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More than any other year, the first year poses attrition hazards that institutions must counteract. Studies show that if students make it through their first year in college successfully, the chances of them persisting to their second year improves significantly. Thus, emphasis on first-year success has been and continues to be central to the work of college administrators, faculty, and staff. Research on the first-year seminar has found that participation in these courses positively impacts student retention and academic performance. Furthermore, the literature supports that high academic self-efficacy increases academic performance and persistence in college. Also, high social self-efficacy facilitates a successful social and academic transition to the college environment. However, additional research is needed to determine if self-efficacy is cultivated within the first-year seminar. Thus, the purpose of this quantitative, quasi-experimental study is to investigate if participation in FYS 100 positively influences first-year students' academic and social self-efficacy. Social cognitive theory was the theoretical framework that guided this study. The researcher used the College Self-Efficacy Inventory (CSEI) to measure the constructs of academic and social self-efficacy. Results of the repeated measures ANOVA analyses showed that participation in FYS 100 did not contribute significantly to differences in students' academic self-efficacy and there was no significant interaction between participation in FYS 100 and various demographic variables such as gender, race/ethnicity, and first-generation status on the average academic or social self-efficacy scores of first-year students. One repeated measures

ANOVA analysis, however, showed that participation in FYS 100 contributed significantly to differences in students' social self-efficacy scores. Finally, a bivariate correlation analysis was conducted using students' post-course academic self-efficacy scores and final grades in FYS 100 for fall 2016 and showed that there was not a positive statistically significant correlation between the two variables. This study expands the body of literature that addresses how the first-year seminar positively impacts first-year students. Future research suggestions are presented and implications for educational practice are discussed.

CULTIVATING ACADEMIC AND SOCIAL SELF-EFFICACY IN FIRST-YEAR
STUDENTS: A QUANTITATIVE STUDY OF
THE FIRST-YEAR SEMINAR

by

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To my beloved grandmother, Mary Lee Campbell, who did not go to college because she did not have the “right shoes.” I honor your beautiful feet (Isaiah 52:7) and your unforgettable spirit.

APPROVAL PAGE

This dissertation, written by Ayesha J. Hankins, has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

Background

Student retention is one of the most readily studied outcomes in higher education (Tinto, 2006). The extant literature spans more than four decades and includes a number of theoretical models, including the seminal work of Vincent Tinto (1975). Since the 1970s, extensive research has been done to identify the primary causes of student departure. In the last decade, the issue of college completion has received even more attention from colleges and universities due to the national mandate that post-secondary institutions meet President Obama's 2020 college completion goals (U.S. Department of Education, 2011). For the U.S. to meet the goal of reclaiming the top college graduation rate worldwide by 2020, attrition, particularly first-year attrition, presents a key concern for colleges nation-wide.

On average, only six out of every ten (60%) of full-time first-year students who begin their college career in four-year colleges and universities earn a bachelor's degree within six years (National Center for Education Statistics, 2016). The remaining 40% translates into over half a million students every year—a group disproportionately made up of low-income and minority students—who fall short of acquiring the credentials they seek (Carey, 2004). Many higher education institutions routinely lose more than one out of every four students they enroll in the first year alone (Carey, 2004).

Consequently, more than any other year, the first year poses attrition hazards that institutions must counteract (Levitz & Noel, 1989). Studies show that if students make it through their first year in college successfully, the chances of them persisting to their second year improves significantly (Levitz & Noel, 1989). Thus, emphasis on first-year success and first-year experience courses has been and continues to be central to the work of college administrators, faculty, and staff.

The inception of first-year courses arose from the support of university presidents in the first decade of the 20th century. In 1909, President Lawrence Lowell of Harvard discussed the needs of first-year students in his inaugural address (Lowell, 1909). The following year, the president of Stanford, David Jordan, stressed the importance of improving the care and culture of the first year in college (Gordon, 1989). Recognition of the unique needs and experiences of first-year students resulted in the establishment of the first orientation course for credit at Reed College in 1911. “The College Life Course” was required of all first-year students at Reed to help them adjust to college life and the college curriculum (Gordon, 1989). By 1916, six American colleges offered orientation courses for credit and by 1926, over eighty-two colleges were offering such courses. Post-World War I, even more rapid growth in the number of orientation courses was seen following the development of student personnel services (Gordon, 1989).

The emphasis on first-year experience courses waned in the 1960s with the influx of older adults, first-generation students, and less academically prepared

students, but resurged by the 1970s with the University of South Carolina's University 101 course at the forefront (Gordon, 1989).

Statement of the Problem

The most widely researched outcome associated with the first-year seminar (FYS) is retention (Fidler & Hunter, 1989). It alone may be responsible for many efforts to develop FYSs since there is ample evidence that these courses are associated with improved first-year retention (Barefoot, Warnock, Dickinson, Richardson, & Roberts, 1998; Fidler & Hunter, 1989; Lang, 2007; Sidle & McReynolds, 1999; Starke, Harth, & Sirianni, 2001). Also, many institutions have studied the relationship between FYS participation and academic performance, including grade point average (GPA). Collectively, the research has supported the belief that retention and academic performance are institutional outcomes that are positively impacted by participation in the FYS (Barefoot et al., 1998; Lang, 2007; Sidle & McReynolds, 1999; Starke et al., 2001). Therefore, additional research that simply supports these well-established outcomes will contribute little to the literature.

Alternatively, researchers should consider what students are learning in the course to promote their academic achievement and subsequent persistence. Specifically, attention should be given to potential mediating variables cultivated within the FYS that lead to the development of these outcomes, one of which is self-efficacy (Bandura, 1977a). With over 800 institutions across the country reporting that they offer a FYS, it is incumbent that the community of scholars who work most closely with first-year students identify what aspects of the course prove to be the most academically and

socially beneficial for students (National Resource Center for the First-Year Experience and Students in Transition, 2013). Going forward, there is an opportunity for faculty and scholars alike to study these courses from a learning theory perspective to begin to shed light on “what” characteristics of the FYS curriculum or pedagogy are responsible for their recurrent success.

Theoretical Framework

A central tenet of Bandura’s (1986) social cognitive theory is that human behavior or learning occurs within a framework of triadic reciprocity involving reciprocal interactions among three sets of influences: personal (e.g., cognitions, beliefs, skills, affects), behavioral, and social/environmental (Bandura, 1997; Schunk, 2016). These interacting factors can be illustrated using self-efficacy (a personal factor), one’s perceived capabilities for learning or performing actions at designated levels (Bandura, 1997; Schunk, 2016). For example, research has readily supported that self-efficacy impacts achievement behaviors, such as choice of task, effort, persistence, and use of effective learning strategies (Schunk, 2016; Schunk & DiBenedetto, 2014). In turn, these behaviors also affect one’s self-efficacy beliefs. As learners work on tasks and observe their progress over time, their efficacy for continued learning is enhanced (Schunk, 2016; Schunk & DiBenedetto, 2014). Furthermore, self-efficacy beliefs influence one’s social or physical environment. When highly efficacious students intentionally eliminate or minimize distractions in their home or residence, they are affecting their environment for the purpose of creating an effective space for learning (Schunk & DiBenedetto, 2014).

Bandura (1977b) postulated that individuals form their perceptions of self-efficacy from four major sources of information: performance accomplishment or mastery experience, vicarious experience, social or verbal persuasion, and emotional arousal. Mastery experiences are especially influential as one's performances provide the most reliable information for assessing self-efficacy because they are tangible indicators of one's capabilities (Schunk & DiBenedetto, 2014). In general, successful performances raise self-efficacy whereas failures lower it (Schunk & DiBenedetto, 2014). For example, a student who receives an "A" on their first two exams of the semester would experience an increase in self-efficacy, while conversely receiving a "C", assuming this grade constitutes a failure for the student, would lower it.

Secondly, in addition to mastery experiences, people derive their level of self-efficacy from the vicarious experience of observing others perform tasks (Bandura, 1977b). When people are uncertain about their own abilities or have limited prior experience with the behavior or competence required to complete a task they become more sensitive to this form of information. Therefore, the models in one's environment can serve as a key source of information for appraising self-efficacy. Peer models (e.g., classmates) are particularly relevant for college students (Schunk, 2016).

Also, individuals develop self-efficacy beliefs from the verbal affirmations or verbal persuasions they receive from others. Examples of verbal persuasions could include a "pep talk" or specific performance feedback from faculty or fellow students. Through suggestions, people are led into believing they can accomplish something in which they may have not been able to previously. However, social persuasions must be

deemed as credible to positively influence people's beliefs in their capabilities for successfully attaining outcomes (Schunk & DiBenedetto, 2014). It should also be noted that self-talk, the internal dialogue students have with themselves, is also a potent means of verbal persuasion (Usher & Pajares, 2008).

Finally, emotional states such as anxiety, stress, arousal, and mood also inform one's perception of self-efficacy (Pajares, 2002). People can gauge their degree of capability by the emotional state they experience as they anticipate an action (e.g., initiating contact with an unknown classmate; Pajares, 2002). "Because high arousal usually debilitates performance, individuals are more likely to expect success when they are not beset by aversive arousal than if they are tense and viscerally agitated" (Bandura, 1977a, p. 198). Thus, learners are typically more efficacious when they feel less anxious about academic outcomes (Schunk & DiBenedetto, 2014).

Self-efficacy beliefs help to determine how much effort students expend, how long they persist while facing obstacles, and how resilient they are in the face of various forms of adversity (Schunk & DiBenedetto, 2014; Schunk & Pajares, 2009). Individuals with a strong sense of self-efficacy approach difficult tasks as challenges to successfully overcome rather than as threats to be avoided. Highly efficacious students set ambitious goals and maintain a strong commitment to them, sustain or intensify their efforts in the face of failure, and quickly recover their sense of self-efficacy after setbacks (Schunk & DiBenedetto, 2014).

Purpose of the Study

The purpose of this study is to investigate the influence that participation in a FYS has on students' academic and social self-efficacy. In particular, the goal of this research is to determine if enrollment in a FYS at a mid-sized, four-year public university in the Southeast positively impacts the academic and social self-efficacy of first-year students with undeclared majors. FYS 100 is the acronym that will be used for the FYS being studied. This two-credit course is open to any first-year student with less than 29 credits and is designed to provide students with an opportunity to examine their role as engaged global learners in the educational experience through an exploration of the purposes of higher education and an introduction to the resources, skills, and competencies essential to academic success in college. Finally, it should be noted that FYS 100 is not a required course for first-year students; thus, students typically choose to enroll in this course based on the recommendation of their academic advisor.

It was hypothesized that comparing the pre-course and post-course scores on the College Self-Efficacy Inventory (CSEI; Solberg, O'Brien, Villareal, Kennel, & Davis, 1993) will reveal gains in both academic and social self-efficacy as measured by its academic self-efficacy and social self-efficacy subscales. This hypothesis was based on the design of the FYS 100 course and the various ways in which the four sources of self-efficacy are reinforced within the classroom for students. The following paragraphs describe these anecdotal observations in greater detail.

Bandura's (1977b) four sources of self-efficacy are readily reinforced within the context of FYS 100. One of the primary aims of the course is to develop students' academic skills. For this reason, mastery experiences are cultivated for students as they learn skills to support their academic performance, including information processing methods and self-regulation strategies. Provided the application of these new skills lead to subsequent achievement, students' academic self-efficacy will increase (Schunk & DiBenedetto, 2014). Taken together, these activities pave the way for added mastery experiences and thus positive academic self-efficacy. In terms of vicarious experiences, modeling is often incorporated through the presence of a Peer Academic Leader (PAL), typically an upperclass student, who assists in co-teaching or facilitating the course. In doing so, students learn through the vicarious experiences of an older peer. Likewise, students also learn from the examples of their classmates. New students often assess their self-efficacy based on the successes and failures of individuals they perceive as similar (Schunk, 2016). This source is particularly relevant to first-year students who have limited prior experience upon which to judge their capabilities. Verbal persuasions are provided to students via performance feedback and affirmations.

Performance feedback explains to students how well they have achieved an academic task, while also providing information about how they can further improve. FYS 100 instructors typically provide this type of feedback in both oral and written form. In terms of affirmations, FYS 100 is focused on helping students believe in their ability to be successful in college. Therefore, informal verbal encouragement often

comes from the FYS 100 instructor, mentor, and peers. As Bandura (1977b) stressed, students must believe that these individuals are credible sources of feedback to have an influential effect. Finally, emotional arousal is not directly addressed within FYS 100, although the development of academic skills may help to decrease test anxiety and strengthen students' academic self-efficacy (Usher & Pajares, 2008).

Additionally, there is research that demonstrates the motivational effects that academic self-efficacy can have on students in educational settings (Schunk, Meece, & Pintrich, 2014). Goal setting is an important motivational process and academic goals (academic objectives that people are working to accomplish) enhance self-efficacy (Bandura, 1997; Schunk et al., 2014). As learners observe goal progress they perceive that they are becoming more skillful and their self-efficacy increases. One of the primary assignments in FYS 100 helps students articulate short-term and long-term personal and academic goals. In addition, students are asked to develop a plan for achieving these goals during the academic semester or throughout their first year in college. In line with motivation research, this assignment is another means through which students' self-efficacy is bolstered.

Social self-efficacy is also reinforced through the four sources of self-efficacy. Mastery experiences are cultivated for students as they engage with their instructor, peer mentor, and classmates informally during class or formally for their required individual or group presentation. Furthermore, students learn how to engage in the social and co-curricular aspects of college life through the vicarious experiences of their PAL and classmates (Bandura, 1997). Also, verbal persuasions arise from in-class

discussions or reflection activities on topics such as “getting along with your roommate,” “dealing with homesickness,” and “getting involved on-campus.”

Likewise, students receive verbal feedback on their social skills and behaviors as they interact with their FYS 100 instructor, PAL, and peers. Lastly, although physiological arousal is not addressed in the course, the development of social skills in FYS 100 may indirectly help to relieve a student’s anxiety in social situations (Usher & Pajares, 2008). The college experience is undoubtedly both an academic and social endeavor, so it is hypothesized that these two constructs are interrelated.

Significance of the Study

There is limited literature exploring whether participation in a FYS influences the self-efficacy of first-year students. Yet, the research has substantiated the positive impact of the FYS on academic performance and retention (Barefoot, Warnock, Dickinson, Richardson, & Roberts, 1998) and the influential role that high academic self-efficacy has on the academic performance of college students (Multon, Brown, & Lent, 1991; Pajares, 1996; Pintrich & De Groot, 1990; Schunk & DiBenedetto, 2014). Therefore, this study intends to fill a gap in the literature. The results of this study are expected to support the implementation of FYSs by providing faculty and administrators with theory-driven and empirical evidence on the influence the FYS has on the academic and social self-efficacy of new students. In addition, the researcher hopes to underscore the importance of self-efficacy and how it can be cultivated within a classroom setting.

Definitions of Terms

The definitions of key terms utilized in this study are given to provide a clear understanding of their meaning in the context of this study. The following will be readily referenced throughout the study:

Academic performance: refers to a student's academic success and can include a variety of measures including GPA, communication skills, credits earned, and academic engagement (e.g., study habits and attitudes) (Fidler & Hunter, 1989). For the purposes of this study it will be used solely in reference to a student's GPA. This study reviews literature that uses academic performance and academic achievement interchangeably.

Academic self-efficacy: refers to a student's belief about their capability to learn or perform an academic task at a designated level (Bandura, 1977b; Schunk, 2016).

Attrition: student departure from all forms of postsecondary education prior to completion of a credential or degree (Wellman, Johnson, & Steele, 2012).

College self-efficacy: refers the degree of confidence students have in their capabilities to perform specific college-related tasks (e.g., taking class notes, participating in class discussions, and getting along with roommates) (Solberg et al., 1993).

First-generation college student: refers to students who are the first in their family to go to college (i.e. neither parents/guardians nor siblings have attended any college).

First-year experience (FYE): is a program, particularly at American colleges and universities, designed to help students prepare for the transition from high school to college. This program often includes orientation and a FYS.

First-year seminar (FYS): historically first-year courses were referred to as “orientation courses,” although the term *seminar* is widely used today (Gordon, 1989). Therefore, the FYS will be used throughout this study and refers to a course that integrates both the personal (i.e. college transition support and introduction to on-campus resources) and academic (i.e. academic adjustment and skills) needs of students in one offering (Gordon, 1989).

First-year student: In the 1590s, *freshman* was used to refer to first-year students at an English university and later carried over to America in the 17th century (Dwyer, 1989). In this study, *first-year student* will be used rather than *freshman*, as the term has been removed from official use at several universities in an effort to adopt more gender inclusive language (Darcy, 2012). Furthermore, the American Psychological Association (APA) is clear about the importance of avoiding labels and other biased forms of language when conducting research (Piaz et al., 2016).

At the mid-sized, four-year public university in the Southeast in which this dissertation study took place a *first-year student* is defined as any student with 0-29 completed semester hours.

First-year success: First-year students succeed when they make progress toward fulfilling their educational and personal goals. Competency areas that constitute success include: 1) developing academic and intellectual competence; 2) establishing and

maintaining interpersonal relationships; 3) developing an identity; 4) deciding on a career and lifestyle; 5) maintaining personal health and wellness; and 6) developing an integrated philosophy of life. (Upcraft & Gardner, 1989).

Orientation: any effort to help first-year students make the transition from their previous environment to the collegiate environment and enhance their success.

Although, orientation programs may vary in scope, purpose, length, timing, and content, most institutions do provide first-year students with information about facilities, programs, and services and provide them the opportunity to meet faculty, staff, and other students (Perigo & Upcraft, 1989).

Persistence: rate at which students who begin higher education at a given point in time continue in higher education and eventually complete their degree, irrespective of the institution they attain their degree at (Tinto, 2012).

Self-efficacy: refers to one's belief about one's capabilities to learn or perform actions at designated levels (Bandura, 1977b; Schunk, 2016).

Social self-efficacy: refers to a student's confidence in her or his ability to engage in the social and interpersonal tasks necessary to initiate and maintain interpersonal relationships (Smith & Betz, 2000). These tasks include: making friends, pursuing romantic relationships, social assertiveness, performance in public situations, groups or parties, and giving or receiving help (Bitz, 2014; Smith & Betz, 2000).

Retention: A measure of the rate at which students persist in their educational program at an institution, expressed as a percentage. For four-year institutions, this is the percentage of first-time bachelors (or equivalent) degree-seeking undergraduates from the

previous fall who are again enrolled in the current fall (National Center for Educational Statistics, n.d.). This study reviews literature that uses retention and persistence interchangeably.

Undecided/Undeclared: refers to students who have not decided or declared their major. In this study, Exploratory majors is used interchangeably with the terms undecided or undeclared.

Assumptions and Delimitations

Fidelity of implementation (FOI) is an assumption upon which the study is based (O'Donnell, 2008). The training provided to FYS 100 instructors is consistent for all instructors and the core curriculum is identical across all sections. Similarly, the same is true for the trainings and responsibilities of the peer mentors (PALs). Consequently, the assumption is that the instructional strategies and delivery of the content is done in the same way that it was designed to be. Data collected to confirm FOI are presented in Chapter III.

Finally, given that there are varying forms of the seminar and that the literature spans a variety of course types, this study and the research addressed in the literature review are limited to orientation-type seminars, unless otherwise noted.

Research Questions

Using social cognitive theory as a guiding theoretical framework, this study addressed the following research questions to evaluate the impact of FYS 100 on students' academic and social self-efficacy:

1. Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the College Self-Efficacy Inventory (CSEI), of undecided first-year students as a result of their participation in FYS 100 in fall 2016?
 - a. Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to gender?
 - b. Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to race/ethnicity?
 - c. Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to first-generation status?
2. Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016?
 - a. Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-

year students as a result of their participation in FYS 100 in fall 2016 due to gender?

- b. Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to race/ethnicity?
 - c. Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to first-generation status?
3. Is there a statistically significant positive correlation between the academic self-efficacy post-course scores, as measured by the CSEI, of undecided first-year students and their final grades in FYS 100 in fall 2016?

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The purpose of this literature review is to examine the constructs of academic and social self-efficacy as they relate to first-year college students. Additionally, this review will address the literature that focuses on the FYS and self-efficacy. Since first-year students are most vulnerable to attrition (Tinto, 1993), examining the empirical investigations that have been conducted on whether participation in the FYS increases students' social and academic self-efficacy, and subsequent academic performance and retention, is of utmost importance. Research has readily associated higher levels of self-efficacy, particularly early in a student's college experience, with increased academic performance and greater motivation to persist in an academic endeavor (Elliott, 2014). Likewise, a college student with high social self-efficacy is more likely to initiate contact with peers or faculty, participate in group activities, and pursue relationships despite previous social rejections (Meng, Huang, Hou, & Fan, 2015). Taken together, efficacy beliefs can influence how much effort people will expend on an activity or relationship, how long they will persevere despite confronting obstacles, and how resilient they will prove in the face of adversities (Pajares, 1996).

The concept of self-efficacy is central to Bandura's (1986) social cognitive theory. This theory advances the idea that individuals possess a self-system that enables

them to exercise a measure of control over their thoughts, feelings, and actions (Pajares, 1996, 2002). Such control allows people to be self-organizing, proactive, self-reflecting and self-regulating – agentic, rather than reactive organisms shaped and shepherded by environmental forces as most behaviorist theories suggest (Pajares, 2002). In his seminal text, “Social Foundations of Thought and Action,” Bandura (1986) established that actions derive from the beliefs people have about themselves.

From this theoretical perspective, human functioning is viewed as a result of reciprocal interactions between behavioral, social/environmental, and personal factors (e.g., cognitions, beliefs, skills, affects) (Pajares, 1996; Schunk, 2016). Figure 1 demonstrates the bidirectional influences these three major classes of determinants have on human agency. The term *triadic reciprocity* is used to describe the reciprocal effects each of the determinants has on each other. Reciprocity does not mean that the interacting determinants influence one another equally; typically, one or two factors predominate for different activities and circumstances (Bandura, 1997; Schunk et al., 2014).

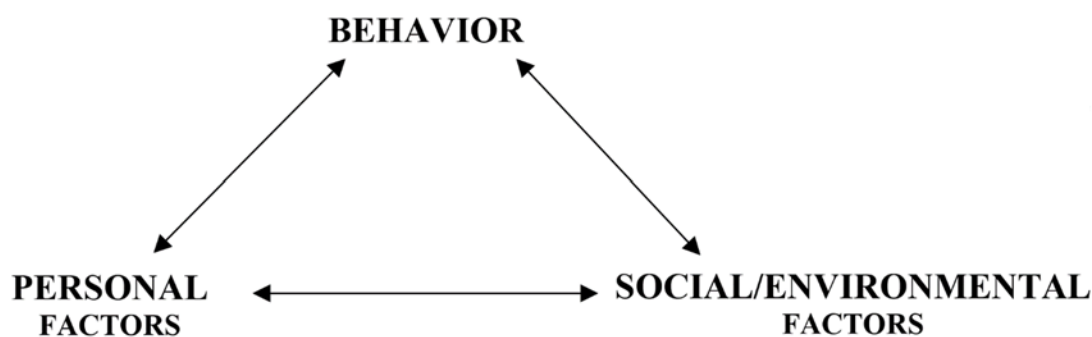


Figure 1. The Triadic Relationships between the Determinants of Human Functioning in Social Cognitive Theory (Bandura, 1986; Schunk & DiBenedetto, 2014).

Using the social cognitive framework, faculty can ensure student success by correcting their students' faulty self-beliefs and habits of thinking (personal factors), improving their academic skills and self-regulatory practices (behavior), and altering classroom structures and social interactions (social/environmental factors) that may undermine or hinder it (Pajaras, 2002; Schunk & DiBenedetto, 2014). Without question, faculty bear responsibility for promoting learning among their first-year students who are vulnerable to low self-efficacy due to their transition from high school to college.

From adjustment to the academic rigor of college classes to navigating new friendships, first-year students are faced with many situations that can cause them to question their capabilities to succeed academically and socially in college (Tinto, 1993). Hence, self-efficacy is germane for first-year students as they undergo the characteristic academic and social transitions and difficulties that come with their first year. For this reason, there is a growing body of literature that emphasizes the positive impact high self-efficacy has on the success of students, particularly new students in college (Choi, 2005; Gore, 2006; Wood, Hilton, & Johnson, 2014). Therefore, cultivating academic spaces, such as the FYS, that bolster self-efficacy is necessary to safeguard the achievement of first-year students.

Much of the literature on the FYS focuses on the predictive relationship between the FYS and university performance indicators such as academic achievement and retention, rather than mediating variables like self-efficacy (Keup & Barefoot, 2005; Starke et al., 2001). Furthermore, little research addresses whether self-efficacy is increased through participation in the FYS. In terms of the self-efficacy literature, a

number of researchers have studied the correlation between academic self-efficacy and academic performance and if the former can predict the latter among elementary and high school students (Mone, Baker, & Jeffries, 1995; Pintrich & De Groot, 1990; Schunk, 1991). However, not as many have studied the effect academic self-efficacy has on the academic performance of college students. Going further, social self-efficacy is a construct that has largely been studied through the lens of college student vocational behavior and career development, rather than its connection to the success of first-year students (Smith & Betz, 2000). To this end, the following review of the literature is broad in scope and integrates the existing literature on the FYS. Given the scope of the review, it is organized into sections related to the constructs addressed in this study. The first section examines the FYS and its varying formats, followed by the literature that substantiates their impact on students' academic performance and retention. Next, the literature on self-efficacy and its sources is examined. This section calls attention to self-efficacy as a key influencing factor on students' academic and social behaviors. Research on academic self-efficacy and its influence on academic performance, and social self-efficacy and its impact on first-year students' success is also considered. The final section of the review examines the few studies that address the effect participation in the FYS has on both the academic and social self-efficacy of first-year students. This review concludes by discussing gaps in the literature and the need for the present study.

The First-Year Seminar

Although first-year seminars have been around since the late 1890s, their popularity grew in the 1980s as an increasing number of campuses instituted first-year initiatives to remedy attrition and promote student success (Keup & Barefoot, 2005; Tinto, 1993; Upcraft & Gardner, 1989). While they vary in format and delivery from campus-to-campus, there are five common types of seminar courses. These include: (a) extended orientation courses, which introduce students to campus resources, time management, academic and career planning, diversity, and learning strategies; (b) academic seminars, which primarily focus on an academic theme or discipline; (c) academic seminars with variable content that differs from section to section; (d) pre-professional or discipline-linked seminars, which are designed to prepare students for their career field; and (e) basic study skills seminar, which focuses on notetaking and study skills for academically underprepared students (Tobolowsky, Cox, & Wagner, 2005). According to the 2009 National Survey of First-Year Seminars, the most common format is the extended orientation seminar and its primary objectives are to help students develop academic skills, establish a connection with their institution, and familiarize them with various campus resources and services (National Resource Center for The First-Year Experience and Students in Transition, 2009). Throughout this dissertation study, emphasis is placed on empirical research related to extended orientation courses.

The First-Year Seminar and Academic Performance and Retention

In order to substantiate the value of FYS, several studies have been conducted to determine their impact on academic achievement, first-to-second year persistence, and

retention. By and large, first-year students who participate in the FYS have been found to earn a higher GPA and more readily persist (Barefoot et al., 1998; Lang, 2007; Sidle & McReynolds, 1999; Starke et al., 2001). Research supports the prediction that the positive effects of the FYS also are true for various subgroups of students. Recent studies have looked at the impact of the FYS on first-generation college students, male students, as well as students of color. Most notably, Vaughan, Parra, and LaLonde (2014) used matched experimental and quasi-control groups to address one of the most common threats to validity for studies done on the FYS: non-randomization due to self-selection. In other words, Vaughan et al. (2014) used a quasi-experimental design and matching to account for non-randomization to more accurately demonstrate a causal relationship between participation in the FYS and academic achievement and persistence. From the pool of experimental and quasi-control groups, first-generation students ($n=266$) were selected for further analysis. The results of the chi-square tests of independence provided additional evidence of the positive effects of the FYS for first-generation college students, including significant differences in their GPA and persistence as compared to first-generation nonparticipants.

Academic performance and retention are key performance indicators that are influenced by multiple variables beyond participation in the first-year seminar (Pascarella & Terenzini, 2005). Several studies have demonstrated that participation in the FYS is one of several variables and support services that can aid in students' academic performance and retention. For example, living on campus and enrollment in the FYS are associated with a lower probability to drop out than are living off campus and

participating. Fidler and Moore (1996) compared the relative effects of living on campus and participating in a FYS on first-year student dropout rates. Eight successive cohorts of entering full-time, first-year students at the University of South Carolina from 1986-1993 were tracked to their sophomore year. Comparisons between first-year dropout rates were made using proportion tests and when analyzed separately, each factor independently reduced students' dropout rate. When examined together, more first-year students dropped out from not taking the FYS ($n=423$) than from not living on campus ($n=346$). Students who did both (i.e., take the seminar and live on campus) had the lowest dropout rates (14.4%), whereas those who neither took the seminar nor lived on campus had the highest dropout rates (25.4%) (P. Fidler & Moore, 1996).

Moreover, several campuses have integrated their first-year seminars with other on-campus student support services, including various residential communities, supplemental instruction programs, and TRIO programs. These are often referred to as “special sections” given their unique format and population of students who enroll. At the University of Idaho, Yockey and George (1998) studied the impact of a FYS paired with an introductory-level sociology course and using supplemental instruction strategies (an academic assistance program that uses peer-assisted study sessions) on student performance. The effectiveness of this new seminar model was determined by comparing course grades, credits enrolled, and semester GPAs for students in experimental (i.e. first-year students who enrolled in both the sociology course and the FYS) and control groups (i.e. first-year students who enrolled in the sociology course, but not in the FYS). Tests for significance showed that participation in the FYS course had a significantly positive

impact on the ability of students to achieve a good grade (A, B, or C) in the sociology class across three semesters. There was no difference reported in the credits enrolled between the experimental and control groups. Likewise, an analysis of covariance showed a significant difference between end-of-semester GPAs across three semesters for students in the experimental groups ($n=56$) as compared to control groups ($n=47$), 2.47 and 2.12, respectively. Lastly, the two-year retention rate for students in the FYS or experimental group ($n=27$, 78%) was noticeably higher than that of the control group ($n=14$, 50%) for fall 1994 to fall 1996; however, the difference between the two groups was not statistically significant for these years nor for fall 1995 to fall 1996 (Yockey & George, 1998). In addition, FYSs integrated into the residential campus have been shown to improve students' GPAs, even when controlling for demographic factors and ACT scores (Noble, Flynn, Lee, & Hilton, 2007). Overall, the academic performance and retention rates of students in these special FYS sections consistently are higher than those for students who do not participate (Dale & Zych, 1996; Noble et al., 2007; Yockey & George, 1998).

With few exceptions (Hendel, 2001; Micceri & Wajeih, 1999), studies have revealed a positive and generally statistically significant relationship between participation in the FYS and academic performance (Pascarella & Terenzini, 2005). Although controlling for confounding variables such as gender, race, socioeconomic status, and academic ability reduces the magnitude of the advantages of the FYS, the benefits remain. In any case, differences in outcomes may be attributed to methodological and procedural differences between studies, the specific content and format of each of the

FYSs, and the unique differences between the colleges themselves (Noble et al., 2007). For example, throughout the literature retention and persistence are often used interchangeably to demonstrate the effect the FYS has on student attrition despite clear distinctions in measurement. Although many researchers use enrollment records to compare persistence and retention rates for FYS students, these vary according to the statistical analyses conducted (i.e. chi-square or regression) (Hendel, 2001; Vaughan et al., 2014). In terms of academic performance, students' first semester GPA is commonly referenced; however, some studies have looked at subsequent spring and fall semester GPAs to examine the longitudinal effects the FYS has on academic performance (Micceri & Wajeeth, 1999). Nevertheless, studies show that FYS participants have a higher likelihood of persisting to their second year and performing better academically than non-participants (Pascarella & Terenzini, 2005). Causal links, however, have yet to be established.

In terms of future research, very few researchers have attempted to isolate the impact of various aspects of the FYS on persistence and educational attainment. Porter & Swing (2006), however, are a team of researchers who have. In 2006, they conducted a study using First-Year Initiative (FYI) survey data for over 20,000 first-year students ($N = 20,031$) at 45 four-year institutions. Five common learning outcomes were identified among the FYS at each of the participating colleges and universities and multilevel modeling showed that only two of the five outcomes, study skills and academic engagement, and health education, had a substantial impact on students' intention to persist to the second year of college. Simply put, addressing health education and study

skills was found to be most influential in students' decisions to continue their enrollment. The section that follows discusses the literature on both academic and social self-efficacy in the context of the FYS.

Self-Efficacy

According to Solberg et al. (1993), college self-efficacy is defined as the degree of confidence students have in their capabilities to perform specific college-related tasks (e.g., taking class notes, participating in class discussions, and getting along with roommates). Subsumed within this general construct are academic self-efficacy and social self-efficacy. Academic self-efficacy refers to one's beliefs about his or her capabilities to learn or perform an academic task at a designated level (Bandura, 1977; Schunk, 2016). Similarly, social self-efficacy describes a student's confidence in her or his ability to engage in the social and interpersonal behaviors necessary to initiate and maintain interpersonal relationships (Smith & Betz, 2000). These behaviors include: making friends, pursuing romantic relationships, social assertiveness, performance in public situations, groups or parties, and giving or receiving help (Betz, 2014; Smith & Betz, 2000). Together, these interrelated constructs address the tasks critical to student success as college is equally an academic and social enterprise.

Bandura (1997) suggested that people gauge their self-efficacy from four principal sources, the most powerful of which being previous attainments or mastery experiences. After students complete an academic task, they interpret and evaluate the results attained and judgments are made and/or amended according to those interpretations (Usher & Pajares, 2008). In general, successful performances raise self-

efficacy, while failures lower it; however, an occasional failure or success after multiple successes or losses might not have much impact (Schunk & DiBenedetto, 2014).

When individuals are faced with novel tasks their self-efficacy beliefs are likely to change as their skills develop. Although failure may occur periodically, when students notice a gradual improvement in their skills over time, their self-efficacy is raised (Usher & Pajares, 2008). Mastery experiences prove to be particularly powerful when individuals learn new tasks and succeed at challenging ones (Usher & Pajares, 2008).

In addition to mastery experiences, observing others with similar attributes (e.g., age, gender, and ethnicity) succeed plays a powerful role in the development of self-efficacy (Usher & Pajares, 2008). Students compare themselves to individuals such as classmates and adults as they make judgments about their own capabilities. For example, watching a similar classmate conquer a difficult mathematics problem may convince students that they too can solve the problem. When people perceive that a model's abilities are vastly different from their own, the influence of vicarious experiences is greatly minimized (Schunk & Pajares, 2009). Lastly, although social comparison typically occurs between classmates or family members, the role of symbolic models through television and other media should not be discredited (Usher & Pajares, 2008).

The verbal and social persuasions that students receive from others constitute another source of self-efficacy. Specifically, encouragement from trusted individuals such as parents, teachers, and peers can boost students' confidence in their academic or social capabilities, particularly when accompanied by conditions and instruction that help bring about their success (Usher & Pajares, 2008). Furthermore, just as positive

appraisals may work to encourage and empower, negative persuasions can work to defeat and weaken self-efficacy beliefs (Schunk & Pajares, 2009). In fact, it may be easier to undermine an individual's self-efficacy through social persuasions than to enhance it, particularly for college students who may be more apt to carefully attend to the messages they receive from those close to them (Bandura, 1997; Pajares, 2002). Additionally, blanket, automatic, or empty praise should not be confused with social persuasions, as the former are likely to be ineffective at cultivating people's beliefs in their capabilities (Schunk & DiBenedetto, 2014).

Finally, emotional or physiological indexes such as anxiety, stress, fatigue, and mood serve as the fourth source of self-efficacy. Strong emotional reactions to a task provide cues about anticipated success or failure (Schunk & DiBenedetto, 2014). For instance, students who experience a feeling of dread when thinking about taking an exam, likely interpret their apprehension as evidence of lack of skill in that subject area (Usher & Pajares, 2008). Learners are typically more efficacious when they feel less anxious about academic outcomes (Schunk & DiBenedetto, 2014). Bandura (1997) affirmed that people function best when their physiological arousal is neither too high nor too low. Generally speaking, increasing one's physical and emotional well-being and reducing negative emotional states strengthen self-efficacy (Usher & Pajares, 2008).

In order to acquire information from the four sources of self-efficacy, students go through a cognitive appraisal of their experiences and self-perceptions. For example, learners weigh and combine their perceptions of their ability, difficulty of the task, the amount of effort expended, the degree of external assistance they received, their pattern

of successes and failures, their perceived similarity to models, and persuader credibility in order to gauge their efficacy (Schunk, 1989). Based on the net appraisal of the four sources of self-efficacy, an individual's perception of their self-efficacy is then made.

Self-efficacy beliefs provide the foundation for human motivation and learning. When self-efficacy perceptions are high, individuals will engage in tasks that support the development of their skills and abilities, but when self-efficacy is low, people refrain from engaging in tasks that might help them learn new skills (Bandura, 1997). The higher self-efficacy one has the greater the motivation to perform. Positive self-efficacy perceptions help determine how much effort people will expend on an activity and their likelihood to persist in the face of adverse situations. Also, people with a strong sense of competence set challenging goals, maintain a strong commitment to them, and recover their sense of efficacy after setbacks (Schunk & Pajares, 2009).

Given the far-reaching effects of self-efficacy on behavior and motivation (Bandura, 1997), the literature on self-efficacy continues to expand to various settings and disciplines, including but not limited to: athletics and sports psychology (Gould, Hedge, Peterson, & Giannini, 1989), mental health (Sherer et al., 1982), and career choice (Betz & Hackett, 1981; Smith & Betz, 2000). In the present study, the college academic environment is of interest, specifically the FYS. The section that follows focuses on the academic self-efficacy literature and its effect on academic performance among college students.

Academic Self-Efficacy and Academic Performance

The evidence that academic self-efficacy can improve the academic performance of students has been well-studied within primary and secondary school settings, but not as much research has been done within the post-secondary context. With that said, one of the earliest studies demonstrating the link between these two variables was conducted by (Schunk, 1981) using a sample of third and fourth graders. His study revealed that self-efficacy was an accurate predictor of arithmetic performance across all levels of task difficulty for division skills. Going further, academic self-efficacy has also been known to be a predictor of academic performance in both middle school and high school classrooms (Mone et al., 1995; Pintrich & De Groot, 1990; Zimmerman, Bandura, & Martinez-Pons, 1992). Multon et al. (1991) conducted a meta-analysis using 36 studies, including middle, high school, and college students, between 1977 and 1988 exploring the relationship between self-efficacy and academic performance. The researchers computed that efficacy beliefs were positively related to performance ($r_u = .38$) and accounted for 14% of the variance in academic performance. Across varying grade levels, studies have shown that self-efficacy for performing academic related tasks correlates positively and significantly with achievement on those subsequent tasks (Multon et al., 1991; Pajares, 1996; Pintrich & De Groot, 1990; Schunk & DiBenedetto, 2014).

As noted in Multon et al. (1991), self-efficacy researchers have sometimes used generalized or multiple-scale self-efficacy measures to predict academic performance. Although academic self-efficacy is readily identified as a domain-specific construct, researchers, particularly in the postsecondary context, have assessed efficacy

expectations without reference to a particular task and using multi-scale instruments (Bong, 1997; Chemers, Hu, & Garcia, 2001; Multon et al., 1991; Robbins et al., 2004). For example, Chemers et al. (2001), administered an eight-item academic self-efficacy instrument as part of longitudinal study exploring the effects of academic self-efficacy and general optimism on first-year students' academic performance, stress, health, and commitment to remain in school. In this case, academic self-efficacy was operationalized as a composite of both academic and social items. A structural equation modeling (SEM) approach was used to assess the direct effect of academic self-efficacy on academic expectations and academic performance. Self-efficacy showed powerful direct relationships to academic expectations (standardized coefficient = .28, $p < .001$) and academic performance (standardized coefficient = .34, $p < .001$) for the participating first-year college students ($N = 373$).

Furthermore, studies on the influence of academic self-efficacy on the academic performance of students can be distinguished by sample differences that vary by grade level, first-generation status, gender, race/ethnicity, and choice of major among college students (Elias & Loomis, 2002; Lynch, 2006; Lent, Brown, & Larkin, 1984; Wilhite, 1990). To start, Lynch (2006) investigated the association between motivational factors such as efficacy and course grades for first-year and upper-level college students ($N=501$) using the Motivated Strategies for Learning Questionnaire (MSLQ). The 81-item motivation scale taps into three broad areas: (1) value (intrinsic and extrinsic goal orientation, task value), (2) expectancy (control beliefs about learning, self-efficacy); and (3) affect (test anxiety). A stepwise multiple regression analysis identified that self-

efficacy was among the two main variables that predicted upperclass students' ($R = .434$, $F(2, 169) = 19.64$, $p < .000$), and first-year students' ($R = .405$, $F(3, 246) = 16.07$, $p < .000$) course grades. Additionally, studies show that academic self-efficacy is one of the major cognitive factors influencing the academic success of underrepresented and first-generation immigrant students during their first year of college (Garriott, Hudyma, Keene, & Santiago, 2015; Majer, 2009; Zajacova, Lynch, & Espenshade, 2005). Together, these findings affirm the power of academic self-efficacy and also underscore the repeated fact that academic performance depends on the interaction of multiple variables (Schunk, 1991; Wood & Locke, 1987).

In terms of gender and academic self-efficacy, the relationship between these variables and their effect on academic performance has been the focus of much educational research in both primary and secondary settings. In general, researchers report that men tend to be more efficacious than women in academic areas related to mathematics, science, and technology, despite the fact that achievement differences in these areas are diminishing or have disappeared (Huang, 2013; Schunk & Pajares, 2002). Conversely, in areas related to language arts, men and women exhibit similar confidence, despite the fact that the academic performance of women is typically higher (Pajares, 2003). Confounding variables such as previous achievement and gender differentiation may help to explain gender differences in self-efficacy.

Relative to gender, there is much less research on the relationship between race/ethnicity and academic self-efficacy. In fact, for the literature that does exist, much of it is inconsistent (Schunk & Pajares, 2002). Some studies support that Whites are more

academically efficacious than African Americans, while other research supports that African American women are more efficacious than White men and women as well as African American men in achievement settings or otherwise (Buchanan & Selmon, 2008). Whereas, Graham (1994) conducted a review of published research on African American students and their achievement motivation across all grade levels and found little support for the notion that African Americans have lower academic self-efficacy than White students, after controlling for socioeconomic status (Schunk & Pajares, 2002). In fact, she concluded that African Americans have higher expectancies, relative to either their academic outcomes and to their White counterparts even in the wake of social and economic disadvantage.

In addition to improving academic performance, high academic self-efficacy has also been shown to increase students' resiliency as they tend to persist longer in their college major than students with low self-efficacy (Lent et al., 1984). Betz and Hackett (1981) hypothesized that self-efficacy is related to degree of persistence and success in a college major and career choices. Undecided college students have been found to have lower self-efficacy specifically as it relates to career decision-making (Bullock-Yowell, McConnell, & Schedin, 2014).

Finally, some studies have addressed the extent to which academic self-efficacy versus high school GPA predicts a student's first semester GPA. Two studies in particular, Hoover (2003) and Ferrari and Parker (1992), found that high school GPA, either cumulative or subject specific, among other variables, was more predictive of the academic achievement of first-year students than any combination of psychological

variables such as academic self-efficacy or locus of control. ACT scores have also been observed as a key predictor of first-year students' GPA (Ferrari & Parker, 1992). This is not to say that academic self-efficacy does not positively affect a student's academic performance, but rather to suggest that early in a student's college experience their high school grades and ACT scores may be more indicative of their performance. Research has shown that academic self-efficacy measured late in students' first or second semester of college is more predictive of their academic performance and persistence than ACT scores or high school GPA (Gore, 2006; Kahn & Nauta, 2001). Gore (2006) stressed, "The self-efficacy beliefs of experienced college students are more strongly related to college performance and persistence than are the efficacy beliefs of 'college-naïve' students" (p. 110).

Methodological differences may be largely responsible for the mixed and sometimes conflicting literature regarding the effects that academic self-efficacy has on academic performance. The first being differing measurements of academic self-efficacy. Bandura (1997) stressed that this construct is task specific and without a clearly defined context it may be difficult for students to generalize their efficacy across different situations. Secondly, as Gore (2006) demonstrated, the timing of the administration of academic self-efficacy instruments seems to play a role in the predictive results found. Lastly, academic performance is a function of many variables. In achievement settings, other influential variables to consider are skills, outcome expectations, and the value of outcomes (perceptions of importance or utility of learning) (Schunk, 1991). No amount of self-efficacy will result in a stellar performance when students lack the skills to succeed,

interest in the learning task, or perceive that their actions will lead to negative outcomes (Schunk & DiBenedetto, 2014). In any case, the literature suggests that no student is precluded from the positive effects of academic self-efficacy, particularly first-year students. Next, the literature pertaining to social self-efficacy is addressed.

Social Self-Efficacy and Student Success

Unlike academic self-efficacy, the literature on social self-efficacy does not stem from K-12 educational research. It is a newer body of work, largely rooted in the fields of Psychology and Career Development (Sherer et al., 1982; Smith & Betz, 2000). Thus, the small collection of research studies addressing the importance of social self-efficacy as it relates to first-year students will be reviewed. To start, the seminal work of Sherer et al. (1982) provided the first instrument, the Self-Efficacy Scale (SES), measuring general self-efficacy expectancies in areas such as social skills and vocational competence. This 23-item measure includes a six-item social self-efficacy subscale with questions such as, “It is difficult for me to make new friends” and “When I’m trying to become friends with someone who seems uninterested at first, I don’t give up easily” (Sherer et al., 1982, p. 666). Subjects rate their agreement with each statement on a 14-point Likert scale ranging from “strongly disagree” to “strongly agree.” Sherer et al. (1982) constructed the scale after the fact based on the results of a factor analysis. Thus, the instrument has received some criticism from researchers for its post hoc derivation and usage of an agreement Likert scale (a confidence response continuum in reference to specific behaviors is seen as the more appropriate means of measurement of efficacy)

(Smith & Betz, 2000). Nevertheless, this instrument was designed for counselors, licensed therapists, and subsequent researchers.

Smith and Betz (2000) were the first to create a social self-efficacy measure specifically for a broad range of social behaviors in college student and adult populations. More specifically, the researchers developed the Perceived Social Self-Efficacy (PSSE) scale, which consists of 25 items that measure students' confidence in their ability to engage in social behaviors necessary to initiate and maintain personal relationships and group activities. Specifically, the survey items address six areas of social interaction, including: making friends ("Ask a potential friend out for coffee"), pursuing romantic relationships ("Ask someone out on a date"), social assertiveness ("Join a lunch or dinner table where people are already sitting and talking"), performance in public situations ("Express your opinion to a group of people discussing a subject that is of interest to you"), groups or parties ("Go to a party or social function where you probably won't know anyone"), and giving or receiving help ("Ask someone for help when you need it") (Smith & Betz, 2000). This instrument was developed primarily for researchers and practitioners in the field of career psychology to underscore the relationships between self-efficacy theory and college students' career decisions and performance.

Literature on the role that social self-efficacy plays in college students' first-year transition asserts that self-efficacy is positively related to perceived social support (Meng et al., 2015). That is, a student with high social self-efficacy will more readily make initial contact with peers or faculty, participate in group activities, and be resilient to social rejections. As a result, these individuals willingly establish a social network that

can be called upon to provide them with social support when needed (Meng et al., 2015). It should be noted that these findings are based on data collected from Chinese first-year college students. Additionally, a study conducted on the role of social self-efficacy in the college adjustment of 240 first-year, first semester students at a large, public Midwestern university using the PSSE found that social self-efficacy was a significant contributor to college adjustment (Bitz, 2014). More specifically, social self-efficacy had a statistically significant and positive correlation with college adjustment as measured by the Student Adaptation to College Questionnaire (SACQ) ($r = .42$). The following section addresses the literature that focuses on academic and social self-efficacy in the context of the FYS.

Academic and Social Self-Efficacy and the First-Year Seminar

There is only minimal research on the ways in which the FYS positively impacts both the academic and social self-efficacy of new students. These factors have been studied individually, but Bean and Eaton's (2001) study is one of very few that has explored both in the context of the FYS. More specifically, the researchers described how successful retention initiatives such as learning communities, first-year orientation seminars, and mentoring programs rely on psychological theories such as self-efficacy theory. According to their model, students enter college with psychological attributes shaped by their past educational experiences (e.g., preK-12) as well as their own academic aptitudes (Wood et al., 2014). While in college, students interact with varying facets of the institution and continue to engage in a series of psychological self-assessments which inform their general feelings about college and its utility for them. In

line with Bandura's social cognitive theory, Bean and Eaton (2001) uphold that the most influential self-assessment in this environment is an individual's self-efficacy beliefs.

The researchers described the FYS as a retention tool that positively impacts the academic and social self-efficacy of students by helping them gain self-confidence and strategies for dealing with the institutional, academic, and social aspects of the college environment. Their analyses emphasized that participation in the FYS increases students' academic and social self-efficacy, which in turn positively effects their academic and social integration and retention. Tinto (1993) has well established that transition programs, such as the FYS support the integration and retention of new students. That being the case, Bean and Eaton (2001) have complemented Tinto's (1993) work by determining that academic and social self-efficacy are subsumed within a student's successful integration into both the academic and social aspects of college life. The conclusion that follows discusses gaps in the literature and the motivation for this research study.

Conclusion

Despite the voluminous literature base on the impact of FYSs, current research has failed to markedly consider the role that participation in the FYS has on students' academic and social self-efficacy. Furthermore, there is a dearth of research findings explaining "what" about the FYS effects students' academic performance and retention. Additional research is needed to identify if academic and social self-efficacy are indeed constructs that can be ascribed to a first-year experience course. Thus, the purpose of this study is to determine, from a learning theory perspective, if participation in FYS 100 at a

mid-sized, four-year public university in the Southeast, increases students' academic and social self-efficacy. As a quasi-experimental study, it does not demonstrate causal links between the FYS and the constructs measured, but rather if significant changes in self-efficacy occur for students throughout the semester.

CHAPTER III

METHODOLOGY

Introduction

The major goal of this study was to determine the effects of participation in FYS 100 on students' academic and social self-efficacy to extend existing literature on the role that the FYS plays in influencing the efficacy of new students. In addition, this study sought to understand if FYS 100 captures the sources of self-efficacy such that students show positive gains over the duration of the course. The methodology employed is presented in this chapter in seven sections. These sections include: (a) research design, (b) research questions and hypothesis, (c) population, (d) data collection, (e) study participants, (f) instrumentation, and (g) data analyses. Each section, except for research design and data analyses, includes sub-sections for both the pilot and dissertation studies.

Research Design

This study employed a quantitative, quasi-experimental nonrandomized, pre-post intervention design using a questionnaire adapted by the researcher (see Appendices F and P). This research design was chosen in order to identify the impact of the FYS 100 intervention on study participants within the fall 2016 semester. It was also selected to measure the dynamics of self-efficacy. Moreover, a quantitative methodology was implemented to provide objective measurements of the variables of academic and social self-efficacy. Much of the research on self-efficacy and its influence on college student

outcomes has been quantitative (Gore, 2006; Lynch, 2006; Wood et al., 2014). Similarly, the majority of the research on the FYS has been quantitative as well (Lang, 2007; Sidle & McReynolds, 1999; Starke et al., 2001; Swanson, Vaughan, & Wilkinson, 2015). Given the scarcity of research that explores the interaction between both variables, a quantitative study that mirrors some aspects of the above-mentioned studies seems most fitting.

Research Questions and Hypotheses

The following research questions and hypotheses about first-year students' self-efficacy guided this research study.

1. Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016?

H₀: There is no significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 (i.e. participation in FYS 100 did not increase students' academic self-efficacy scores).

H₁: There is a significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 (i.e., participation in FYS 100 did increase students' academic self-efficacy scores).

- a. Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to gender?
 - b. Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to race/ethnicity?
 - c. Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to first-generation status?
2. Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016?

H₀: There is no significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 (i.e., participation in FYS 100 did not increase students' social self-efficacy scores).

H₁: There is a significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year

students as a result of their participation in FYS 100 in fall 2016 (i.e. participation in FYS 100 did increase students' social self-efficacy scores).

- a. Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to gender?
 - b. Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 due to race/ethnicity?
 - c. Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students as a result of their participation in FYS 100 in fall 2016 to first-generation status?
3. Is there a statistically significant positive correlation between the post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students and their final grades in FYS 100 in fall 2016?

H₀: There is no statistically significant positive correlation between the post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students and their final grades in FYS 100 in fall 2016.

H_i: There is a statistically significant positive correlation between the academic self-efficacy post-course scores, as measured by the CSEI, of undecided first-year students and their final grades in FYS 100 in fall 2016.

Population

Pilot Study

The data for this study was collected from a population of 25 students enrolled in two sections of FYS 100 at a large, public university in the Southeast in spring 2016. FYS 100 was chosen because it is the main orientation seminar at the University. Only two sections of the course were offered in spring 2016.

Again, FYS 100 is not a required course for first-year students. They typically enroll based on the recommendation of their academic advisor. Thus, the issue of self-selection bias is addressed in Chapter V.

Following the pilot study, the software G*Power 3.1.9.2 (Faul, Erdfelder, Buchner, & Lang, 2009) was used to determine the minimum number of subjects needed to participate in the dissertation study with regard to each research question for adequate power. The sample sizes vary because power is a function of the analysis conducted (see Data Analysis section). The a priori power analyses calculated the following sample sizes (the input parameters are listed in parenthesis):

- 34 for Research Questions 1 and 2 (effect size $f = .25$, $\alpha = .05$, power = .80, no. of groups = 1, no. of measurements = 2, corr among rep measures = 0.5, and nonsphericity correction = 1),

- 42 for Research Questions 1a and 2a (.25, .05, .80, 3, 2, 0.5, 1),
- 63 for Research Questions 1b and 2b (.25, .05, .80, 7, 2, 0.5, 1),
- 34 for Research Questions 1c and 2c (.25, .05, .80, 2, 2, .50, 1), and
- 67 for Research Question 3 (correlation $\rho_{H1} = 0.3$, $\alpha = .05$, power = .80, and correlation $\rho_{H0} = 0$)

These results had direct implications on the data collection process for the dissertation study.

Dissertation Study

The data for this study were collected from a population of 214 first-year students enrolled in nine sections of FYS 100 at a large, public university in the Southeast in fall 2016. Multiple sections of the course were offered, but only nine sections were designated for students without a declared major at the time of their enrollment (in some instances, students do declare a major throughout the duration of the course). The sections for Exploratory Majors were selected as a means of identifying first-year students with similar characteristics.

Data Collection

Pilot Study

This study utilized a nonrandom cluster sampling method (Groves et al., 2009) because of its feasibility in light of the research design. Clusters were predetermined by enrollment in each of the two sections. Given the small population of students, the researcher did not randomly select which sections would participate in the study; all FYS 100 sections were sampled. Regarding permissions, the investigator received written

support from the program director to study the experiences of students enrolled in FYS 100 (see Appendix B).

In spring 2016, a pilot study was conducted using the two sections of FYS 100 offered in order to finalize the study design and identify if adaptations to the instrument were necessary. The researcher contacted each instructor via email to secure dates for the face-to-face administration of both surveys. The pre-course survey was administered during weeks five and eight of the semester, followed by the post-course survey that was administered during week fourteen of the semester. For the first iteration, the survey and two informed consent forms approved by the University's Institutional Review Board (IRB) through the Office of Research Integrity were given to students. One form participants kept for their records and the other form participants signed and gave to the researcher (see Appendices C and D). Additionally, an introduction to the study, requirements to participate, and instructions on how to complete the instrument were read by the principal investigator using the IRB approved administration protocol (see Appendix E and F). Afterward, consenting participants completed the CSEI (2005) and submitted their surveys and signed consent forms via sealed manila envelopes, which the researcher stored in a secure location. All of the pilot data were manually entered into both Microsoft Excel and IBM SPSS Statistics 23.0 by the principal investigator.

Modifications to the IRB application were made prior to the post-course survey to add a demographic question to the instrument, as well as make a correction to the administration protocol (see Appendices G, H, and I). Furthermore, student identification (ID) numbers were collected on the survey in order for GPA data to be accessed. ID

numbers of consenting participants were sent electronically via a password protected file to a staff member of the Office of Institutional Research. Then, GPA data were retrieved through Student Banner and provided to the researcher after final grades were submitted. A thorough explanation of why ID numbers were collected was given in the consent form.

In May 2016, the principal investigator gave a brief overview of the study to all of the FYS 100 instructors for fall 2016 at the annual instructor training. This presentation provided each instructor with more detailed information on the purpose of the study and how data would be collected within the sections designated for Exploratory Majors in fall 2016. FYS 100 instructors were also made aware that the researcher would be contacting them in August to schedule class visits for recruitment of participants for both the pre- and post-course surveys.

Dissertation Study

For the dissertation study in fall 2016, similar data collection procedures as done in the pilot study were employed, except the surveys were administered electronically. Additional modifications to the IRB were made following the pilot study to update the administration protocols, include recruitment emails, and to add demographic questions to the instrument (see Appendix M). The pre-course survey was administered during the third and fourth weeks of the semester and the post-course survey during weeks twelve and thirteen (see Appendices P and T). In order to encourage participation and combat low response rates, the principal investigator visited each FYS 100 class to invite students to participate in each of the surveys. During each class visit, the researcher read an IRB-

approved script that provided students with additional information about the study, its importance, and how to participate (see Appendices O and S). Time also was allotted for students to ask any questions they had about the study.

The introduction of the survey included the informed consent form approved by the IRB (see Appendix N). Students were required to read the consent form and designate their consent to participate in the study at the start of the survey. The survey was administered via the web-based assessment platform, Qualtrics (Qualtrics, Provo, UT). This is the primary survey tool endorsed and supported by the University. In terms of identifiable data, student ID numbers were asked for on the pre-course survey in order to collect the final FYS 100 course grade for participants. This information was disclosed in the consent form. Also, like the pilot study, student ID numbers were securely provided to the Office of Institutional Research to access grade and additional demographic data through Banner. This information was then provided to the researcher. Upon completion of both surveys, participants were taken to a custom end-of survey “Thank You” message that included a link to a separate Qualtrics survey for respondents to enter a random drawing. If respondents chose to enter their contact information into the drawing, they had a chance to win one of four \$25.00 gift cards from Amazon.com. To select the winners, names and email addresses for all 39 entrants were downloaded via a Microsoft Excel file from the drawing survey. Then, the researcher used a random number generator to identify four numbers associated with four entrants. Each winner was contacted via email in order to claim their gift card prize for participating in the study.

Fidelity of implementation. In order to ensure the continuity of the FYS 100 curriculum across the nine sections of the course, information such as the course syllabi were requested from each instructor and the main assignments were compared to those stipulated in the curriculum requirements. This process was undertaken to ensure the FOI of FYS 100. FOI is defined as “the determination of how well an intervention is implemented in comparison with the original program design during an efficacy and/or effectiveness study” (O’Donnell, 2008, p. 33). Additionally, data regarding how many semesters each instructor and peer mentor had taught FYS 100 were also reviewed. The average number of semesters fall 2016 instructors had taught FYS 100 was two semesters and the average number of semesters fall 2016 peer mentors had served as a mentor for FYS 100 was one semester (S. Clency, personal communication, September 8, 2016). Most instructors and peer mentors had similar experiences teaching FYS 100. Finally, the instructor agreement and peer mentor job description were also examined. Both instructors and peer mentors are required to attend mandatory trainings to assist them in teaching FYS 100. The researcher utilized the aforesaid FOI procedures as a way of controlling for the confounding variable of instructor differences in teaching.

Study Participants

Pilot Study

For the pilot study, 25 students in both sections of FYS 100 were surveyed. Those students who were absent from class during the pre-course survey administration were not invited to participate in the post-course survey. And one student could not participate in the study at all due to the 18 years or older age requirement. Twenty-one students

completed the pre-course survey and 14 students completed both the pre- and post-course surveys.

Descriptive and frequency analyses were run for the 21 students who completed the pre-course survey to confirm that their characteristics did not differ substantially from the final sample of 14 students. Across almost all of the demographic factors, the breakdown of responses was virtually the same per question. The only exceptions being race and ethnicity and term GPA for spring 2016. Most notably, more White (19%, $n=4$) and Asian/Pacific Islander (4.8%, $n=1$) students participated in the pre-course survey and overall students' spring 2016 GPA was slightly higher for the final sample (3.20) as compared to the pre-course survey sample (3.14). It was concluded that the 14 students who completed the pilot study were a fair representation of the students who did not (i.e. just completed the first survey). Thus, the final sample included 14 students.

The majority of respondents identified as Black/African-American (64%, $n=9$; see Table 1). As for gender identity, the sample was comprised of three men ($n=3$, 21.4%) and eleven women ($n=11$, 78.6%). Table 2 illustrates the gender distribution. The mean age of participants was 18.71 years. Table 3 shows the distribution of ages for all participants.

All the pilot study respondents were enrolled full-time in spring 2016. More specifically, the majority indicated that they were taking five or more classes for credit ($n=11$, 78.6%; see Table 4). Finally, almost all participants indicated that they lived on-campus in a residence hall ($n=12$, 85.7%; see Table 5). The researcher did not ask participants about their class standing. Consequently, it was assumed that most

participants were first-year students, however, FYS 100 is open to any new student with less than 29 earned credits.

Table 1

Participant Race/Ethnicity by Frequency and Percentage ($N=14$)

Race/Ethnicity	<i>n</i>	%
Black/African American	9	64.3
Latino(a)/Hispanic	2	14.3
Middle Eastern	1	7.1
White	1	7.1
Multiracial	1	7.1
Total	14	100.0

Table 2

Participant Gender by Frequency and Percentage ($N=14$)

Gender	<i>n</i>	%
Male	3	21.4
Female	11	78.6
Total	14	100.0

Table 3

Participant Age by Frequency and Percentage ($N=14$)

Age (years)	<i>n</i>	%
18	6	42.9
19	6	42.9
20	2	14.3
Total	14	100.0

Table 4

Course Load by Frequency and Percentage ($N=14$)

Course Load	<i>n</i>	%
4 classes	3	21.4
5 or more classes	11	78.6
Total	14	100.0

Table 5

Housing Arrangements by Frequency and Percentage ($N=14$)

Housing Arrangements	<i>n</i>	%
On campus (residence hall)	12	85.7
Off campus, alone or with friends/roommates	1	7.1
Off campus, with parent(s)/guardians	1	7.1
Total	14	100.0

Additionally, GPA data were provided by the Office of Institutional Research upon the request of the researcher, given their pertinence to the study. Specifically, participants' term GPA for spring 2016 was provided to assist in answering Research Question 3 (see Chapter IV). It should be noted that this research question was altered for the dissertation study. In the pilot study, the correlation between students' post-course academic self-efficacy scores and term GPAs was computed instead of the FYS course grade as done in the dissertation study (the research questions on pages 41–44 reflect this change). That being said, the average term GPA for spring 2016 was 3.20 ($N=14$).

Dissertation Study

For the dissertation study, 214 students across nine sections of FYS 100 were surveyed. Sixty students completed the pre-course survey and were then invited to participate in the post-course survey (65 students total responded to the pre-course survey; four incomplete responses were eliminated as none of the survey questions were answered beyond the first informed consent question and one student did not consent to participate in the study). Thirty-nine students completed both the pre- and post-course surveys.

However, the final sample size was limited to 38 students as one respondent was eliminated because their age was under the age of 18 as stipulated in the informed consent form.

Descriptive and frequency analyses were run for the 60 students who completed the pre-course survey to confirm that their characteristics did not differ substantially from the final sample of 38 students. Across almost all of the demographic factors, the breakdown of responses was virtually the same per question. The only exceptions being race and ethnicity and gender. Most notably, a higher percentage of African American students (27.1%, $n=16$) and a lower percentage of White students (62.7%, $n=37$) participated in the pre-course survey as compared to the final sample. Also, the pre-course survey had a slightly larger percentage of male (28.8%, $n=17$) and a lower percentage of female (71.2%, $n=42$) respondents. Despite these differences, it was concluded that the 38 students who completed the dissertation study were a fair

representation of the students who did not (i.e., just completed the first survey). Thus, the final sample included 38 students.

In terms of participants' racial and/or ethnic affiliation, the majority identified as White (68.4%, $n=26$; see Table 6).

Table 6

Participant Race/Ethnicity by Frequency and Percentage ($N=38$)

Race/Ethnicity	<i>n</i>	%
Asian/Pacific Islander	3	7.9
Black/African American	8	21.1
Latino(a)/Hispanic	1	2.6
White	26	68.4
Total	38	100.0

Eight men ($n=8$, 21.1%) and thirty women ($n=30$, 78.9%) completed the study.

Table 7 illustrates the gender distribution. Also, more than eight out of ten students ($n=32$, 84.2%; see Table 8) reported that they were not the first in their family to go to college. Conversely, six students ($n=6$, 15.8%) indicated that they were the first in their family to go to college. The mean age of participants was 18.05 years. Table 9 shows the distribution of ages for all participants.

All the dissertation study respondents were enrolled full-time in fall 2016. More specifically, the majority indicated that they were taking five or more classes for credit ($n=37$, 97.4%; see Table 10). Finally, majority of participants indicated that they lived on-campus in a residence hall ($n=29$, 76.3%; see Table 11).

Table 7

Participant Gender by Frequency and Percentage ($N=38$)

Gender	<i>n</i>	%
Male	8	21.1
Female	30	78.9
Total	38	100.0

Table 8

First-Generation Status by Frequency and Percentage ($N=38$)

First-Generation Status	<i>n</i>	%
Yes	6	15.8
No	32	84.2
Total	38	100.0

Table 9

Participant Age by Frequency and Percentage ($N=38$)

Age (years)	<i>n</i>	%
18	36	94.7
19	2	5.3
Total	38	100.0

Table 10

Course Load by Frequency and Percentage ($N=38$)

Course Load	<i>n</i>	%
4 classes	1	2.6
5 or more classes	37	97.4
Total	38	100.0

Table 11

Housing Arrangements by Frequency and Percentage ($N=38$)

Housing Arrangements	<i>n</i>	%
On campus (residence hall)	29	76.3
Off campus, alone or with friends/roommates	2	5.3
Off campus, with parent(s)/guardians	7	18.4
Total	38	100.0

Additional demographic data were provided by the Office of Institutional Research by the request of the researcher, given their pertinence to the study and the research questions. First, the final grade in FYS 100 for fall 2016 was provided to assist in answering Research Question 3 (see Chapter IV). The average grade in FYS 100 for fall 2016 was between a B+ and an A- (3.61 on the grade scale). Second, the class standing per student was also provided to verify the classification of respondents. Nearly all students who participated in the study were first-year students ($n=35$, 92.1%; see Table 12).

Table 12

Class Standing ($N=38$)

Class Standing	<i>n</i>	%
Unknown*	1	2.6
First-Year	35	92.1
Junior	2	5.3
Total	38	100.0

* There was one student in the sample for whom no class standing information was provided from the Office of Institutional Research. This individual was no longer enrolled as a student at the university at the end of the fall 2016 semester, but remained in the sample by the decision of the Principal Investigator given their completion of the study.

Instrumentation

Background

The CSEI (Solberg et al., 1993) was used for this study to measure the constructs of academic and social self-efficacy (see Appendix P). The CSEI consists of 20 items that assess one's confidence to perform various tasks associated with college success. Items are preceded by the statement: "How confident are you that you could successfully complete the following tasks," and are rated on a 10-point scale ranging from 0 (not at all confident) to 9 (very confident). The subscales, number of items, coefficient alpha (α), along with an example from each subscale are as follows: (a) course self-efficacy, seven items, $\alpha = .88$ (e.g., "Understand your textbooks"); (b) roommate self-efficacy, four items, $\alpha = .88$ (e.g., "Get along with your roommate(s)"); and (c) social self-efficacy, nine items, $\alpha = .88$ (e.g., "Participate in class discussions"). The reported alpha reliability for the total CSEI was .93 and the construct validity was established using both convergent and discriminant validity tests. Additionally, the patterns of findings from the principal

components analysis suggested that the college self-efficacy subscales were related to college adjustment (Solberg et al., 1993).

The CSEI (Solberg et al., 1993) was developed by Solberg and his research team. The instrument was constructed to explain the college efficacy and underlying academic and social self-efficacy expectations of Mexican-American and Latino-American college students. Furthermore, in their 1993 article, the authors noted, “the purpose of this study was to validate a college self-efficacy measure that could be used to investigate the proposed relationship between efficacy and college adjustment” (p. 85). Although the instrument was validated using a sample of Hispanic college students, its items were designed to address experiences common to all students (Solberg et al., 1993).

In both the pilot and dissertation studies, the course self-efficacy subscale was used to measure academic self-efficacy and both the roommate and social self-efficacy subscales were combined to measure social self-efficacy. As noted in Chapter I, social self-efficacy emphasizes the development of social skills and interpersonal relationships, which exist both inside and outside the classroom. Lastly, total scores and subscale scores were computed by averaging the Likert responses across all the items within that subscale.

Pilot Study

The CSEI (2005) used for the pilot study was a version of the instrument provided to the principal investigator by the lead researcher who created it (S. Solberg, personal communication, December 1, 2015). This 22-item inventory assesses one’s confidence to perform various tasks associated with college success. Items are preceded by the

statement: “How confident are you that you could successfully complete the following tasks,” and are rated on a 9-point scale ranging from 0 (totally unconfident) to 8 (totally confident). The response scale for this version of the instrument differed slightly from the CSEI (1993) as previously mentioned. The principal investigator chose to use this 9-point scale for both the pilot and dissertation studies based on correspondence with Solberg (S. Solberg, personal communication, December 1, 2015).

In the pilot study, the CSEI (2005) was used with a diverse population of largely non-Hispanic students. Therefore, reliability analyses were run. The pilot study reported a Cronbach’s $\alpha = .95$ for the total scale and the following alpha coefficients for each subscale: social self-efficacy $\alpha = .91$ and academic self-efficacy $\alpha = .90$ (see Chapter IV). Reliability was established for internal consistency in the pilot study using Cronbach’s alpha coefficient (Cronbach, 1951) for each subscale. This reliability measure confirms whether or not the instrument produces consistent results. Although there was some discrepancy between the reliability scores for each of the subscales, the scale reliability score was similar to the alpha coefficient reported by Solberg et al. (1993).

Two notable changes were made to the CSEI (2005) for the pilot study. First, an additional “Does not apply” response option was added to the scale in reference to the roommate self-efficacy items, as not all first-year students have roommates. Although nearly 80% of new students live on-campus, there is no on-campus housing requirement for first-year students at the university in which the study took place (E. Farrar, personal communication, February 28, 2016). Secondly, in order to ensure that participants clearly understood all of the questions, minor changes to the wording of two items were made.

Additionally, participants were asked seven demographic questions pertaining to their gender identity, race, age, and place of residence among other things (see Appendices F and I).

Content validity, “the degree to which the items of the data collection instrument ‘are a representative sample of the universe of content or behavior of the domain being addressed’” was also established throughout the pilot study to ensure that the survey was measuring the full range of student behaviors associated with the constructs of interest (McKenzie, Wood, Kotecki, Clark, & Brey, 1999, p. 312). Using the steps outlined by McKenzie et al. (1999), criteria to select judges was established, a panel of jurors selected, and an online quantitative review completed in May 2016. Attempts were made to invite only expert jurors who have worked exclusively with first-year students, but some invitations were declined and unanswered (see Appendix J). Instead, the panel included a range of university professionals, including a faculty member, a higher education consultant, and student affairs staff members from institutions both inside and outside of the state. Six professionals were emailed with specific instructions regarding the quantitative review and five participated as jurors (see Appendix K). Using the Qualtrics survey tool, the review required each juror to rate the appropriateness of each item by indicating if each item was: essential, useful but not essential, or not necessary (see Appendix L). Then, the jurors’ ratings were used to calculate a content validity ratio (CVR) for each item using the formula shown in Figure 2 (Lawshe, 1975; McKenzie et al., 1999). Table 13 and 14 show the CVR ratios for all of the items on the CSEI (2005).

$$CVR = \frac{n_e - N/2}{N/2}$$

where:

CVR = content validity ratio

n_e = number of panelists (jurors)

indicating “essential”

N = total number of panelists (jurors)

Figure 2. Formula for Calculating a Content Validity Ratio (CVR).

As shown in Tables 13 and 14, the CVR ratios can range from no agreement on “essential” items (-1) to (1) full agreement on “essential” items.

Table 13

Calculated Content Validity Ratios by CSEI (2005) Item on the Academic Self-Efficacy Subscale

CSEI (2005) Item	<i>CVR</i>
Research a term paper	.20
Write a course paper	.20
Do well on your exams	1.00
Take good class notes	.60
Keep up to date with your schoolwork	1.00
Manage your time effectively	.20
Understand your textbooks	.60
Use the Library	.60

Table 14

Calculated Content Validity Ratios by CSEI (2005) Items on the Social Self-Efficacy and Roommate Self-Efficacy Subscales

CSEI (2005) Item	<i>CVR</i>
Get along with others you live with	.20
Socialize with others you live with	1.00
Socialize with others you live with	-.60
Divide chores with others you live with	-.20
Participate in class discussions	.60
Ask a question in class	.20
Get a date when you want one	-1.00
Talk to your professors/instructors	.60
Talk with a school academic and support (e.g. advising) staff	.20
Ask a professor or instructor a question outside of class	.20
Make new friends at college	1.00
Join a student organization	-.20
Join an intramural sports team	-1.00
Work on a group project	.60

This item-analysis procedure involved only five jurors, the minimum number of jurors recommended by Veneziano (1997). Furthermore, the panel was not exclusively experts. Therefore, it was decided to keep Solberg's scale intact given the small number of jurors and the composition of the juror panel. Instead, the CSEI (Solberg et al., 1993) was used for the dissertation study.

Dissertation Study

The CSEI (1993) was used for the dissertation study in fall 2016 as several psychometric studies have been conducted to confirm the soundness of this particular version of the instrument (Gore, Leuwerke, & Turley, 2005). Moreover, the same demographic questions were asked as in the spring 2016 pilot study, along with an additional question concerning students' first-generation status and on-campus residence. Also, the instructions were adapted to ensure participants knew how to correctly answer the questions in light of their experiences in FYS 100.

The Likert scale was modified to reflect the small changes made in the pilot study and included a 10-point scale ranging from 1 (totally unconfident) to 9 (totally confident) along with a 10 (does not apply) option (see Appendix P). The scale was shifted from starting at 0 to 1 due to the default numeric value assigned to each answer choice in Qualtrics.

Following the administration of the pre-course survey, the researcher noticed a typographical error in the Likert response scale on the pre-course survey. The error was corrected prior to the administration of the post-course survey and an IRB modification was submitted (see Appendix R).

Reliability was established for internal consistency in the dissertation study using Cronbach's alpha coefficient for each subscale. The dissertation study reported a Cronbach's $\alpha = .95$ for the total scale and the following alpha coefficients for each subscale: social self-efficacy $\alpha = .91$ and academic self-efficacy $\alpha = .90$ (see Chapter IV). While there was some discrepancy between the reliability scores for each of the

subscales, the scale reliability score was similar to the alpha coefficient reported by Solberg et al. (1993).

Data Analysis

Multiple statistical analyses were utilized to answer the research questions posed by the researcher. The statistical program IBM SPSS Statistics 23.0 was used for all the data analyses. Descriptive statistics were obtained for the sample of participants from both studies. Statistical analyses including a one-way, within-subjects repeated measures analysis of variance (ANOVA), a two-way, mixed (one-within, one-between subjects) repeated measures ANOVA, and a Kendall's tau-b correlation coefficient test were employed. A repeated measures ANOVA test is an inferential analysis used to compare the differences of two or more means among the same sample members (Howell, 2010). This analysis enabled the researcher to compare the differences in pre- and post-course self-efficacy scores among study participants. In addition, a two-way, mixed repeated measures analysis of variance (ANOVA) was also used. This analysis enabled the researcher to test the main effects and interactions that participation in the FYS 100 and gender, race/ethnicity, and first-generation status have on self-efficacy scores (Howell, 2010). Lastly, correlation is a statistical method that is used to determine whether a relationship exists between two variables (Howell, 2010). A Kendall tau-b correlation analysis enabled the researcher to understand the relationship between post-course academic self-efficacy scores and students' final grades in FYS 100. This test is particularly useful when measuring correlation using a variable or variables that may

naturally occur in the form of ranks (Howell, 2010). The findings for both the pilot and dissertation studies are presented in Chapter IV.

CHAPTER IV

RESULTS

The findings for the fall 2016 dissertation study are presented in this chapter. First, preliminary results from the pilot study in spring 2016 are reported, followed by preliminary findings from the dissertation study. Then, the results of the analyses for each of the three research questions and corresponding sub-questions are presented for the dissertation study.

Preliminary Analyses

Pilot Study

The principal investigator manually entered each student's responses into Microsoft Excel. To ensure accuracy, the created dataset was repeatedly compared to participants' paper surveys and the data was screened for missing and out-of-range values. Next, the pilot data were recoded such that items that students rated as "does not apply" were not part of the CSEI (2005) total score or the academic and social self-efficacy subscale scores. Mean scores were also calculated. Using SPSS, reliability analyses were conducted and frequency tables and descriptive statistics were reviewed. The descriptive and reliability statistics are provided for the mean scores for both the pre- and post-course surveys in Table 15.

Table 15

Means, Standard Deviations, and Reliability for the Scales and Subscales Based on Mean Scores

Scale	<i>M</i>	<i>SD</i>	<i>α</i>
Pre-Course College Self-Efficacy Inventory (22 items)	5.77	.99	.95
<i>Subscale</i>			
Academic self-efficacy (8 items)	5.76	1.21	.90
Social self-efficacy (14 items)	5.80	1.12	.91
Post-Course College Self-Efficacy Inventory (22 items)	5.81	1.05	.96
<i>Subscale</i>			
Academic self-efficacy (8 items)	5.81	1.02	.83
Social self-efficacy (14 items)	5.80	1.14	.94

Other than differences in variability, the distribution of mean scores compared to the raw scores were very similar when comparing the histograms for each dataset.

Therefore, the mean scores were used for the statistical analyses given that they put the total scale and subscale scores on the same metric as the CSEI (2005) response scale.

Before conducting each of the respective analyses, steps were taken to determine if the assumptions of a repeated-measures ANOVA (e.g., normality, sphericity) were met. Normality was confirmed through multiple histogram plots of the pre- and post-course data. Sphericity, in this case, did not apply given that there were only two within-subjects levels for the ANOVA tests (Newsom, 2013). Independence of observations was not assumed given that the same subjects were measured on two occasions.

The results of a one-way, within-subjects repeated measures ANOVA indicated that participation in FYS 100 (IV) had no significant effect on the academic self-efficacy scores (DV) of first-year students enrolled in FYS 100 in spring 2016 ($F(1, 13) = .05, p = .83$, partial $\eta^2 = .004$). In other words, the results suggested that students' pre- and post-course academic self-efficacy scores were not significantly different from each other. Moreover, the results of an additional one-way ANOVA comparing pre- and post-social self-efficacy scores showed that participation in FYS 100 had no significant effect on the social self-efficacy scores of first-year students enrolled in FYS 100 in spring 2016 as well ($F(1, 13) = .001, p = .98$, partial $\eta^2 = .00$).

Four two-way, mixed repeated measures ANOVAs were conducted to determine the main effects and interactions between participation in FYS 100 (IV) and two demographic factors—gender and race/ethnicity (IV) on self-efficacy scores (DV). The results of the first repeated measures ANOVA compared students' academic self-efficacy scores by gender before and after participation in FYS 100. The results showed a non-statistically significant interaction between gender and participation in FYS 100 on the average academic self-efficacy scores ($F(1,12) = .29, p = .60$, partial $\eta^2 = .02$). This suggests that the differences in academic self-efficacy scores before and after participation in FYS 100 were relatively small when comparing the two groups of males and females. Additionally, the ANOVA showed that if gender was ignored, there was little evidence to suggest that there was a statistically significant difference in the average academic self-efficacy scores of students before and after participation in FYS 100 ($F(1,12) = .02, p = .89$, partial $\eta^2 = .002$). Finally, the analysis indicated that there was a

non-statistically significant difference between the average academic self-efficacy scores for men and women ($F(1,12) = 3.32, p = .09$, partial $\eta^2 = .22$).

Another two-way, mixed repeated measure ANOVA analysis was run comparing students' social self-efficacy scores by gender before and after participation in FYS 100. The same results were found as in the first analysis. There was a non-statistically significant interaction between gender and participation in FYS 100 on the average social self-efficacy scores of first-year students in spring 2016 ($F(1,12) = 4.09, p = .07$, partial $\eta^2 = .25$). Ignoring gender, participation in FYS 100 did not make a statistically significant difference in social self-efficacy scores ($F(1,12) = 1.38, p = .26$, partial $\eta^2 = .10$). Lastly, the results indicated that there was non-statistically significant difference between the average social self-efficacy scores for men and women ($F(1,12) = 3.51, p = .09$, partial $\eta^2 = .23$).

A third and fourth two-way, mixed repeated measures ANOVA compared students' academic and social self-efficacy scores by race/ethnicity before and after participation in FYS 100. The results showed that there was a non-statistically significant interaction between race/ethnicity and participation in FYS 100 on the average academic and social self-efficacy scores ($F(4,9) = .50, p = .74$, partial $\eta^2 = .18$ and $F(4,9) = .99, p = .46$, partial $\eta^2 = .31$, respectively). Also, irrespective of race/ethnicity, participation in FYS 100 did not make a difference in the academic and social self-efficacy scores of students ($F(1,9) = .47, p = .51$, partial $\eta^2 = .05$ and $F(1,9) = .27, p = .62$, partial $\eta^2 = .03$, respectively). Lastly, the analysis indicated that there was non-statistically significant difference between the various racial/ethnic groups based on the average academic self-

efficacy scores for each racial/ethnic group ($F(4,9) = 2.46, p = .12$, partial $\eta^2 = .52$).

However, the results were significant when comparing the average social self-efficacy scores for each racial/ethnic group ($F(4,9) = 5.08, p = .02$, partial $\eta^2 = .69$).

Before conducting the Kendall tau-b correlation coefficient analyses in SPSS, scatter plots were examined to observe the relationship between the variables, check for outliers, and histograms reviewed to confirm the normality of the distributions for each variable.

The bivariate correlation between the post-course academic self-efficacy scores and the term GPA for spring 2016 for students in FYS 100 did not support that there was a positive statistically significant correlation between the two variables ($r(12) = .08, p = .35$).

Dissertation Study

Using Microsoft Excel, data reports were downloaded from Qualtrics for the pre- and post-course surveys following the survey administration. The data were then merged into one Excel file in order to clean the data (i.e., removing incomplete and irrelevant parts of the data) and restructure the format. While reviewing the data, the researcher noticed a typographical error in the Likert response scale for the pre-course survey. Reverse coding was considered as a potential solution to the error, but a review of the frequency distributions for each survey item showed that participants often responded according to what the scale should have read instead of observing the error.

Next, the data were recoded such that items that students rated as “do not apply” (10) were not part of the CSEI (1993) total scale score or the social and academic self-

efficacy subscale scores. It seemed more appropriate to calculate participants' scale and subscale scores based on only the applicable tasks associated with college success for each individual student. The mean scores were calculated for the scale and subscales and both were checked for accuracy. Using SPSS, reliability analyses were conducted and frequency tables and basic descriptive statistics were reviewed. Descriptive statistics and reliability data are provided for the mean scores for both the pre- and post-course surveys in Table 16.

Table 16

Means, Standard Deviations, and Reliability for the Scales and Subscales Based on Mean Scores

Scale	<i>M</i>	<i>SD</i>	<i>α</i>
Pre-Course College Self-Efficacy Inventory (20 items)	6.23	.84	.86
<i>Subscale</i>			
Academic self-efficacy (7 items)	6.47	.86	.76
Social self-efficacy (13 items)	6.08	1.07	.84
Post-Course College Self-Efficacy Inventory (20 items)	6.62	.82	.89
<i>Subscale</i>			
Academic self-efficacy (7 items)	6.51	.91	.77
Social self-efficacy (13 items)	6.82	.80	.83

Other than differences in variability, the distribution of mean scores as compared to the raw scores were very similar when comparing the histograms for each dataset. Therefore, the mean scores were used for the statistical analyses given that they put the

total scale and subscale scores on the same metric as the CSEI (2005) response scale (see Chapter III).

Research Questions

Research Question 1: Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students enrolled in FYS 100 in fall 2016?

A simple one-way, within-subjects repeated measures ANOVA was run in SPSS to explore if there was a significant difference between the pre- and post-course academic self-efficacy scores of first-year students enrolled in FYS 100 in fall 2016. In order to determine if the assumptions of a repeated measures ANOVA (e.g., normality, sphericity) were met histograms and Q-Q plots were generated first to confirm the normality of the data pertinent to Research Questions 1-1c and 2-2c. Last, the Mauchly's Test of Sphericity was omitted for all the repeated measures analyses seeing as this assumption only applies to ANOVA analyses in which there are more than two within-subjects levels (Newsom, 2013). Table 17 provides of a summary of the output for the one-way, within-subjects repeated measures ANOVA.

The results of the one-way, within-subjects repeated measures ANOVA showed that there was a non-statistically significant difference between the pre- and post-course academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 ($F(1,37) = .04, p = .85, \text{partial } \eta^2 = .001$). These findings suggest that the average academic self-efficacy scores before participation in FYS 100 were comparable to those

measured after the course. Overall, it seems that participation in FYS 100 made no difference in the academic self-efficacy scores of students.

Table 17

One-Way, Within-Subjects Repeated Measures ANOVA of Academic Self-Efficacy Scores Summary Table

Source	df	Sum of Squares	Mean Squares	F-Statistic	η_p^2	Power
Within Subjects	38	24.96	.66			
Time	1	.02	.02	.04	.001	.054
Error	37	24.94	.67			
Total	75	57.99				

Research Question 1a: Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students enrolled in FYS 100 in fall 2016 due to gender?

A two-way, mixed repeated measures ANOVA was run in SPSS to explore if there was a significant difference between the pre- and post-course academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to gender. Table 18 provides of a summary of the output for the two-way, mixed repeated measures ANOVA. Table 19 also provides a summary of the subscale scores by gender for this analysis; the standard deviations are listed in parentheses.

Table 18

Two-Way, Mixed Repeated Measures ANOVA of Academic Self-Efficacy Scores by Gender Summary Table

Source	df	Sum of Squares	Mean Squares	<i>F</i> -Statistic	η_p^2	Power
Between Subjects	37	33.03	.89			
Gender	1	.09	.09	.10	.003	.06
Error	36	32.94	.92			
Within Subjects	38	25.07	.66			
Time	1	.13	.13	.19	.005	.07
Time x Gender	1	.17	.17	.25	.007	.08
Error	36	24.77	.69			
Total	75	58.10				

Table 19

Pre- and Post-Course Academic Self-Efficacy Subscale Means by Gender

Scale	Men	Women	Total
Academic Self-Efficacy Subscale			
Pre-Course Mean	6.45 (.78)	6.48 (.89)	6.47
Post-Course Mean	6.66 (.52)	6.46 (1.00)	6.50
Total	6.56	6.47	

The results of the two-way, mixed repeated measures ANOVA showed a non-statistically significant interaction between gender and participation in FYS 100 in fall 2016 on the average academic self-efficacy scores of undecided first-year students

($F(1,36) = .25, p = .62$, partial $\eta^2 = .007$). This suggests that the mean academic self-efficacy scores of men and women before and after participation in FYS 100 were similar (see Table 19). Figure 3 shows a plot of the means for men and women before (time 1) and after (time 2) participation in FYS 100.

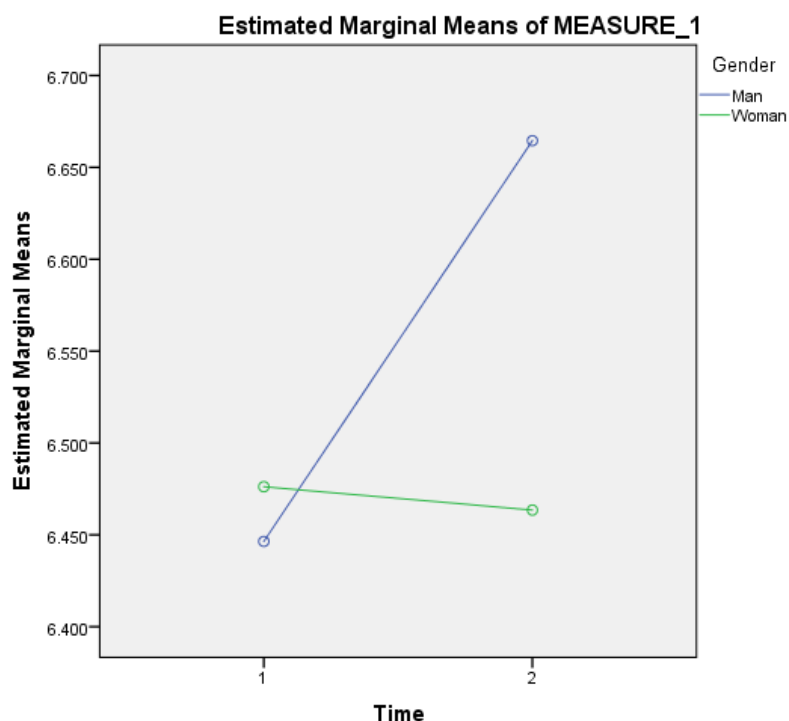


Figure 3. Marginal Means for Academic Self-Efficacy Scores by Gender.

Figure 3 shows that the academic self-efficacy of male students increased over the course of the fall 2016 semester, while it decreased for female students. The y-axis also shows that the differences between males and females' scores were relatively small. Although contrary to the results, there appears to be an interaction between participation in FYS 100 and gender on the average academic self-efficacy scores of undecided first-year students. Chapter V provides further discussion of the results.

Additionally, the two-way, mixed repeated measures ANOVA showed that if gender was ignored, there was little evidence to suggest that there was a statistically significant difference in the average academic self-efficacy scores before and after participation in FYS 100 ($F(1,36) = .19, p = .66, \text{partial } \eta^2 = .005$).

Finally, the analysis indicated that there was a non-statistically significant difference between the average academic self-efficacy scores of men as compared to women ($F(1,36) = .10, p = .75, \text{partial } \eta^2 = .003$).

Research Question 1b: Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students enrolled in FYS 100 in fall 2016 due to race and/or ethnicity?

A two-way, mixed repeated measures ANOVA was run in SPSS to explore if there was a statistically significant difference between the pre- and post-course academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to race/ethnicity. Table 20 provides of a summary of the output for the two-way, mixed repeated measures ANOVA. Table 21 also provides a summary of the subscale scores by race/ethnicity for this analysis.

Table 20

Two-Way, Mixed Repeated Measures ANOVA of Academic Self-Efficacy Scores by
Race Summary Table

Source	<i>df</i>	Sum of Squares	Mean Squares	<i>F</i> -Statistic	η_p^2	Power
Between Subjects	37	33.03	.89			
Race	3	.44	.15	.15	.01	.08
Error	34	32.59	.96			
Within Subjects	38	24.95	.66			
Time	1	.004	.004	.01	.00	.05
Time x Race	3	1.16	.39	.55	.05	.15
Error	34	23.79	.70			
Total	75	57.98				

Table 21

Pre- and Post-Course Academic Self-Efficacy Subscale Means by Race/Ethnicity

Scale	Asian/Pacific Islander	Black/African American	Latino(a)/ Hispanic	White	Total
Academic Self-Efficacy Subscale					
Pre-Course Mean	6.86 (.38)	6.54 (1.0)	6.57 (0)	6.40 (.87)	6.47
Post-Course Mean	6.21 (.62)	6.43 (.81)	7.31 (0)	6.53 (.99)	6.50
Total	6.53	6.48	6.94	6.47	

The results of the two-way, mixed repeated measures ANOVA showed a non-statistically significant interaction between race/ethnicity and participation in FYS 100 on

the average academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 ($F(3,34) = .55, p = .65, \text{partial } \eta^2 = .05$). This suggests that the mean academic self-efficacy scores before and after participation FYS 100 were similar when comparing the four groups of Asian/Pacific Islander, Black/African American, Latino(a)/Hispanic, and White students (see Table 21). Figure 4 shows a plot of the means for each racial/ethnic group before and after participation in FYS 100.

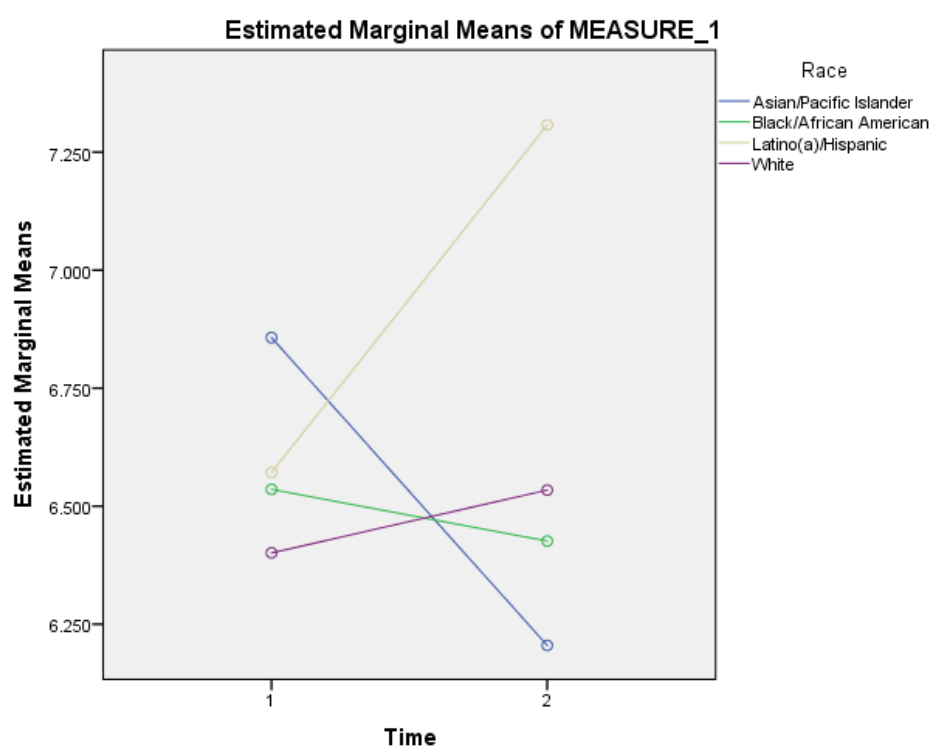


Figure 4. Marginal Means for Academic Self-Efficacy Scores by Race/Ethnicity.

Figure 4 shows that the academic self-efficacy scores increased for Latino(a) and White students over the course of the fall 2016 semester, while they decreased for Asian/Pacific Islander and Black/African American students. Although contrary to the two-way, mixed repeated measures ANOVA results, there appears to be an interaction

between participation in FYS 100 and race/ethnicity on the average academic self-efficacy scores of undecided first-year students. Chapter V provides further discussion of the observable differences between the racial/ethnic groups.

Additionally, the two-way, mixed repeated measures ANOVA showed that if race was ignored, there was little evidence to suggest that there was a statistically significant difference in the average academic self-efficacy scores before and after participation in FYS 100 ($F(1,34) = .006, p = .94, \text{partial } \eta^2 = .00$).

Finally, the analyses indicated that there was non-statistically significant difference between the four racial/ethnic groups based on the average academic self-efficacy scores for each race/ethnicity ($F(3,34) = .15, p = .93, \text{partial } \eta^2 = .01$).

Research Question 1c: Is there a statistically significant difference in the pre- and post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students enrolled in FYS 100 in fall 2016 due to first-generation status?

A two-way, mixed repeated measures ANOVA was run in SPSS to explore if there was a significant difference between the pre- and post-course academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to first-generation (FG) status. Table 22 provides of a summary of the output for the two-way, repeated measures ANOVA. Table 23 also provides a summary of the subscale scores by FG status for this analysis.

Table 22

Two-Way, Mixed Repeated Measures ANOVA of Academic Self-Efficacy Scores by
First-Generation Status Summary Table

Source	<i>df</i>	Sum of Squares	Mean Squares	<i>F</i> -Statistic	η_p^2	Power
Between Subjects	37	33.04	.89			
FG Status	1	1.32	1.31	1.49	.04	.22
Error	36	31.72	.88			
Within Subjects	38	25.70	.68			
Time	1	0.76	.76	1.20	.03	.19
Time x FG Status	1	2.07	2.07	3.27	.08	.42
Error	36	22.87	.64			
Total	75	58.74				

Table 23

Pre- and Post-Course Academic Self-Efficacy Subscale Means by First-Generation Status

Scale	FG	Non-FG	Total
Academic Self-Efficacy Subscale			
Pre-Course Mean	6.55 (.46)	6.46 (.92)	6.47
Post-Course Mean	5.82 (1.20)	6.63 (.81)	6.50
Total	6.18	6.55	

The results of the two-way, mixed repeated measures ANOVA showed a non-statistically significant interaction between FG status and participation in FYS 100 on the average academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 ($F(1,36) = 3.27, p = .08$, partial $\eta^2 = .08$). This suggests that the mean academic self-efficacy scores before and after participation in FYS 100 were similar

across the two groups of FG and non-FG students (see Table 23). Figure 5 shows a plot of the means for each group before and after participation in FYS 100.

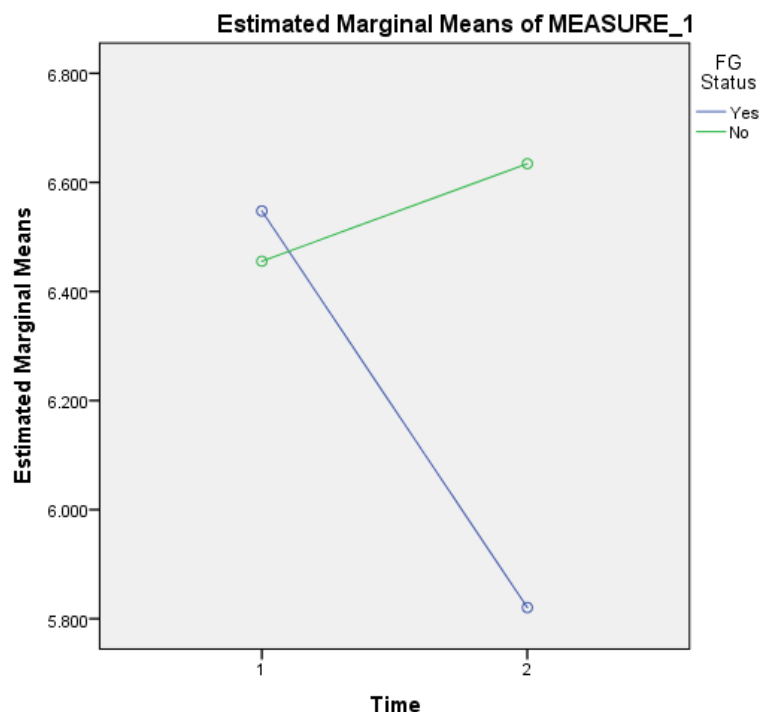


Figure 5. Marginal Means for Academic Self-Efficacy Scores by FG Status.

Figure 5 shows that the academic self-efficacy scores increased for non-FG students over the course of the fall 2016 semester, while they decreased for FG students. Although contrary to the two-way, mixed repeated measures ANOVA results, there appears to be an interaction between participation in FYS 100 and FG status on the average academic self-efficacy scores of undecided first-year students. Chapter V provides further discussion of the results.

Additionally, the two-way, mixed repeated measures ANOVA showed that if FG status was ignored, there was little evidence to suggest that there was a statistically

significant difference in the average academic self-efficacy scores before and after participation in FYS 100 ($F(1,36) = 1.20, p = .28, \text{partial } \eta^2 = .03$).

Finally, the analyses indicated that there was non-statistically significant difference between the two groups based on the average academic self-efficacy scores for each FG status ($F(1,36) = 1.49, p = .23, \text{partial } \eta^2 = .04$).

Research Question 2: Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students enrolled in FYS 100 in fall 2016?

A simple one-way, within-subjects repeated measures ANOVA was run in SPSS to explore if there was a statistically significant difference between the pre- and post-course social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016. Table 24 provides of a summary of the output for the one-way, within-subjects repeated measures ANOVA.

Table 24

One-Way, Within-Subjects Repeated Measures ANOVA of Social Self-Efficacy Scores
Summary Table

Source	df	Sum of Squares	Mean Squares	F-Statistic	η_p^2	Power
Within Subjects	38	33.31	.88			
Time	1	10.31	10.31	16.58*	.31	.98
Error	37	23.00	.62			
Total	75	76.68				

Note. * $p < .05$

The results of the repeated measures ANOVA showed that there was a statistically significant difference between the pre- and post-course social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 ($F(1,37) = 16.58$, $p = .00$, partial $\eta^2 = .31$). The effect size (i.e. partial eta-squared) was moderate. That is, 30.9% of the variance in social self-efficacy scores was due participation in FYS 100. This suggests that the average social self-efficacy scores were significantly different before and after participation in FYS 100 (see Table 16). The results suggest that participation in FYS 100 influenced a positive increase in the social self-efficacy of undecided first-year students.

Research Question 2a: Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students enrolled in FYS 100 in fall 2016 due to gender?

A two-way, mixed repeated measures ANOVA was run in SPSS to explore if there was a statistically significant difference between the pre- and post-course social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to gender. Table 25 provides of a summary of the output for the two-way, mixed repeated measures ANOVA. Table 26 also provides a summary of the subscale scores by gender for this analysis.

Table 25

Two-Way, Mixed Repeated Measures ANOVA of Social Self-Efficacy Scores by Gender
Summary Table

Source	<i>df</i>	Sum of Squares	Mean Squares	<i>F</i> -Statistic	η_p^2	Power
Between Subjects	37	43.37	1.17			
Gender	1	1.20	1.20	1.02	.03	.17
Error	36	42.17	1.17			
Within Subjects	38	27.96	.74			
Time	1	4.96	4.96	7.92*	.18	.78
Time x Gender	1	.46	.73	.73	.02	.13
Error	36	22.54	.63			
Total	75	71.33				

Note. * $p < .05$

Table 26

Pre- and Post-Course Social Self-Efficacy Subscale Means by Gender

Scale	Men	Women	Total
Social Self-Efficacy Subscale			
Pre-Course Mean	6.47 (.76)	5.97 (1.13)	6.08
Post-Course Mean	6.91 (.47)	6.79 (.88)	6.82
Total	6.69	6.39	

The results of the two-way, mixed repeated measures ANOVA showed a non-statistically significant interaction between gender and participation in FYS 100 on the average social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 ($F(1,36) = .73, p = .40, \text{partial } \eta^2 = .02$). This suggests that the mean social self-

efficacy scores before and after participation in FYS 100 were similar across the two groups of male and female students. Figure 6 shows a plot of the means for each group before and after participation in FYS 100.

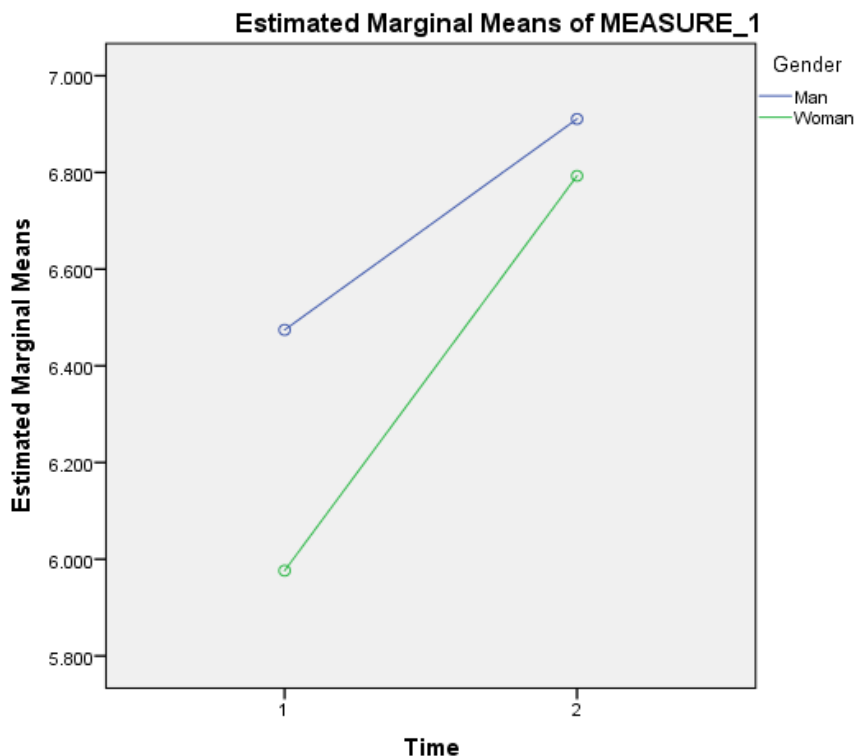


Figure 6. Marginal Means for Social Self-Efficacy Scores by Gender.

Figure 6 shows that the social self-efficacy scores increased for both male and female students over the course of the fall 2016 semester. The y-axis also shows that the differences between males' and females' scores were relatively small.

Additionally, the two-way, mixed repeated measure ANOVA showed that if gender was ignored, there was evidence to suggest that there was a statistically significant difference in the average social self-efficacy scores between before and after participation in FYS 100 ($F(1,36) = 7.92, p = .008$, partial $\eta^2 = .18$).

Finally, the analysis indicated that there was not a statistically significant difference between the average social self-efficacy scores for males and females ($F(1,36) = 1.02, p = .32$, partial $\eta^2 = .03$).

Research Question 2b: Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students enrolled in FYS 100 in fall 2016 due to race/ethnicity?

A two-way, mixed repeated measures ANOVA was run in SPSS to explore if there was a statistically significant difference between the pre- and post-course social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to race/ethnicity. Table 27 provides of a summary of the output for the two-way, mixed repeated measures ANOVA. Table 28 also provides a summary of the subscale scores by race/ethnicity for this analysis.

Table 27

Two-Way, Repeated Measures ANOVA of Social Self-Efficacy Scores by Race

Summary Table

Source	df	Sum of Squares	Mean Squares	F-Statistic	η_p^2	Power
Between Subjects	37	43.37				
Race	3	.49	.164	.130	.01	.07
Error	34	42.88	1.26			
Within Subjects	38	24.03				
Time	1	1.03	1.03	1.68	.05	.24
Time x Race	3	2.07	.69	1.12	.09	.28
Error	34	20.93	.62			
Total	75	67.40				

Table 28

Pre- and Post-Course Social Self-Efficacy Subscale Means by Race/Ethnicity

Scale	Asian/Pacific Islander	Black/African American	Latino(a)/ Hispanic	White	Total
Social Self-Efficacy Subscale					
Pre-Course Mean	5.97 (.10)	6.36 (.75)	6.92 (0)	5.97 (1.2)	6.08
Post-Course Mean	6.67 (.59)	6.55 (.84)	6.86 (0)	6.91 (.83)	6.82
Total	6.32	6.46	6.89	6.45	

The results of the two-way, mixed repeated measures ANOVA showed a non-statistically significant interaction between race/ethnicity and participation in FYS 100 on the average social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 ($F(3,34) = 1.12, p = .36$, partial $\eta^2 = .09$). This suggests that the mean social self-efficacy scores before and after participation in FYS 100 were similar across the four groups of Asian/Pacific Islander, Black/African American, Latino(a)/Hispanic, and White students. Figure 7 shows a plot of the means for each racial/ethnic group before and after participation in FYS 100.

Figure 7 shows that the social self-efficacy scores increased for all racial/ethnic groups, except for Latino(a)/Hispanic students. Although contrary to the two-way, mixed repeated measures ANOVA results, there appears to be an interaction between participation in FYS 100 and race/ethnicity on the average social self-efficacy scores of undecided first-year students. Chapter V provides further discussion of the results.

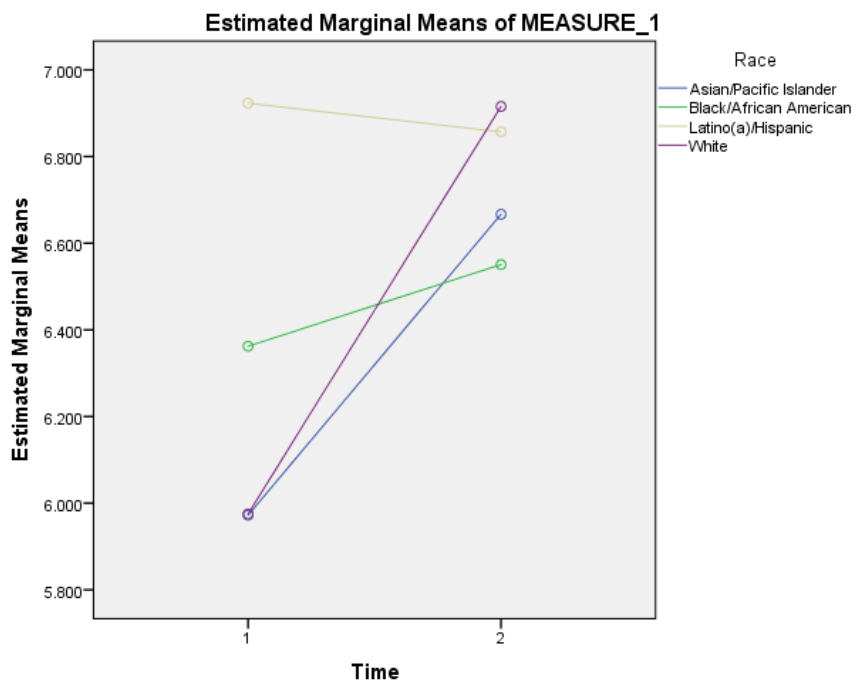


Figure 7. Marginal Means for Social Self-Efficacy Scores by Race/Ethnicity.

Additionally, the two-way, mixed repeated measure ANOVA showed that if race was ignored, there was little evidence to suggest that there was a statistically significant difference in the average social self-efficacy scores before and after participation in FYS 100 ($F(1,34) = 1.68, p = .20, \text{partial } \eta^2 = .05$).

Finally, the analysis indicated that there was a non-statistically significant difference between the four racial/ethnic groups based on the average social self-efficacy scores for each race/ethnic group ($F(3,34) = .13, p = .94, \text{partial } \eta^2 = .01$).

Research Question 2c: Is there a statistically significant difference in the pre- and post-course social self-efficacy scores, as measured by the CSEI, of undecided first-year students enrolled in FYS 100 in fall 2016 due to first-generation status?

A two-way, mixed repeated measures ANOVA was run in SPSS to explore if there was a statistically significant difference between the pre- and post-course social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to FG status. Table 29 provides of a summary of the output for the two-way, mixed repeated measures ANOVA. Table 30 also provides a summary of the subscale scores by FG status for this analysis.

Table 29

Two-Way, Mixed Repeated Measures ANOVA of Social Self-Efficacy Scores by First-Generation Status Summary Table

Source	df	Sum of Squares	Mean Squares	<i>F</i> -Statistic	η_p^2	Power
Between Subjects	37	43.36	1.17			
FG Status	1	1.28	1.29	1.10	.03	.18
Error	36	42.08	1.17			
Within Subjects	38	30.12	.79			
Time	1	7.11	7.11	11.23*	.24	.90
Time x FG Status	1	0.23	.23	.36	.01	.09
Error	36	22.78	.63			
Total	75	73.48				

Note. * $p < .05$

Table 30

Pre- and Post-Course Social Self-Efficacy Subscale Means by First-Generation Status

Scale	FG	Non-FG	Total
Social Self-Efficacy Subscale			
Pre-Course Mean	5.65 (1.07)	6.16 (1.07)	6.08
Post-Course Mean	6.64 (.55)	6.85 (.84)	6.82
Total	6.15	6.51	

The results of the two-way, mixed repeated measures ANOVA showed a non-statistically significant interaction between FG status and participation in FYS 100 on the average social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 ($F(1,36) = .36, p = .55$, partial $\eta^2 = .01$). This suggests that the mean social self-efficacy scores before and after participation in FYS 100 were relatively similar across the two groups of FG and non-FG students. Figure 8 shows a plot of the means for each FG status before and after participation in FYS 100.

Figure 8 shows that the social self-efficacy increased for both FG and non-FG undecided first-year students when comparing social self-efficacy scores before and after participation in FYS 100.

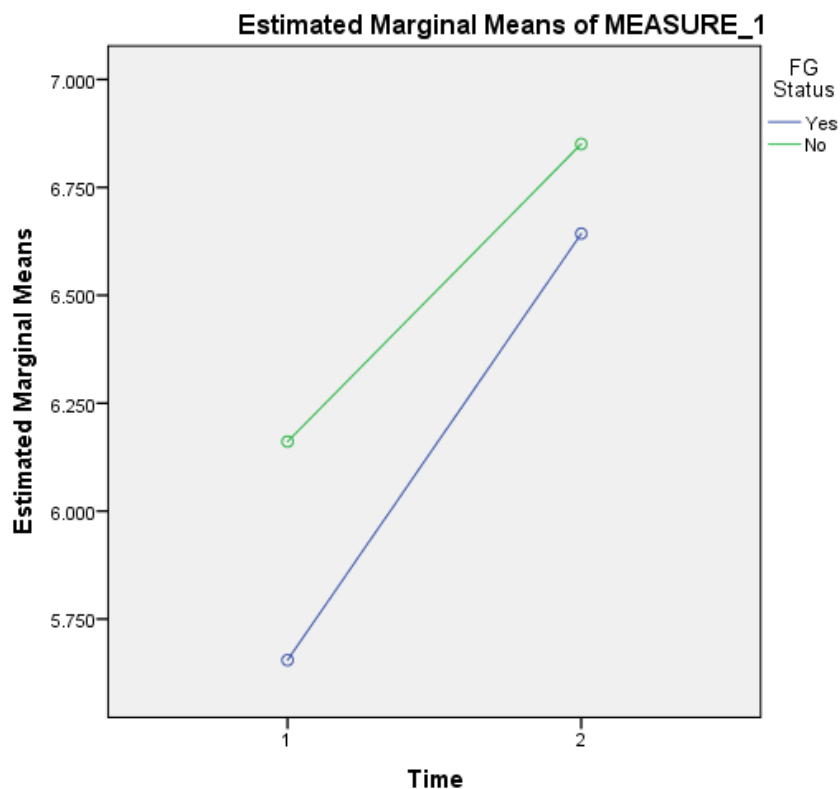


Figure 8. Marginal Means for Academic Self-Efficacy Scores by FG Status.

Additionally, the two-way, mixed repeated measures ANOVA showed that if FG status was ignored, there was evidence to suggest that there was a statistically significant difference in the average social self-efficacy scores before and after participation in FYS 100 ($F(1,36) = 11.23, p = .002$, partial $\eta^2 = .24$).

Finally, the two-way, mixed repeated measures ANOVA indicated that there was a non-statistically significant difference between the average social self-efficacy scores of the two groups of FG and non-FG students ($F(1,36) = 1.10, p = .30$, partial $\eta^2 = .03$).

Research Question 3: Is there a statistically significant positive correlation between the post-course academic self-efficacy scores, as measured by the CSEI, of undecided first-year students enrolled in FYS 100 and their final grades in FYS 100 in fall 2016?

Before conducting a correlation analyses in SPSS, several scatterplots were reviewed to gain insight into the correlation between post-course academic self-efficacy scores and final grades in FYS 100. Also, histogram plots were examined to check the normality of the data and for outliers. Figure 9 shows that the correlation between academic self-efficacy scores and final FYS 100 course grades was not particularly strong, although it does appear that as academic self-efficacy scores increased so did students' final grades in FYS 100. The researcher also reviewed scatterplots of the two variables differentiated by varying demographic factors (i.e. gender, race/ethnicity, and FG status). There was no discernable pattern for each of the scatterplots given the small sample size.

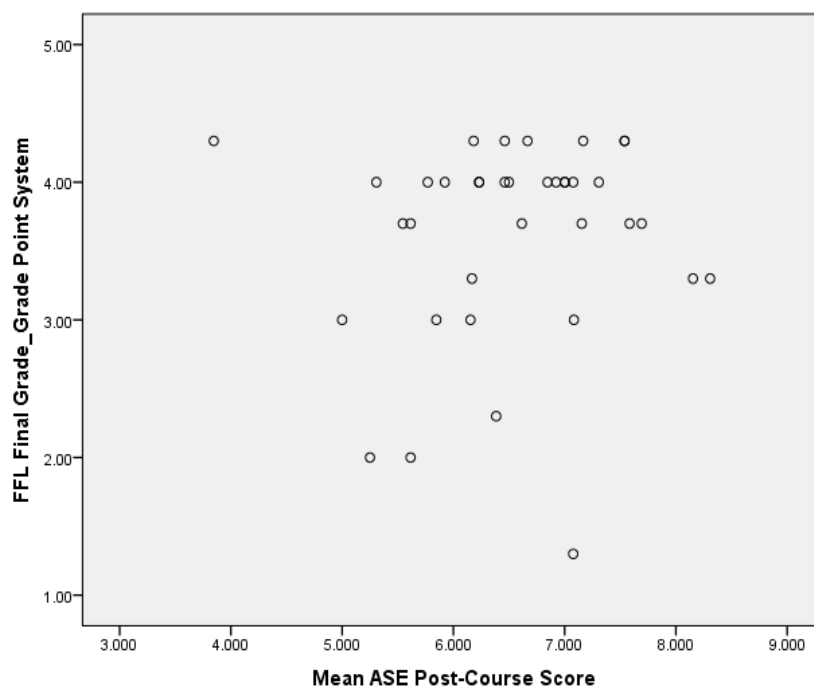


Figure 9. FYS 100 Fall 2016 Course Grade as a Function of Post-Course Academic Self-Efficacy Score.

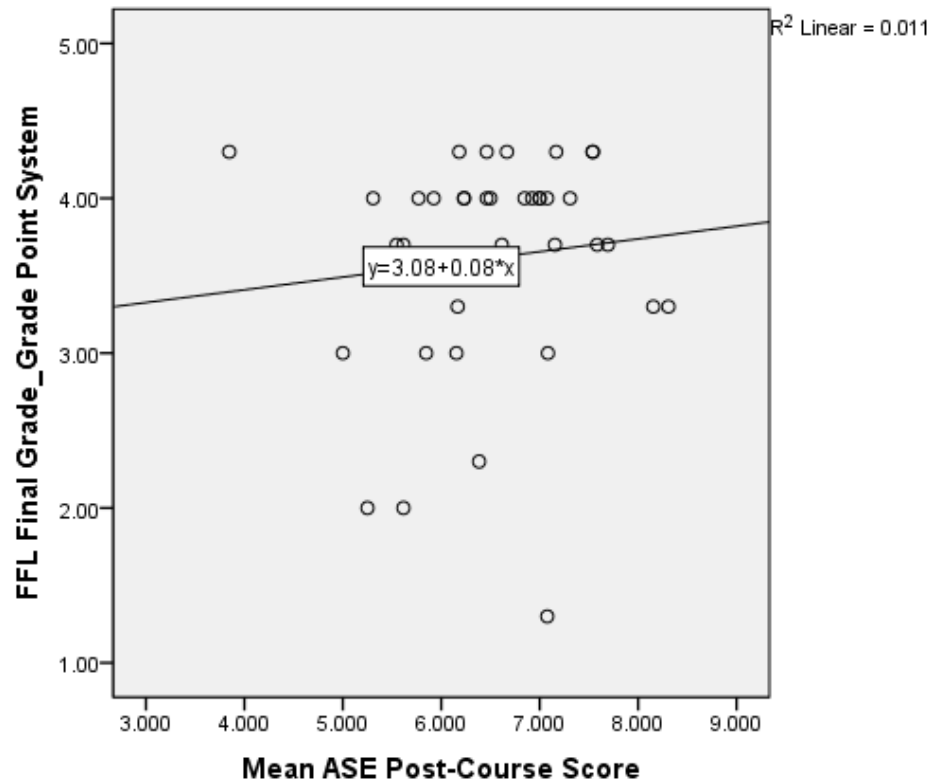


Figure 10. FYS 100 Fall 2016 Course Grade as a Function of Post-Course Academic Self-Efficacy Score with Regression Line.

The superimposed regression line in Figure 10 helps to clarify the correlation between the post-course academic self-efficacy scores and grades in FYS 100. In general, the data points do not cluster closely around the regression line, which would indicate a strong linear correlation between the two variables (Howell, 2010). The bivariate correlation between students' post-course academic self-efficacy scores and their final FYS 100 course grades for fall 2016 did not support that there was a statistically significant positive correlation between the two variables ($r(35) = .10, p = .22$).

CHAPTER V

SUMMARY AND DISCUSSION

Introduction

This chapter provides a summary of the study, discussion of the findings, implications for practice, and recommendations for further research. The primary goal of this chapter is to expand on the constructs that were investigated in Chapter IV to provide a clearer understanding of the influence that participation in FYS 100 has on their development. A secondary purpose is to explain whether differences in self-efficacy scores are dissimilar across specific subgroups of students, including gender and various racial/ethnic groups. Finally, a third purpose is to provide insight into how self-efficacy influences the academic achievement of undecided first-year college students.

The most extensively researched outcome associated with the FYS is retention (Fidler & Hunter, 1989). It alone may be responsible for many efforts to develop FYSs as there is ample evidence that they improve first-year retention rates (Barefoot et al., 1998; Fidler & Hunter, 1989; Lang, 2007; Sidle & McReynolds, 1999; Starke et al., 2001). Also, many institutions have studied the relationship between participation in the FYS and academic performance. Collectively, the research has supported that retention and academic performance are positively impacted by participation in the FYS (Barefoot et al., 1998; Lang, 2007; Sidle & McReynolds, 1999; Starke et al., 2001).

Unfortunately, there is a scarcity of research that considers what students are learning in the FYS to promote academic achievement and subsequent persistence. Specifically, attention should be given to the potential mediating variables cultivated within the FYS that lead to the development of these outcomes, one of which is self-efficacy (Bandura, 1977a; Garriott et al., 2015). With 890 institutions across the country reporting that they offer a FYS, it is critical that the educators and administrators who teach and oversee FYSs identify what aspects of these courses lead to student success (National Resource Center for the First-Year Experience and Students in Transition, 2013).

In order to address the aforesaid problem, this quantitative, pre-post intervention study was conducted to investigate if participation in FYS 100 positively influences undecided first-year students' academic and social self-efficacy. Social cognitive theory (Bandura, 1986) was the theoretical framework that guided the study and the development of hypotheses for each of the principal research questions.

The next section will discuss the findings of the study. First, the constructs measured will be examined followed by discussion of each relevant research question.

Discussion

Academic Self-efficacy

Academic self-efficacy was measured by the CSEI (Solberg et al., 1993). This subscale consists of seven items that ask students to rate their degree of confidence in completing tasks associated with academic success. Sample items include the following: “manage your time effectively,” “write a course paper,” “take good class notes,” and “do

well on your exams.” The mean on the academic self-efficacy scale based on the pre-course administration of the CSEI (1993) was 6.47 ($SD = .86$). The calculated mean showed that, on average, participants felt “somewhat confident” about their academic abilities at the start of FYS 100 in the fall 2016 semester. The standard deviation indicates that there was a moderate degree of spread in the data.

The mean on the academic self-efficacy scale based on the post-course administration of the CSEI (1993) was 6.51 ($SD = .91$). The calculated mean showed that, on average, participants felt “confident” about their academic abilities at the end of FYS 100 in the fall 2016 semester. The standard deviation indicates that there was a high degree of spread in the data.

Research Question 1 sought to determine if there was a statistically significant difference in the pre- and post-course academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016. The hypothesis was that the FYS 100 course (i.e., intervention) would positively influence the academic self-efficacy scores of students such that there would be a significant difference between the pre- and post-course academic self-efficacy scores. The results of the one-way, within-subjects repeated measures ANOVA failed to support this prediction, as there was a non-statistically significant difference in the pre- and post-course academic self-efficacy scores ($F(1, 37) = .04, p = .85, \text{partial } \eta^2 = .001$). Therefore, the researcher failed to reject the null hypothesis. The results showed a very small effect size (partial $\eta^2 = .001$) and very low power (.05), meaning that the differences in academic self-efficacy scores as a result of the participation in FYS 100 were insignificant.

The results of this analysis are consistent with research conducted by Gore (2006), which found that first-year students' academic self-efficacy scores increased throughout the duration of their first semester when measured before and after participation in a FYS. However, Gore (2006) did not test for statistically significant differences in academic self-efficacy scores as the purpose of his study was to evaluate the utility of using measures of academic self-efficacy to predict postsecondary outcomes such as academic performance and persistence.

Gore (2006) affirmed that academic self-efficacy appraisals are likely to be most accurate later in a first-year student's first semester once they have had experience in the academic arena. Considering the four sources of self-efficacy, delayed measurements of self-efficacy may provide a truer reflection of students' self-efficacy in college since they have had time to make judgments on their performance, receive feedback, and reflect on their experiences and abilities in relation to their peers. That said, the post-course academic self-efficacy scores may be a more reliable measure of the academic perceptions of participants in this study.

Research Question 1a was a follow-up question to Research Question 1. This question sought to determine whether there was a statistically significant difference in the pre-and post-course academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to gender. The results of the two-way, mixed repeated measures ANOVA showed that there was a non-statistically significant interaction between the variables of gender and participation in FYS 100 on the academic self-efficacy scores of students ($F(1,36) = .24, p = .62, \text{partial } \eta^2 = .007$). Additionally,

this test resulted in a very small effect size (partial $\eta^2 = .007$) and very low power (.08), meaning that mean differences in academic self-efficacy scores for men as compared to women as a result of participation in FYS 100 were insignificant.

There are no known research studies that address the effect that participation in the FYS has on the academic self-efficacy of male, female, or transgender college students. However, the relationship between gender and self-efficacy has been the focus of much educational research in both primary and secondary settings. Generally speaking, researchers report that boys and men tend to be more efficacious than girls and women in academic areas related to math, science, and technology, despite the fact that achievement differences in these areas are quickly diminishing (Huang, 2013; Schunk & Pajares, 2002). Conversely, in areas related to language arts, males and females exhibit equal confidence, in spite of the fact that the achievement of females is typically higher (Pajares, 2003). Also, the research on self-efficacy differences by gender have often been task- or domain-specific. This study, however, measured academic self-efficacy more globally, but the results do support the notion that men are more academically efficacious. Male students showed an increase in their academic self-efficacy throughout the semester, while the academic self-efficacy of women decreased. However, when analyzed separately, women, on average, reported higher academic self-efficacy before participation in FYS 100 than men (see Table 19, Chapter IV). Confounding variables such as previous achievement and gender differentiation may help to explain gender differences in self-efficacy, although these variables were not controlled for in this study (Gecas, 1989; Schunk & Pajares, 2002).

Research Question 1b was a follow-up question to Research Question 1. This question sought to determine if there was a statistically significant difference in the pre- and post-course academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to race/ethnicity. The results of the two-way, mixed repeated measures ANOVA showed that there was a non-statistically significant interaction between race/ethnicity and participation in the FYS 100 on the academic self-efficacy scores of students ($F(3,34) = .55, p = .65, \text{partial } \eta^2 = .05$). Additionally, this test resulted in a very small effect size ($\text{partial } \eta^2 = .05$) and low power (.15), meaning that mean differences in academic self-efficacy scores for the varying racial/ethnic groups as a result of participation in FYS 100 were insignificant.

Relative to gender differences, there is much less research on how academic self-efficacy differs by race/ethnicity. In fact, for the literature that does exist, much of it is inconsistent (Schunk & Pajares, 2002). Some studies support that Whites are more efficacious than African Americans (Schunk & Pajares, 2002), while other research supports that African American women, in particular, are more efficacious than White men and women, as well as African American men (Buchanan & Selmon, 2008). Moreover, meta-analytic research (Graham, 1994) has found evidence that African Americans maintain a greater sense of confidence even in the face of social and economic disadvantage as compared to their White counterparts.

While there was a non-statistically significant interaction between participation in the FYS and race/ethnicity, the results of this study did show an increase in the academic self-efficacy scores of Latino(a)/Hispanic and White students as compared to a decrease

for Asian/Pacific Islander and Black/African American students throughout the semester (see Table 21, Chapter IV). There is no known research that examines how participation in the FYS influences the academic self-efficacy of first-year students by race.

Research Question 1c was a follow-up question to Research Question 1. This question was posed to determine whether there was a statistically significant difference in the pre- and post-course academic self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to FG status. The results of the two-way, mixed repeated measures ANOVA showed that there was a non-statistically significant interaction between FG status and participation in FYS 100 on the academic self-efficacy scores of students ($F(1,36) = 3.27, p = .08, \text{partial } \eta^2 = .08$). Additionally, this test resulted in a small effect size (partial $\eta^2 = .08$) and low power (.42), meaning that the differences in academic self-efficacy scores for FG as compared non-FG students as a result of participation in FYS 100 were insignificant.

The majority of the literature on the academic self-efficacy of FG college students focuses on the relationship between academic self-efficacy and academic adjustment or performance (Garriott et al., 2015; Vaughan et al., 2014). Therefore, this research question highlights a gap in the literature related to the interaction between participation in the FYS and FG status on students' academic self-efficacy scores (see Table 23, Chapter IV). Nonetheless, some insight into how self-efficacy impacts FG or non-FG students can be gleaned from the existing literature.

Studies among college students using the CSEI (Solberg et al., 1993) suggest that the efficacy beliefs of FG college students are not significantly different from those of

non-FG students (Garriott et al., 2015; Vuong, Brown-Welty, & Tracz, 2010). The results of this study confirm similar results as there was non-statistically significant difference between the average academic self-efficacy scores of FG and non-FG students before and after participation in FYS 100. According to Elliot (2014), differences in FG status among first-year students show up most noticeably when looking at the congruence between perceptions and actual performance, as FG students often earn lower grades than their non-FG peers.

Research Question 3 sought to determine if there was a statistically significant positive correlation between the post-course academic self-efficacy scores of undecided first-year students enrolled in FYS 100 and their final grades in FYS 100 in fall 2016. The hypothesis was that there would be a statistically significant positive correlation between the two variables. The results of the bivariate correlation did not support this prediction; therefore, the null hypothesis was not rejected ($r(35) = .10, p = .22$).

The results of this analysis support the existing literature that affirms that efficacy beliefs are positively related to academic performance (Multon et al., 1991). However, across varying grade levels, studies have also found that self-efficacy for performing academic tasks correlates positively and significantly with achievement on those subsequent tasks (Multon et al., 1991; Pajares, 1996; Pintrich & De Groot, 1990). The results of the correlation analyses differ from the latter findings as the correlation between the post-course academic self-efficacy scores and FYS 100 final grades was non-statistically significant. This discrepancy may be due to differences in measurement; academic self-efficacy is readily identified as a domain-specific construct, yet it was

measured without reference to a particular academic task in this study. More nuanced investigations may be more telling of the direction and strength of the relationship between academic self-efficacy scores and course grades.

Social Self-efficacy

Social self-efficacy was measured by the CSEI (1993). This subscale resulting from combining two subscales—roommate self-efficacy and social self-efficacy and consisted of 13 items. For each item, students were asked to rate their degree of confidence in completing tasks associated with social success in college. Sample items include the following: “participate in class discussions,” “talk to your professors/instructors,” “Talk with academic and support staff,” “get along with others you live with,” and “socialize with others you live with.” The mean on the social self-efficacy scale based on the pre-course administration of the CSEI (Solberg et al., 1993) was 6.08 ($SD = 1.07$). The calculated mean showed that, on average, participants felt “somewhat confident” about their social skills and abilities at the start of FYS 100 in the fall 2016 semester. The standard deviation indicates that there was a high degree of spread in the data.

The mean on the social self-efficacy scale based on the post-course administration of the CSEI (Solberg et al., 1993) was 6.82 ($SD = .80$). The calculated mean showed that, on average, participants felt “confident” about their social skills and abilities at the end of FYS 100 in the fall 2016 semester. The standard deviation indicates that there was a moderate degree of spread in the data.

Research Question 2 sought to determine if there was a statistically significant difference in the pre- and post-course social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016. The hypothesis was that the FYS 100 course would positively influence the social self-efficacy scores of students such that there would be a significant difference between the pre- and post-course social self-efficacy scores. The results of the one-way, within-subjects repeated measures ANOVA supported this prediction as there was a statistically significant difference in the pre- and post-course social self-efficacy scores ($F(1,37) = 16.58, p = .00$, partial $\eta^2 = .31$). Therefore, the null hypothesis was rejected. The results showed a moderate effect size (partial $\eta^2 = .31$) and high power (.98), meaning that the differences in social self-efficacy scores as a result of participation in FYS 100 were significant.

The results of this analyses are inconsistent with Gore (2006), which reported a decrease in first-year students' social self-efficacy scores before and after participation in FYS 100. The difference in findings may be attributed to the fact that social self-efficacy was measured using both the social and roommate subscales of the CSEI (1993) in this study. Nevertheless, it seems that participation in the FYS 100 contributed to the increase in undecided first-year students' social self-efficacy as these courses provide an avenue for students to establish a support group of peers from which other social relationships can emerge.

Additionally, these findings may be due to the fact that the importance of connecting with classmates and roommates is increased for first-year students given the transition that students experience during their first semester (Bean & Eaton, 2001; Tinto,

1993). During the transition to college, a student's social context is completely disrupted and research has found that the number and quality of peer friendships that they possess may help mitigate the negative effects of the transition (Schunk et al., 2014). Therefore, a heightened desire for interpersonal relationships during a student's first-semester may precipitate the cultivation of social skills and increased social confidence in the context of the FYS or otherwise. Furthermore, the first semester in college may be more instrumental in the social integration of first-year students. As the academic and social systems of an institution are in some measure distinct, the integration in one system does not necessarily imply integration in the other (Tinto, 1987).

Research Question 2a was a follow-up question to Research Question 2. This question sought to determine whether there was a statistically significant difference in the pre- and post-course social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to gender. The results of the two-way, mixed repeated measures ANOVA showed that there was a non-statistically significant interaction between the variables of gender and participation in FYS 100 on the social self-efficacy scores of students ($F(1,36) = .73, p = .40, \text{partial } \eta^2 = .02$). Additionally, this test resulted in a very small effect size ($\text{partial } \eta^2 = .02$) and very low power (.13) meaning that mean differences in social self-efficacy scores for men as compared to women as a result of participation in FYS 100 were insignificant.

Social self-efficacy research has its origins in the fields of Psychology, Mental Health, and Career Development (Meng et al., 2015; Sherer et al., 1982; Smith & Betz, 2000); therefore, further discussion about the results of this analyses in the context of

likeminded literature is not possible. Nonetheless, similar interpretations can be made to those asserted for Research Question 1a, as male participants reported higher social self-efficacy scores before and after participation in the FYS, though both males and females showed gains in social self-efficacy (see Table 26, Chapter IV). In general, students seem to be more efficacious about their ability to engage in social tasks.

Research Question 2b was a follow-up question to Research Question 2. This question sought to determine whether there was a statistically significant difference in the pre- and post-course social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to race/ethnicity. The results of the two-way, mixed repeated measures ANOVA showed that there was a non-statistically significant interaction between the variables of race/ethnicity and participation in FYS 100 on the social self-efficacy scores of students ($F(3,34) = 1.12, p = .36$, partial $\eta^2 = .09$). Additionally, this test resulted in a very small effect size (partial $\eta^2 = .09$) and low power (.28), meaning that mean differences in social self-efficacy scores for the varying racial/ethnic groups as a result of participation in FYS 100 were insignificant.

When comparing means by race/ethnicity for the pre- and post-course surveys, all racial/ethnic groups reported an increase in social self-efficacy, except for Latino(a)/Hispanic (see Table 28, Chapter IV). Additional research on the relationship between social self-efficacy and race/ethnicity would enable more conclusive inferences to be made. Currently, there is no known research that has examined the influence that participation in the FYS has on the social self-efficacy of first-year students due to race/ethnicity.

Research Question 2c was a follow-up question to Research Question 2. This question sought to determine whether there was a statistically significant difference in the pre- and post-course social self-efficacy scores of undecided first-year students enrolled in FYS 100 in fall 2016 due to FG status. The results of the two-way, mixed repeated measures ANOVA showed that there was a non-statistically significant interaction between the variables of FG status and participation in the FYS 100 on the social self-efficacy scores of students ($F(1,36) = .36, p = .55, \text{partial } \eta^2 = .01$). Additionally, this test resulted in a very small effect size ($\text{partial } \eta^2 = .01$) and very low power (.09), meaning that the differences in social self-efficacy scores for FG as compared non-FG students as a result of participation in FYS 100 were insignificant.

Again, studies among college students using the CSEI (Solberg et al., 1993) suggest that the efficacy beliefs of FG students are not significantly different from those of non-FG students (Garriott et al., 2015; Vuong et al., 2010). This study obtained similar results. Both groups showed an increase in social self-efficacy when comparing pre- and post-course scores, although FG students' pre- and post-course social self-efficacy scores were lower than their non-FG peers (refer to Table 30, Chapter IV).

Limitations

This study must be qualified by some limitations with respect to the measurement of self-efficacy and generalizability. First, Bandura's (1977a) initial formation of self-efficacy defined the construct as a domain-specific variable, but in this study efficacy is assessed at a more general level. As mentioned, the CSEI (Solberg et al., 1993) asks respondents about their confidence in their ability to "make new friends at college,"

“work on a group project,” and “take good class notes,” among other tasks as a student enrolled in FYS 100. Furthermore, students are invited to make judgments on the extent to which their participation in FYS 100 has improved their general sense of academic and social self-efficacy with respect to tasks applicable to a variety of educational settings. Self-efficacy is known to be a dynamic construct, so static measurements fail to recognize the fact that one’s self-efficacy can change over the course of time; as in fact, it typically does. The quasi-experimental, pre-test-post-test design was an attempt to justly measure the changeable nature of the construct over time. However, exploration of the causal nature of the relationship between self-efficacy and participation in the FYS is outside the scope of this study. Other study designs are better suited for exploring whether a causal relationship exists between two variables. Therefore, the results and implications for practice should be interpreted with this limitation in mind.

Also, related to the measurement of self-efficacy, the pre-course survey included a typographical error in the Likert response scale, which was then corrected prior to the administration of the post-course survey. The researcher did take measures to account for this error (see Chapter III), but this issue should be acknowledged as a potential limitation.

Next, generalizability will be discussed in terms of several key concepts—confounding variables, selection bias and external validity, and sample size and representativeness of the sample. For both the pilot and dissertation studies, careful consideration was given to the study design, data collection procedures, and selection of statistical analyses. However, the presence of confounding variables presents a key

limitation. The study attempted to address instructional difference as a confounding variable by monitoring the FOI of FYS 100 and sampling sections of the course designated for only Exploratory majors, but there were many other possible independent variables (e.g., living on-campus or not) that may have influenced the results of the study. Thus, bias was introduced to the study through the presence of extraneous and confounding variables that were not controlled for. This limitation is also referred to as internal validity in experimental research (Kukull & Ganguli, 2012). The forthcoming section on future research discusses study designs that can reduce the potential for the occurrence and effect of confounding variables.

Also, self-selection bias was an inadvertent and unavoidable limitation in this study. This bias presented two main concerns—undercoverage and overcoverage. Undercoverage occurs when some members of the population or sampling frame are inadequately represented in the sample (Groves et al., 2009). The opposite occurs when overcoverage exists. Given that students voluntarily enrolled in FYS 100, the population in this dissertation study may over-represent the characteristics of individuals who have a propensity to take the course or are undecided in their major and underrepresent those students in which neither of these factors are true. This bias presents a threat to the external validity of the results to other samples (i.e., first-year students which a declared major) or study settings (i.e., institutions at which the FYS is required).

Chapter III outlined the minimum sample sizes required for each analysis to achieve adequate power and make inferences about the population. For Research Questions 1a, 1b, 2a, 2b, and 3, the minimum sample sizes were not achieved.

Consequently, the results for these questions cannot be extrapolated to the population of undeclared first-year students in FYS 100 given the lack of statistical significance.

Additionally, the completion rate for the study was 17.76%, meaning that 82.24% of the students surveyed did not fully participate in the study. It is uncertain whether the characteristics of the non-respondents in this study are different from those students who completed both the pre- and post-course surveys (Chapter III addresses demographic differences among respondents who completed only the pre-course survey as compared to both surveys for both the pilot and dissertation studies). Therefore, the representativeness of the sample is also a potential limitation worth noting.

Implications for Practice

This study offers three key implications for educational practitioners and administrators related to the impact and administration of the FYS. First, to reiterate the recommendation advanced by Schunk and DiBenedetto (2014), instructors of the FYS should assume responsibility for nurturing the self-efficacy of their students. Second, instructors should teach students about self-efficacy and the critical role it plays in learning. Third, administrators must continue to support the growth and development of the FYS at colleges and universities nationwide.

Much of the research on self-efficacy and its application to academic settings has been limited to primary and secondary school systems, yet the benefits of increased self-efficacy can be more pronounced among university students whose academic and social behaviors while in college set the path for their future success and attainment of their career goals (Betz & Hackett, 1981).

College students are expected to be highly efficacious and resilient. However, faculty members are often faced with capable young people who, as a result of previous demoralizing experiences or self-imposed mindsets, have come to believe that they cannot succeed at a task or activity when all objective indicators show that they can (Dweck, 2006; Usher & Pajares, 2008). Demographically speaking, certain groups of students may have a tendency to have higher self-efficacy than others, but all first-year students must learn that efficacy is cultivated and that the transition from high school to college alone can affect their perceived competence (Schunk et al., 2014).

Using the four sources of self-efficacy information, faculty members can teach first-year students academic and social skills and provide them with opportunities to practice and refine them in order to cultivate mastery experiences. As students observe their increase in skill, their self-efficacy is strengthened. FYS instructors can also provide vicarious experiences through the use of coping models (i.e., peer mentors) to show how other similar students have mastered skills. Persuasive information such as performance or peer feedback are also influential when provided in a credible manner. Finally, teaching students how to be aware of and manage their physiological cues can also help bolster self-efficacy as academic and social anxiety can be exacerbated in the college environment.

This recommendation also has implications for the development of FYS curriculum and faculty training. Intentionally supporting the four sources of self-efficacy in the classroom is predicated on the assumption that faculty know about the role that self-efficacy plays in the academic and social lives of students. Sadly, many faculty and

student services professionals do not. Education on the construct of self-efficacy and expectations regarding assignment choices, instructional practices, and peer-to-peer interactions in the classroom can help to produce more confident first-year college students.

Secondly, FYS instructors should teach students about self-efficacy and the role that it plays in becoming a responsible autonomous learner. Academic success in college is more likely to be achieved when students know how to employ self-regulatory skills. For example, helping students understand that self-monitoring (i.e., assessing their self-efficacy for a task) can assist them in establishing appropriate learning goals, which can be vital to their academic success. With an understanding of self-efficacy, a student will be empowered to take responsibility of his or her own learning. Moreover, discussion of self-efficacy and its importance in the classroom can help to normalize the often-negative self-appraisals that first-year students maintain for themselves as they are encounter novel tasks within the college environment. Also, helping first-year students make appropriate social comparisons is of great importance as the transition to college involves an adjustment to a new social and cultural context. In order to achieve this recommendation, instructors should find ways to integrate their knowledge of self-efficacy into relevant units.

Finally, the last recommendation for educational administrators is to support the growth and development of FYSs, specifically orientation seminars. With the major influx of the FYS in the 1970s and 1980s (Gordon, 1989), these courses are still relatively new within the postsecondary landscape, yet their value has been well justified

(Barefoot et al., 1998; Fidler & Hunter, 1989; Lang, 2007; Sidle & McReynolds, 1999; Starke et al., 2001). Even so, further research to clarify what curricular or instructional aspects of the course bolster the efficacy of students will enable educators to make sure that these elements are retained and readily implemented by faculty. If indeed FYSs are high impact practices (Kuh, 2008), the characteristics that make them impactful must be understood and executed. Chapter I provided discussion of how the four sources of self-efficacy are supported within FYS 100, however, future research is needed to confirm these observations on a more generalizable scale.

In a time of budget cuts and hiring freezes in higher education, this suggestion undoubtedly comes with challenges, but this study and the existing literature substantiates the influence that the FYS can have on the academic and social lives of students. The next section will expound upon these recommendations by offering suggestions for future research.

Future Research

There are four primary suggestions for future research in order to better explain the impact that participation in the FYS has on the self-efficacy of first-year students. First, it would be useful to replicate this study with a larger sample of students and at other universities. Research with a larger sample could provide additional insight into the effect the course has on students' self-efficacy and help to determine if differences exist due to gender, race/ethnicity, or other demographic variables. Based on the findings in this study, there appears to be some sort of interaction between participation in FYS 100 and the aforesaid demographic variables on the self-efficacy of undecided first-year

students as not all students showed increases in self-efficacy (see Figures 3, 4, 5, and 7, Chapter IV). Further research would enable administrators to better understand the unique experiences of students within these courses and whether specialized sections may be more validating or efficacy bolstering for specific populations of students (Locks, Hurtado, Bowman, & Oseguera, 2008). Moreover, additional research at different institutions would explain whether changes in self-efficacy as a result of participation in the FYS are similar across institutional types. Taken together, replicating this study with a larger sample of students and at different institutions will allow more generalizable conclusions to be made.

Future research should also consider a paper administration of the CSEI (Solberg et al., 1993) in order to improve response rates and more easily provide multiple measurements of self-efficacy throughout the semester to better understand its dynamic nature. For example, the CSEI could be administered in a FYS at the beginning, middle, and end of the semester. This approach would increase participation and allow for a deeper understanding of how the self-efficacy of first-year students changes throughout an academic semester. The usage of a research team is also suggested in order to efficiently administer the paper surveys to multiple sections of the course and manage the data. Using a scantron scanner and scan sheets may be the most effective way to survey students in these courses.

Third, experimental research would also help to substantiate a causal relationship between self-efficacy and participation in the FYS through the identification of a control group. More specifically, a future study could administer the CSEI (Solberg et al., 1993)

to students enrolled in a FYS (the experimental group) and similar first-year students not enrolled in the course (control group) to compare differences in self-efficacy scores. Controlling for confounding variables that may pose a threat to internal validity is also suggested. Although, considering the previous example, exposing participants in both the control and experimental groups to the same confounding variables may mitigate their effects. Nonetheless, further study on the impact that a confounding variable such as living on-campus has on the self-efficacy of new students is needed as the experiences that students have in their residence hall or living-learning community may also reinforce the four sources of self-efficacy.

Lastly, mixed methods research may enable researchers to better understand changes in students' self-efficacy throughout the semester. Comparing static self-report measurements with direct observational, interview, or focus group data may provide a more robust understanding of the ways in which the four sources of self-efficacy are supported within the FYS and how students interpret self-efficacy information. For example, future research might include administration of the CSEI survey (Solberg et al., 1993) and individual interviews with students to further investigate if the FYS directly influences positive changes in the academic or social self-efficacy of students throughout their first semester in college.

Conclusion

College retention has been and continues to be a touted rationale for implementation of the FYS to combat student attrition. In fact, the research supports it (Barefoot et al., 1998; Fidler & Hunter, 1989; Lang, 2007; Sidle & McReynolds, 1999;

Starke et al., 2001). Still, there is almost no literature that explains what mediating variables are developed in the FYS to promote academic performance and student retention. Yet, this study has highlighted self-efficacy as one of those variables. Students with high academic self-efficacy put forth more effort, employ better skills, and persist in the face of adversity regardless of the academic task (Schunk & Pajares, 2009). Similarly, students with high social self-efficacy more readily make initial contact with peers or faculty, participate in group activities, and are resilient to social rejections (Meng et al., 2015). Thus, cultivating academic and social self-efficacy in the FYS will not only create more enjoyable learning spaces, but also empower first-year students with a robust sense of efficacy to sustain the perseverant effort necessary for a successful academic and social transition into the college environment (Bean & Eaton, 2001).

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APPENDIX A

INSTRUMENT PERMISSION EMAILS

College Self-Efficacy Inventory**Ellie Castine** <ecastine@bu.edu>

Tue, Dec 1, 2015 at 2:52 PM

To: ajhankin@uncg.edu

Dear Ayesha,

Thanks for your email and interest in the College Self Efficacy Inventory. Please find the measure attached as well as a manuscript that may be helpful with administration and scoring. We would love to hear you results when your study is complete. Best of luck with the process and your dissertation!

All the best,

Ellie

--

Ellie Castine, M.S.

Doctoral Student in Counseling Psychology

Boston University | School of Education

ecastine@bu.edu**2 attachments****College Self-Efficacy 9.29.05.pdf**
25K**CDQ ASIP college self efficacy.pdf**
7235K

College Self-Efficacy Inventory (CSEI)

Ayeesha Hankins <ajhankin@uncg.edu>
 To: Karen OBrien <kmobrien@umd.edu>

Mon, Dec 21, 2015 at 7:00 PM

Thank you Dr. O'Brien. I will defer to Dr. Solberg.

Kindly,

On Tue, Dec 1, 2015 at 1:58 PM, Karen OBrien <kmobrien@umd.edu> wrote:
 It is fine with me if you use the measure, but Dr. Solberg is the first author and would need to give permission as well.
 Good luck with your research! KOB

On Tue, Dec 1, 2015 at 1:54 PM, Ayeesha Hankins <ajhankin@uncg.edu> wrote:
 Good afternoon Dr. Solberg and Dr. O'Brien,

My name is Ayeesha Hankins and I am a second-year doctoral student at the University of North Carolina Greensboro. That said, my dissertation will focus on academic self-efficacy and I am currently in the process of trying to find an instrument to assess this construct.

In my perusal of the literature, I came across your Self-Efficacy and Hispanic College Students: Validation of the College Self-Efficacy Instrument and I wanted to ask about the College Self-Efficacy Inventory (CSEI). I am considering using or adapting it for my dissertation study and would like to discuss gaining permissions to do so.

I look forward to hearing from you all.

Sincerely,

--

Ayeesha J. Hankins
 Doctoral Research Assistant
 Student Affairs Assessment
 UNC Greensboro
 141 Mossman
 336.334.5181
 ajhankin@uncg.edu

--

Karen M. O'Brien, Ph.D.
 Professor and Co-Training Director, Counseling Psychology Doctoral Program
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RESEARCH WEBSITE:

<http://counselingpsychologyresearch.weebly.com/index.html>

APPENDIX B

STUDY APPROVAL

Dissertation study permission

Mon, Dec 7, 2015 at 2:52 PM

To: Ayesha Hankins <ajhankin@uncg.edu>

Cc:

I am giving my permission via this email. Please let me know if you need anything else.

On Mon, Dec 7, 2015 at 12:48 PM, Ayesha Hankins <ajhankin@uncg.edu> wrote:

Good afternoon [REDACTED] and [REDACTED],

Attached is a memo summarizing my dissertation study and how data will be collected in select sections of [REDACTED] next fall. I trust that this study will glean meaningful information that positively impacts the course and ultimately students.

Please let me know if any additional information is needed. Written approval, should you choose to grant it, can be given via email or written on the attached as documentation would need to be submitted with my IRB proposal.

Kindly,

Ayeesha J. Hankins
 Doctoral Research Assistant
 Student Affairs Assessment
 UNC Greensboro
 140 Mossman Building
 336.334.5181
ajhankin@uncg.edu

APPENDIX C

PILOT STUDY: IRB APPROVAL AND PRE-COURSE SURVEY MODIFICATION EMAILS

To: Ayesha Hankins
Student Affairs
[REDACTED]

From: UNCG IRB

Date: 2/01/2016

RE: Notice of IRB Exemption
Exemption Category: 2.Survey, interview, public observation
Study #: 15-0528

Study Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Study of the First-Year Seminar

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

This purpose of this study is to assess the academic and social self-efficacy of first-time freshman students enrolled in the [REDACTED]. Academic self-efficacy underscores the belief a student maintains about his or her ability to successfully achieve at a designated level on an academic task or attain a specific academic goal. Similarly, relational or social self-efficacy underscores the belief a student maintains about their ability to establish and sustain healthy relationships his or her peers. A quasi-experimental pre-post study design will be utilized to determine if the intervention ([REDACTED]) contributed to changes in self-efficacy scores. Differences in scores, will be measured by using select items from the *College Self-Efficacy Inventory (CSEI)*. A secondary purpose is to determine if differences in self-efficacy scores are dissimilar among specific subgroups of students, including male and female, and various racial and ethnic groups. Research participants in randomly selected sections of the course will asked to voluntarily complete the paper survey. The survey will be administered in class by the principal investigator and students will receive an informed consent statement and the survey.

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. Please utilize the most recent and approved version of your consent form/information sheet when enrolling participants. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned to you in a separate email. **Stamped consent forms must be used unless the IRB has given you approval to waive this requirement.** Please notify the ORI office immediately if you have an issue with the stamped consents forms.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university "Access to and Retention of Research Data" Policy which can be found at http://policy.uncg.edu/university-policies/research_data/.

CC:
Deborah Taub, Teacher Ed/Higher Ed

To: Ayesha Hankins
Student Affairs
[REDACTED]

From: UNCG IRB

Date: 2/22/2016

RE: Notice of IRB Exemption (modification)

Exemption Category: 2.Survey, interview, public observation,4.Existing data, public or deidentified

Study #: 15-0528

Study Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Study of the First-Year Seminar

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

This purpose of this study is to assess the academic and social self-efficacy of first-time freshman students enrolled in the [REDACTED].

Academic self-efficacy underscores the belief a student maintains about his or her ability to successfully achieve at a designated level on an academic task or attain a specific academic goal. Similarly, relational or social self-efficacy underscores the belief a student maintains about their ability to establish and sustain relationships his or her peers. A quasi-experimental pre-post study design will be utilized to determine if the intervention ([REDACTED]) contributed to changes in self-efficacy scores. Differences in scores, will be measured by using select items from the *College Self-Efficacy Inventory (CSEI)*. A secondary purpose is to determine if differences in self-efficacy scores are dissimilar among specific subgroups of students, including male and female, and various racial and ethnic groups. Research participants in randomly selected sections of the course will asked to voluntarily complete the paper survey. The survey will be administered in class by the principal investigator and students will receive an informed consent statement and the survey.

Modification Information:

The following modifications have been made to my IRB application:

- Updated informed consent form
- Updated CSEI survey
- Updated survey administration protocol
- Dr. Terry Ackerman added as a member of my research team

Also, instead of the University Registrar's Office the Office of Institutional Research will be assisting me with pulling student GPA data for my pilot and full study. This change will be noted in my modification as well.

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. Please utilize the most recent and approved version of your consent form/information sheet when enrolling participants. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned

to you in a separate email. **Stamped consent forms must be used unless the IRB has given you approval to waive this requirement.** Please notify the ORI office immediately if you have an issue with the stamped consents forms.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university "Access to and Retention of Research Data" Policy which can be found at http://policy.uncg.edu/university-policies/research_data/.

CC:

Deborah Taub, Teacher Ed/Higher Ed

APPENDIX D

PILOT STUDY: CONSENT FORM

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO CONSENT TO ACT AS A HUMAN PARTICIPANT

Dear New [REDACTED] Student,

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to participate, or you may withdraw your consent to be in the study, for any reason, without penalty. Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the [REDACTED]. Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study. You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

The study that you are being asked to participate in is a research project. This study focuses on the academic and social beliefs of first-year students enrolled in [REDACTED] using the *College Self-Efficacy Inventory (CSEI)*. Your participation in this study will be used by administrators to make informed decisions about programming and policies. Data from this study will be stored electronically in a password protecting file without the personal identification information of participants. De-identified (without personal identification) data will be stored indefinitely.

Participation involves completion of two CSEIs surveys, one in-class during the first 1-8 weeks of the semester, and another in-class during the last 2-3 weeks of the semester.

Your [REDACTED] is also requested on this consent form in order to obtain your final GPA for this semester. This information will be used to compare first-year student's academic self-perceptions with their grades for the semester. GPA data will only be reported in aggregate (all participants' GPAs combined).

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses no risks or benefits to participants. You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. The investigator also has the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

The survey will take you 5-10 minutes to complete. You must be 18 years of age or older to participate in this study. If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you. All information obtained in this study is strictly confidential unless disclosure is required by law. All resulting data will only be reported in the aggregate, including GPA information pulled from Banner Information System for participants. By signing this consent form, you are agreeing that you read and fully understand the contents of this document and are openly willing to consent to take part in this study. All of your questions concerning this study have been answered.

Approved IRB
2/22/16

Thank you in advance for your participation! If you have any concerns about your rights, how you are being treated, or concerns, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351. If you have questions or want more information, please contact the Principal Investigator at the email below or Dr. Deborah Taub, Faculty Advisor, at 336-334-3437.

Sincerely,

Ayesha Hankins, Principal Investigator
UNCG Doctoral Candidate
336-334-5181
ajhankin@uncg.edu

By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate in this study described to you by Ayesha Hankins, Principal Investigator.

: _____

Printed Name: _____

Signature: _____ Date: _____

Approved IRB
2/22/16

APPENDIX E

PILOT STUDY: PRE-COURSE CSEI SURVEY ADMINISTRATION PROTOCOL

CSEI PAPER ADMINISTRATION PROTOCOL

The principal investigator will read the script below before passing out the survey instruments:

My name is Ayesha Hankins and I am doctoral student at UNCG conducting research on first-year students enrolled in [REDACTED] this semester.

The survey I am about to distribute asks you about your beliefs about your ability to successfully achieve at a designated level on an academic task or attain a specific academic goal as well as your beliefs about your ability to establish relationships with others. Information from the College Self-Efficacy Inventory (CSEI) will be used for the completion of my dissertation study and by [REDACTED] faculty and administrators to improve the collegiate experiences of undergraduates, especially those enrolled in [REDACTED] in future semesters.

You must be 18 years or older to participate in this study. The Informed Consent Form that I pass out with the survey describes the voluntary nature of the survey. Your signature confirms your willingness to participate. I will collect one consent form with your printed name and signature. The second copy is for you to keep. If you do not wish to participate in this survey or are under the age of 18, you may turn in a blank survey without any penalty. Choosing not to participate or withdrawing from this study will in no way affect your grade in this course.

I will now pass out the survey. Please wait for additional instructions before you begin. If you need something to write with, please raise your hand.

Participation involves completion of two CSEIs surveys, one in-class during the first 1-8 weeks of the semester, and another in-class during the last 2-3 weeks of the semester. In order to match your surveys, I would like for you write your own unique identifier in the upper right hand corner of the first page of the survey. Here are the instructions on how to generate your identifier:

In lowercase letters, please write...

- The first three letters of your first name
- The first three letters of your mother's first name
- The day of the month you were born

For example:

John Doe was born on 10/12/1997. His mother's first name is Sarah. His unique identifier would be johsar12 (*an abbreviation of this example is written on white board or chalkboard for participants to see*).

Any questions? My contact information is on the consent form should you have any questions about this study.

When you're done, please put your signed consent form and survey in the appropriately marked manila envelopes. Thank you for your participation!

Approved IRB
2/22/16

APPENDIX F

PILOT STUDY: PRE-COURSE CSEI SURVEY

COLLEGE SELF-EFFICACY INVENTORY (CSEI)

Instructions: This questionnaire seeks information regarding your degree of confidence in completing tasks associated with being a student at [REDACTED]. You will be asked to respond to a series of statements by marking the number which best represents your present attitude or opinion. Remember this is not a test and there are no right or wrong answers. The answer categories range from:

- | | |
|--------------------------|------------------------|
| 0 – totally unconfident | 5 – somewhat confident |
| 1 – very unconfident | 6 – confident |
| 2 – unconfident | 7 – very confident |
| 3 – somewhat unconfident | 8 – totally confident |
| 4 – undecided | 9 – does not apply |

Example:

You would mark the number (5) if you are *somewhat confident* with:

01. Finding the Union.

PLEASE ANSWER ALL THE ITEMS ON PAGES 1 AND 2

Using the scale provided mark the number in the space provided which best represents the degree to which you feel confident performing the following tasks.

- | | |
|---|--|
| ___ 1. Make new friends at college | ___ 12. Work on a group project |
| ___ 2. Talk to your professors/instructors | ___ 13. Socialize with others you live with |
| ___ 3. Take good class notes | ___ 14. Do well on your exams |
| ___ 4. Divide chores with others you
live with | ___ 15. Talk with a school academic and
support (e.g. advising) staff |
| ___ 5. Research a term paper | ___ 16. Manage your time effectively |
| ___ 6. Join an intramural sports team | ___ 17. Use the Library |
| ___ 7. Understand your textbooks | ___ 18. Join a student organization |
| ___ 8. Get a date when you want one | ___ 19. Ask a question in class |
| ___ 9. Ask a professor or instructor a question outside of
class | ___ 20. Divide space in your apartment/room |
| ___ 10. Get along with others you live with | ___ 21. Participate in class discussions |
| ___ 11. Write a course paper | ___ 22. Keep up to date with your schoolwork |

Demographic Information

Please mark your answers clearly. For questions 23-28, use a check mark (✓) or "X" to indicate your response.

23. What is your gender identity?

- ☐ Man
- ☐ Woman
- ☐ Transgender
- ☐ Other (please specify) _____

24. How old are you? _____

25. What is your student status?

- ☐ Full-time
- ☐ Part-time

26. How many courses are you taking for credit this semester?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 or more

27. With which category do you most identify?

- ☐ Asian/Pacific Islander
- ☐ Black/African American
- ☐ Latino(a)/Hispanic
- ☐ Middle Eastern
- ☐ Indigenous/Native American
- ☐ White
- ☐ Multiracial
- ☐ Other (please specify) _____

28. Where do you currently live?

- ☐ On campus (e.g., residence hall, apartment, family housing)
- ☐ On campus, in fraternity or sorority housing
- ☐ Off campus, in fraternity or sorority housing
- ☐ Off campus, alone or with friends/roommates
- ☐ Off campus, with my parent(s)/guardian(s)
- ☐ Off campus, with my spouse/partner/children
- ☐ Other (please specify) _____

APPENDIX G

PILOT STUDY: POST-COURSE SURVEY IRB MODIFICATION EMAIL

To: Ayeesha Hankins
Student Affairs
[REDACTED]

From: UNCG IRB

Date: 4/05/2016

RE: Notice of IRB Exemption (modification)
Exemption Category: 2.Survey, interview, public observation
Study #: 15-0528

Study Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Study of the First-Year Seminar

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

This purpose of this study is to assess the academic and social self-efficacy of first-time freshman students enrolled in [REDACTED]. Academic self-efficacy underscores the belief a student maintains about his or her ability to successfully achieve at a designated level on an academic task or attain a specific academic goal. Similarly, relational or social self-efficacy underscores the belief a student maintains about their ability to establish and sustain relationships his or her peers. A quasi-experimental pre-post study design will be utilized to determine if the intervention ([REDACTED]) contributed to changes in self-efficacy scores. Differences in scores, will be measured by using select items from the *College Self-Efficacy Inventory (CSEI)*. A secondary purpose is to determine if differences in self-efficacy scores are dissimilar among specific subgroups of students, including male and female, and various racial and ethnic groups. Research participants in randomly selected sections of the course will asked to voluntarily complete the paper survey. The survey will be administered in class by the principal investigator and students will receive an informed consent statement and the survey.

Modification Information:

I am making a modification to my original IRB given slight changes made to the CSEI instrument and the survey administration protocol. More specifically, it was necessary to add a question to the CSEI that asked students to provide their [REDACTED] student ID number in order to allow for their consent forms and surveys to be matched. The ID numbers of students who have consented to participate and successfully complete both surveys will be provided to Institutional Research in order to collect students' GPAs for the current semester in which they are enrolled in [REDACTED] (spring 2016 for the pilot study). This information was specified in the consent form and is briefly mentioned on the survey.

Secondly, an additional administration script will be added as an attachment. The script has been adapted so that it is more appropriate for the post-course survey administration as participants are already familiar with the study.

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. Please utilize the most recent and approved version of your consent form/information sheet when enrolling participants. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned to you in a separate email. **Stamped consent forms must be used unless the IRB has given you approval to waive this**

requirement. Please notify the ORI office immediately if you have an issue with the stamped consents forms.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university “Access to and Retention of Research Data” Policy which can be found at http://policy.uncg.edu/university-policies/research_data/.

CC:

Deborah Taub, Teacher Ed/Higher Ed

APPENDIX H

PILOT STUDY: POST-COURSE SURVEY ADMINISTRATION PROTOCOL

CSEI PAPER ADMINISTRATION (POST-COURSE SURVEY) PROTOCOL

The principal investigator will read the script below before passing out the post-course survey instrument:

Good morning/afternoon! My name is Ayesha Hankins and I am doctoral student at UNCG conducting research on first-year students enrolled in [REDACTED] this semester. In February/March, I came to your class and invited you all to participate in this study. The following directions are ONLY for students who agreed to participate by signing the Informed Consent Form and completing the first survey. Again, you must be 18 years or older to participate in this study and choosing not to participate further or withdrawing from this study will in no way effect your grade in this course.

The survey I am about to distribute asks you about your beliefs about your ability to successfully achieve at a designated level on an academic task as well as your beliefs about your ability to establish relationships with others. Information from the College Self-Efficacy Inventory (CSEI) will be used for the completion of my dissertation study and by [REDACTED] faculty and administrators to improve the collegiate experiences of undergraduates, especially those enrolled in [REDACTED] in future semesters.

I will now pass out the survey. Please wait for additional instructions before you begin. If you need something to write with, please raise your hand.

In order for me to match your surveys, you will need to write your own unique identifier in the upper right-hand corner of the first page of the survey. This is the same identifier you created last time you took the survey. Here are the instructions on how to generate your identifier:

In lowercase letters, please write...

- The first three letters of your first name
- The first three letters of your mother's first name
- The day of the month you were born

For example:

John Doe was born on 10/12/1997. His mother's first name is Sarah. His unique identifier would be johsar12 (an abbreviation of this example is written on white board or chalkboard for participants to see).

Please write your own unique identifier in the upper right-hand corner of the first page of your survey.

Once you complete the CSEI survey, please put it in the appropriately marked manila envelope. Any questions?

Has everyone turned in a survey? Thank you for your participation!

APPENDIX I

PILOT STUDY: POST-COURSE CSEI SURVEY

COLLEGE SELF-EFFICACY INVENTORY (CSEI)

Instructions: This questionnaire seeks information regarding your degree of confidence in completing tasks associated with being a student at the [REDACTED]. You will be asked to respond to a series of statements by marking the number which best represents your present attitude or opinion. Remember this is not a test and there are no right or wrong answers. Your student ID is requested in order to obtain your GPA for this semester. GPA data will only be reported in aggregate (all participants' GPAs combined). All of your responses will be kept confidential.

The answer categories range from:

0 – totally unconfident

1 – very unconfident

2 – unconfident

3 – somewhat unconfident

4 – undecided

5 – somewhat confident

6 – confident

7 – very confident

8 – totally confident

9 – does not apply

Example:

You would mark the number (5) if you are *somewhat confident* with:

02. Finding the Union.

PLEASE ANSWER ALL THE ITEMS ON PAGES 1 AND 2

Using the scale provided mark the number in the space provided which best represents the degree to which you feel confident performing the following tasks.

____ 1. Make new friends at college

____ 12. Work on a group project

____ 2. Talk to your professors/instructors

____ 13. Socialize with others you live with

____ 3. Take good class notes

____ 14. Do well on your exams

____ 4. Divide chores with others you

____ 15. Talk with a school academic and

live with

support (e.g. advising) staff

____ 5. Research a term paper

____ 16. Manage your time effectively

____ 6. Join an intramural sports team

____ 17. Use the Library

____ 7. Understand your textbooks

____ 18. Join a student organization

____ 8. Get a date when you want one

____ 19. Ask a question in class

____ 9. Ask a professor or instructor a question outside of class

____ 20. Divide space in your apartment/room

____ 10. Get along with others you live with

____ 21. Participate in class discussions

____ 11. Write a course paper

____ 22. Keep up to date with your schoolwork

Demographic Information

Please mark your answers clearly. For questions 23-29, use a check mark (✓) or "X" to indicate your response.

23. Please print your [REDACTED] student ID number in the space below.

24. What is your gender identity?

- ☐ Man
- ☐ Woman
- ☐ Transgender
- ☐ Other (please specify) _____

25. How old are you? _____

26. What is your student status?

- ☐ Full-time
- ☐ Part-time

27. How many courses are you taking for credit this semester?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 or more

28. With which category do you most identify?

- ☐ Asian/Pacific Islander
- ☐ Black/African American
- ☐ Latino(a)/Hispanic
- ☐ Middle Eastern
- ☐ Indigenous/Native American
- ☐ White
- ☐ Multiracial
- ☐ Other (please specify) _____

29. Where do you currently live?

- ☐ On campus (e.g., residence hall, apartment, family housing)
- ☐ On campus, in fraternity or sorority housing
- ☐ Off campus, in fraternity or sorority housing
- ☐ Off campus, alone or with friends/roommates
- ☐ Off campus, with my parent(s)/guardian(s)
- ☐ Off campus, with my spouse/partner/children
- ☐ Other (please specify) _____

APPENDIX J**CSEI CONTENT VALIDITY REVIEW: JUROR INVITATIONAL EMAIL AND
MEMO**

Good afternoon [REDACTED],

My name is Ayesha Hankins and I currently a second-year doctoral student at the University of North Carolina Greensboro (UNCG). That said, I have been working with my advisor, Dr. Deborah Taub to ensure the validity of the survey instrument I intend to use for my study this fall. In doing so, it has been advised that I select several jurors (i.e., a diverse group of professionals) to assist me in establishing content validity.

Dr. Taub suggested that I contact you given your experience and expertise working with first-year students. As the attached denotes, my study will be focused on the academic self-efficacy of first-year students enrolled in [REDACTED]. In addition, the memo provides further information about the role of a juror. Please contact me via email if you can assist me with this task.

Sincerely,

--

Ayesha J. Hankins

Doctoral Research Assistant

Student Affairs Assessment

UNC Greensboro

140 Mossman Building

[336.334.5181](tel:336.334.5181)

ajhankin@uncg.edu

RESEARCH MEMORANDUM**Date:** Friday, April 15, 2016**To:** [REDACTED]**From:** Ayesha Hankins, UNCG School of Education, Higher Ed Doctoral Candidate**Subject:** Invitation to serve as content validity jurors

This memo serves as a request for your assistance as a juror in validating an instrument that I am using to using to collect data on academic and social self-efficacy. More specifically, I will be using the College Self-Efficacy Inventory (CSEI)¹ to assess these constructs among first-year students enrolled in [REDACTED], for my dissertation study. I am inviting you to participate in this process because of your knowledge of first-year students, research methods, and/or survey instrument design and validation. Participation in this process will include one quantitative review of the CSEI instrument based on steps outlined by McKenzie, Wood, Kotecki, Clark, and Brey (1999)². Specifically, each juror will rate the appropriateness of each item by stating if each item is: essential; useful, but not essential; or not necessary. I would estimate that this review will take you 15-20 minutes to complete. Should you accept my invitation to serve as a juror, in the next few weeks you will receive electronic access to a folder of materials including a copy of the draft instrument and instructions for completing the review.

Thank you for considering this request. Please contact me via e-mail by April 27th to let me know your decision. I look forward to hearing from you soon.

Sincerely,

Ayesha J. Hankins
 Doctoral Candidate
 UNC Greensboro
 140 Mossman Building
[336.334.5181](tel:336.334.5181)
ajhankin@uncg.edu

1. Solberg, V. S., O'Brien, K., Villarreal, P., Kennel, R., & Davis, B. (1993). Self-efficacy and Hispanic college students: Validation of the College Self-Efficacy Inventory. *Hispanic Journal of the Behavioral Sciences*, 15, 80-95
2. McKenzie, J. F., Wood, M. L., Kotechi, J. E., Clark, J. K., & Brey, R. A. (1999). Establishing content validity: Using qualitative and quantitative steps. *American Journal of Health Behavior*, 23(4), 311-318.

APPENDIX K

CSEI CONTENT VALIDITY REVIEW: JUROR EMAIL

Dear Juror,

Thank you for your willingness to participate in the quantitative review of the College Self-Efficacy Inventory (CSEI). The identification of jurors was based on the following criteria:

- Be either a university student services professional or faculty who works with first-year students or be skilled in instrument creation and design.
- Be willing to serve on the jury.
- Be able to complete the review by **May 6th**.

If for any reason, you are unable to participate further, please let me know. The review process is confidential. In order to assist you with completing the review, the following documents have been made accessible to you:

Solberg, V. S., O'Brien, K., Villarreal, P., Kennel, R., & Davis, B. (1993). This article provides background information on the CSEI.

McKenzie, J. F., Wood, M. L., Kotechi, J. E., Clark, J. K., & Brey, R. A. (1999). This article provides further insight into establishing content validity, specifically the quantitative review process.

A summary of the background and rationale for my dissertation study, including definitions of academic self-efficacy and social self-efficacy.

A copy of an adapted version of the CSEI for my study to be administered to first-time first-semester students enrolled in [REDACTED] in the fall.

A link to access these files via Box will be sent to you shortly following by a link for you to complete the quantitative review using Qualtrics, an online survey platform. Please let me know if you have any questions. Thank you again for your participation!

Sincerely,

Ayeesha J. Hankins
 Doctoral Research Assistant
 Student Affairs Assessment
 UNC Greensboro
 140 Mossman Building
[336.334.5181](tel:336.334.5181)
ajhankin@uncg.edu

APPENDIX L

CSEI CONTENT VALIDITY REVIEW: QUALTRICS SURVEY

Q1 Please rate the level of appropriateness of each question on the academic efficacy subscale of the College Self-Efficacy Inventory (CSEI).

	Essential	Useful but not essential	Not necessary
Research a term paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write a course paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do well on your exams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take good class notes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep up to date with your schoolwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manage your time effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand your textbooks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use the Library	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 Please rate the level of appropriateness of each question on the social efficacy subscale of the College Self-Efficacy Inventory (CSEI).

	Essential	Useful but not essential	Not necessary
Get along with others you live with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Socialize with others you live with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Divide space in your apartment/room	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Divide chores with others you live with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in class discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ask a question in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get a date when you want one	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk to your professors/instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk with a school academic and support (e.g. advising) staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ask a professor or instructor a question outside of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make new friends at college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Join a student organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Join an intramural sports team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work on a group project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX M

DISSERTATION STUDY: IRB MODIFICATION APPROVAL EMAILS

To: Ayeesha Hankins
Student Affairs
[REDACTED]

From: UNCG IRB

Date: 8/24/2016

RE: Notice of IRB Exemption (modification)

Exemption Category: 2. Survey, interview, public observation

Study #: 15-0528

Study Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Quantitative Study of the First-Year Seminar

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

This purpose of this study is to assess the academic and social self-efficacy of first-time freshman students enrolled in the [REDACTED]. Academic self-efficacy underscores the belief a student maintains about his or her ability to successfully achieve at a designated level on an academic task or attain a specific academic goal. Similarly, relational or social self-efficacy underscores an individual's confidence in her/his ability to engage in the social interactional tasks necessary to initiate and maintain interpersonal relationships. A quasi-experimental pre-post study design will be utilized to determine if the intervention ([REDACTED]) contributed to changes in self-efficacy scores. Differences in scores, will be measured by the *College Self-Efficacy Inventory (CSEI)*. A secondary purpose is to determine if differences in self-efficacy scores are dissimilar among specific subgroups of students, including male and female, and various racial and ethnic groups. Research participants in [REDACTED] sections for Exploratory majors (Arts and Sciences Undecided) will invited to voluntarily complete the online survey. The survey will be administered via Qualtrics by the principal investigator and students will be required to agree to an informed consent statement before completing the survey.

Regulatory and other findings:

- This research meets criteria for waiver of a signed consent form according to 45 CFR 46.117(c)(2).
- The IRB requirement that all consent documents used in the enrollment process display the IRB approval stamp is waived for this study.

Modification Information:

- After completing the pilot study in spring 2016, modifications will be made to the study in the following areas: administration, analyses, and the CSEI instrument.
- Consent form and recruitment materials were modified to reflect changes

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. Please utilize the most recent and approved version of your consent form/information sheet when enrolling participants. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned to you in a separate email. **Stamped consent forms must be used unless the IRB has given you approval to waive this requirement.** Please notify the ORI office immediately if you have an issue with the stamped consents forms.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university "Access to and Retention of Research Data" Policy which can be found at http://policy.uncg.edu/university-policies/research_data/.

CC:

Dale Schunk, Teacher Ed/Higher Ed

To: Ayesha Hankins
Student Affairs
[REDACTED]

From: UNCG IRB

Date: 8/29/2016

RE: Notice of IRB Exemption (modification)
Exemption Category: 2.Survey, interview, public observation
Study #: 15-0528

Study Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Quantitative Study of the First-Year Seminar

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

This purpose of this study is to assess the academic and social self-efficacy of first-time freshman students enrolled in the [REDACTED]. Academic self-efficacy underscores the belief a student maintains about his or her ability to successfully achieve at a designated level on an academic task or attain a specific academic goal. Similarly, relational or social self-efficacy underscores an individual's confidence in her/his ability to engage in the social interactional tasks necessary to initiate and maintain interpersonal relationships. A quasi-experimental pre-post study design will be utilized to determine if the intervention ([REDACTED]) contributed to changes in self-efficacy scores. Differences in scores, will be measured by the *College Self-Efficacy Inventory (CSEI)*. A secondary purpose is to determine if differences in self-efficacy scores are dissimilar among specific subgroups of students, including male and female, and various racial and ethnic groups. Research participants in [REDACTED] sections for Exploratory majors (Arts and Sciences Undecided) will invited to voluntarily complete the online survey. The survey will be administered via Qualtrics by the principal investigator and students will be required to agree to an informed consent statement before completing the survey.

Regulatory and other findings:

- This research meets criteria for waiver of a signed consent form according to 45 CFR 46.117(c)(2).
- The IRB requirement that all consent documents used in the enrollment process display the IRB approval stamp is waived for this study.

Modification Information:

- A modification has been submitted as student email addresses will no longer be provided by the University Registrar's Office, but Institutional Research (IR). This office will supply the principal investigator with each [REDACTED] (361 designated) students [REDACTED] email address, first name, last name, along with a course designation (i.e., CRN or section number) to differentiate each student by the section of the course they are enrolled in.
- Additionally, the survey administration has been delayed by one week. The pre-course survey will be administered Tuesday, September 6th through Sunday, September 17th. The survey reminder email language and the in-class pre-course survey script have both been edited to reflect this change.

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. Please utilize the most recent and approved version of your consent form/information sheet when enrolling participants. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned to you in a separate email. **Stamped consent forms must be used unless the IRB has given you approval to waive this requirement.** Please notify the ORI office immediately if you have an issue with the stamped consents forms.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research

team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university "Access to and Retention of Research Data" Policy which can be found at http://policy.uncg.edu/university-policies/research_data/.

CC:

Dale Schunk, Teacher Ed/Higher Ed

To: Ayesha Hankins
Student Affairs
[REDACTED]

From: UNCG IRB

Date: 9/15/2016

RE: Notice of IRB Exemption
Exemption Category: 2.Survey, interview, public observation
Study #: 15-0528

Study Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Quantitative Study of the First-Year Seminar

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

This purpose of this study is to assess the academic and social self-efficacy of first-time freshman students enrolled in the [REDACTED]. Academic self-efficacy underscores the belief a student maintains about his or her ability to successfully achieve at a designated level on an academic task or attain a specific academic goal. Similarly, relational or social self-efficacy underscores an individual's confidence in her/his ability to engage in the social interactional tasks necessary to initiate and maintain interpersonal relationships. A quasi-experimental pre-post study design will be utilized to determine if the intervention ([REDACTED]) contributed to changes in self-efficacy scores. Differences in scores, will be measured by the *College Self-Efficacy Inventory (CSEI)*. A secondary purpose is to determine if differences in self-efficacy scores are dissimilar among specific subgroups of students, including male and female, and various racial and ethnic groups. Research participants in [REDACTED] sections for Exploratory majors (Arts and Sciences Undecided) will invited to voluntarily complete the online survey. The survey will be administered via Qualtrics by the principal investigator and students will be required to agree to an informed consent statement before completing the survey.

Regulatory and other findings:

- This research meets criteria for waiver of a signed consent form according to 45 CFR 46.117(c)(2).
- The IRB requirement that all consent documents used in the enrollment process display the IRB approval stamp is waived for this study.

Modification Information:

- A modification is being submitted in order to add an additional reminder email to be sent to the sample of [REDACTED] students invited to participate in the study (in total, one invitation and two reminders will be sent). In addition, one minor edit was made to the first reminder email. The attachment 'email recruitment' file includes all of the aforesaid modifications.

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. Please utilize the most recent and approved version of your consent form/information sheet when enrolling participants. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned to you in a separate email. **Stamped consent forms must be used unless the IRB has given you approval to waive this requirement.** Please notify the ORI office immediately if you have an issue with the stamped consents forms.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with

the university “Access to and Retention of Research Data” Policy which can be found at http://policy.uncg.edu/university-policies/research_data/.

CC:

Dale Schunk, Teacher Ed/Higher Ed

APPENDIX N

DISSERTATION STUDY: CONSENT FORM

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO CONSENT TO ACT AS A HUMAN PARTICIPANT

Project Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Quantitative Study of the First-Year Seminar

Principal Investigator: Ayesha Hankins

Faculty Advisor: Dr. Dale Schunk

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to participate, or you may withdraw your consent to be in the study, for any reason, without penalty. Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or [REDACTED]. Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study. You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

The study that you are being asked to participate in is a research project. This study focuses on the academic and social beliefs of first-year students enrolled in Foundations for Learning [REDACTED] using the *College Self-Efficacy Inventory (CSEI)*. The CSEI measures one's confidence to perform various tasks associated with college success. Your feedback may be used by administrators to make informed decisions about programming and policies.

Why are you asking me?

This study will sample first-time, first semester students enrolled in sections of [REDACTED] for Exploratory Majors (Arts and Sciences Undecided) at [REDACTED] in fall 2016. Participants must be 18 years of age or older to participate in this study.

What will you ask me to do if I agree to be in the study?

Participation involves completion of two online CSEI surveys, one during the first 2-3 weeks of the semester, and another during the last 2-3 weeks of the semester. Invitational emails will be sent to your [REDACTED] email account inviting you to participate in the surveys. The CSEI survey will take you 5-10 minutes to complete.

Also, your [REDACTED] student ID number is requested on the survey in order to obtain your final grade in [REDACTED] for fall 2016. This information will be used to compare first-year student's academic self-perceptions with their grades in the course. Final grade data will only be reported in aggregate (all participants' grades combined).

What are the risks to me?

There are no known risks.

If you have questions, want more information or have suggestions, please contact Ayesha Hankins, the Principal Investigator, at ajhankin@uncg.edu or Dr. Dale Schunk, Faculty Advisor at (336) 334-3404.

Approved IRB
8/24/16

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

Are there any benefits to society as a result of me taking part in this research?

This study will provide information to better understand the impact of the [REDACTED] on first-year students as well as what program changes can be made to better support students' academic and social self-efficacy and overall success in their first-year of college.

Are there any benefits to me for taking part in this research study?

There are no direct benefits to participants in this study.

Will I get paid for being in the study? Will it cost me anything?

There are no costs to you or payments made for participating in this study. However, after the completion of both surveys, you can elect to include your name and email address to be entered in a random drawing for one of four \$25.00 gift cards. If you choose to be entered in the drawing, you will be taken to another screen to enter in your information.

How will you keep my information confidential?

All information obtained in this study is strictly confidential unless disclosure is required by law. All resulting data will only be reported in the aggregate, including final grade information pulled from Banner Information System for participants. Data from this study will be stored electronically in a password protecting file without the personal identification information of participants. De-identified (without personal identification) data will be stored indefinitely.

Absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. Choosing not to participate or withdrawing from the study will not affect your grades or relationship with [REDACTED].

The investigator also has the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By clicking "I Agree" in this survey you are agreeing that you read and fully understand the contents of this document and are willingly consenting to take part in this study. All of your questions concerning this study have been answered. By clicking "I Agree", you are agreeing that you are 18 years of age or older and are agreeing to participate in this study. You may print copies of this consent document for your own records from your personal computer.

APPENDIX O

DISSERTATION STUDY: PRE-COURSE CSEI SURVEY ADMINISTRATION PROTOCOL

CSEI IN-CLASS RECRUITMENT SCRIPT (PRE-COURSE SURVEY)

The principal investigator will read the script during each class visit:

Good afternoon/morning and welcome to [REDACTED]! My name is Ayesha Hankins, I am from Anchorage, Alaska, and I am a third-year doctoral/PhD student at UNCG. This semester I am conducting research on first-year students. The study I am conducting focuses on the academic and social beliefs of students enrolled in [REDACTED] using the College Self-Efficacy Inventory (CSEI) *[the name of the instrument may written on the board, so students understand the usage of the acronym]*. That said, I am here to invite you to participate!

Participation involves completion of two online CSEI surveys, one during the first 2-3 weeks of the semester; I'll be sending (or I have sent) each of you an invitational email next week (or this week), so check your [REDACTED] email account. And a second survey during the last 2-3 weeks of the semester.

The CSEI survey is completely confidential and will only take you 5 minutes to complete. With your permission, your final grade for in [REDACTED] for fall 2016 will be obtained using your [REDACTED] student ID number, which is also requested on the survey.

You can use your iPhone, iPad, tablet, or personal computer to complete the survey. Also, as an incentive for your time and feedback, you will be able to enter into a random drawing to win one of four \$25.00 Amazon gift cards at the completion of the second survey, which again will be sent to you via email during the last few weeks of the semester *[shorthand notes may be written on the board to help students understand the administration process]*

Information from the CSEI will be used for the completion of my dissertation study and may be used by [REDACTED] faculty and administrators to improve the college experience of undergraduates, especially those enrolled in [REDACTED] in future semesters.

You must be 18 years or older to participate in this study. Choosing not to participate or withdrawing from this study will not affect your grades or relationship with [REDACTED].

I will pass around copies of the Informed Consent Form, which describes the voluntary nature of the study and provide more information, as well as how to contact me. Please take a copy.

Again, I will be emailing (or I have emailed) each of you and I hope that you'll complete the survey. Are there any questions?!

Thank you and again welcome!

Approved IRB

8/29/16

APPENDIX P

DISSERTATION STUDY: PRE-COURSE CSEI SURVEY

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO CONSENT TO ACT AS A HUMAN PARTICIPANT

Project Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Quantitative Study of the First-Year Seminar

Principal Investigator: Ayeesha Hankins

Faculty Advisor: Dr. Dale Schunk

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to participate, or you may withdraw your consent to be in the study, for any reason, without penalty. Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the [REDACTED]. Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study. You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

The study that you are being asked to participate in is a research project. This study focuses on the academic and social beliefs of first-year students enrolled in [REDACTED] using the *College Self-Efficacy Inventory (CSEI)*. The CSEI measures one's confidence to perform various tasks associated with college success. Your feedback may be used by administrators to make informed decisions about programming and policies.

Why are you asking me?

This study will sample first-time, first semester students enrolled in sections of [REDACTED] for Exploratory Majors (Arts and Sciences Undecided) at [REDACTED] in fall 2016. Participants must be 18 years of age or older to participate in this study.

What will you ask me to do if I agree to be in the study?

Participation involves completion of two online CSEI surveys, one during the first 2-3 weeks of the semester, and another during the last 2-3 weeks of the semester. Invitational emails will be sent to your [REDACTED] email account inviting you to participate in the surveys. The CSEI survey will take you 5-10 minutes to complete.

Also, your [REDACTED] student ID number is requested on the survey in order to obtain your final grade in [REDACTED] for fall 2016. This information will be used to compare first-year student's academic self-perceptions with their grades in the course. Final grade data will only be reported in aggregate (all participants' grades combined).

What are the risks to me?

There are no known risks.

If you have questions, want more information or have suggestions, please contact Ayeesha Hankins, the Principal Investigator, at ahankin@uncg.edu or Dr. Dale Schunk, Faculty Advisor at (336) 334-3404.

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351.

Are there any benefits to society as a result of me taking part in this research?

This study will provide information to better understand the impact of the [REDACTED] program on first-year students as well as what program changes can be made to better support students' academic and social self-efficacy and overall success in their first-year of college.

Are there any benefits to *me* for taking part in this research study?

There are no direct benefits to participants in this study.

Will I get paid for being in the study? Will it cost me anything?

There are no costs to you or payments made for participating in this study. However, after the completion of both surveys, you can elect to include your name and email address to be entered in a random drawing for one of four \$25.00 gift cards. If you choose to be entered in the drawing, you will be taken to another screen to enter in your information.

How will you keep my information confidential?

All information obtained in this study is strictly confidential unless disclosure is required by law. All resulting data will only be reported in the aggregate, including final grade information pulled from Banner Information System for participants. Data from this study will be stored electronically in a password protecting file without the personal identification information of participants. De-identified (without personal identification) data will be stored indefinitely.

Absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. Choosing not to participate or withdrawing from the study will not affect your grades or relationship with [REDACTED].

The investigator also has the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By clicking "I Agree" in this survey you are agreeing that you read and fully understand the contents of this document and are willingly consenting to take part in this study. All of your questions concerning this study have been answered. By clicking "I Agree", you are agreeing that you are 18 years of age or older and are agreeing to participate in this study. You may print copies of this consent document for your own records from your personal computer. I have read, understood, and printed a copy of, the above consent form and desire of my own free will to participate in this study.

Q1 I have read, understood, and printed a copy of, the above consent form and desire of my own free will to participate in this study.

- ☐ I agree and consent to participating in this study.
- ☐ I disagree and do not want to participate in this study.

Q2 Instructions: This survey seeks information regarding your degree of confidence in completing tasks associated with being a student at [REDACTED] as a result of your enrollment in [REDACTED] this semester. You will be asked to respond to a series of statements by marking the response which best represents your present attitude or opinion. Remember this is not a test and there are no right or wrong answers.

Q3 Using the scale provided, indicate which best represents the degree to which you feel confident performing the following tasks.

	Totally Unconfident	Very Unconfident	Unconfident	Somewhat Unconfident	Undecided	Somewhat Unconfident	Confident	Very Confident	Totally Confident	Does Not Apply
Make new friends at college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk to your professors/instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take good class notes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Divide chores with others you live with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research a term paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Join an intramural sports team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand your textbooks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get a date when you want one	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ask a professor or instructor a question outside of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get along with others you live with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write a course paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 Using the scale provided, indicate which best represents the degree to which you feel confident performing the following tasks.

	Totally Unconfident	Very Unconfident	Unconfident	Somewhat Unconfident	Undecided	Somewhat Unconfident	Confident	Very Confident	Totally Confident	Does Not Apply
Socialize with others you live with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do well on your exams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk with academic and support (e.g. advising) staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manage your time effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Join a student organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ask a question in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Divide space in your residence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in class discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep up to date with your schoolwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 What is your gender identity?

- ☐ Man
- ☐ Woman
- ☐ Transgender
- ☐ Other _____

Q6 How old are you?

Q7 What is your [REDACTED] student ID number? (Your [REDACTED] ID number is a 9-digit number)

Q8 What is your student status?

- ☐ Full-time
- ☐ Part-time

Q9 How many courses are you taking for credit this semester?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 or more

Q10 With which category do you most identify?

- ☐ Asian/Pacific Islander
- ☐ Black/African American
- ☐ Latino(a)/Hispanic
- ☐ Middle Eastern
- ☐ Indigenous/Native American
- ☐ White
- ☐ Multiracial
- ☐ Other _____

Q11 Are you the first in your family to go to college (i.e., neither of your parents/guardians or siblings have attended any college)?

- ☐ Yes
- ☐ No

Q12 Where do you currently live?

- ☐ On campus (e.g., residence hall, apartment, family housing)
- ☐ On campus, in fraternity or sorority housing
- ☐ Off campus, in fraternity or sorority housing
- ☐ Off campus, alone or with friends/roommates
- ☐ Off campus, with my parent(s)/guardian(s)
- ☐ Off campus, with my spouse/partner/children
- ☐ Other _____

Q13 Which on campus residence hall do you live in?

[REDACTED]

APPENDIX Q

DISSERTATION STUDY: INVITATIONAL AND REMINDER EMAILS

Email Recruitment: Invitation to participate (Pre-course survey)

Sender: Ayesha Hankins
Subject line: Participate in the College Self-Efficacy Inventory

Dear First Name Last Name,

You are being asked to take part in a voluntary research study. This study focuses on the academic and social beliefs of first-year students enrolled in [REDACTED] using the College Self-Efficacy Inventory (CSEI) survey. Your feedback may be used by [REDACTED] administrators to make informed decisions about programming and policies.

Participation involves completion of two web-based CSEI surveys. The first survey is accessible at the link below, and another survey link will be sent to you during the last 2-3 weeks of the semester. With your permission, your final grade in [REDACTED] for fall 2016 will be obtained using your [REDACTED] student ID number, which is requested on the survey. All resulting data, including final grades will only be reported in aggregate (all participants' responses combined).

As an added incentive for your time and feedback, you will be able to enter into a random drawing to win one of four \$25.00 Amazon gift cards at the completion of the second survey.

This survey will only take you 5-10 minutes to complete. All of your responses will be kept completely confidential. You must be 18 or older to participate. Choosing not to participate or withdrawing from this study will not affect your grades or relationship with [REDACTED].

To access the survey, click on the link below:
[*Qualtrics survey link*]

Thank you in advance for your participation! If you have any concerns about your rights, how you have been treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351. If you have any specific questions about this study, I encourage you to contact me at the email below.

Sincerely,
Ayesha Hankins
Principal Investigator
UNCG Doctoral Candidate
ajhankin@uncg.edu

Email Recruitment: Reminder (Pre-course survey)

Sender: Ayeesha Hankins

Subject line: Remember to Participate in the College Self-Efficacy Inventory

Dear First Name Last Name,

About one week ago you received an e-mail message asking you to participate in a voluntary research study by filling out the College Self-Efficacy Inventory (CSEI) survey.

This study focuses on the academic and social beliefs of first-year students enrolled in [REDACTED] 100. Please share your self-perceptions by completing the CSEI survey by [insert survey administration close date]. This survey will take you 5-10 minutes to complete. With your permission, your final grade in [REDACTED] for fall 2016 will be obtained using your [REDACTED] student ID number, which is requested on the survey. All resulting data, including final grades will only be reported in aggregate.

You must be 18 or older to participate in this study. Choosing not to participate or withdrawing from this study will not affect your grades or relationship with [REDACTED].

To complete the survey, click the link below:
[Qualtrics survey link]

If you have any concerns about your rights, how you have been treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351. If you have any specific questions about this study, I encourage you to contact me at the email below.

Thank you for your time and feedback!

Ayeesha Hankins
Principal Investigator
UNCG Doctoral Candidate
ajhankin@uncg.edu

Email Recruitment: Final Reminder (Pre-course survey)

Sender: Ayesha Hankins

Subject line: Final Reminder to Participate in the College Self-Efficacy Inventory

Dear First Name Last Name,

You are being asked to participate in a voluntary research study by completing the College Self-Efficacy Inventory (CSEI) survey.

This study focuses on the academic and social beliefs of first-year students enrolled in [REDACTED]. Participation involves completion of two web-based CSEI surveys. The first survey, which is at the link below, and another survey that will be sent to you later in the semester. Please complete the first survey [insert survey administration close date].

This survey will take you 5 minutes to complete. With your permission, your final grade in [REDACTED] for fall 2016 will be obtained using your [REDACTED] student ID number, which is requested on the survey. All resulting data, including final grades will only be reported in aggregate.

You must be 18 or older to participate in this study. Choosing not to participate or withdrawing from this study will not affect your grades or relationship with [REDACTED].

As an incentive for your feedback, you will be able to enter into a random drawing to win one of four \$25.00 Amazon gift cards at the completion of the second survey.

To complete the survey, click the link below:

[*Qualtrics survey link*]

If you have any concerns about your rights, how you have been treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351. If you have any specific questions about this study, please contact me at the email below.

Thank you for your participation,

Ayesha Hankins

Principal Investigator

UNCG Doctoral Candidate

ajhankin@uncg.edu

Email Recruitment: Invitation to participate (Post-course survey)

Sender: Ayeesha Hankins

Subject line: Participate in the College Self-Efficacy Inventory

Dear First Name Last Name,

You are being asked to take part in a voluntary research study. This study focuses on the academic and social beliefs of first-year students enrolled in [REDACTED] using the College Self-Efficacy Inventory (CSEI) survey. Your feedback may be used by administrators to make informed decisions about programming and policies.

Participation involves completion of two web-based CSEI surveys. Thank you for completing the first survey, which was sent to you earlier in the semester. Below is a link to the second survey. With your permission, your final grade in [REDACTED] for fall 2016 will be obtained using your [REDACTED] student ID number, which is requested on the survey. All resulting data, including final grades will only be reported in aggregate (all participants' responses combined).

As an added incentive for your time and feedback, you will be able to enter into a random drawing to win one of four \$25.00 Amazon gift cards at the end of this survey.

This survey will only take you 5-10 minutes to complete. All of your responses will be kept completely confidential. You must be 18 or older to participate. Choosing not to participate or withdrawing from this study will not affect your grades or relationship with [REDACTED].

To access the survey, click on the link below:

[[Qualtrics survey link](#)]

Thank you in advance for your participation! If you have any concerns about your rights, how you have been treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351. If you would like to be removed from the research mailing list or if you have any specific questions about this study, please contact me at the email below.

Sincerely,

Ayeesha Hankins

Principal Investigator

UNCG Doctoral Candidate

ajhankin@uncg.edu

Email Recruitment: Reminder (Post-course survey)

Sender: Ayeesha Hankins

Subject line: Remember to Participate in the College Self-Efficacy Inventory

Dear First Name Last Name,

About one week ago you received an e-mail message asking you to participate in a voluntary research study by filling out the College Self-Efficacy Inventory (CSEI) survey.

This study focuses on the academic and social beliefs of first-year students enrolled in [REDACTED]. Please share your self-perceptions by completing the CSEI survey by [insert survey administration close date]. This survey will take you 5-10 minutes to complete. With your permission, your final grade in [REDACTED] for fall 2016 will be obtained using your [REDACTED] student ID number, which is requested on the survey. All resulting data, including final grades will only be reported in aggregate.

As an added incentive for your time and feedback, you will be able to enter into a random drawing to win one of four \$25.00 Amazon gift cards at the end of this survey.

All of your responses will be kept completely confidential. You must be 18 or older to participate. Choosing not to participate or withdrawing from this study will not affect your grades or relationship with [REDACTED].

To complete the survey, click the link below:

[*Qualtrics survey link*]

If you have any concerns about your rights, how you have been treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351. If you have any specific questions about this study, I encourage you to contact me at the email below.

Thank you for your participation in this study!

Ayeesha Hankins

Principal Investigator

UNCG Doctoral Candidate

ajhankin@uncg.edu

Email Recruitment: Final Reminder (Post-course survey)

Sender: Ayesha Hankins

Subject line: Final Reminder to Participate in the College Self-Efficacy Inventory

Dear First Name Last Name,

You are being asked to participate in a voluntary research study by completing the College Self-Efficacy Inventory (CSEI) survey.

This study focuses on the academic and social beliefs of first-year students enrolled in [REDACTED]. Participation involves completion of two web-based CSEI surveys. The first survey, which was sent to you earlier in the semester, and the second survey which is accessible at the link below. Please complete the second survey by [insert survey administration close date].

To complete the survey, click the link below:

[*Qualtrics survey link*]

This survey will take you 5 minutes to complete. With your permission, your final grade in [REDACTED] for fall 2016 will be obtained using your [REDACTED] student ID number, which is requested on the survey. All resulting data, including final grades, will only be reported in aggregate.

You must be 18 or older to participate in this study. Choosing not to participate or withdrawing from this study will not affect your grades or relationship with [REDACTED].

As an incentive for your feedback, you will be able to enter into a random drawing to win one of four \$25.00 Amazon gift cards at the completion of this survey.

If you have any concerns about your rights, how you have been treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351. If you have any specific questions about this study, please contact me at the email below.

Thank you for your participation,

Ayesha Hankins
Principal Investigator
UNCG Doctoral Candidate
ajhankin@uncg.edu

APPENDIX R

DISSERTATION STUDY: IRB MODIFICATION APPROVAL EMAILS

To: Ayeesha Hankins
[REDACTED]

From: UNCG IRB

Date: 10/25/2016

RE: Notice of IRB Exemption

Exemption Category: 2. Survey, interview, public observation

Study #: 15-0528

Study Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Quantitative Study of the First-Year Seminar

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

This purpose of this study is to assess the academic and social self-efficacy of first-time freshman students enrolled in the [REDACTED]. Academic self-efficacy underscores the belief a student maintains about his or her ability to successfully achieve at a designated level on an academic task or attain a specific academic goal. Similarly, relational or social self-efficacy underscores an individual's confidence in her/his ability to engage in the social interactional tasks necessary to initiate and maintain interpersonal relationships. A quasi-experimental pre-post study design will be utilized to determine if the intervention ([REDACTED]) contributed to changes in self-efficacy scores. Differences in scores, will be measured by the *College Self-Efficacy Inventory (CSEI)*. A secondary purpose is to determine if differences in self-efficacy scores are dissimilar among specific subgroups of students, including male and female, and various racial and ethnic groups. Research participants in [REDACTED] sections for Exploratory majors (Arts and Sciences Undecided) will invited to voluntarily complete the online survey. The survey will be administered via Qualtrics by the principal investigator and students will be required to agree to an informed consent statement before completing the survey.

Regulatory and other findings:

- This research meets criteria for waiver of a signed consent form according to 45 CFR 46.117(c)(2).
- The IRB requirement that all consent documents used in the enrollment process display the IRB approval stamp is waived for this study.

Modification information:

This modification is being submitted for three reasons.

1. The post-course survey was not added as an attachment to the original IRB
2. The survey drawing for the incentive to participate in the study was not included on the original IRB (The drawing page will be accessible at the end of the CSEI for study participants. Students interested in participating in the random drawing will be asked to enter their name and email address)
3. The exact dates of the post-course survey have been determined and differ from those originally noted. They will be November 10th through November 21st.

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. Please utilize the most recent and approved version of your consent form/information sheet when enrolling participants. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned to you in a separate email. **Stamped consent forms must be used unless the IRB has given you approval to waive this requirement.** Please notify the ORI office immediately if you have an issue with the stamped consents forms.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university "Access to and Retention of Research Data" Policy which can be found at http://policy.uncg.edu/university-policies/research_data/.

CC:

Dale Schunk, Teacher Ed/Higher Ed

To: Ayesha Hankins
Student Affairs
[REDACTED]

From: UNCG IRB

Date: 11/10/2016

RE: Notice of IRB Exemption (modification)

Exemption Category: 2.Survey, interview, public observation

Study #: 15-0528

Study Title: Cultivating Academic and Social Self-Efficacy in First-Year Students: A Quantitative Study of the First-Year Seminar

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

This purpose of this study is to assess the academic and social self-efficacy of first-time freshman students enrolled in the [REDACTED]. Academic self-efficacy underscores the belief a student maintains about his or her ability to successfully achieve at a designated level on an academic task or attain a specific academic goal. Similarly, relational or social self-efficacy underscores an individual's confidence in her/his ability to engage in the social interactional tasks necessary to initiate and maintain interpersonal relationships. A quasi-experimental pre-post study design will be utilized to determine if the intervention ([REDACTED]) contributed to changes in self-efficacy scores. Differences in scores, will be measured by the *College Self-Efficacy Inventory (CSEI)*. A secondary purpose is to determine if differences in self-efficacy scores are dissimilar among specific subgroups of students, including male and female, and various racial and ethnic groups. Research participants in [REDACTED] sections for Exploratory majors (Arts and Sciences Undecided) will invited to voluntarily complete the online survey. The survey will be administered via Qualtrics by the principal investigator and students will be required to agree to an informed consent statement before completing the survey.

Regulatory and other findings:

This research meets criteria for waiver of a signed consent form according to 45 CFR 46.117(c)(2).

- The IRB requirement that all consent documents used in the enrollment process display the IRB approval stamp is waived for this study.

Modification Information:

- A modification is being requested due to a mistake in the wording for the final post-course reminder. The language has been updated and the areas in which additions have been made are highlighted in grey on the 'recruitment email' attachment.

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. Please utilize the most recent and approved version of your consent form/information sheet when enrolling participants. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned to you in a separate email. **Stamped consent forms must be used unless the IRB has given you approval to waive this requirement.** Please notify the ORI office immediately if you have an issue with the stamped consents forms.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university "Access to and Retention of Research Data" Policy which can be found at http://policy.uncg.edu/university-policies/research_data/.

CC:

Dale Schunk, Teacher Ed/Higher Ed

APPENDIX S

DISSERTATION STUDY: POST-COURSE CSEI SURVEY ADMINISTRATION PROTOCOL

CSEI IN-CLASS RECRUITMENT SCRIPT (POST-COURSE SURVEY)

The principal investigator will read the script during each class visit:

Good afternoon/morning! I am sure that many of you remember me from earlier in the semester. I hope your first semester at [REDACTED] has went well.

Again, my name is Ayesha Hankins and I am a third-year doctoral/PhD student at UNCG conducting research on first-year students. The study I am conducting focuses on the academic and social beliefs of students enrolled in [REDACTED] using the College Self-Efficacy Inventory (CSEI) *[the name of the instrument may written on the board, so students understand the usage of the acronym]*. That said, I am here to invite you to participate in the second administration of the survey!

Once more, participation in this study involves completion of two online CSEI surveys. Thank you to those who completed the first survey. I'll be sending (or I have sent) each of you an invitational email for the second/final CSEI survey within the week, so check your [REDACTED] email account.

The CSEI survey is completely confidential and will only take you 5 minutes to complete. With your permission, your final grade for in [REDACTED] for fall 2016 will be obtained using your [REDACTED] student ID number, which is also requested on the survey.

You can use your iPhone, iPad, tablet, or personal computer to complete the survey. As an incentive for your time and feedback, you will be able to enter into a random drawing to win one of four \$25.00 Amazon gift cards at the end of the survey *[shorthand notes may be written on the board to help students understand the administration process]*

As I mentioned last time, information from the CSEI will be used for the completion of my dissertation study and may be used by [REDACTED] faculty and administrators to improve the collegiate experiences of undergraduates, especially those enrolled in [REDACTED] in future semesters.

You must be 18 years or older to participate in this study. Choosing not to participate or withdrawing from this study will not affect your grades or relationship with [REDACTED]. Again, I have copies of the informed consent form, which provides additional information about the study if you'd like a/another copy.

I will be emailing (or I have emailed) each of you and I hope that you'll complete the survey. Are there any questions?!

Thank you for your participation in this study! Do well on your finals and have a great holiday break!

APPENDIX T

DISSERTATION STUDY: POST-COURSE CSEI SURVEY

Q1 Instructions: This survey seeks information regarding your degree of confidence in completing tasks associated with being a student at [REDACTED] as a result of your enrollment in [REDACTED] [REDACTED] this semester. You will be asked to respond to a series of statements by marking the response which best represents your present attitude or opinion. Remember this is not a test and there are no right or wrong answers. of statements by marking the response which best represents your present attitude or opinion. Remember this is not a test and there are no right or wrong answers.

Q2 Using the scale provided, indicate which best represents the degree to which you feel confident performing the following tasks.

	Totally Unconfident	Very Unconfident	Unconfident	Somewhat Unconfident	Undecided	Somewhat Confident	Confident	Very Confident	Totally Confident	Does Not Apply
Make new friends at college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk to your professors/ instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take good class notes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Divide chores with others you live with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research a term paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Join an intramural sports team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand your textbooks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get a date when you want one	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ask a professor or instructor a question outside of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get along with others you live with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write a course paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Socialize with others you live with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do well on your exams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk with academic and support (e.g. advising) staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manage your time effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Join a student organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ask a question in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Divide space in your residence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in class discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep up to date with your schoolwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>