursework through a community college (D’Amico et al., 2013). By 2017, 42% of college students in the U.S. began their college journey at a community college (Jabbar, McKinnon-Crowley, & Serrata, 2019). However, these institutions are facing many challenges in regard to ensuring student success. The situation is further complicated by identifying specific issues related to two-year or community colleges which often struggle to define student success due to the diverse populations they serve (Budd & Stowers, 2014; Webb, Dantzler, & Hardy, 2015). Some students may attend for professional development, vocational training, personal interest, or with the intention of transferring to a four-year university (Budd & Stowers, 2014). Due to the varied missions and the diverse student populations, community college administrators often find it difficult to implement the necessary programs and services that will address the needs of all students (Budd & Stowers, 2014).

The first community college in the U.S. was Joliet Junior College, founded in 1901 in Joliet, Illinois, which employed a mission centered on creating pathways to baccalaureate degrees at four-year institutions (Budd & Stowers, 2014). Over time, the community college began to transform into an entity with several missions in order to meet the educational and vocational needs of surrounding communities (Budd & Stowers, 2014; Nitecki, 2011). In the past, those who enrolled in community colleges were often defined as individuals who had negative experiences in education throughout their lives; therefore, the approach to advising these students was often more hands on and in depth (McCusker & Osterlund, 1979). In the last

several decades, community colleges have experienced a drastic increase in enrollment because they are now viewed as one of the most viable pathways to a four-year degree (Budd & Stowers, 2014; McArthur, 2005, Nitecki, 2011; Webb et al., 2015). The majority of community college students, over 80%, enroll with the intention to transfer to a four-year university (Fink & Jenkins, 2017; Jabbar et al., 2019). Prior to the increase in enrollment, community colleges were able to employ a one-to-one ratio for students and advisors, where the advisors were responsible for the intake, assessment, and guidance of every student that enrolled (McCusker & Osterlund, 1979). Once the community college option became more popular, this model of advising became difficult to manage; some institutions began to move toward a group advising model where students were lumped together based on broad characteristics in order to avoid advisors having to repeat much of the same general information to individual students (McCusker & Osterlund, 1979).

While the number of students enrolled in U.S. community colleges continues to increase, the rate of students transferring from a community college to a four-year university has been steadily declining in the last century (Fink & Jenkins, 2017). Most first-time college students who fall within the traditional college age range enroll in community colleges with the intention to transfer to a four-year degree program; thus, many of the largest community college systems in the U.S. have admissions agreements with state universities in order to provide a smooth transition into a bachelor's degree program (Budd & Stowers, 2014; Ellis, 2013; Stewart, Moffat, Travers, & Cummins, 2015). In 2016, approximately 8% of the U.S. population was enrolled in either a community college or four-year institution; 35% of those enrolled in an institution of higher education were enrolled in a community college (NCES, 2018). As of 2015, the average rate of students transferring from a two-year to a four-year institution was approximately 23%

(Webb et al., 2015). As more community colleges develop partnerships with state universities, it is imperative to provide community college students with the most comprehensive and accurate information so they are better equipped to make informed decisions regarding their educational and career goals (Cubberley, 2015; Darling, 2015; Ellis, 2013; McArthur, 2005; Noonan, Sedlacek, & Veerasamy, 2016).

In 2009, President Barack Obama introduced an initiative that would increase access to higher education through community colleges (Pierce, 2015). The 2020 College Completion Initiative was aimed at restructuring higher education in the U.S. in order to enable more citizens to pursue a college degree by focusing on the open access concept of community colleges and emphasizing the pathways that community colleges create towards bachelor's degree attainment (Cubberley, 2015; Pierce, 2015). Included in the 2020 initiative are several items of reform that the American Association of Community Colleges (AACC) aims to accomplish, such as increasing the college completion rate by 50%, improving the level of college readiness for incoming students, closing the American skills/achievement gaps, refocusing the mission of community colleges, investing in new support structures to assist students, and promoting academic rigor and accountability for students (Woods, 2014). In the past, higher education was viewed as a luxury that was only allotted to those with high salaries and a lineage of college completion. The 2020 initiative introduced by President Obama and the subsequent Achieving the Dream (ATD) Initiative promoted free tuition at community colleges in order to counter the devastating effects of the 2008 economic recession (Cubberley, 2015). For community college students, the dream of earning a college degree is often overshadowed by the need to continue working in order to support their families. By offering free tuition at community colleges, students would feel less pressure to work full-time jobs while attending school, and by virtue,

this could reduce drop-out rates and increase retention and graduation rates (Cubberley, 2015).

While the two national orders are focused on increasing access as well as completion, community college stakeholders have begun to require a shift in institutional resources that were once solely focused on access, retention, and completion in order to accommodate the increase in numbers of students attending these institutions (Donaldson, McKinney, Lee, & Pino, 2016).

For these initiatives to be successful, Woods (2014) identified four key areas that must be addressed within community colleges: institutional culture, instructional programs and workforce partnerships, student support and advising services, and professional development for college faculty and staff. The lack of resources to increase the availability and quality of student support services in community colleges makes it difficult for true progress to be made in regard to student success, retention, and graduation rates (Martinez, 2018). Since the introduction of these initiatives, community colleges across the U.S. have worked to transform policies and practices to better support students and promote their success (Hagedorn, 2015; Harrill, Lawton, & Fabianke, 2015). In order to accomplish the ATD and 2020 College Completion Initiatives, community colleges not only have to figure out how to quantify and qualify “student success,” but they also have to overcome the challenges of high student to faculty and staff ratios and fragmented student service efforts that tend to create barriers for most students (Donaldson et al., 2016).

According to Smith and Allen (2014) and Darling (2015), academic advising has become one of the most high-impact strategies and key ingredients identified that can enhance student academic performance, persistence, retention, and engagement within college or university communities. Academic advising is a process that involves identifying student goals and creating an educational plan that will allow the student to accomplish their educational and



career aspirations (Christian & Sprinkle, 2013; O'Banion, 2012). In general terms, academic advising involves the dissemination of information to students regarding academic programs, course selections, and institutional policies (Bers & Younger, 2013; Young-Jones, Burt, Dixon, & Hawthorne, 2013). The transformation of academic advising has resembled the changes that have occurred not only in higher education but in society as well. Beginning in the 1960s, when more veterans returned from war and entered college, the process of advising shifted from a faculty responsibility to a more centralized process that encompassed every aspect of a postsecondary institution (Cook, 2009). During the 1960s and 1970s, student services professionals and academic advisors had a very passive role in assisting students (Carroll & Tarasuk, 1991). Students had more control over their academic decisions with very little guidance, and institutional policies were rarely imposed (Carroll & Tarasuk, 1991). The issue with this model of advising was that students ended up making poor academic decisions that resulted in an overabundance of credits earned, unnecessary courses being taken, and an increase in the time and cost associated with their education (Carroll & Tarasuk, 1991). By the 1980s and 1990s, the field of academic advising shifted towards providing quality support services to students in order to assist them in making better informed decisions regarding their educational experiences. Institutions began to enforce strict policies that forced students to be more responsible for their education while providing student-centered services as support mechanisms to assist students in navigating the college experience (Carroll & Tarasuk, 1991). Decades of research aimed at identifying the impact of advising have shown that effective academic advising promotes student development and directly impact students' educational experiences regarding academic performance, persistence towards degree completion, and engagement (Braun & Zolfagharian, 2016; Harrison, 2009). Academic advising as a process in higher education has

been studied for several decades and numerous theories of student development have emerged to explain how institutional processes impact student enrollment behavior and academic achievement (Astin, 1999; Bers & Younger, 2013; Darling, 2015; McArthur, 2005; O'Banion, 2012; Tinto, 1973, 1998).

Although Vincent Tinto identified that academic advising services help to facilitate student persistence through college in the 1970s (Smith & Allen, 2014; Donaldson et al., 2016), Tinto's (1998) Retention Theory was developed in the 1980s in order to provide institutions of higher education an understanding of how student involvement and the level of connectedness students feel with the institution can impact their ability to persist towards degree completion. The Retention Theory posits that students are more motivated when they feel supported by individuals within the institution (Tinto, 1998, 2015). Alexander Astin's (1999) Student Involvement Theory focused on how institutions can provide an environment that will allow students to thrive and be more involved in their own education. Astin's (1999) theory introduced a concept that students who develop strong connections with faculty and/or staff members within an institution are more likely to feel supported, encouraged, and motivated. It is through advisor-student relationships that institutions of higher education are better able to help students through the difficult transition into college and help them remain engaged so they can finish their degree (Astin, 1999). The development of the Retention and Student Involvement Theories focused primarily on the experiences of students enrolled in four-year institutions (Astin, 1999; Tinto, 1998, 2015). However, as enrollment in community colleges continues to rise, it is imperative to gain an understanding of how academic advising influences the experiences of community college students in order to identify the most effective intervention strategies to promote and

ensure student success (Bass & Ballard, 2012; Bers & Younger, 2013; Darling, 2015; Nitecki, 2011).

### **Problem Statement**

Over the last several decades, research has shown that students who utilize academic support and advising services tend to earn higher cumulative grade point averages (GPA) and are more likely to persist at the same institution when compared to students who do not make use of these services (Allen, Smith, & Muehleck, 2013; Vianden, 2016). Research has also shown that students who utilize support and advising services are more likely to report feeling engaged within the campus community, which has also been associated with higher GPAs and continuous enrollment (Allen et al., 2013; Braun & Zolfagharian, 2016; Young-Jones et al., 2013).

Previously conducted research shows how academic advising services can indirectly have a positive impact on student retention through improved student goal setting, study skills, integration and engagement in the college community, and their overall satisfaction with the institution itself (Smith & Allen, 2014). Students who are more engaged within their institution are far more likely to be retained semester-to-semester, and ultimately, persist through graduation (Darling, 2015; Donaldson et al., 2016; Zarges, Adams, Higgins, & Muhovich, 2018).

The majority of research conducted that is focused on academic advising in higher education has been focused on either special populations or the advising services offered by four-year institutions (Bers & Younger, 2013). In order to be effective in their roles, academic advisors at all types of institutions must have access to research and literature that can inform their practices. Due to the number of theories, models, and the ever-changing portrait of the typical community college student, it is imperative that research is conducted that outlines the comparative benefits of the varied theories and models, and provides an understanding of the impact of advising

services on a more generalized population of students (Schwitzer, Pribesh, Ellis-O'Quinn, Huber, & Wilmer, 2016).

By the 1970s, community colleges experienced a drastic increase in enrollment which allowed individuals the opportunity for a college education that was not possible in previous decades (Cook, 2009). The increase in community college enrollment was the strongest catalyst that prompted the need to expand the profession of academic advising; however, even though community college enrollment was a paramount moment in the history of academic advising, the primary focus of research on four-year institutions persisted (Cook, 2009). As approximately 30% of the undergraduate population in the U.S. is enrolled in community colleges, it is imperative to examine the possible effects of academic advising services on the academic performance, retention, and engagement of community college students (NCES, 2018).

The enrollment of traditional, first-time to college students in community colleges has been increasing drastically in the last several decades. In 1960, 23% of first-time to college students in the U.S. were enrolled in community colleges. This number continued to rise and in 2017, 35% of first-time to college students in the U.S. were enrolled in community colleges (NCES, 2018). In 2017, the 40.4% of the population that fell within the traditional 18-24 years old age range for college students was enrolled in higher education; of the 40.4% enrolled, 10% of this population was enrolled in community colleges (NCES, 2018). While the number of students enrolled in community colleges continues to increase, only 5% of educational research that is focused on student adjustment, development, and learning addresses the community college population, and most of this research shows limited or mixed results which do not provide a clear basis on how advising theories and models can truly be applied to this population (Bers & Younger, 2013; Hatch & Garcia, 2017; Schwitzer et al., 2016). In order for

administrators to appropriately allocate financial and personnel resources that will benefit the students served by community colleges, there must be further research conducted to show the benefit of academic advising services and how these services can impact the overall student experience (Darling, 2015; Hatch & Garcia, 2017; Vianden & Barlow, 2015). Community college administrators need information that will make them better equipped to make informed decisions regarding the development and implementation of academic advising services within their institutions. The problem is that research has ignored the traditional-aged college student enrolled in community colleges and the impact that academic advising services can have on their postsecondary experiences. Research must be conducted in order to identify the best institutional practices that will ensure these students are successful in their higher education pursuits.

### **Purpose Statement**

The purpose of this quantitative, causal comparative, ex post facto study is to test Tinto's Retention Theory and Astin's Student Involvement Theory that relate the utilization of academic advising services to academic performance, retention rates, and levels of student engagement for community college students (Astin, 1999; Tinto, 1998, 2015). The independent variable of interest, the utilization of academic advising services, is generally defined as whether or not a student has ever met with an academic advisor at the community college in which they are enrolled. The dependent variables are generally defined as: (1) academic performance: the cumulative GPAs of participants, (2) retention rates: the number of semesters the student has enrolled at the institution, and (3) levels of engagement: the participants' level of their engagement and involvement within the institution as indicated by responses to items on the Community College Survey of Student Engagement (CCSSE). The study includes participants

from a small, rural community college between the ages of 18 and 24 years who have never attended any other institution of higher education.

### **Significance of the Study**

The primary significance of this study is its intent to address the gap in the literature related to the traditional-aged student enrolled in community colleges in regard to the impact of academic advising services on the academic performance, retention, and engagement. Additionally, the study aims to identify the ways that Tinto's (1998, 2015) and Astin's (1999) theories of retention and student involvement can be applied to community college students. By identifying the impact of academic advising services on this population, institutions of higher education can use the findings to design effective strategies to meet the needs of the general student population rather than only focusing on special populations. The findings will provide support for the need to reallocate resources within the institution to enhance the availability and quality of academic advising services that are often lacking to provide the best academic and support constructs for community college students (Burge-Hall et al., 2019; Fink & Jenkins, 2017; Martinez, 2018). Many community colleges claim that advising services play a role in increasing their retention rates, but the issue of numerous and varied missions that confuse the definition of student success make the linking of supportive evidence to these claims very difficult (Martinez, 2018; Smith & Allen, 2014). While much research has been conducted to show that academic advising services positively impact student experiences, there is little research that shows if these intervention services are effective at the community college level, and to what degree (CCCSE, 2018; Schwitzer et al., 2016). As enrollment in community colleges continues to rise, it is important to identify the services that are effective in enhancing student success.

### Research Questions

**RQ1:** Is there a difference in the cumulative GPAs between community college students who utilize academic advising services and those who do not?

**RQ2:** Is there a difference in the retention rates between community college students who utilize academic advising services and those who do not?

**RQ3:** Is there a difference in the level of student engagement, as reported on the CCSSE, between community college students who utilize academic advising services and those who do not?

### Definitions

1. *Academic advising* – a comprehensive process of disseminating information from an academic advisor to a student focused on goal setting, program selection, and course enrollment (Darling, 2015; O’Banion, 2012)
2. *Academic performance* – measured by the cumulative grade point average (GPA) on a 4.0 scale (Bacon & Bean, 2006)
3. *CCSSE* – the Community College Survey of Student Engagement instrument designed by the Center for Community College Student Engagement (CCCSE) (CCCSE, 2017a)
4. *Retention* – the level in which an institution retains a student through continued enrollment within the same institution (Tinto, 1973, 1998, 2015)
5. *Persistence* – the ability of a student related to the motivation to continue with their education at any institution and graduate with a degree (Astin, 1999; Tinto, 1998)
6. *Student engagement* – measured through student participation and involvement in college activities, organizations, and frequency of interactions between the student and faculty/staff within the institution (Astin, 1999; O’Banion, 2012; Tinto, 2015)

## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

The purpose of this chapter is to identify the most prominent models, theories, and research findings associated with academic advising in the field of higher education and explain how they guide the current study that seeks to identify the impact of academic advising services on the experiences of traditional-aged community college students. Tinto's Retention Theory and Astin's Student Involvement Theory will be explained within the context of academic advising in higher education as the theoretical framework for the proposed study. The theoretical framework is followed by a thorough review of related literature.

### **Introduction**

Over the last several decades, there has been an increase in the pressure that is placed on institutions of higher education to promote better access to postsecondary education as well as increase the rates at which students are graduating with degrees (Donaldson et al., 2016). With more students attending postsecondary institutions every year, a major concern is that attendance and enrollment continue to increase while the graduation rates continue to decrease (Bettinger & Baker, 2013; Braun & Zolfagharian, 2016; Donaldson et al., 2016). Several state and federal initiatives have been established to combat these issues; however, it is up to the institutions to address these concerns firsthand to increase access and student success rates for all students (Donaldson et al., 2016; Hatch & Garcia, 2017; Lynch & Lungrin, 2018). Community colleges, in many ways, have a much more difficult task to accomplish due to the varied missions of these institutions as well as the diverse student populations that they serve (Darling, 2015; Hatch & Garcia, 2017). In 2017, over 42% of college students began their postsecondary education at a community college (Jabbar et al., 2019). As attendance rates continue to rise, institutions of



higher education must implement effective programmatic interventions that will allow them to meet the needs of diverse student populations while addressing the concerns regarding declining retention and completion rates (Bettinger & Baker, 2013; Filson & Whittington, 2013; Jones, 2013; Walters & Seyedian, 2016). Research has identified academic advising as a critical component of student success, and the impact of advising services on academic performance, retention, and student engagement for community college students were examined in the current research study (Veres, 2015; Vianden, 2016; Vianden & Barlow, 2015; Zhang, 2018). Due to the vast amount of research that has been conducted thus far, institutions of higher education have recognized academic advising as a valuable service to provide to students in order to enable them to be successful throughout their educational journey; however, the effectiveness of academic advising can depend on the style, context, and even the participation or motivation level of the student (Braun & Zolfagharian, 2016; Budd & Stowers, 2014; Darling, 2015; Ellis, 2013; Kot, 2014; O'Banion, 2012).

### **Theoretical Framework**

#### **Tinto's Retention Theory**

In order to comprehend the importance of academic advising services in relation to student retention, it is necessary to have some knowledge of prominent theories that help to explain student drop-out, departure, and persistence. Vincent Tinto developed the Retention Theory in 1987 and has continuously evolved the theory over the last several decades in order to account for the changes in college and university student populations and how institutions have responded to the diverse needs of all students (Tinto, 2015). In order to understand the educational experiences of college and university students, it is important to consider students as the experts and leaders in the development of their goals and plans that will enable them to

accomplish those goals (McArthur, 2005; Tinto, 1998, 2015). According to Tinto's theory, students are motivated to persist through a degree program to completion when they feel supported, engaged, and challenged throughout their educational experience (Tinto, 1998, 2015). From 2011 to 2018, the rate of college students in the U.S. dropping out after their first year has remained steady at approximately 25%; for students enrolled in community colleges, the number was considerably higher at 44% of students dropping out after their first year of college (Lefdahl-Davis et al., 2018; Wilson, 2016). Tinto's (1998) early research was focused on student retention and persistence in four-year degree programs; however, the more recent research that has been conducted makes subtle allusions to the experiences of students enrolled in two-year and vocational institutions, and how they are, in fact, similar to those of students enrolled in four-year institutions (McArthur, 2005; Tinto, 2015). The major points of Retention Theory emphasize the importance of goal setting, self-efficacy, sense of belonging, and perceptions of academic curricula (Tinto, 2015).

While peer relationships and social experiences are significant factors of the college experience, it should be noted that when students feel as if they belong and are a part of the college or university community, they are much more likely to persist, and ultimately, be retained at the institution through degree completion (Tinto, 1998, 2015). It is when students feel isolated and disconnected from their college community that they are less engaged and are at-risk for dropping out (Johnson, Flynn, & Monroe, 2016; Zarges et al., 2018). The relationships that students build with faculty and staff within the institution can be crucial components to the success of the student (Jabbar et al., 2019; Price & Tovar, 2014; Tinto, 2015). The on-campus support structures that are offered through academic advising help students with their sense of adjustment and belonging to the college community as well as increasing the level

of engagement within the community through interactions with college faculty and staff members (Waddington, 2019; Wilson, 2016). Academic advisors are positioned to assist students in developing academic and career goals, planning, trouble shooting, being more involved in the institution, and becoming co-navigators in their own academic experience (Darling, 2015; McArthur, 2005; Tinto, 1998, 2015). In regard to goal setting, academic advisors who work with community college students have a much more complicated job than most academic advisors who are employed at four-year institutions. Students who intend to finish their education at another institution than which they initially enrolled must create academic plans with the end goal in mind in order to take the necessary steps to ensure a smooth and successful transfer to the four-year institution of their choice (McArthur, 2005; Tinto, 2015).

The majority of traditional-aged students enrolled in community colleges intend to transfer to a four-year institution to earn a bachelor's degree, which can make academic advising and planning more complex (Budd & Stowers, 2014). Additionally, most community college students are commuter students, as two-year institutions typically do not offer on-campus housing. The proximal distance between where a student lives and the institution can influence how often students attend their courses and whether or not they will continue their enrollment (Tinto, 1973). Students who live off-campus and commute to their institution tend to feel more disconnected from the college community, which can result in weakened persistence that can lead to the student dropping out of the institution (Darling, 2015; Johnson et al., 2016; McArthur, 2005; Tinto, 1973, 1998, 2015; Zarges et al., 2018).

Another common issue for many college students is not having concrete academic and career goals in place when they first enroll in colleges and universities. Undecided students benefit from academic advising, as advisors are able to refer students to helpful assessments and

resources, provide clarity for students, and assist them in identifying possible educational and career options while also providing a point of contact and support system so the student feels connected to the institution (Darling, 2015; Tinto, 2015). Tinto's (2015) theory offers strategies and programmatic interventions that will position institutions of higher education so they are able to meet the needs of diverse student populations. In order for students to persist and succeed academically in postsecondary education, institutions should place emphasis on the first semester and academic year as a predictor of their future success (Tinto, 1998, 2015).

Institutions should have programs that allow faculty and staff to monitor student progress through advising sessions and early alert systems. As commuter, part-time, low-income, and first-generation students typically have a more difficult transition into the college experience, it is important to closely monitor students who fall into these categories to ensure they feel connected and supported (Longwell-Grice, Adsitt, Mullins, & Serrata, 2016; McArthur, 2005; Tinto, 2015).

### **Astin's Student Involvement Theory**

Perhaps one of the most influential theories in higher education is Alexander Astin's Student Involvement theory that was developed in the 1970s in an effort to explain the process of student development through student engagement and involvement with the campus community (Astin, 1999). The Student Involvement Theory is comprised of principles and concepts from psychological and learning theory as they relate to postsecondary students and their educational experiences (Astin, 1999). For students to be considered involved and engaged, they have to exude some level of physical and psychological energy into their own academic experience (Astin, 1999). This energy is not only focused on academic pursuits, but rather is comprehensive of academic, social, personal, and interpersonal factors that make up the entire educational

experience for the student (Astin, 1999). Astin's Student Involvement Theory echoes the concept of student engagement as a factor that influences retention and persistence as identified by Tinto (Wilson, 2016). One factor that is often overlooked is the frequency of student interactions with faculty and staff outside of the classroom (Astin, 1999). In order to be fully engaged in the experience, students should be provided opportunities to connect with their peers and the faculty and staff, as often as needed, to ensure they have a support system and access to the necessary resources and services the institution provides (Longwell-Grice et al., 2016).

Aside from being involved in special academic programs and extracurricular activities, students need frequent faculty-student interaction as a means of motivation and support. Interactions between faculty and students can foster a sense of belonging and connectedness to the institution that peer relationships cannot (Astin, 1999; Darling, 2015; Sogunro, 2015). Faculty-student interaction can lead to a greater sense of student satisfaction with the institution itself when compared to any other type of involvement. Students who have more frequent interactions with faculty and staff members tend to be more involved and engaged in the creation and maintenance of their educational experiences (Astin, 1999; Harrison, 2009). Regarding students who intend to transfer from a community college to a four-year institution, those with higher levels of academic and social engagement within the community college were found to be more likely to follow through with their plans to transfer when compared to students with lower levels of engagement (Gard, Paton, & Gosselin, 2012). Academic advisors are in a distinctive position to work with students on a one-on-one basis to monitor their progress, involvement, and achievement in academic endeavors. The personal relationship that is developed between students and advisors allows the advisor to tailor advising services to meet the needs of the individual student (Astin, 1999; McArthur, 2005; Sogunro, 2015). When students feel that their

academic advisors are inefficient and unable to assist them, they are less likely to pursue relationships with staff and faculty at the institution, which limits their level of engagement within the institution (Gard et al., 2012). Perhaps the greatest obstacle for institutions of higher education is appropriately distributing institutional resources in order to meet the specific needs of students through quality services and resources (Astin, 1999; Martinez, 2018). It is by focusing on quality, rather than quantity, that institutions will be able to drive the necessary programmatic interventions that will ensure student success.

## **Related Literature**

### **Student Motivation and Engagement**

Tinto's (1998, 2015) Retention Theory and Astin's (1999) Student Involvement Theory help to explain how student motivation and engagement in the education experience drive students to persist to degree completion. Lenz, Holman, Lancaster, and Gotay (2016) found that the connection between an individual student and the institution is a determining factor when it comes to student retention and engagement within the campus community. Students who are more engaged in the institution are much more likely to enroll in subsequent semesters and graduate from the institution (Lenz et al., 2016; Veres, 2015). It is through academic advising that faculty and staff are able to influence students' level of motivation (Astin, 1999; Tinto, 1998, 2015; Veres, 2015). Strong connections and relationships between advisors and students keep students engaged and promote a sense of belonging to the campus community which leads to greater academic achievement and higher rates of retention; thus, students are more likely to finish their academic programs (Astin, 1999; Tinto, 1998, 2015; Young-Jones et al., 2013). Research indicates that advisors are in a unique position to initiate positive relationships with students, early in a student's college career, that will help them become and remain motivated to

persist through their academic program (Longwell-Grice et al., 2016; Sogunro, 2015; Walters & Seyedian, 2016). Veres (2015) studied the impact of advising services in Ontario institutions and found that 80% of students identified advising as an important service, and the majority of students who utilized advising services had higher levels of academic performance and general satisfaction with the institution. The study also showed that students who valued academic advising were more likely to be retained into the next semester. In a survey-based study, Soria and Stebleton (2013) found that the relationships that formed between students and academic advisors directly impacted students' sense of belonging and their overall level of satisfaction with the institution they attended. Johnson et al. (2016) and Zarges et al. (2018) also noted that positive relationships developed between students and faculty or staff members help to nurture the social integration that is required for them to feel connected to the institution. Further, the level of satisfaction with academic advising services that students reported was positively associated with their reported levels of motivation; students who felt more satisfied with their advising experience were more likely to feel more motivated, be retained, and were better able to persist towards degree completion (Soria & Stebleton, 2013; Waddington, 2019). Sogunro (2015) found that approximately 70% of their participants noted that effective academic advising and a positive perception of the advisor-student relationship were crucial at maintaining their motivation. Ugur (2015) examined academic advising as a process that enables students to become more conscious and motivated in their educational experience and found that students experienced more social and academic success when they made use of advising services in a way that helped them critically think about their future plans.

Research has shown that students who rated themselves as having high levels of self-motivation were more likely to be engaged in the educational process. In addition, students with

higher levels of self-motivation are also more likely to seek out academic support and student services when compared to students with lower levels of self-motivation (Ellis, 2013; Jabbar et al., 2019; Waddington, 2019). There are various student scenarios that can affect the likelihood of a student seeking out advising and academic support services including a student's level of achievement, whether or not the student has a college-educated parent, and the day-to-day routine of the student. First-generation students are more likely to seek out advising services at the institution when compared with students who have a college-educated parent. Additionally, high-achieving students tend to take advantage of academic support services more often than those who struggle or maintain an average standing academically (Fosnacht, McCormick, Nailos, & Ribera, 2017). Students who seek out advising services and meet with their advisor at least once per semester tend to have significantly higher levels of engagement and are more likely to persist to the second year (Soria, Laumer, Morrow, & Marttinen, 2017). Additionally, motivated students are less likely to be disillusioned by poor customer service or a bad experience with a faculty or staff member. Students are more likely to be successful when they make connections with college personnel and seek out support services when needed (Ellis, 2013; Jabbar et al., 2019). Similarly, research shows that students with a high propensity to participate typically appreciate and participate in their education more than those with a low propensity to participate (Braun & Zolfagharian, 2016). Students who are more highly involved within the institution and campus community are more likely to remain motivated and persist through graduation (Vianden & Barlow, 2015). Hendricks and Johnson (2016) argue that it is the student that bears the responsibility to participate; however, it is through academic advising and relationships with faculty and staff that students become acutely aware of the various academic and social opportunities for engagement across the campus. The results of Lema and Agrusa's (2019) study



supported the concept that students with positive experiences with advising are more likely to take ownership of their education and advantage of the opportunities available within the institution. Moreover, students who are more autonomous tend to seek out engagement and involvement opportunities. When students have low levels of autonomy, they need more guidance, but they are also less likely to seek out the support services that would assist them in being more successful (Braun & Zolfagharian, 2016). Academic advisors can be viewed as agents that will promote a sense of belonging for students as they work one-on-one with students and help them identify resources, student organizations, and other ways to become integrated into the campus community (Hendricks & Johnson, 2016; Soria & Stebleton, 2013; Vianden & Barlow, 2015). As retention and graduation rates continue to decline, it is critical that institutions examine the services they have in place to promote engagement, connection, and student success and to ensure that students are provided the resources and opportunities they need to achieve high levels of academic performance and persist through graduation (Jabbar et al., 2019; Roberts & Styron, 2010; Troxel, 2019).

### **Academic Advising**

Higher education is a means for individuals to learn the knowledge and skills necessary in order to be effective in their chosen career paths. As the primary responsibility of institutions of higher education is to provide students with the knowledge necessary to be successful professionally, it goes without saying that the main function of these institutions is instruction (O'Banion, 2012). However, in order for instruction to be effective, institutions must have the necessary academic support constructs in place to make certain that students are declared in the most appropriate academic program and that students choose, and subsequently enroll in, the necessary courses to satisfy all of the requirements of the program (O'Banion, 2012). According

to O'Banion (2012), academic advising is the second most important function of higher education institutions because without academic advising, students would get lost in the transition into college as they struggle to navigate the complexities of higher education institutions. Shellenbarger (2016) explained that it is through academic advising that students may have their only opportunity to truly develop a connection with someone within their institution with someone who genuinely cares about their overall success. Vianden and Barlow (2015) found there to be a significant relationship between the usage of academic advising services and loyalty to the institution; it was suggested that academic advisors have the ability to foster a stronger connection between the student and institution than any other individual on campus. Academic advising helps students develop achievable academic and career goals, learn strategies needed to develop a plan to meet their goals, and learn to navigate the culture of postsecondary institutions and the complexities of the college experience (Larson, Johnson, Aiken-Wisniewski, & Barkemeyer, 2018; Woods, 2014). Over the last several decades, research has consistently shown that academic advising is one of the most fundamental activities through the postsecondary educational process (O'Banion, 2012). While some may still view academic advising as a simple transaction of superficial information, the changes in the field of higher education have facilitated the shift in advising from simple course selection to creating pathways for students to achieve long-term, future career objectives (Pasquini & Eaton, 2019). Academic advising has transformed over time into a comprehensive process that influences the academic, career, and personal development of college and university students (Harrison, 2009; Kirk-Kuwaye & Sano-Franchini, 2015; Vasquez, Jones, Mundy, & Isaacson, 2019).

Due to the increasing rates of college attendance, it has become difficult for institutions to employ the number of effective advisors needed to ensure that the needs of all students are

being met. The large advisor-student ratios that exist at most postsecondary institutions make it difficult for students to develop close relationships with their advisors, which can lead to a student feeling less integrated and connected to the institution itself (Walker, Zelin, Berhman, & Strnad, 2017). As resources become scarcer, institutions must make difficult decisions regarding the support services and distribution of resources throughout the organization so that academic performance, retention, and graduation rates increase for students as well as the institution as a whole (Allen et al., 2013). As the theories of Tinto (1998, 2015) and Astin (1999) became more prominent in the field of higher education, colleges and universities began to adapt to models of academic advising that are comprehensive to increase student success (O'Banion, 2012).

Students who make use of academic advising services throughout their college career tend to have higher cumulative grade point averages (GPA) and feel more connected to the institution (Allen et al., 2013; Paul & Fitzpatrick, 2015). These findings confirm the theories of Tinto (1998, 2015) and Astin (1999), in that, students that have a point of contact and have developed strong relationships with college faculty and staff are much more likely to experience higher levels of achievement and persist towards degree completion. According to Strayhorn (2015), students are unable to thrive in a postsecondary setting when they feel disconnected and lack a sense of belonging. When students feel more engaged and integrated in their institution, they are likely to feel a stronger sense of commitment to the educational process and will be more likely to persist and finish their degree program (Polnarieve et al., 2017; Shellenbarger, 2016).

Furthermore, students who utilized academic advising services were found to be more likely to finish their degree with the same institution rather than transferring prior to degree completion (Allen et al., 2013).

Students who connect with academic advisors have a better time with goal setting and clarification and are better equipped to navigate the difficult transition into the college environment (Filson & Whittington, 2013; Vasquez et al., 2019). Additionally, academic advisors provide students with the necessary guidance to overcome the challenges and obstacles that are often created by institutional policies and processes (Filson & Whittington, 2013; Paul & Fitzpatrick, 2015; Tabriz, Saadati, Mehdimahale, & Orooji, 2017). Workman (2015) reported that students who utilized academic advisors as a resource for academic planning and identifying pathways for developing social connections on campus were more likely to experience stronger support systems throughout their educational experience, which led to higher rates of academic performance and retention.

Academic advising is an institutional process that directly affects the overall satisfaction that a student experiences within the institution. When students are more satisfied with the support services they have access to and feel more engaged in the educational process, they are much more likely to have higher GPAs and stay consistently enrolled within the same institution (Braun & Zolfagharian, 2016; Thomas & McFarlane, 2018). In a study of the impact of academic advising in honor college students, it was found that the students who utilized academic advising had GPAs of almost one entire grade point higher than those who did not, 3.30 compared to 2.5 respectively, and had higher retention rates into the next semester, 88% compared to 79% respectively (Clark, Schwitzer, Paredes, & Grothaus, 2018). Through research, academic advising has been shown to affect the overall educational experience of college and university students; however, institutions and academic advisors must make a conscious decision regarding the style and structure of advising services that will provide

students with the necessary resources to be successful within that institution (Bers & Younger, 2013; Braun & Zolfagharian, 2016; Kot, 2014; Young-Jones et al., 2013).

### **The O'Banion Model of Academic Advising**

Academic advising is not a new process in higher education; in fact, one of the first models of academic advising that could be utilized by both two- and four- year institutions was created by Terry O'Banion in 1972 (O'Banion, 2012). The model proposed by O'Banion emphasizes a student-centered and humanizing process rather than a generalized process based on broad group characteristics (Carroll & Tarasuk, 1991). Institutions must employ and enforce strict policies and standards that promote structure and accountability for students; however, academic advisors must also be tasked with meeting the individual needs of students while promoting personal, academic, and career development (Carroll & Tarasuk, 1991). The O'Banion Model of Academic Advising is considered most effective when advising is mandated at least one time in each academic term and employs a series of steps that must be followed in sequence in order to ensure the needs of the student are met (O'Banion, 2012). The process of academic advising involves the exploration of life goals, exploration of vocational or career goals, choosing an academic program, selecting appropriate courses, and finally, scheduling the selected courses (CCCSE, 2018; O'Banion, 2012). According to O'Banion's model, academic advising should be a team-based effort and should involve faculty members, professional advisors, college staff members, and students (O'Banion, 2012). He and Hutson (2017) echoed the call for collaboration between academic advisors, faculty members, and college staff as a requisite for effective advising processes and structures. Throughout the advising process, the student is considered the primary decision maker and should be engaged in the co-creation of

their educational experience; they, too, should be a collaborator in their postsecondary career (Darling, 2015; He & Hutson, 2017; O'Banion, 2012).

In addition to the team-based emphasis of the O'Banion Model of Academic Advising, several characteristics of effective academic advisors have been identified that allow them to be successful in assisting students (O'Banion, 2012). The role of the academic advisor should be proactive in nature rather than reactive where their services are only utilized when an academic issue arises with a student (Carroll & Tarasuk 1991). Therefore, academic advisors should have a vast knowledge of individual student differences, career fields and requirements, academic programs, special program policies or requirements, and college or university policies (O'Banion, 2012). This wealth of knowledge positions the academic advisor in an influential role that can help to shape the educational experiences of students. The duties of the advisor have evolved since the development of O'Banion's ideal model and now include outlining sequences of courses, facilitating orientations for new students, creating personalized academic plans, and tracking students throughout their educational journey to ensure they are on track to accomplish their goals (CCCSE, 2018; Troxel, 2019). Poor academic advice and insufficient support services are the two primary causes for postsecondary student dissatisfaction, and research has shown that dissatisfaction with the institution can be a predictor of student drop-out (O'Banion, 2012; Sogunro, 2015). Zhang (2018) reported that effective advising ultimately contributes to a student's level of engagement and satisfaction with an institution in addition to enhancing academic performance and graduation rates. Vianden and Barlow (2015) explained that the type and strength of the relationship between a student and an academic advisor can be a predictor of academic performance and persistence through graduation. Institutions of higher education must employ individuals that are competent and capable of providing accurate

advising to students with a wide range of postsecondary and career goals (Braun & Zolfagharian, 2016; Ellis, 2013; O'Banion, 2012, Sogunro, 2015).

**Variations of Advising.** Over the last several decades, academic advising has evolved into much more than a sidebar obligation performed by faculty members. In fact, academic advising has become its own profession and subfield of higher education entirely with many different styles and institutional constructs (Braun & Zolfagharian, 2016). In its infancy, academic advising was viewed as a purely prescriptive activity in which advisors simply provided general information to students, and essentially told them what to do. Prescriptive style advising involves very little engagement and participation from the student and does not involve a distinct process of goal setting and student development (Braun & Zolfagharian, 2016; Pardy & BCCAT, 2016).

Over time, as academic advising became more necessary and prevalent in higher education, the style of developmental advising was established as the antithesis of prescriptive advising. Developmental advising is viewed as a form of teaching and involves students as active participants in creating their educational experience through informed decision-making (Braun & Zolfagharian, 2016; D'Alessio & Banerjee, 2016). Through the developmental advising approach, advisors assist students in gaining an understanding of program options and degree requirements through developing academic and personal goals they wish to achieve by way of a college education (Cheung, Siu, & Shek, 2017; Pardy & BCCAT, 2016). Academic advisors usually are not restrictive in the approaches used when working with students; many academic advisors combine the various styles of academic advising depending on the needs of the individual students they work with (Braun & Zolfagharian, 2016). Through more holistic advising practices, advisors are also equipped to help students work through challenges relating

to academic performance, study skills, identifying resources on campus, and social adjustment (Cheung et al., 2017; Harris, 2018; McGill, 2016). Overwhelmingly, academic advisors have become more proactive and inclusive in the advising process with students (Braun & Zolfagharian, 2016; O'Banion, 2012; Thomas & McFarlane, 2018).

Receiving poor advice or wrong information from a faculty or staff member is one of the most frustrating setbacks that a postsecondary student can experience. In the event that a student has a negative or unsatisfactory experience with academic advising, they are more likely to be discouraged from seeking out additional support services in the future and feel disconnected from the institution. In contrast, those with positive experiences with advising services reported feeling a greater sense of belonging and acceptance (Vianden, 2016). As students are often categorized into different groups, inconsistency becomes a momentous obstacle for students to overcome (Braun & Zolfagharian, 2016). While it is often necessary for certain groups of students to receive specialized advising, such as international students, honors students, and first-generation students, it is critically important for all students to receive accurate and consistent information when utilizing student support services throughout the institution (Braun & Zolfagharian, 2016). One way that institutions have responded to issues of inconsistency is to offer group advising and orientation sessions where students are generally categorized and provided with information that pertains to their specific group characteristics. This grouping of students can be based on having a defined academic goal or being undecided, having a specific major or program declared, needing remedial or developmental coursework to become college ready, or intentions to pursue transfer or vocational options (McCusker & Osterlund, 1979). By providing group sessions, advisors are able to reach a larger number of students at the same time



instead of having to repeat the same information in individual student advising sessions, which is much more time and cost effective.

Another response to the issue of inconsistency is that many institutions have established centralized academic advising units as an avenue for students to get the information and services they need in one location rather than getting bounced around to various offices that give conflicting information and instructions (Kot, 2014). Between 1979 and 2003, the number of institutions of higher education that employed centralized advising centers increased from 14% to 73% (Kot, 2014). When comparing students who visited a centralized advising unit to those who received advising from individual faculty members, students who made use of the centralized unit were more likely to register for courses in the subsequent semester, earn a higher number of college credits, and reportedly earned higher GPAs (Kot, 2014). Centralized advising units have been found to be more likely to provide students with accurate and consistent information (Young-Jones et al., 2013). Additionally, students developed better academic habits and felt more connected to the institution when they utilized centralized advising services when compared to students who did not. Braun and Zolfagharian (2016) noted that the number of centralized advising units has drastically increased in recent years and explain that centralized units are often more beneficial to students and help to increase motivation to participate in the educational experience and process more effectively. According to Bers and Younger (2013), in the U.S., approximately 75% of community colleges have developed some form of a centralized advising unit within their institution.

Centralized advising can occur in two different formats – the self-contained model and the shared-split model (Shellenbarger, 2016). The self-contained model is the purest form of centralized advising in which all advising processes and procedures occur in one advising center

found within the institution. Those employed in this type of model can have a wide range of roles including, but not limited to, counselors, academic advisors, campus support, peer mentors, and other student services functions, such as financial aid and international student advising (Shellenbarger, 2016). These centralized locations are essentially one-stop-shops for students to get the help they need without having to search aimlessly around the institution. In the shared-split model, institutions typically have some form of a centralized advising system that also includes faculty members from academic divisions for more specialized advising that pertains strictly to the student's academic program (Shellenbarger, 2016). In these models, academic advisors are viewed as generalists, and faculty members are utilized as experts in their respective fields to better assist students with career advising (He & Hutson, 2017). Instead of students bouncing between two types of advisors, students are typically passed on to their faculty advisor after meeting a set of criteria that deems them ready for more specialized advising that will assist them in making professional and career decisions based on their future goals (Shellenbarger, 2016).

Some institutions that employ centralized advising processes also make academic advising mandatory for certain groups of students. The intrusive advising approach is similar to the developmental approach in that advisors and students work together to develop goals and academic plans (D'Alessio & Banerjee, 2016; Donaldson et al., 2016). The defining characteristic of intrusive advising is that it is mandatory in order for students to enroll in subsequent semesters. If students fail to meet with their academic advisor in an institution that employs an intrusive approach, they would not be permitted to register for courses in the following academic term (Donaldson et al., 2016). While it seems invasive, students that are mandated to meet with their advisor report that they felt more encouraged to engage in early

degree planning in order to facilitate the achievement of their long-term goals (Donaldson et al., 2016). The intrusive advising approach reduces the issue of students not feeling supported or connected to the institution and the proactive nature of the approach forces students to address academic planning issues and any obstacles that would interfere with their academic success (Donaldson et al., 2016; Longwell-Grice et al., 2016).

**Role of the advisor.** The first year in college is considered the most critical phase of a college student's postsecondary educational career. When students are able to start strong within the first year of college, they are more likely to experience fewer challenges throughout their educational journey and also tend to maintain a higher cumulative GPA throughout their entire degree program (Noonan et al., 2006). Research has shown that students who felt supported by one or more individuals within the institution were more likely to earn a higher GPA early in their college career when compared to students who did not feel supported by a faculty or staff member (Noonan et al., 2006; Ugur, 2015; Zhang, 2018). Academic advisors are often viewed as mentors for students and provide the guidance necessary to ease the complex transition into higher education. Many times, students feel more secure when they are able to meet with an advisor and confirm their progress on a semester-by-semester basis (Christian & Sprinkle, 2013). Academic advisors that directly engage with students often play a critical role in the overall success and progress that a student makes towards degree completion (Shellenbarger, 2016; Wetzel & Debure, 2018). The primary role of academic advisors is to ensure that students are declared in the most appropriate degree program per their educational and career aspirations, and that they are taking the necessary courses to complete the degree program they have chosen. Moreover, quality academic advising leads to increased student retention rates as students

become more satisfied as they successfully progress through their chosen program due to the academic advising they receive (Christian & Sprinkle, 2013).

In order to be effective in their roles, academic advisors must be knowledgeable about institutional policies, procedures, and the overall advising process (Shellenbarger, 2016). Additionally, they must have some level of understanding regarding the different academic programs that will enable a student to enter a specific career field (Harrison, 2009). Aside from the connection between specific academic programs and career fields, academic advisors must be informed regarding the courses required for various academic programs and the prerequisite requirements for each course (Harrison, 2009). Another critical characteristic of an effective academic advisor is that they will act as an advocate and agent for students and do whatever is necessary to find answers for students (Harrison, 2009). Harrison (2009) found that students reported being helpful, making students a priority, assisting students with goal setting and overcoming challenges, and being supportive as the most necessary characteristics of effective academic advisors. Additionally, academic advisors should make an effort to get to know the general characteristics of the populations they serve and have the multicultural competence to work with students from diverse backgrounds. When advisors are able to identify the unique needs of individual students and the challenges that different types of students may encounter, they are better equipped to offer advice and make referrals that will benefit the student in their academic experience (Longwell-Grice et al., 2016; Shellenbarger, 2016; Zhang, 2018). Quality and effective academic advising is one of the best predictors of academic success for college and university students, as academic advisors are considered one of the most influential groups on a student's academic career (Harrison, 2009; O'Banion, 2012; Soria et al., 2017; Strayhorn, 2015).

O'Banion (2012) proposed several roles that academic advisors should fill in order to best serve students and provide a solid support structure for the institution itself. Advisors should be: (1) coordinators that work to merge college and community resources into a network of services for students, (2) consultants that offer expert advice to institution administrators to inform decisions regarding recruitment and orientation programs to address issues of retention and academic performance, (3) counselors that help students develop skills for problem solving and overcoming personal issues that impede upon their educational success, and (4) managers that plan, implement, and manage advising processes that support students throughout the institution (Carroll & Tarasuk, 1991). In the O'Banion (2012) Model of Academic Advising, it is explained that academic advisors have a primary responsibility of assisting students in life and career goal clarification and development. It is through frequent and planned interactions that academic advisors are able to foster the advisor-advisee relationship necessary to gain the trust and buy-in of college and university students. Through specific advising activities and best practices, academic advisors are able to be directly involved in the academic lives of students in a way that promotes and enhances academic success (O'Banion, 2012; VanDieren, 2016). When academic advisors made early contact with students prior to semester start dates, were accessible, and easy to communicate with, students had higher levels of satisfaction with the advising process and were more likely to earn higher cumulative GPAs (VanDieren, 2016). Early interactions between students and advisors also reduce the likelihood that a student will change majors, ultimately delaying their graduation, due to the fact that they were able to discuss their goals and career objectives early in their college education (Brecht & Burnett, 2019; Lynch & Lundgrin, 2018). As advisors and students develop a relationship based on trust and mutual

interest, students are better able to create plans of action regarding the attainment of educational and career aspirations because they feel more encouraged and supported (VanDieren, 2016).

### **Community College Students**

College and university students tend to experience a number of challenges when it comes to navigating the complexities of institutional policy and complicated academic program requirements. For some prospective students, the path to a four-year college degree can be even more convoluted due to high tuition costs and competitive admissions requirements (Cho & Karp, 2013). Community colleges, or two-year institutions, began as a vocational option for individuals residing in close proximity; they have increasingly become the most prominent access point for many prospective students to attain a four-year college degree due to the growing number of admissions agreements between community colleges and four-year institutions (Budd & Stowers, 2014; Cho & Karp, 2013; Ellis, 2013; Martinez, 2018; Price & Tovar, 2014). While community colleges have become a viable option for many prospective postsecondary students who may not otherwise have the opportunity to earn a college credential, the various missions of community colleges can sometimes come into conflict with one another (Allen et al., 2013; Budd & Stowers, 2014). The primary role of the community college in the U.S. is to provide opportunities that meet the wide-ranging needs of community members; these needs are typically educational, developmental, and learning in nature (Schwitzer et al., 2016). In 2015, statistics showed that 40% of new undergraduate students in the U.S. enroll in community colleges, and it is therefore critical to determine the needs of all students who attend these institutions rather than special populations (Hatch & Garcia, 2017). Shellenbarger (2016) reported that the enrollment in community colleges increased by 21% from 2003 to 2016. This

surge in enrollment requires that these institutions rework their resources in order to have the services necessary to meet the needs of diverse student populations.

Community colleges are often viewed as catchall institutions because they provide academic services on a variety of levels. While some students attending community colleges are pursuing professional development or vocational training, other students are on track to transfer to a four-year institution and move onto a bachelor's degree program (Budd & Stowers, 2014; Ellis, 2013). However, attempting to be all-encompassing can have detrimental drawbacks. According to Budd and Stowers (2014), community colleges often struggle to balance the many missions they aim to accomplish and it is often difficult to align resources to focus exclusively on one mission entirely at one time. The varied missions of community colleges often include life-span development, enhancing academic achievement opportunities, and assisting individuals in fulfilling life goals (Schwitzer et al, 2016). Through the study of how community colleges accomplish various missions, Nitecki (2011) found that the greatest challenge for community colleges is the identification of what is considered to be student success. The many missions that community colleges aim to accomplish make it very difficult to determine accurate measures of student success because student aspirations can vary from earning some college credit to transferring to a four-year institution to retaining a job or earning a promotion (Boerner, 2016; Nitecki, 2011). Additionally, as many community college students do not fit in the 'traditional' mold of a student attending a four-year institution, they are faced with many more challenges when it comes to navigating the college experience (Arch & Gilman, 2019; Budd & Stowers, 2014; Nitecki, 2011; Price & Tovar, 2014). A persistent concern for community colleges is the retention of students on a semester-by-semester basis and the ability for students to complete their degree requirements in a timely manner. Of the research that has been conducted, it has

been found that attrition for community college students begins in the first few weeks of enrollment, which requires an analysis of the intake and advising services offered to these students (Hatch & Garcia, 2017).

The student populations of community colleges tend to be the most diverse of any institution of higher education and incorporate a wide range of backgrounds and aspirations; therefore, there is no set definition for a typical community college student (Budd & Stowers, 2014). First-generation, low-income, minority, and non-academically prepared students are more likely to attend a community college prior to transferring or matriculating into a four-year institution (Arch & Gilman, 2019; Budd & Stowers, 2014; Hagedorn, 2015; Shellenbarger, 2016; Stewart et al., 2015). Community colleges are designed to address the needs of the community members in the surrounding areas of the physical location of the institution. These community members include traditional-aged college students, learners from all age groups, students who are not considered academically ready for college, single parents, dislocated workers, military veterans, and individuals from diverse cultures (Guth, 2017; Schwitzer et al., 2016; Willoughby, 2018). Approximately 60% of community college students are also working while attending school. Of the 60% that are working, roughly 62% of these students hold a full-time position (Shellenbarger, 2016). It is obvious that there is not a defined picture of the ‘typical’ community college student, which makes the development of a clear mission even more difficult.

Due to the overwhelming demands that community college students experience, they are also more likely to report feeling stressed, having anxiety, and experiencing sleep disturbances (Di Tommaso, 2016; Shellenbarger, 2016). Research has consistently shown that these students often benefit from strong academic and social support constructs such as academic advising. Martinez (2018) explained that community college student services are not typically focused on



the social needs of students and the student experience; however, academic advising at the community college is usually designed to address the educational, career, and personal goals of students, which includes helping them feel more connected to the institution. Increasing the level of student engagement for community college students within the campus community is critical for enhancing academic performance and student persistence; however, as community college students are more likely to attend part-time, and work and live off campus, their utilization of academic support services is inconsistent and usually much lower when compared with students at other types of institutions (Dudley, Liu, Hao, & Stallard, 2015). While the community college is viewed as a viable and realistic option to pursue higher education, Ellis (2013) found that the journey from the community college to a four-year university is often filled with obstacles and setbacks for students. While approximately 80% of community college students enroll with intentions of transferring to a four-year university, less than 35% of those students typically achieve that goal within six years, and less than 15% go on to earn a bachelor's degree (Fink & Jenkins, 2017; Jabbar et al., 2019). Community college students that have the intention to transfer to a four-year, bachelor's degree-granting institution tend to experience more challenges when it comes to identifying appropriate academic programs, courses, and the necessary requirements to transfer successfully into the four-year institution (Allen et al., 2013). As complex as this scenario can be, effective academic advisors should be able to successfully assist students in balancing the academic requirements between two- and four-year institutions to ensure a successful transfer into the academic institution and program of choice (Allen et al., 2013).

**Complexities in advising.** Research has shown that students enrolled in community colleges are far more likely to drop out than students that are enrolled in four-year institutions of

higher education (Astin, 1999; Budd & Stowers, 2014; Darling, 2015; Tinto, 2015). While many community colleges have implemented centralized academic advising services, the direct interaction of students and faculty at the community college level still tends to be very limited because community college students are usually commuters, and they do not tend to stay on campus much longer than is required by class meeting times (Bers & Younger, 2013; Kot, 2014; Young-Jones et al., 2013). Because of this distanced relationship between community college students and the institution, McArthur (2005) explained that community college students should be considered an at-risk group because they often lack a firm connection to the institution itself. Bishop (2016) found that high-risk students graduate at significantly lower rates than low-risk students, regardless of if they utilize student services on campus. This shows that high-risk students are at-risk even with support services in place; therefore, it is imperative that institutions analyze their student populations, allocate resources where they are critically needed, and make a point with targeted student outreach.

According to Shumaker and Wood (2016), while community college students typically have a higher need for academic support services, they are far less likely to make use of the services because they are physically distant and do not feel connected to the institution. Zhang (2016) reported that 32% of community college students never or rarely used the academic advising services that were available to them, but those who regularly used academic advising services had a better understanding of academic requirements and felt they had a clearer path to achieving their goals. While Tinto (2015) identified that many of the resources and opportunities available to four-year university students have also shown to be beneficial for community college students, many two-year institutions of higher education still have not been able to

appropriately adjust the resources and services they offer to positively influence the educational experiences of the students enrolled (McArthur, 2005).

Insufficient academic advising is a factor that negatively impacts student retention the most. Additionally, when students felt they had relationships with supportive faculty and staff members, they were much more likely to continue pursuing their higher education aspirations (McArthur, 2005). In a survey of community colleges in Florida, it was found that academic advising was viewed as crucial to the student experience, especially when it came to helping students understand college policies, procedures, and course registration (Woods et al., 2017). An issue that many students face when attending a community college is the lack of structure to academic programs that will meet individual student needs. It is typical for community college students to take unnecessary courses and accumulate an astounding number of college credits that never add up to a full degree (Jaggars & Karp, 2016; Tinto, 2013). When students do not receive adequate advising services or sufficient time with an academic advisor, they are more likely to commit these mistakes and end up spending more time and money pursuing a college education than what is typically necessary (Jaggars & Karp, 2016). Students who do not receive adequate, early advising are more likely to change majors at least once, and those who change their majors are more likely to experience negative changes in GPA and take longer to complete their degrees (McKenzie, Tan, Fletcher, & Jackson-Williams, 2017). Due to the confusing degree paths, community college students tend to drop out of the institution due to frustration (Tinto, 2013). If these students are provided adequate academic advising and a clear sense of the courses they should be taking and when, the levels of retention and completion would undoubtedly increase. Academic advisors employed within community colleges must be able to provide extensive and personalized support to students rather than limiting student interactions to

a few minutes and providing general, superficial guidance (Fink & Jenkins, 2017; Jaggars & Karp, 2016; Johnson, Walther, & Medley, 2018).

Furthermore, community colleges are known to be commuter friendly, as they offer ample parking, varied class times, and the support services and hours of operation are designed to meet the needs of every type of student (Darling, 2015). However, due to the drastic increases in enrollment over the last few decades, community colleges often fall short of providing adequate levels of support for students that experience a variety of obstacles that prevent them from being as successful as possible (Burge-Hall et al., 2019). Most community colleges are only able to fund academic advisors on a ratio of one advisor to every 800-1200 students (CCCSE, 2018; Jaggars & Karp, 2016). The large ratios of students to advisors restricts advisors in the amount of time they can spend with each student and reduces the likelihood of being able to see a student more than once in a semester (Woods et al., 2017). In a recent survey, the CCCSE (2018) found that students and faculty report academic advising as the most critical services offered by community colleges; however, many students report that they have not met with an academic advisor beyond their first semester. Fricker (2015) found that academic advising is an important intervention for commuting students and helps them to feel more engaged and involved in their academic experience. The students that typically enroll in community colleges often have hectic personal lives that make the pursuit of higher education even more difficult, and many community college students have to work to pay for their tuition while others have to balance the demands of higher education with personal and family obligations (Darling, 2015). This context is in direct contrast to the typical experience of a student enrolling in a four-year institution. The services and resources provided by four-year institutions tend to be more focused on the residential students' experience and they do not

usually account for personal and individual needs of atypical college students or how institutional processes and policies could create unintentional challenges for students who do not fit the typical mold (Darling, 2015). Though it is important to employ academic advisors in every level of higher education, the challenges that community college students face warrant a more prominent presence of academic advisors to ensure that students have a point of contact that can act as an advocate to ensure they are able to academically succeed and accomplish the educational and professional goals set for themselves (Darling, 2015). In addition to being advocates for students, academic advisors that work with community college students are able to help foster a sense of community between the student and the institution that may otherwise not be possible through minimal classroom interactions (Darling, 2015). In order to be the most effective in their roles, academic advisors must take the time to discuss the interests, strengths, plans, and goals with individual students (Jaggars & Karp, 2016). It has been shown that enhanced advising strategies that include mandatory advising sessions, and having assigned advisors for each student, has a positive impact on levels of student academic performance and retention rates (Jaggars & Karp, 2016). Many researchers have concluded that effective academic advising could potentially close the achievement gap in regard to the number of students that initially enroll and those that complete their college degree programs at community colleges (Allen et al., 2013; Jaggars & Karp, 2016; Lester, Leonard, & Mathias, 2013).

### **Summary**

Darling (2015) explained that research has started to shed light on the unique issues that community college students face when it comes to persistence and degree completion; however, the role that academic advisors and the advising process can play in the enhancement of academic performance, retention, and student engagement have yet to be explored in depth. As

academic advisors at any institution of higher education are positioned to influence a student's educational experience significantly, it is critical to understand the role that academic advisors can play in the lives of community college students (Darling, 2015; Jaggars & Karp, 2016).

Much of the research conducted regarding community college students has been focused on the retention of students in a general sense and the completion of vocational tracks. As more traditional-aged students are attending community colleges as pathways to a four-year institution, research must be conducted in order to examine the effects of quality advising in the experiences of students who have the intention to transfer to a four-year institution as their primary goal (Bers & Younger, 2013; Cho & Karp, 2013; Darling, 2015; Frost, Strom, Downey, Schultz, & Holland, 2010; Nitecki, 2011; Soria & Stebleton, 2013; Stewart et al., 2015). By examining the academic performance, retention rates, and levels of engagement for students enrolled in a community college, it is possible to determine if there are any significant effects of academic advising on the overall experience and success of community college students as they navigate the complexities of their enrollment (Darling, 2015; Frost et al., 2010; Shellenbarger, 2016; Tinto, 2015).

## **CHAPTER THREE: METHODS**

### **Overview**

In the following section, the research design for the current study is discussed. The rationale for choosing the research design is provided and supported by research texts. The research question and hypotheses that guided the current research study will also be reviewed as a basis for the chosen research design and subsequent statistical analyses that were used to analyze the data collected. Information regarding the participants, setting, and instrumentation that were used for the study will be provided to allow for future replication of the current study. The selection of the instrumentation that was used for the study will be discussed, and the reliability and validity measures of the cumulative GPA and the CCSSE survey will be provided. Additionally, a step-by-step narrative of data collection procedures will be included with sufficient detail to also allow for future replication of the current study. Finally, the chapter will conclude with a discussion of the data analysis methods that were employed to determine any significant findings associated with the research questions and hypotheses that guided the study.

### **Design**

For the purpose of the current study, the independent variable of interest, which is the utilization of academic advising services, is generally defined as whether or not a student has ever met with an academic advisor at the community college in which they are enrolled. The dependent variables are generally defined as: (1) academic performance: the cumulative GPAs of participants (Bacon & Bean, 2006), (2) retention rates: the number of semesters the student has enrolled at the institution (Tinto, 1973; 1998; 2015), and (3) levels of engagement: the participants' level of their engagement and involvement within the institution as indicated by responses to items on the Community College Survey of Student Engagement (CCSSE) (Astin,

1999; CCSSE, 2017a; O'Banion, 2012; Tinto, 2015). To determine if the utilization of academic advising services had an effect on the academic performance, retention, and level of engagement for traditional-aged community college students, the current study employed a causal-comparative research design. The researcher employed a non-experimental, causal-comparative research design, as the purpose of the study was to identify possible cause and effect relationships between the use of academic advising services and student academic performance, retention rates, and levels of engagement (Gall, Gall, & Borg, 2007). The research design was ex post facto because the participants were not randomly placed into groups, rather the participants already belonged to one of the two levels of the independent variable – either they had utilized the advising services or they had not. The design also included between groups measures as participants were only able to belong to one of the two levels of the independent variable. Additionally, the research design was considered non-experimental because the researcher did not manipulate the independent variable by randomly placing participants into the two levels (advising or no advising), there was no control group, and there was no treatment or intervening variables (Gall et al., 2007).

### **Research Questions**

**RQ1:** Is there a difference in the cumulative GPAs between community college students who utilize academic advising services and those who do not?

**RQ2:** Is there a difference in the retention rates between community college students who utilize academic advising services and those who do not?

**RQ3:** Is there a difference in the level of student engagement, as reported on the CCSSE, between community college students who utilize academic advising services and those who do not?



## Hypotheses

The null hypotheses for this study are:

**H<sub>0</sub>1:** There will be no statistically significant difference in the cumulative GPAs between community college students who utilize academic advising services and those who do not.

**H<sub>0</sub>2:** There will be no statistically significant difference in the retention rates between community college students who utilize academic advising services and those who do not.

**H<sub>0</sub>3:** There will be no statistically significant difference in level of student engagement, as reported on the CCSSE, between community college students who utilize academic advising services and those who do not.

## Participants and Setting

### Participants

The participants for the study were randomly selected from a convenience sample of the traditional-aged students enrolled in a small, rural community college in Virginia during the spring 2019 and fall 2019 semesters. A convenience sample was used due to the close proximity to the researcher and the ease of collecting the necessary data for the study (Gall et al., 2007).

The traditional-aged student is defined as members of the student population that are between the ages of 18 and 24 years and have never attended college prior to their enrollment in the community college (NCES, 2002). The identification of these students as participants was dependent on student responses on their admissions application (date of birth and educational background/history) and their enrollment in the freshman-level English composition course offered by the institution. Additionally, the participants selected had attended the institution for a minimum of two semesters with one semester already having been completed at the time of data collection to allow the researcher to collect and analyze their GPAs. The students that were

identified as meeting the criteria to be included in the study were provided with an online version of the informed consent letter, and participants were provided the option to opt out of the study to allow for voluntary participation. However, students that decided to participate were given the option to be entered into a raffle for a gift card. A total of 128 students responded to the survey and 99 students completed the survey in its entirety. Of the 99 participants, 34.3% were males ( $n = 34$ ) and 65.7% were females ( $n = 65$ ) between the ages of 18 and 24 years (77.8% between 18 and 19 years, 15.2% between 20 and 21 years, and 7.1% between 22 and 24 years). The sample population was relatively diverse with 33.3% of participants identifying as Black or African American ( $n = 33$ ), 4.0% identifying as Hispanic or Latino ( $n = 4$ ), 51.5% identifying as White ( $n = 51$ ), and 11.1% identifying as belonging to more than one race or ethnicity ( $n = 11$ ). When asked about the educational background of participants' families, 23.2% of participants ( $n = 23$ ) indicated they were first generation college students and 76.8% of participants ( $n = 76$ ) indicated that one or both of their parents had attended college (see Table 1).

**Table 1**

*Participant Demographic Information*

	Frequency	Percentage
Gender		
Female	65	65.7%
Male	34	34.3%
Age Range		
18-19 years old	77	77.8%
20-21 years old	15	15.2%
22-24 years old	7	7.1%
Race/Ethnicity		
Black/African American	33	33.3%
Hispanic/Latino	4	4%
White	51	51.5%
More than one race/ethnicity	11	11.1%
Utilized Advising Services?		
Yes	71	71.7%
No	28	28.3%

## **Setting**

The setting for the study was a small community college located in the southern region of Virginia (referred to as ‘the college’ henceforth). At the time of data collection, there were approximately 3,100 students enrolled in the college and the average age of students was 23 years old (SVCC, 2019). The institution was part of one of the largest community college systems in the U.S. and consisted of two campuses and five satellite centers (SVCC, 2019). The college employed a mixed advising model; both professional advisors and faculty advisors assisted students with academic and career planning (SVCC, 2019).

## **Instrumentation**

### **CCSSE Instrument**

The instrument that was used for the current study was the CCSSE that was designed by the University of Texas at Austin in 2001 to measure the levels of engagement for community college students (CCCSSE, 2017a; 2017b; Marti, 2009). The CCSSE has been used in numerous peer-reviewed studies in recent years in order to determine the impact of student engagement on learning and persistence in community college students (Barhoum & Wood, 2016; Dudley et al., 2015; Lancaster & Lundberg, 2019). In addition to the full CCSSE survey, participants also completed an additional item set of 15 questions that are focused on academic advising and planning (CCCSE, 2017c). The CCSSE is typically used to inform institutions about the practices that are aligned with the institution’s desired student outcomes as well as how to improve retention rates within the institution (CCCSE, 2017a). The survey was designed to ask students about their experiences while enrolled in a community college so that administrators were able to identify best practices, obstacles, and challenges that affect student performance and enrollment behavior (CCCSE, 2017a). The results gathered through the administration of the

CCSSE help administrators of community colleges assess the initiatives in place, and measure progress towards their institutional goals with emphasis being placed on improving student retention and academic performance (CCCSE, 2017a).

The CCSSE instrument is divided into benchmark categories that measure student engagement through five different types of engagement activities: active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners. The active and collaborative learning benchmark measured how often and to what extent students participated in class, interacted with their peers, and participated in learning activities outside of the classroom (McClenney & Marti, 2006). Student effort is indicated by time on task, preparation for class and learning activities, and the utilization of student support services. The benchmark of academic challenge is measured by the extent to which students were engaged in challenging learning activities and the rigor of academic work. The student-faculty interaction benchmark measures the amount of communication between students and faculty members in regard to academic performance, career plans, and course content or requirements. The support for learners benchmark gauges student perceptions of their college and the personal use of advising services at the college (McClenney & Marti, 2006).

A generally strong consistency in how the specific questions and constructs included in the CCSSE instrument measured the factors being studied was confirmed through validation research (Marti, 2009; McClenney & Marti, 2006). The CCCSE conducted three validation studies in order to determine that relationships between the engagement activities included in the benchmark categories and the outcome measures of interest (academic performance, retention, persistence, degree completion, etc.). The studies included the Florida Community College System, the CCSSE Hispanic Success Consortium, and 24 of the original colleges involved in

the ATD Initiative (McClenney & Marti, 2006). Through the validation research, it was found that responses to the questions included in the active and collaborative learning benchmark were predictive of student success across the three studies and linked to higher GPA and overall credit and degree completion. For this benchmark, the predictability of higher GPA ranged from  $\beta = .064$  to  $\beta = .820$ , and the predictability for semester-by-semester persistence (i.e. retention) ranged from  $\beta = .066$  to  $\beta = .758$ . Participation in active and collaborative learning activities correlated with higher academic performance, course and credit completion, and overall degree attainment. It was found that responses to student effort benchmark questions have predictability for retention and academic performance. For GPA the scores ranged from  $\beta = .079$  to  $\beta = .451$  across the three studies and retention scores ranged from  $\beta = .031$  to  $\beta = .738$  across the three studies (McClenney & Marti, 2006). Participation in activities related to student effort correlated to higher levels of student persistence, overall credit completion, and had some effect on academic performance. Responses to questions from the academic challenge benchmark were more consistently associated with academic measures, but there were no significant results found linking academic challenge to student persistence. The predictability of the academic challenge benchmark to GPA scores ranged from  $\beta = .076$  to  $\beta = .571$ , while the predictability of this benchmark to persistence ranged from  $\beta = -.005$  to  $\beta = .576$  (McClenney & Marti, 2006). There was little evidence of a correlation between academic challenge and student persistence; the significant correlations for this benchmark were related to credit hour completion, GPA, and overall degree attainment. The student-faculty interaction benchmark did not show a greater impact on either the academic or persistence domains; however, the frequency of student-faculty interaction did seem to correlate with the number of terms enrolled, credit completion, and overall degree attainment. The predictability scores for the student-faculty interaction for GPA

ranged from  $\beta = .050$  to  $\beta = .433$  and the scores for persistence ranged from  $\beta = -.268$  to  $\beta = .095$  (McClenney & Marti, 2006). These results indicate a correlation with the number of terms enrolled, credit completion, and degree attainment. The support for learners benchmark showed a consistent relationship with student persistence, but not for academic performance. The predictability scores for GPA ranged from  $\beta = -.168$  to  $\beta = .053$ , and for persistence, from  $\beta = .037$  to  $\beta = .346$  (McClenney & Marti, 2006). These results indicate that support services have a greater impact on student retention than overall academic performance. Overall, the validation studies showed good predictability and positive relationships between the benchmark categories and outcome measures (academic and persistence) (McClenney & Marti, 2006). The overall Cronbach's alpha ( $\alpha$ ) for the construct reliability was .68. The overall test-retest reliability measures had a Cronbach's alpha ( $\alpha$ ) of .71 (Marti, 2009). While the Cronbach's alpha ( $\alpha$ ) score for construct reliability is just shy of the standard .70 that is often sought, Marti (2009) explained that construct reliability was not essential in determining the overall reliability of the CCSSE itself. In general, the reliability and validity analyses conducted by Marti (2009) provided supportive evidence that the CCSSE instrument effectively measures student engagement. This was the best survey instrument to use for the purpose of the current study because it was the only survey instrument in existence that was solely focused on the engagement of community college students rather than students enrolled in other types of postsecondary institutions.

The full CCSSE instrument and additional item set consists of 62 questions. While the full survey and additional item set were administered to participants to protect the reliability and validity of the instrument intact, only specific items on the full survey were of interest to the researcher (items 4l, 10c, 12a1, 12b1, 12i1, 12j1, and of the 15 questions from the additional item set, item 1). For the purpose of this study, a total of five items from the student-faculty

interaction (item 4l), and support for learners (items 12a1, 12b1, 12il, and 12j1) benchmark categories, in addition to question 10c and the question from the additional item set, were analyzed as they pertain specifically to academic advising services. Permission to use items from the CCSSE instrument was granted by the CCCSE on March 26, 2018 (See Appendix A). The benchmark items are scored by rescaling each item within a category so that they are on the same scale. The scores of each item from the full instrument were rescaled and averaged to produce a mean that is indicative of the average number of engagement activities the participant was involved in (CCCSE, 2017c). Scores that are lower indicate that students are not participating in engagement activities often, if ever, and/or that they are not utilizing academic advising services. Higher scores indicate more involvement in engagement activities and/or utilization of academic advising services.

The CCSSE instrument consists of several different types of questions: nine yes or no questions, 30 multiple choice questions, 10 demographic questions, and 13 Likert scale questions. For yes/no questions, choices include an answer of Yes = 2 and an answer of No = 1. For the multiple-choice questions, each answer option is assigned a corresponding number to match for analysis, i.e., answer choice 1 = 1, answer choice 2 = 2, etc. In any question that has a “Not Applicable (NA)”, “None,” or “Never” option, the number 0 is assigned to that option. The Likert scale questions vary in the answer choices and scale ranges. For one question (4), the scale ranges from Very Often to Never with responses as Very Often = 4, Often = 3, Sometimes = 2, and Never = 1. One question (23) utilizes a range of Very Likely to Not Likely with responses as Very Likely = 4, Likely = 3, Somewhat Likely = 2, and Not Likely = 1. Three questions (5, 9, and 11) utilize a range of Very Much to Very Little with responses as Very Much = 4, Quite a bit = 3, Some = 2, and Very Little = 1. Six questions (40, 44, 46, 47, 48, and 49)

utilize a range of Strongly Agree to Not Applicable with responses as Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1, and Not Applicable = 0. The final Likert scale question (7) utilizes a range of Extremely Easy to Extremely Challenging with responses as Extremely Easy = 1, Very Easy = 2, Easy = 3, Neutral = 4, Challenging = 5, Very Challenging = 6, and Extremely Challenging = 7 (CCCSE, 2017c).

## **GPA**

In addition to the survey instrument, the cumulative GPAs of participants were used in order to measure the participants' academic performance. Participants self-reported their GPA while completing the CCSSE instrument. The college that was used for the current study employs a 4.0 grade point average scale that ranges from 0.0 to 4.0. The grading system employs the following measurements associated with letter grades: 0.0 = F, 1.0 = D, 2.0 = C, 3.0 = B, and 4.0 = A (SVCC, 2018). The internal consistency reliability, as measured by the intraclass correlation coefficient (ICC) of using the cumulative GPA to measure academic performance has been verified in previous research (Bacon & Bean, 2006). According to Bacon and Bean (2006), the ICC of a final cumulative GPA is .94. It was noted that two factors could affect the reliability of the GPA measure: differences in academic performance over time and differences found in course content. The overall reliability measure of a cumulative GPA increases over time. The reliability of the measure ranges from an ICC of .84 in the student's first year of postsecondary education and can reach .94 by the final year, depending on how long the student is enrolled and how many courses are taken by the student (Bacon & Bean, 2006). It was also noted that the cumulative GPA for approximately two years will have a reliability ICC score of .91, which is important when working with the community college student population (Bacon & Bean, 2006). Additionally, it has been found that the cumulative GPA consistently



shows a positive relationship with the engagement constructs of the CCSSE instrument (Marti, 2009). For the purpose of the current research study, the cumulative GPA is considered to be a reliable and valid measure of academic performance.

### **Retention Rates**

The student retention rate was calculated by the number of semesters the student has been enrolled at the college. Since eligible participants were at least in their second semester of enrollment, the lowest score possible for the retention rate variable was 2. The retention rate variable is considered to be indicative of student persistence or continuous semester-by-semester enrollment (Tinto, 1998; 2015). Participants self-reported the number of semesters they have enrolled in with the institution as part of the CCSSE instrument (CCSSE, 2017c). The semester enrollment information gathered from the CCSSE instrument was used to calculate the dependent variable of retention rate.

### **Procedures and Data Collection**

After obtaining institutional review board (IRB) approval from Liberty University (see Appendix B) and the community college (see Appendix C) to begin the data collection process, the researcher worked with the community college to gather the information necessary to identify potential participants. The college ran internal reports using the PeopleSoft Student Information System to identify students that met the criteria for participating in the study. Additionally, students enrolled in the freshman composition English class that met the criteria for participation were invited by their professors to participate. Any student that was identified as a potential participant was sent an e-mail that included information about the study (see Appendix D), informed consent (see Appendix E), and a website link to the electronic version of the survey instrument that took approximately 30 minutes to complete. The first page of the online survey

included the informed consent. Participants were required to electronically sign and date the first page of the survey to provide consent and move onto the instrument. Students were asked to provide their e-mail address if they wished to be entered into the raffle for the gift card. Student participants who failed to answer all survey items were excluded from the study in an effort to keep results consistent and accurate. This factor of the procedure aligned with the administration of the original CCSSE instrument and helped to avoid skewing the reliability and validity of the instrument itself (CCCSE, 2017a). A total of 128 participants initially started the survey instrument, but only 99 submitted complete surveys. When a sufficient number of responses was obtained, data collection was concluded and the survey was closed. The researcher then entered all data of interest into the Statistical Package for the Social Sciences (SPSS) software and ran the necessary data analyses to test for significant findings in an effort to reject the null hypotheses.

### **Data Analysis**

As the current study had one independent variable and three dependent variables, it was necessary to use the one-way multivariate analysis of variance (MANOVA) test in order to determine any significant results (Gall et al., 2007). However, since the independent variable in this study only had two levels, the Hotelling's  $T^2$ , a variation of the one-way MANOVA, was employed (Green & Salkind, 2013). The Hotelling's  $T^2$  test requires a data screening of multivariate and univariate outliers. Additionally, there are nine other assumptions that need to be met when using the Hotelling's  $T^2$ . The first three assumptions are met by simply verifying that the research design for the current study had one independent variable with only two levels, two or more continuous dependent variables, and that both independent variable groups were between-subjects (Green & Salkind, 2013). The other six assumptions that must be met for the

Hotelling's  $T^2$  test include linearity, homogeneity of variance-covariance, homogeneity of variances, multivariate normality, multicollinearity, and ensuring that an adequate sample size is obtained (Green & Salkind, 2013). Adequate sample size is easily tested through effect size analysis (Warner, 2013). Box-and-whisker plots are used to screen for extreme outliers within each group and for each dependent variable. The assumption of linearity is tested by assessing scatterplot matrices, and the assumption of homogeneity of variance-covariance is confirmed with Box's  $M$  test. The assumption of homogeneity of variances is tested with Levene's Test, the assumption of normality is confirmed with the Shapiro-Wilks and/or Kolmogorov-Smirnov tests, and the assumption of multicollinearity is tested with the Pearson correlation coefficient (Warner, 2013).

For a large effect size with an alpha ( $\alpha$ ) of .05 and desired statistical power of .70, each group of the independent variable must have a minimum of 25 participants (Warner, 2013). The statistic that was used to determine the effect size was the partial eta squared ( $\eta^2$ ). If the results of the Hotelling's  $T^2$  test are significant, follow up testing is required to determine exactly where the significant differences lie between the two groups (Green & Salkind, 2013). Post-hoc testing for the Hotelling's  $T^2$  version of the MANOVA requires specific calculations and attention to the possibility of committing Type I errors. In order to test for significance for each dependent variable and to determine if the null hypotheses can be rejected entirely or just for specific variables individually, three independent-samples  $t$ -tests would need to be conducted using the Bonferroni adjustment correlation to reduce the possible occurrence of Type I errors and Cohen's  $d$  would be used to report effect size (Warner, 2013).

## CHAPTER FOUR: FINDINGS

### Overview

The purpose of the current study was to determine if there was a statistically significant difference in the academic performance, retention, and level of student engagement between students who utilize academic advising services and those who do not. This chapter includes the original research questions and null hypotheses that guided this study as well as information regarding the data screening process. Descriptive statistics for the sample population, outcomes of assumptions testing are reviewed, and the results of the data analysis are presented.

### Research Questions

**RQ1:** Is there a difference in the cumulative GPAs between community college students who utilize academic advising services and those who do not?

**RQ2:** Is there a difference in the retention rates between community college students who utilize academic advising services and those who do not?

**RQ3:** Is there a difference in the level of student engagement, as reported on the CCSSE, between community college students who utilize academic advising services and those who do not?

### Null Hypotheses

The null hypotheses for this study are:

**H<sub>0</sub>1:** There will be no statistically significant difference in the cumulative GPAs between community college students who utilize academic advising services and those who do not.

**H<sub>0</sub>2:** There will be no statistically significant difference in the retention rates between community college students who utilize academic advising services and those who do not.

**H<sub>03</sub>:** There will be no statistically significant difference in level of student engagement, as reported on the CCSSE, between community college students who utilize academic advising services and those who do not.

### Descriptive Statistics

There was a total of 128 respondents to the online version of the CCSSE used in the current study. The online version of the instrument was programmed to filter out respondents that did not meet the selection criteria for the target sample (being between the ages of 18 and 24 years, being enrolled in at least their second semester at the college, not having attended any other postsecondary institution prior to the community college). The researcher checked over the survey responses for errors in the filtering. After screening the data, 99 participants (77% of respondents) and their responses to the survey were included in the data analyzed.

Of the 99 participants, 28.3% indicated they did not utilize academic advising services ( $n = 28$ ) and 71.7% indicated they did utilize academic advising services ( $n = 71$ ). Most of the participants were enrolled in their third semester at the college ( $n = 54$ , 54.5%) followed by the number of participants enrolled in their second semester ( $n = 38$ , 38.4%). Only seven participants, or 7.1%, indicated they were enrolled in their fourth semester at the college. The self-reported GPAs for the entire sample ( $n = 99$ ) ranged from 1 to 4 with a mean of 3.02 ( $SD = .78$ ), the total number of semesters enrolled ranged from 2 to 4 with a mean of 2.69 ( $SD = .60$ ), and the level of student engagement ranged from .17 to 2.67 with a mean of 1.34 ( $SD = .58$ ). The highest possible score was 3.17 and the lowest was 0.17. A person with a score of 3.17 indicates they participated in a greater number of student engagement activities. A person with a score of 0.17 indicates they participated in very few student engagement activities. See Table 2 for descriptive statistics ( $M$  and  $SD$ ) for each dependent variable.

**Table 2***Descriptive Statistics for GPA, Number of Semesters Enrolled, and Level of Engagement*

	Utilized Advising Services		Did Not Utilize Advising Services	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
GPA	3.14	.70	2.71	.90
Number of Semesters Enrolled	2.65	.60	2.79	.63
Level of Student Engagement	1.41	.58	1.16	.54

## Results

### Assumptions Testing

By inspecting boxplots, it was confirmed that there were no univariate outliers in the data collected (see Figure 1). The Mahalanobis distance was used to determine that there were no multivariate outliers,  $p > .001$ . The assumption of adequate sample size was confirmed because the number of participants in each level of the independent variable met the criteria of a large effect size. For a large effect size with an alpha ( $\alpha$ ) of .05 and desired statistical power of .70, each group of the independent variable must have a minimum of 25 participants (Warner, 2013). The two groups of the independent variable in the current study were participants who utilized advising services ( $n = 71$ ) and participants who did not utilize advising services ( $n = 28$ ).

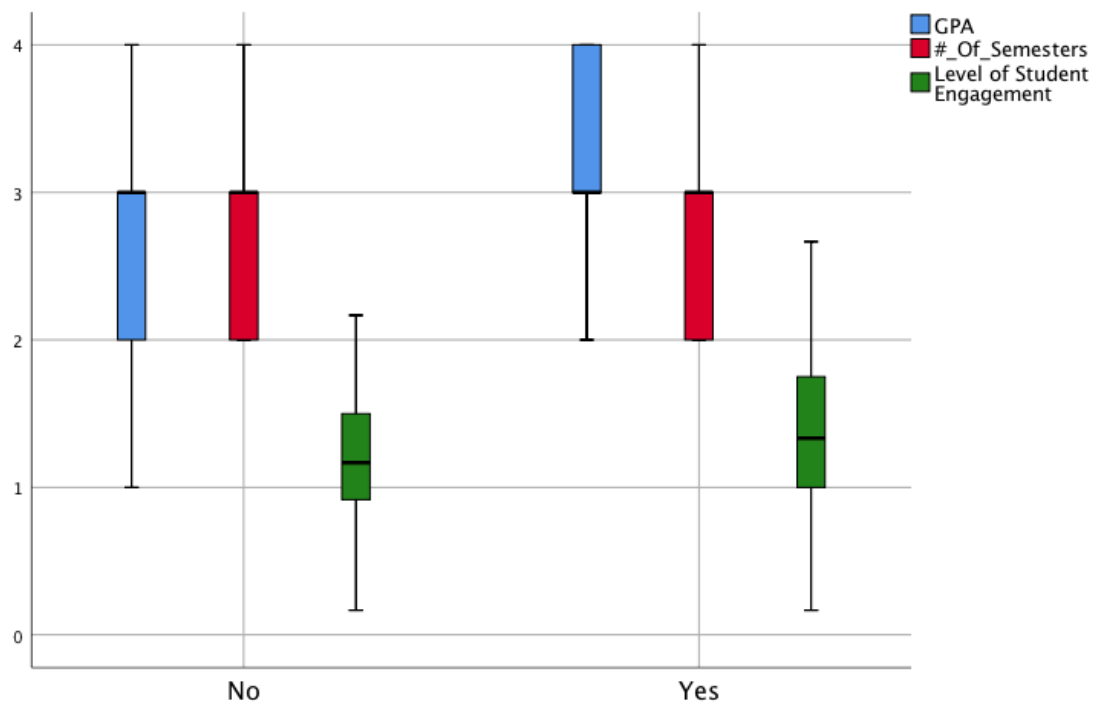


Figure 1. Box-and-whisker plots for GPA, semesters enrolled, and level of engagement.

Scatterplot matrices were assessed to confirm linear relationships between the dependent variables for the assumption of linearity (see Figures 2 and 3). The assumption of homogeneity of variance-covariance was confirmed with a non-significant Box's  $M$  test,  $p = .39$ .

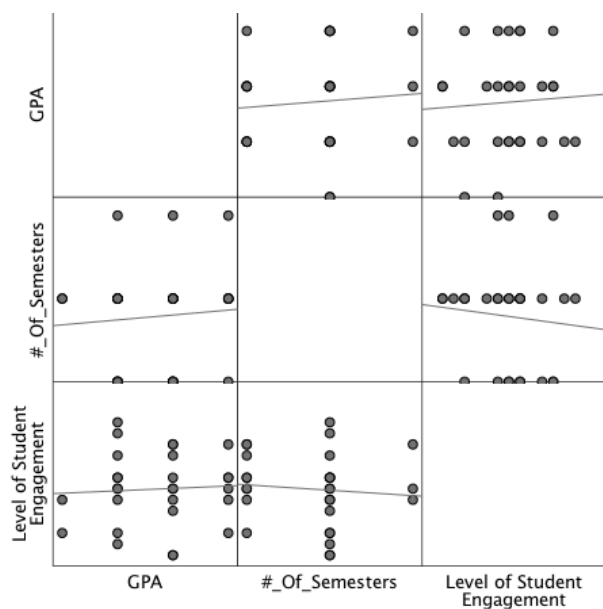


Figure 2. Scatterplot matrix confirming linear relationship (did not utilize advising services).

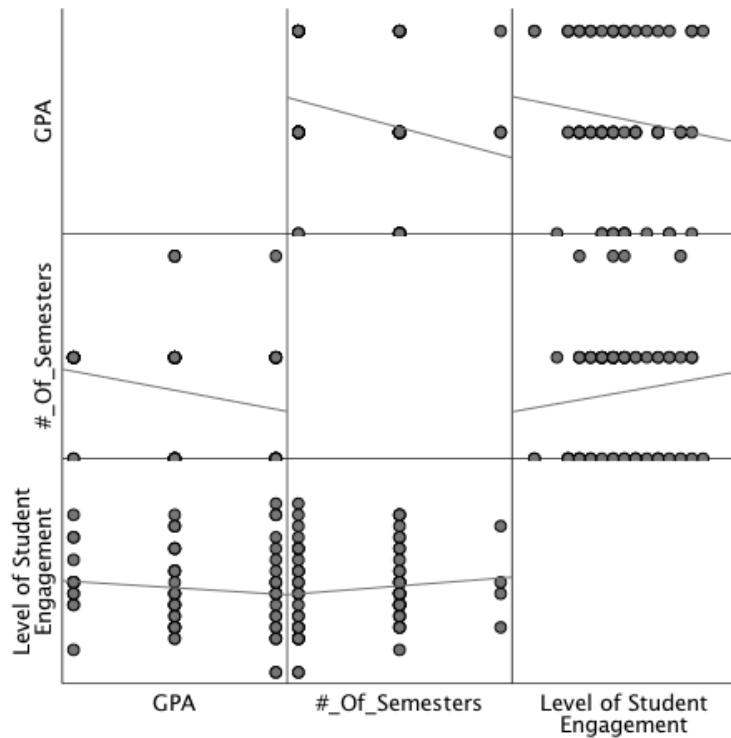


Figure 3. Scatterplot matrix confirming linear relationship (utilized advising services).

There was homogeneity of variances, as assessed by the results of Levene's Test (GPA,  $p = .05$ ; number of semesters enrolled,  $p = .71$ ; and level of student engagement,  $p = .48$ ; see Table 3). Pearson's  $|r|$  correlation indicated that the assumption of no multicollinearity is tenable, as seen in Table 4 (Warner, 2013).

**Table 3**

*Levene's Test of Equality of Variances Results*

	F	Sig.
GPA	3.87	.05
Number of Semesters	.14	.71
Level of Student Engagement	.51	.48



**Table 4***Pearson's Correlation Results*

	Pearson's Correlation
GPA and Level of Engagement	-.01
Level of Engagement and Number of Semesters	.04
Number of Semesters and GPA	-.14

The results of the Shapiro-Wilks and Kolmogorov-Smirnov tests were analyzed to confirm multivariate normality (see Tables 5 and 6). There were six tests conducted because there were two groups and three independent variables, which required the Bonferroni adjustment of the alpha ( $\alpha$ ) level to  $p > .01$ . The Shapiro-Wilks test results were used for the smaller group (did not utilize academic advising services,  $n = 28$ ) and the Kolmogorov-Smirnov test results were used to determine normality for the larger group (did utilize academic advising services,  $n = 71$ ). For the dependent variable of level of student engagement, the assumption of normality was confirmed for both groups; however, the tests did not confirm normality for the dependent variables of academic performance (GPA) or retention (number of semesters enrolled). Although the test results did not confirm normality for two of the dependent variables, the Hotelling's  $T^2$  is considered fairly robust with respect to Type I errors, so the researcher proceeded with data analysis regardless of the violation to the assumption of normality (Pituch & Stevens, 2016).

**Table 5***Shapiro-Wilks Results for Participants Who Did Not Utilize Academic Advising Services*

<i>n</i> = 28	Statistic	df	Sig.
GPA	.88	28	.00
Number of Semesters	.78	28	.00
Level of Student Engagement	.96	28	.31

**Table 6***Kolmogorov-Smirnov Results for Participants Who Did Utilize Academic Advising Services*

<i>n</i> = 71	Statistic	df	Sig.
GPA	.80	71	.00
Number of Semesters	.74	71	.00
Level of Student Engagement	.97	71	.08

With all of the assumptions for the Hotelling's  $T^2$  test being met, with the exception of the noted violation for normality, the data analysis continued in order to determine if there were any significant results to report.

### **Hotelling's $T^2$ Results**

The Hotelling's  $T^2$  was run to determine if there were any effects of the utilization of academic advising services on the participants' GPA, number of semesters enrolled at the college, and level of student engagement. The results of the Hotelling's  $T^2$  indicated that there was a statistically significant difference between participants who utilized academic advising services and those who did not on the combined dependent variables,  $F(3, 95) = 3.69, p = .02$ ; Wilks'  $\Lambda = .90$ , partial  $\eta^2 = .10$ , and observed power = .79 (see Table 7). This means that the effect size was between medium and large and there was a 79% chance that the researcher would correctly reject the null hypotheses (Warner, 2013).

**Table 7***Results of Hotelling's  $T^2$  Test*

	Wilks' $\Lambda$	$F$	$df$	Error $df$	Sig.	Partial $\eta^2$	Observed Power
Utilized Advising Services?	.90	3.69	3	95	.02	.10	.79

Since the results of the Hotelling's  $T^2$  were statistically significant, it was necessary to follow up with post-hoc testing to determine any specific statistically significant differences for each of the dependent variables. Pairwise comparisons (i.e., separate independent samples  $t$ -tests) were included in the results of the Hotelling's  $T^2$  that were analyzed to determine any significant differences for each of the dependent variables. In order to reduce the possibility of committing Type I errors, a Bonferroni adjusted  $\alpha$  level of .02 and simultaneous 98.33% confidence level was used in the post-hoc testing for each dependent variable. All of the assumptions for independent samples  $t$ -tests are included in the assumptions for Hotelling's  $T^2$  (continuous dependent variable, two groups for the independent variable, independence of observations, no significant outliers, normality, and homogeneity of variances) and were met, with the exception of normality for the dependent variables of academic performance (GPA) and retention rates (number of semesters enrolled). Similar to the Hotelling's  $T^2$  test, the independent samples  $t$ -test is also robust with respect to violations of normality, so the data analysis continued (Warner, 2013).

**Post-Hoc Testing**

**H<sub>01</sub> results.** There was a statistically significant difference in GPAs ( $M = -.43$ , 98.33% CI [-.84, -.01]) between participants who utilized academic advising services ( $M = 3.14$ ,  $SD =$

.70) and those who did not ( $M = 2.71$ ,  $SD = .90$ ),  $t(97) = -2.51$ ,  $p = .01$ ,  $d = .53$ . With the adjusted  $\alpha$  level of .02, the researcher was able to reject the null hypothesis  $H_{01}$  (see Table 8).

**Table 8**

*Results of Independent Samples t-Test for GPA*

	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	Lower	Upper
Equal Variances Assumed	-2.51	97	.01	-.43	.17	-.84	-.01

**H<sub>02</sub> results.** There was no statistically significant difference in the number of semesters enrolled ( $M = .14$ , 98.33% CI [-.19, .46]) between participants who utilized academic advising services ( $M = 2.65$ ,  $SD = .59$ ) and those who did not ( $M = 2.79$ ,  $SD = .63$ ),  $t(97) = 1.03$ ,  $p = .31$ ,  $d = .23$ . With the adjusted  $\alpha$  level of .02, the researcher failed to reject the null hypothesis  $H_{02}$  (see Table 9).

**Table 9**

*Results of Independent Samples t-Test for Number of Semesters Enrolled*

	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	Lower	Upper
Equal Variances Assumed	1.03	97	.31	.14	.13	-.19	.46

**H<sub>03</sub> results.** There was no statistically significant difference in the level of student engagement ( $M = -.25$ , 98.33% CI [-.56, .07]) between participants who utilized academic advising services ( $M = 1.41$ ,  $SD = .59$ ) and those who did not ( $M = 1.16$ ,  $SD = .54$ ),  $t(97) = -1.92$ ,  $p = .06$ ,  $d = .45$ . With the adjusted  $\alpha$  level of .02, the researcher failed to reject the null hypothesis  $H_{03}$  (see Table 10).

**Table 10***Results of Independent Samples t-Test for Level of Student Engagement*

	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	Lower	Upper
Equal Variances Assumed	-1.92	97	.06	-.25	.13	-.56	.07

## **CHAPTER FIVE: CONCLUSIONS**

### **Overview**

The following chapter discusses the results of this quantitative, causal comparative study that was conducted in order to determine the effects of academic advising services on student academic performance, retention, and level of student engagement for traditional-aged college students enrolled in a community college. Implications of the findings in regard to higher education administrators, academic advisors, and community college students will also be discussed. The researcher will also identify limitations of the current study and will suggest recommendations for future research based on the findings of the current study.

### **Discussion**

The purpose of this causal comparative study was to determine if Tinto's Retention and Astin's Student Involvement theories, that associate the utilization of academic advising services to student academic performance, retention rates, and levels of engagement, are applicable to traditional-aged community college students (Astin, 1999; Tinto, 1998, 2015). The Hotelling's  $T^2$  test was run to identify if there was a significant difference between the two groups across all three of the dependent variables (academic performance, retention rate, and level of engagement). In the event that a significant difference exists between the students who utilize academic services and those who do not, the study expands to identify where the significant differences lie and how the findings can be used to assist community college stakeholders in making informed decisions regarding the allocation of resources, in order to increase the availability of comprehensive advising centers.

## Overall Results

The results of the Hotelling's  $T^2$  test revealed there was a significant difference across all three dependent variables (academic performance, retention rate, and level of engagement) between the students who utilized academic advising services and those who did not. These generalized results align with the findings of Zhang (2018) who also found a significant difference in levels of engagement and academic performance. In his model of academic advising, O'Banion (2012) noted that the use of academic advising can be a predictor of student academic performance and persistence through graduation. The findings of the current study show the impact that academic advising has on various aspects of the community college student experience. These results echo the findings of Vianden and Barlow (2015) which revealed how the use of academic advising services can be a predictor of academic performance and student persistence. Tinto's Retention Theory explains that students that feel supported and engaged within their institution are more likely to be retained, persist through graduation, and have higher levels of academic performance (Tinto, 1998; 2015). On the surface, the results of this study confirm Tinto's Retention Theory, in that, it appears that academic advising does have a positive impact on the overall experience of the community college student. The general findings of the current study suggest that the use of academic advising enhances the community college student experience, but it is necessary to determine where the significant results truly lie in regard to the three individual dependent variables, in order to confirm applicability of Tinto's Retention Theory and Astin's Student Involvement Theory to community college settings. It is only through the identification of significant results across all three dependent variables that both theories can be applied in this context. After significant results were found through the

Hotelling's  $T^2$ , three independent samples  $t$ -tests were run to identify if the dependent variables were individually significant.

### **RQ1 and Null Hypothesis $H_01$**

The first research question (RQ1) asked if there was a significant difference in the academic performance, as measured by the students' cumulative GPAs, of those students who utilize academic advising services and those who do not. The null hypothesis ( $H_01$ ) for this research question was there will be no statistically significant difference in the cumulative GPAs between community college students who utilize academic advising and those who do not. The independent samples  $t$ -test revealed a significant difference in the GPAs of students who utilized academic services and those who did not; therefore, the researcher was able to reject  $H_01$ . These results support the findings of many earlier studies that showed significant differences in academic performance based on the use of academic advising services. Prior research has consistently shown that students that make use of academic advising tend to have higher cumulative GPAs (Allen et al., 2013). Veres (2015) found that the majority of students that take advantage of academic advising resources report higher levels of academic achievement. While the specific characteristics of the student-advisor relationships were not analyzed in the current study, the significant difference in GPAs between the two groups supports the concept that advisors are in a unique position to positively impact the academic performance of students (Noonan et al., 2006; Ugur, 2015; Zhang, 2018). As a group, the students who utilized academic advising services had an average GPA that was almost a half point higher ( $M = 3.14$ ) than the students who did not utilize academic advising services ( $M = 2.71$ ), which is similar to previously reported research (Braun & Zolfagharian, 2016; Clark et al., 2018; Thomas & McFarlane, 2018).



**RQ2 and Null Hypothesis H<sub>0</sub>2**

The second research question (RQ2) of the current study addresses whether or not there are significant differences in the retention rate of students who utilize academic advising services and those who do not. The null hypothesis (H<sub>0</sub>2) for this research question was there will be no statistically significant difference in the retention rates between community college students who utilize academic advising and those who do not. The results of the independent samples *t*-test for this research question showed there was no significant difference in the number of semesters that the students have been enrolled in the institution based on their use of academic advising services; therefore, the researcher was unable to reject H<sub>0</sub>2. These results contradict the findings of previously conducted research and Tinto and Astin's theories (Lenz et al., 2016, Soria & Stebleton, 2013; Waddington, 2019). Of the research reviewed, it was consistently found that students that utilized academic advising services had higher retention rates and more consistent semester-by-semester enrollment when compared to students that did not (Astin, 1999; Tinto, 1998; 2015; Veres, 2015; Young et al., 2013).

**RQ3 and Null Hypothesis H<sub>0</sub>3**

The final research question (RQ3) for the current study addressed whether or not there were significant differences in levels of student engagement between the students who utilized academic advising services and those who did not. The null hypothesis (H<sub>0</sub>3) for this research question was there will be no statistically significant difference in level of student engagement, as reported on the CCSSE, between community college students who utilize academic advising and those who do not. Astin's Student Involvement Theory and previous research implies that students that more frequently interact with college faculty and staff outside of the classroom tend to participate in more student engagement activities (i.e. joining clubs, attending events, getting

involved in the campus community) than those that have less or no interactions outside of the classroom (Astin, 1999; Darling, 2015; Harrison, 2009; Sogunro, 2015). Although the students who utilized academic advising services reported slightly higher levels of student engagement ( $M = 1.41$ ) than those who did not utilize academic advising services ( $M = 1.16$ ), the results of the independent samples  $t$ -test were not statistically significant ( $p = .06$ ); therefore, the researcher was unable to reject  $H_0$ . While the results of this research question were not significant, they did show higher levels of engagement when students reported more frequent interactions with academic advisors, which does align with Astin's Student Involvement Theory (Astin, 1999). However, further research would be needed in order to determine the true applicability of Tinto (1998; 2015) and Astin's (1999) theories to the community college setting. Additionally, although the researcher was unable to reject the null hypothesis for the level of student engagement variable, the difference found was close to significant and further research should be conducted with larger sample sizes and over a longer period of time in order to determine the true impact of advising services on engagement levels of traditional-aged community college students.

### **Implications**

There is a plethora of research that has been conducted in the field of higher education; however, most of the research over several decades has been solely focused on four-year institutions, which makes it difficult to determine if popular theories can be applied to two-year institutions. Due to the major differences in institutional practices and the overall experiences of students enrolled in four-year and two-year institutions, it is critical that research is conducted at the community college level to determine the best practices to employ in order to ensure academic success of all students. Additionally, as community colleges become a more popular

and cost-effective option for traditional-aged postsecondary students, it is important to understand the experiences of this population enrolled in the community college in an effort to help stakeholders make better informed decisions regarding the allocation of resources for essential support services. The results of the current study showed that academic advising services positively impact the overall experience of traditional-aged students enrolled in the community college in regard to academic performance, retention, and level of engagement. When students are more informed of their academic requirements, expectations, and institutional policies, they are better equipped to successfully navigate the complex structure of the community college (Zhang, 2016). Additionally, when students have a specific point of contact, they are more likely to feel connected to the institution. Moreover, when students feel more connected, they are more likely to be retained at the institution – this can help to increase enrollment, retention, and graduation rates (Astin, 1999; Paul & Fitzpatrick, 2015; Veres, 2015).

Feeling disconnected from the institution makes it difficult for students to seek out additional opportunities for engagement within the campus community, which decreases their motivation to continue their education at the institution (Bers & Younger, 2013; Soria et al., 2017; Ugur, 2015). The varied missions of community colleges that tend to ignore large groups of students are counterproductive. Attempting to create general practices is ineffective due to the distinct differences in the groups that community colleges attract, such as international, first-generation, adult, veteran, and traditional-aged students (Budd & Stowers, 2014; Darling, 2015). In contrast, it is next to impossible for institutions to create specific practices aimed at targeted groups of students without becoming even more complex to navigate. Community colleges have a difficult task to accomplish, but through the appropriate use of resources and allocating funds to impactful support services, they will be in a better position to increase retention and

graduation rates while ensuring that students are able to achieve higher levels of academic performance.

Currently, it is difficult for academic advisors to build strong relationships with individual students because of the high student-advisor ratio at most community colleges (CCCSE, 2018; Donaldson et al., 2016; Walker et al., 2017). Due to the fact that enrollment in community colleges has continued to rise, it is likely impossible to get back to the 1:1 student-advisor ratio of past decades (McCusker & Osterlund, 1979). However, the findings of the current study can be used to help community college stakeholders realize the impact that academic advising services has on the experiences of the students and reallocate funding to hire more full-time advisors to better serve their growing student populations. Rather than narrowly focusing resources on special populations, stakeholders must ensure that the necessary funding is available for the support services, such as academic advising, that have continuously proved to be beneficial across the board for all types of students (Burge-Hall, Garrison et al., 2019; Fink & Jenkins, 2017; Martinez, 2018). Not only will this benefit students, but it would increase job satisfaction and reduce turnover rates for advising positions while continuing to improve the retention and graduation rates for the institutions themselves. The results of this study support the idea that academic advising is critical to the experiences of community college students in many of the same ways that it is critical for students enrolled in four-year institutions.

### **Limitations**

Although the results of this study proved to be valuable and can be used to further the development of adequate advising services for community college students, there are a few limitations that impacted the study itself. First and foremost, the small sample size and the size of the community college affect the generalizability of the results to the overall population of

traditional-aged community college students. The community college had approximately 3,100 students enrolled at the time of data collection, and a sample size of 99 participants accounts for only 3% of the students enrolled at the institution (SVCC, 2019). Additionally, the small sample size does not lend the level of diversity that is often found at larger community colleges in the country.

Another factor that impacted the study was the timing of when data collection occurred. Immediately prior to the start of the data collection process, there were changes in privacy laws that restricted the availability of student e-mail addresses. This resulted in the researcher depending on faculty and staff at the college to send out recruitment letters and reminders which slowed down the entire study. Due to IRB processes, the initial recruitment letter was not sent out until half-way through the spring 2019 semester; this would have been approximately when students were completing major midterm exams or perhaps had withdrawn for the semester entirely. The college was approaching the summer semester which is typically defined by lower enrollment and not as many faculty and staff present to assist with the recruitment process (SVCC, 2018). While data collection did occur over several months, the short length of time to collect data likely impacted the possibility of identifying more significant results. It was difficult to determine the effect of advising services on retention because data collection only occurred over two primary semesters. By following participants over the course of their time at the college, the researcher could have gained a better perspective of their experience with academic advising services and how their utilization of such services truly impacts their academic performance, level of retention, and level of student engagement.

### **Recommendations for Future Research**

The aim of this study was to address the gap in the literature regarding the experiences of traditional-aged community college students and how academic advising services can impact their experience. The results obtained help to initiate the conversation on these topics so that stakeholders are able to make better informed decisions regarding the resources allocated to student support services and how to competently develop an advising structure within their institutions. In order to further the discussion, it is important to continue building on this body of research in order to gain a better perspective to move forward. Recommendations for future research include:

1. Conduct a longitudinal study along the same parameters in order to track the experiences of community college students and gain a better understanding of the long-term effects of academic advising.
2. Expand the sample size and demographic of participants by conducting research at larger institutions with larger student populations so the results are more likely to be generalizable to the overall population of community college students.
3. Work to determine the validity and reliability of shorter survey instruments that ask more targeted questions to lessen the likelihood of participants becoming overwhelmed with the number of questions and time to complete the survey.
4. Design a study to compare the experiences of students that start their college education at the community college to the experiences of the same targeted population that start at a four-year university to identify similarities and differences in how Tinto (1998; 2015) and Astin's (1999) theories can be applied.

## REFERENCES

- Allen, J. M., Smith, C. L., & Muehleck, J. K. (2013). What kinds of advising are important to community college pre- and posttransfer students? *Community College Review*, 41(4), 330-345. doi: 10.1177/0091552113505320
- Arch, X., & Gilman, I. (2019). First principles: Designing services for first-generation students. *College & Research Libraries*, 80(7), 996–1012. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1233972&site=ehost-live&scope=site>
- Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 518-529. Retrieved from <http://ezproxy.liberty.edu/login?url=https://search-proquest-com.ezproxy.liberty.edu/docview/195180247?accountid=12085>
- Bacon, D. R., & Bean, B. (2006). GPA in research studies: An invaluable but neglected opportunity. *Journal of Marketing Education*, 28(1), 35-42. doi: 10.1177/0273475305284638
- Barhoum, S., & Wood, J. L. (2016). Differences in active and collaborative learning by race for community college developmental writing students. *Community College Enterprise*, 22(2), 18–28. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=ehh&AN=120787403&site=ehost-live&scope=site>

- Bass, L. H., & Ballard, A. S. (2012). Student engagement and course registration methods as possible predictors of freshman retention. *Research in Higher Education Journal*, 8, 1-13. Retrieved from <http://search.proquest.com/docview/1288616012?accountid=12085>
- Bers, T., & Younger, D. (2013). The first-year experience in community colleges. *New Directions for Institutional Research*, 2013(160), 77-93. doi: 10.1002/ir.20062
- Bettinger, E. P., & Baker, R. B. (2013). The effects of student coaching: An evaluation of a randomized experiment in student advising. *Educational Evaluation and Policy Analysis*, 36(1), 3-19. doi: 10.3102/0162373713500523
- Bishop, K. K. (2016). The relationship between retention and college counseling for high-risk students. *Journal of College Counseling*, 19(3), 205-217. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.1002/jocc.12044>
- Boerner, H. (2016). Laying the groundwork: Have guided pathways come of age? *Community College Journal*, 86(5), 26–29. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1097570&site=ehost-live&scope=site>
- Braun, J., & Zolfagharian, M. (2016). Student participation in academic advising: Propensity, behavior, attribution, and satisfaction. *Research in Higher Education*, 57(8), 968-989. doi: 10.1007/s11162-016-9414-2
- Brecht, A. A., & Burnett, D. D. (2019). Advising student-athletes for success: Predicting the academic success and persistence of collegiate student-athletes. *NACADA Journal*, 39(1), 49–59. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.12930/NACADA-17-044>



- Budd, D., & Stowers, G. N. L. (2014). Group differences in California community college transfers. *Community College Journal of Research and Practice*, 39(9), 865-879. doi: 10.1080/10668926.2013.875496
- Burge-Hall, V., Garrison, L., Giles-Brown, L., Lepore, D., McNall, M., Pauly, C., Quinn, A., Vaughn Jordan, L. (2019). Taking the LEAP (learner engaged advising programs): VCCS advising practices and recommendations. *Inquiry*, 22(1), 1-9. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1224779&site=ehost-live&scope=site>
- Carroll, B. W., & Tarasuk, P. E. (1991). A new vision for student development services for the 90s. *Community College Review*, 19(2), 32-42. Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ436341&site=ehost-live&scope=site>
- Center for Community College Student Engagement (CCCSE). (2017a). *About the survey*. Retrieved from <http://www.ccsse.org/aboutsurvey/aboutsurvey.cfm>
- Center for Community College Student Engagement (CCCSE). (2017b). *The Community College Survey of Student Engagement*. Retrieved from [http://www.ccsse.org/refresh/CCSSE\\_Refresh\\_Sample.pdf](http://www.ccsse.org/refresh/CCSSE_Refresh_Sample.pdf)
- Center for Community College Student Engagement (CCCSE). (2017c). *CCSSE standard additional item set: Academic advising and planning*. Retrieved from [http://www.ccsse.org/join/items/Advising\\_and\\_Planning.pdf](http://www.ccsse.org/join/items/Advising_and_Planning.pdf)
- Center for Community College Student Engagement (CCCSE). (2018). Show me the way: The power of advising in community colleges. 2018 national report. *Center for Community*

- College Student Engagement*. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=ED582931&site=ehost-live&scope=site>
- Cheung, R. Y. S., Siu, A. M. H., & Shek, D. T. L. (2017). Survey of needs and expectations for academic advising in a Hong Kong university. *NACADA Journal*, 37(2), 21–32. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.12930/NACADA-15-047>
- Cho, S., & Karp, M. M. (2013). Student success courses in the community college: Early enrollment and educational outcomes. *Community College Review*, 41(1), 86-103. Retrieved from <http://ezproxy.liberty.edu:2048/login?url=http://search.proquest.com/docview/1319492756?accountid=12085>
- Christian, T. Y., & Sprinkle, J. E. (2013). College student perceptions and ideals of advising: An exploratory analysis. *College Student Journal*, 47(2), 271-291. Retrieved from [http://ezproxy.liberty.edu/login?url=http://go.galegroup.com.ezproxy.liberty.edu/ps/i.do?p=ITOF&sw=w&u=vic\\_liberty&v=2.1&it=r&id=GALE%7CA337070496&sid=summon&asid=1e475848256dcf6405c99c3443dbc3ad](http://ezproxy.liberty.edu/login?url=http://go.galegroup.com.ezproxy.liberty.edu/ps/i.do?p=ITOF&sw=w&u=vic_liberty&v=2.1&it=r&id=GALE%7CA337070496&sid=summon&asid=1e475848256dcf6405c99c3443dbc3ad)
- Clark, C., Schwitzer, A., Paredes, T., & Grothaus, T. (2018). Honors college students' adjustment factors and academic success: Advising implications. *NACADA Journal*, 38(2), 20–30. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1202408&site=ehost-live&scope=site>
- Cook, S. (2009). Important events in the development of academic advising in the United States. *NACADA Journal*, 29(2), 18-40. Retrieved from

<http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ861017&site=ehost-live&scope=site>

Cubberley, F. (2015). The reality of free community college tuition. *The Journal of College Admission*, 2015(227), 21-23. Retrieved from

<http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=111803610&site=ehost-live&scope=site>

D'Alessio, K. A., & Banerjee, M. (2016). Academic advising as an intervention for college students with ADHD. *Journal of Postsecondary Education and Disability*, 29(2), 109–121. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1113031&site=ehost-live&scope=site>

D'Amico, M. M., Dika, S. L., Elling, T. W., Algozzine, B., & Ginn, D. J. (2013). Early integration and other outcomes for community college transfer students. *Research in Higher Education*, 55(4), 370-399. doi: 10.1007/s11162-013-9316-5

Darling, R. A. (2015). Creating an institutional academic advising culture that supports commuter student success. *New Directions for Student Services*, 2015(150), 87-96. doi: 10.1002/ss.20130

Di Tommaso, K. (2016). Evaluating the effectiveness of a non-cognitive assessment instrument. *Research & Teaching in Developmental Education*, 32(2), 4–22. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1101409&site=ehost-live&scope=site>

- Donaldson, P., McKinney, L., Lee, M., & Pino, D. (2016). First-year community college students' perceptions of and attitudes toward intrusive academic advising. *NACADA Journal*, 36(1), 30-42. Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1115474&site=ehost-live&scope=site>
- Dudley, D. M., Liu, L., Hao, L., & Stallard, C. (2015). Student engagement: A CCSSE follow-up study to improve student engagement in a community college. *Community College Journal of Research and Practice*, 39(12), 1153–1169. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1070330&site=ehost-live&scope=site>
- Ellis, M. M. (2013). Successful community college transfer students speak out. *Community College Journal of Research and Practice*, 37(2), 73-84. doi: 10.1080/10668920903304914
- Filson, C., & Whittington, M. S. (2013). Engaging undergraduate students through academic advising. *NACTA Journal*, 57(4), 10-17. Retrieved from <http://ezproxy.liberty.edu:2048/login?url=http://search.proquest.com/docview/1466250951?accountid=12085>
- Fink, J., & Jenkins, D. (2017). Takes two to tango: Essential practices of highly effective transfer partnerships. *Community College Review*, 45(4), 294–310. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1155287&site=ehost-live&scope=site>

- Fosnacht, K., McCormick, A. C., Nailos, J. N., & Ribera, A. K. (2017). Frequency of first-year student interactions with advisors. *NACADA Journal*, 37(1), 74–86. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1161691&site=ehost-live&scope=site>
- Fricker, T. (2015). The relationship between academic advising and student success in Canadian colleges: A review of the literature. *College Quarterly*, 18(4), 1-15. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1095959&site=ehost-live&scope=site>
- Frost, R. A., Strom, S. L., Downey, J., Schultz, D. D., & Holland, T. A. (2010). Enhancing student learning with academic and student affairs collaboration. *The Community College Enterprise*, 16(1), 37-51. Retrieved from <http://ezproxy.liberty.edu:2048/login?url=http://search.proquest.com/docview/340291342?accountid=12085>
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8<sup>th</sup> ed.). Boston, MA: Pearson Education, Inc.
- Gard, D. R., Paton, V., & Gosselin, K. (2012). Student perceptions of factors contributing to community-college-to-university transfer success. *Community College Journal of Research and Practice*, 36(11), 833-848. doi: 10.1080/10668920903182666
- Green, S. B., & Salkind, N. J. (2013). *Using SPSS for Windows and Macintosh* (7<sup>th</sup> ed.). Boston, MA: Pearson Education, Inc.

Guth, D. J. (2017). Building a new structure. *Community College Journal*, 87(5), 28–33.

Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1142040&site=ehost-live&scope=site>

Hagedorn, L. S. (2015). A national initiative of teaching, researching, and dreaming: Community college faculty research in “Achieving the Dream” colleges. *New Directions for Community Colleges*, 171, 49–62. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1073375&site=ehost-live&scope=site>

Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1073375&site=ehost-live&scope=site>

Harrill, M., Lawton, J. A., & Fabianke, J.-C. (2015). Faculty and staff engagement: A core component of student success. *Peer Review*, 17(4), 11–14. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=a9h&AN=113641793&site=ehost-live&scope=site>

Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=a9h&AN=113641793&site=ehost-live&scope=site>

Harris, T. A. (2018). Prescriptive vs. developmental: Academic advising at a historically Black university in South Carolina. *NACADA Journal*, 38(1), 36–46. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1187228&site=ehost-live&scope=site>

Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1187228&site=ehost-live&scope=site>

Harrison, E. (2009). What constitutes good academic advising? Nursing students’ perceptions of academic advising. *Journal of Nursing Education*, 48(7), 361–366. doi:

10.3928/01484834-20090615-02

- Hatch, D. K., & Garcia, C. E. (2017). Academic advising and the persistence intentions of community college students in their first weeks in college. *The Review of Higher Education*, 40(3), 353-390. Retrieved from <https://doi.org/10.1353/rhe.2017.0012>
- He, Y., & Hutson, B. (2017). Assessment for faculty advising: Beyond the service component. *NACADA Journal*, 37(2), 66–75. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1164579&site=ehost-live&scope=site>
- Hendricks, S. P., & Johnson, A. T. (2016). The athlete-student dilemma. *Journal of Applied Sport Management*, 8(4), 1–20. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=s3h&AN=118289884&site=ehost-live&scope=site>
- Jabbar, H., McKinnon-Crowley, S., & Serrata, C. (2019). Complex pathways to transfer: A qualitative comparative analysis of the transition from community college to 4-year university. *AERA Open*, 5(2), 1-17. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1220769&site=ehost-live&scope=site>
- Jaggars, S. S., & Karp, M. M. (2016). Transforming the community college student experience through comprehensive, technology-mediated advising. *New Directions for Community Colleges*, 2016(176), 53-62. doi: 10.1002/cc.20222
- Johnson, M., Flynn, E., & Monroe, M. (2016). A residence life plan for success for at-risk college students: Reviving “in loco parentis.” *College Student Journal*, 50(2), 268–274. Retrieved from [https://search-ebscohost-](https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=s3h&AN=118289884&site=ehost-live&scope=site)

com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1104158&site=ehost-live&scope=site

Johnson, M., Walther, C., & Medley, K. J. (2018). Perceptions of advisors who work with high-achieving students. *Journal of the National Collegiate Honors Council*, 19(1), 105–124.

Retrieved from [https://search-ebscohost-](https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1185638&site=ehost-live&scope=site)

com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1185638&site=ehost-live&scope=site

Jones, E. A. (2013). *An examination of the effects of intrusive advising and support services on academically at-risk students* (Doctoral dissertation). Retrieved from

<http://digitalcommons.liberty.edu/doctoral/666/>

Kirk-Kuwaye, M., & Sano-Franchini, D. (2015). “Why do I have to take this course?” JGE: The *Journal of General Education*, 64(2), 99–105. Retrieved from [https://doi-](https://doi-org.ezproxy.liberty.edu/10.1353/jge.2015.0008)

org.ezproxy.liberty.edu/10.1353/jge.2015.0008

Kot, F. C. (2014). The impact of centralized advising on first-year academic performance and second-year enrollment behavior. *Research in Higher Education*, 55(6), 527-563. doi:

10.1007/s11162-013-9325-4

Lancaster, J. R., & Lundberg, C. A. (2019). The influence of classroom engagement on community college student learning: A quantitative analysis of effective faculty practices.

*Community College Review*, 47(2), 136–158. [https://doi-](https://doi-org.ezproxy.liberty.edu/10.1177/0091552119835922)

org.ezproxy.liberty.edu/10.1177/0091552119835922

Larson, J., Johnson, A., Aiken-Wisniewski, S. A., & Barkemeyer, J. (2018). What is academic advising? An application of analytic induction. *NACADA Journal*, 38(2), 81–93.

Retrieved from <https://doi-org.ezproxy.liberty.edu/10.12930/0271-9517-38.2.81>



- Lefdahl-Davis, E. M., Huffman, L., Stancil, J., & Alayan, A. J. (2018). The impact of life coaching on undergraduate students: A multiyear analysis of coaching outcomes. *International Journal of Evidence Based Coaching & Mentoring*, 16(2), 69–83. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.24384/000560>
- Lema, J., & Agrusa, J. (2019). Augmented advising. *NACADA Journal*, 39(1), 22–33. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.12930/NACADA-17-018>
- Lenz, A. S., Holman, R. L., Lancaster, C., & Gotay, S. G. (2016). Effects of relational authenticity on adjustment to college. *Journal of College Counseling*, 19(1), 2–16. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.1002/jocc.12027>
- Lester, J., Leonard, J. B., & Mathias, D. (2013). Transfer student engagement: Blurring social and academic engagement. *Community College Review*, 41(3), 202–222. Retrieved from <http://ezproxy.liberty.edu:2048/login?url=http://search.proquest.com/docview/1431991567?accountid=12085>
- Longwell-Grice, R., Adsitt, N. Z., Mullins, K., & Serrata, W. (2016). The first ones: Three studies on first-generation college students. *NACADA Journal*, 36(2), 34–46. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1135335&site=ehost-live&scope=site>
- Lynch, J., & Lungrin, T. (2018). Integrating academic and career advising toward student success. *New Directions for Higher Education*, 2018(184), 69–79. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.1002/he.20304>

- Marti, C. N. (2009). Dimensions of student engagement in American community colleges: Using the Community College Student Report in research and practice. *Community College Journal of Research and Practice*, 38(1), 1-24. doi: 10.1080/10668920701366867
- Martinez, E. (2018). Changes, challenges, and opportunities for student services at one baccalaureate degree-granting community college. *Community College Review*, 46(1), 82. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.1177/0091552117744049>
- McArthur, R. C. (2005). Faculty-based advising: An important factor in community college retention. *Community College Review*, 32(4), 1-19. Retrieved from [http://ezproxy.liberty.edu/login?url=http://go.galegroup.com.ezproxy.liberty.edu/ps/i.do?p=GRGM&sw=w&u=vic\\_liberty&v=2.1&it=r&id=GALE%7CA133494274&sid=summon&asid=b3aa48a90dcfef25435c8243689d751f](http://ezproxy.liberty.edu/login?url=http://go.galegroup.com.ezproxy.liberty.edu/ps/i.do?p=GRGM&sw=w&u=vic_liberty&v=2.1&it=r&id=GALE%7CA133494274&sid=summon&asid=b3aa48a90dcfef25435c8243689d751f)
- McClenney, K. M., & Marti, C. N. (2006). *Exploring relationships between student engagement and student outcomes in community colleges: Report on validation research*. Retrieved from <http://www.ccsse.org/aboutsurvey/docs/CCSSE%20Working%20Paper%20on%20Validation%20Research%20December%202006.pdf>
- McCusker, A.M., & Osterlund, B. L. (1979). Community college advising model. *Personnel & Guidance Journal*, 57(6), 319-320. Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=6465479&site=ehost-live&scope=site>
- McGill, C. M. (2016). "Cultivating ways of thinking": The developmental teaching perspective in academic advising. *New Horizons in Adult Education & Human Resource Development*, 28(1), 50-54. Retrieved from <https://search-ebscohost->

com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1090012&site=ehost-live&scope=site

McKenzie, D., Tan, T. X., Fletcher, E. C., & Jackson-Williams, A. (2017). Major re-selection advising and academic performance. *NACADA Journal*, 37(1), 15–25. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1161656&site=ehost-live&scope=site>

National Center for Education Statistics (NCES). (2002). *Nontraditional undergraduates*. Retrieved from <https://nces.ed.gov/pubs2002/2002012.pdf>

National Center for Education Statistics (NCES). (2018). *Digest of education statistics*. Retrieved from [https://nces.ed.gov/programs/digest/2018menu\\_tables.asp](https://nces.ed.gov/programs/digest/2018menu_tables.asp)

Nitecki, E. M. (2011). The power of the program: How the academic program can improve community college student success. *Community College Review*, 39(2), 98-120. doi: 10.1177/0091552111404926

Noonan, B. M., Sedlacek, W. E., & Veerasamy, S. (2006). Employing noncognitive variables in admitting and advising community college students. *Community College Journal of Research and Practice*, 29(6), 463-469. doi: 10.1080/10668920590934170

O'Banion, T. (2012). Be advised. *Community College Journal*, 83(2), 42-47. Retrieved from <http://ezproxy.liberty.edu/login?url=http://search.proquest.com.ezproxy.liberty.edu/docview/1223339980?accountid=12085>

Pardy, L., & British Columbia Council on Admissions and Transfer (BCCAT) (Canada). (2016). Academic advising in British Columbia. *British Columbia Council on Admissions and Transfer*. Retrieved from <https://search-ebscohost->

com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=ED573322&site=ehost-live&scope=site

- Pasquini, L. A., & Eaton, P. W. (2019). The #acadv community: Networked practices, professional development, and ongoing knowledge sharing in advising. *NACADA Journal*, 39(1), 101–115. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1223445&site=ehost-live&scope=site>
- Paul, W. K., & Fitzpatrick, C. (2015). Advising as servant leadership: Investigating student satisfaction. *NACADA Journal*, 35(2), 28–35. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.12930/NACADA-14-019>
- Pierce, D. (2015). Building toward completion: Five years into President Obama’s 2020 College Completion Initiative, some community colleges find ways to move the needle on student success. *Community College Journal*, 85(4), 24-30. Retrieved from <http://www.aacc.nche.edu/Publications/CCJ/Pages/default.aspx>
- Pituch, K. A., & Stevens, J. P. (2016). *Applied multivariate statistics for the social sciences: Analyses with SAS and IBM’s SPSS*. (6<sup>th</sup> ed.). New York, NY: Routledge.
- Polnarieve, B. A., Jaafar, R., Hendrix, T., Morgan, H. P., Khethavath, P., & Idrissi, A. B. (2017). Nourishing STEM student success via a TEAM-based advisement model. *International Journal of Higher Education*, 6(6), 31–43. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1161707&site=ehost-live&scope=site>
- Price, D. V., & Tovar, E. (2014). Student engagement and institutional graduation rates: Identifying high-impact educational practices for community colleges. *Community*

- College Journal of Research and Practice*, 38(9), 766–782. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1030373&site=ehost-live&scope=site>
- Roberts, J., & Styron, R. (2010). Student satisfaction and persistence: Factors vital to student retention. *Research in Higher Education Journal*, 6, 1-18. Retrieved from <http://www.aabri.com/manuscripts/09321.pdf>
- Schwitzer, A. M., Pribesh, S., Ellis-O’Quinn, A., Huber, P. B., & Wilmer, E. C. (2016). Community college counseling: Why are research outcomes so elusive? *Journal of College Counseling*, 19(1), 76-95. doi: 10.1002/jocc.12032
- Shellenbarger, T. (2016). Advising 101: Lessons in advising for nursing student success. *Teaching and Learning in Nursing*, 11(3), 92-100. Retrieved from <https://doi.org/10.1016/j.teln.2016.01.006>
- Shumaker, R., & Wood, J. L. (2016). Understanding first-generation community college students: An analysis of covariance examining use of, access to, and efficacy regarding institutionally offered services. *Community College Enterprise*, 22(2), 9–17. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1125430&site=ehost-live&scope=site>
- Smith, C. L., & Allen, J. M. (2014). Does contact with advisors predict judgments and attitudes consistent with student success? A multi-institutional study. *NACADA Journal*, 34(1), 50-63. Retrieved from <http://dx.doi.org/ezproxy.liberty.edu/10.12930/NACADA-13-019>

- Sogunro, O. A. (2015). Motivating factors for adult learners in higher education. *International Journal of Higher Education*, 4(1), 22–37. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1060548&site=ehost-live&scope=site>
- Soria, K. M., Laumer, N. L., Morrow, D. J., & Marttinen, G. (2017). Strengths-based advising approaches: Benefits for first-year undergraduates. *NACADA Journal*, 37(2), 55–65. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1164575&site=ehost-live&scope=site>
- Soria, K. M., & Stebleton, M. (2013). Major decisions: Motivations for selecting a major, satisfaction, and belonging. *NACADA Journal*, 33(2), 29-43. doi: 10.12930/NACADA-13-018
- Southside Virginia Community College (SVCC). (2018). *Catalog/Student handbook 2018-2019*. Retrieved from [http://southside.edu/sites/www.southside.edu/files/catalog/Catalog\\_2018-19.pdf](http://southside.edu/sites/www.southside.edu/files/catalog/Catalog_2018-19.pdf)
- Southside Virginia Community College (SVCC). (2019). *Data collection and reporting*. Retrieved from <http://southside.edu/IR/institutional-research>
- Stewart, A., Moffat, M., Travers, H., & Cummins, D. (2015). Utilizing partnerships to maximize resources in college counseling services. *Journal of College Student Psychotherapy*, 29(1), 44–52. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.1080/87568225.2015.976093>
- Strayhorn, T. L. (2015). Reframing academic advising for student success: From advisor to cultural navigator. *NACADA Journal*, 35(1), 56–63. Retrieved from <https://search->

ebscohost-

com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1069273&site=ehost-live&scope=site

Tabriz, E. R., Saadati, A., Mehdimahale, Z. A., & Orooji, A. (2017). Effective factors on desirable quality of advisory services from perspective of students and academic advisors. *Future of Medical Education Journal*, 7(4), 9–14. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=asn&AN=128372097&site=ehost-live&scope=site>

Thomas, C., & McFarlane, B. (2018). Playing the long game: Surviving fads and creating lasting student success through academic advising. *New Directions for Higher Education*, 2018(184), 97–106. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.1002/he.20306>

Tinto, V. (1973) College proximity and rates of college attendance. *American Educational Research Journal*, 10(4), 277-293. Retrieved from <http://www.jstor.org/stable/1161659>

Tinto, V. (1998). Colleges as communities: Taking research on student persistence seriously. *The Review of Higher Education*, 21(2), 167-177. Retrieved from [http://muse.jhu.edu.ezproxy.liberty.edu:2048/journals/review\\_of\\_higher\\_education/v021/21.2tinto.html](http://muse.jhu.edu.ezproxy.liberty.edu:2048/journals/review_of_higher_education/v021/21.2tinto.html)

Tinto, V. (2013). Isaac Newton and student college completion. *Journal of College Student Retention: Research, Theory & Practice*, 15(1), 1-7. doi: 10.2190/CS.15.1.a

Tinto, V. (2015). Through the eyes of students. *Journal of College Student Retention: Research, Theory & Practice*, 0(0), 1-16. doi: 10.1177/1521025115621917

- Troxel, W. G. (2019). Scholarly advising and the scholarship of advising. *NACADA Journal*, 39(2), 52–59. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1236806&site=ehost-live&scope=site>
- Ugur, H. (2015). The Self Concept Change as a tool for developmental academic advising. *Universal Journal of Educational Research*, 3(10), 697–702. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1077600&site=ehost-live&scope=site>
- VanDieren, M. (2016). Effectiveness of online advising on honors student retention and engagement. *International Journal of Information and Communication Technology Education*, 12(2), 51-67. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1167857&site=ehost-live&scope=site>
- Vasquez, S., Jones, D., Mundy, M. A., & Isaacson, C. (2019). Student perceptions of the value of academic advising at a Hispanic serving institution of higher education in South Texas. *Research in Higher Education Journal*, 36, 1-14. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1204047&site=ehost-live&scope=site>
- Veres, D. (2015). Factors impacting student service utilization at Ontario colleges: Key performance indicators as a measure of success: A Niagara college view. *College Quarterly*, 18(4), 1. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1204047&site=ehost-live&scope=site>



com.ezproxy.liberty.edu/login.aspx?direct=true&db=ehh&AN=114324296&site=ehost-live&scope=site

Vianden, J. (2016). Ties that bind: Academic advisors as agents of student relationship management. *NACADA Journal*, 36(1), 19–29. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1115487&site=ehost-live&scope=site>

Vianden, J., & Barlow, P. J. (2015). Strengthen the bond: Relationships between academic advising quality and undergraduate student loyalty. *NACADA Journal*, 35(2), 15–27. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1090140&site=ehost-live&scope=site>

Waddington, D. (2019). Proactive advising for at-risk students: Comparing a predictive model to faculty identification. *College Quarterly*, 22(2), 1-20. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1221412&site=ehost-live&scope=site>

Walker, R. V., Zelin, A. I., Behrman, C., & Strnad, R. (2017). Qualitative analysis of student perceptions: ‘Some advisors care. Some don’t.’ *NACADA Journal*, 37(2), 44–54. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1164578&site=ehost-live&scope=site>

Walters, R. L. M., & Seyedian, M. (2016). Improving academic advising using quality function deployment: A case study. *College Student Journal*, 50(2), 253–267. Retrieved from

- <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=ehh&AN=116190976&site=ehost-live&scope=site>
- Warner, R. M. (2013). *Applied statistics: From bivariate through multivariate techniques*. (2<sup>nd</sup> ed.). Los Angeles, CA: SAGE Publications, Inc.
- Webb, A. L., Dantzler, J. A., & Hardy, D. E. (2015). The influence theory: Factors that influence the transfer advising process. *Community College Journal of Research and Practice*, 39(7), 619-632. doi: 10.1080/10668926.2013.872060
- Wetzel, L. R., & Debure, K. R. (2018). The Role of faculty in fostering STEM transfer student success. *Journal of College Science Teaching*, 47(4), 42–46. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1173147&site=ehost-live&scope=site>
- Willoughby, C. (2018). Adventures in two-year/four-year college border crossings. *About Campus*, 23(1), 20–26. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1195048&site=ehost-live&scope=site>
- Wilson, S. D. (2016). At issue: Lack of persistence in college and the high-achieving, low-income student: A review of the literature. *Community College Enterprise*, 22(2), 42-51. Retrieved from <http://www.schoolcraft.edu/a-z-index/community-college-enterprise#.WHO3k1MrJQK>
- Workman, J. L. (2015). Exploratory Students' Experiences with first-year academic advising. *NACADA Journal*, 35(1), 5–12. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=ehh&AN=116190976&site=ehost-live&scope=site>

com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1069347&site=ehost-live&scope=site

Woods, B. (2014). Navigating change: Community college leaders offer advice for beginning the hard work of institutional reform. *Community College Journal*, 85(2), 18-22. Retrieved from <http://www.aacc.nche.edu/Publications/CCJ/Pages/default.aspx>

Woods, C. S., Richard, K., Park, T., Tandberg, D., Hu, S., & Jones, T. B. (2017). Academic advising, remedial courses, and legislative mandates: An exploration of academic advising in Florida community colleges with optional developmental education. *Innovative Higher Education*, 42(4), 289–303. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1148960&site=ehost-live&scope=site>

Young-Jones, A. D., Burt, T. D., Dixon, S., & Hawthorne, M. J. (2013). Academic advising: Does it really impact student success? *Quality Assurance in Education*, 21(1), 7-19. doi: 10.1108/09684881311293034

Zarges, K. M., Adams, T. A., Higgins, E. M., & Muhovich, N. (2018). Assessing the impact of academic advising: Current issues and future trends. *New Directions for Higher Education*, 2018(184), 47–57. Retrieved from <https://doi-org.ezproxy.liberty.edu/10.1002/he.20302>

Zhang, Y.L. (2016). An overlooked population in community college: International students' (in)validation experiences with academic advising. *Community College Review*, 44(2), 153–170. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1094056&site=ehost-live&scope=site>

Zhang, Y. L. (2018). Using Bronfenbrenner's ecological approach to understand academic advising with international community college students. *Journal of International Students*, 8(4), 1764–1782. Retrieved from <https://search-ebscohost-com.ezproxy.liberty.edu/login.aspx?direct=true&db=eric&AN=EJ1197279&site=ehost-live&scope=site>.

## APPENDIX A

## CCCSSE Approval E-mail to Utilize CCSSE Items for Research



Christy Genova [REDACTED]

---

Inquiry for Doctoral Student

---

Mike Bohlig [REDACTED]

Mon, Mar 26, 2018 at 12:25 PM

To: "Genova, Christy" [REDACTED]

Cc: Christy [REDACTED]

Good morning Christy,

I have reviewed your item use agreement and the survey you submitted. Please accept this email as your permission for a one-time use the specified CCSSE items for your dissertation. Please keep this email as proof of this approval.

Good luck with your data collection and your dissertation.

Mike.

**E. Michael Bohlig, Ph.D. | Assistant Director of Research**

Center for Community College Student Engagement

Program in Higher Education Leadership

Department of Educational Leadership and Policy

College of Education

The University of Texas at Austin

3316 Grandview Street

Austin, Texas 78705



## APPENDIX B

### IRB Approval Letter from Liberty University

# LIBERTY UNIVERSITY

INSTITUTIONAL REVIEW BOARD

November 15, 2018

Christy Genova

IRB Approval 3542.111518: Community College Academic Advising: A Causal-Comparative Study of Effects on GPA, Retention, and Engagement

Dear Christy Genova,

We are pleased to inform you that your study has been approved by the Liberty University IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

5. Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis).
7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,



**G. Michele Baker, MA, CIP**  
*Administrative Chair of Institutional Research*  
**The Graduate School**

**LIBERTY**  
 UNIVERSITY

*Liberty University | Training Champions for Christ since 1971*

## APPENDIX C

## IRB Approval Letter from Community College

RD

Tue 2/5/2019 2:45 PM

Genova, Christy Lynn ✓



Hi Christy,

I have received the final approval from our executive committee for you to proceed with your study. We would like to request a copy of your study once it is completed for our records.

I will work on identifying the students for you in the next few days. Could I get a copy of the recruitment email and the link to your survey? Are you still wanting it to go out as soon as possible?

Thank you,

Director of Institutional Effectiveness, Research and Planning

**One College, One Mission**

## APPENDIX D

### Participant Recruitment E-mail

Dear Student:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education degree. The purpose of my research is to determine if the use of academic advising services has any impact on academic performance, semester-by-semester enrollment, and level of student engagement, and I am writing to invite you to participate in my study.

If you are between the ages of 18 and 24, are enrolled in at least your second semester at [REDACTED] have not enrolled at any other college/university before [REDACTED] and are willing to participate, information regarding your cumulative GPA and enrollment history will be requested from [REDACTED] and you will be asked to complete a survey. It should take approximately 30 minutes for you to complete the survey. Your name and other identifying information will be requested as part of your participation, but the information will remain confidential.

To participate, please click the link below to provide consent and begin the survey. The consent form at the beginning of the survey contains additional information about my research. To provide consent, please type in your name and the date and click "next" to move onto the survey.

Link to survey: [REDACTED]

If you choose to participate, you will have the option to be entered in a raffle to receive a \$50 Amazon gift card. In order to be entered into the raffle, you will need to include your e-mail address on the survey when prompted.

If you have any questions about the research, providing consent, or the survey, please contact me at [REDACTED] as needed.

Sincerely,

Christy L. Genova, M.Ed., Ed.S.  
Doctoral Candidate, Liberty University



## APPENDIX E

### Approved Informed Consent Letter

The Liberty University Institutional  
Review Board has approved  
this document for use from  
11/15/2018 to 11/14/2019  
Protocol # 3542.111518

#### CONSENT FORM

Community College Academic Advising: A Causal-Comparative Study of Effects on GPA,  
Retention, and Engagement  
Christy L. Genova, Ed.S.  
Liberty University  
School of Education

You are invited to be in a research study on the impact of academic advising on academic performance, semester-by-semester enrollment, and level of student engagement. You were selected as a possible participant because you are between 18 and 24 years of age, enrolled in at least your second semester at [REDACTED] Community College, and have no prior enrollment at any other institution of higher education. Please read this form and ask any questions you may have before agreeing to be in the study.

Christy Genova, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

**Background Information:** The purpose of this study is to determine the impact of academic advising services on student academic performance, semester-by-semester enrollment, and level of engagement within the college.

**Procedures:** If you agree to be in this study, you will be asked to do the following:

1. Allow the researcher to obtain information regarding your cumulative GPA and enrollment history from [REDACTED]
2. Complete an online survey. It will take approximately 30 minutes to complete.

**Risks:** The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

**Benefits:** Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include informing community colleges about the effect of academic advising services and the importance of providing valuable support services to meet the needs of students to ensure student success.

**Compensation:** Participants may be compensated for participating in this study by being entered into a raffle to win a \$50 Amazon gift card. The raffle drawing will occur at the completion of the study – estimated to be May 2019. Failure to complete the full survey or withdrawing from the study will result in disqualification from the gift card raffle. In order to qualify for the gift card raffle, participants must include their e-mail address while completing the survey online. Email addresses will be requested for compensation purposes only.

**Confidentiality:** The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records. Participants will be assigned a code to protect their identity. Data and the coding system will be

The Liberty University Institutional  
Review Board has approved  
this document for use from  
11/15/2018 to 11/14/2019  
Protocol # 3542.111518

stored on a password locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

**Voluntary Nature of the Study:** Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or Southside Virginia Community College. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

**How to Withdraw from the Study:** If you choose to withdraw from the study, please contact the researcher at the email address included in the next paragraph indicating that you wish to discontinue your participation in the study. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

**Contacts and Questions:** The researcher conducting this study is Christy Genova. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [cngenova@liberty.edu](mailto:cngenova@liberty.edu). You may also contact the researcher's faculty chair, Dr. Sarah Horne, at [sehorne@liberty.edu](mailto:sehorne@liberty.edu).

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at [irb@liberty.edu](mailto:irb@liberty.edu).

*Please notify the researcher if you would like a copy of this information for your records.*

**Statement of Consent:** I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

---

Signature of Participant

---

Date

---

Signature of Investigator

---

Date