PREDICTING COMMUNITY COLLEGE STUDENT SUCCESS BY PARTICIPATION IN A FIRST-YEAR EXPERIENCE COURSE

A dissertation presented to the faculty of the Graduate School of Western Carolina University in partial fulfillment of the requirements for the degree of Doctor of Education.

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ABSTRACT

PREDICTING COMMUNITY COLLEGE STUDENT SUCCESS BY PARTICIPATION IN A FIRST-YEAR EXPERIENCE COURSE

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A first-year experience is a collaborative effort of many initiatives, with varying names that have the greatest impact on student success during the first year of college. A first-year experience course, a feature of the first-year experience, is an intervention program designed to increase student academic performance and integration (Braxton & McClendon, 2002; Karp, 2011; Pascarella & Terenzini, 2005; Reason, Terenzini, & Domingo, 2006; O'Gara, Karp, & Hughes, 2009; Tinto, 1975; Tinto & Pusser, 2006). An examination of a current intervention program, a first-year experience course, will provide community colleges with evidence a first-year experience course has on student and institutional success, as measured by academic performance, retention and graduation rates. This study will extend the current body of knowledge on the first-year experience, by examining the relationship between enrolling in a first-year experience course during the first year of college and student success.

CHAPTER ONE: INTRODUCTION

Researchers and leaders in higher education have recognized the essential role community colleges play in contributing to the stability of today's workforce and the economy. Two-year colleges are facing unprecedented challenges during an extraordinary time of economic crisis. The plethora of research on retention and degree completion (Astin, 1975, 1993; Bean, 1980; Pascarella & Terenzini, 1991, 2005; Tinto, 1975, 1993; Tinto & Pusser, 2006) has gained recent attention, especially with the increased demand for the types of courses and training community colleges offer (Bailey & Alfonso, 2005; Goldrick-Rab, 2010; Goodman & Pascarella, 2006). Demands for accountability from state and federal officials has placed a burden on community colleges to increase retention and graduation rates immediately (Baily & Alfonso, 2005; Ewell, 2011; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007).

In reference to the American Graduation Initiative, President Obama (2009) proclaims, "Through this plan, we seek to help an additional 5 million Americans earn degrees and certificates in the next decade" (para. 25). The President's words further heighten the pressure and accountability facing community colleges.

> At the same time, community colleges are under increasing pressure to cap enrollments and scrap courses and cut costs as states and municipalities face budget shortfalls. And this is in addition to the challenges you face in the best of times, as these schools receive far less funding per student than typical four-year colleges and universities. So community colleges are an undervalued asset in our country. Not only is that not right, it's not smart. (para. 30)

The First Year of College

Student retention and graduation rates are closely linked to student success in the first year of college (Barefoot, 2000; Driscoll, 2007; Levitz, Noel, & Richter, 1999; Porchea, Allen, Robbins, & Phelps, 2010; Tinto, 1975, 1993; Wild & Ebbers, 2002). Institutions, specifically community colleges, know the importance of identifying the needs of a diverse student population and implementing programs that support the transition to college. Effective early intervention programs are designed to recognize certain red flags among first-year students, and respond accordingly with academic and social support as well as resources (Beal & Pascarella, 1982; Barefoot, 2000; Grosset, 1991; Karp, 2011; Levitz et al., 1999; Lotkowski, Robbins, & Noeth, 2004; Pascarella & Terenzini, 1980; Reason, Terenzini, & Domingo, 2006; Tinto, 1975). To increase retention, intervention programs are offered early in the academic term, before students stop attending (Alexander & Gardner, 2009; Karp, 2011; Lotkowski et al., 2004; O'Gara, Karp, & Hughes, 2009; Colton, Conner, Shutlz, & Easter, 1999; Upcraft & Gardner, 1989; Webb, 1987).

Institutions of higher learning have identified three critical opportunities for intervention and student integration during the first year of college: prior to enrolling, during the admissions process, and during the first term of enrollment (Tinto, 1988). Tinto posits that students encounter stages as they transition from high school to college. First, students move away from home and are separated from their parents. Next, students are faced with a transition phase in which they drop their old environment in order to embrace, or encounter, the new environment of college life. In order to successfully adjust to the environment during this stage, "students must understand the unwritten rules of the postsecondary environment" (Karp, 2011, p. 2).

Although each stage of the student process is important, Tinto (1993) recommends institutions focus on the critical adjustment period for students during the first few months of the first year of enrollment. He states, “the impact of involvement upon persistence is greatest in that year, especially during the first ten weeks when the transition to college is not yet complete and personal affiliations are not yet cemented” (p. 169). As students transition from high school or the workforce to college, it is important for the institution to engage students both academically and socially through interventions (Karp, Hughes, & O’Gara, 2008; Keup & Barefoot, 2005; Pascarella & Terenzini, 2005; Tinto, 1988, 1993, 1998). These interventions include first-year seminars, orientations, summer bridge programs, and learning communities.

Integration

Reason, Terenzini, and Domingo (2006) agree with Tinto’s assessment regarding the initial enrollment period: “The first college year is critical not only for how much students learn but also for laying the foundation on which their subsequent academic success and persistence rest” (p. 150). During the early stages of college life, institutions must provide opportunities and activities for students to participate in, and become members of, that are central to the institutional mission and culture (Skipper & Argo, 2003). Student persistence increases as students are engaged in the academic and social communities and activities that promote the mission of the college.

Furthermore, Pascarella, Smart and Ethington (1986) confirm the concept of social and academic integration as impacting student outcomes for community college students:

> The relative importance of academic and social integration in predicting persistence suggests that what happens to a student after he or she enrolls at an institution may be as important to ultimate persistence in postsecondary education as the influence of precollege variables. In short, the student's experience of college may have an important, unique influence on system persistence beyond that of differences in family background, secondary-school experiences, individual attributes, and the initial commitments with which he or she enters college. Thus, it may be possible to enhance student persistence in postsecondary education through purposeful institutional policies and practices designed to enhance student social and academic integration. (p. 66)

Likewise, successful students who choose to persist in college are more likely to integrate with the institution socially and academically (Astin, 1993; Karp, 2011; Karp et al., 2008; Pascarella & Terenzini, 2005; Tinto, 1975, 1993; Tinto & Pusser, 2006).

In an effort to distinguish integration from engagement, Wolf-Wendel, Ward, and Kinzie (2009) claim "Integration is a state of being; it is based on perceptions of student fit with their campus and, by extension, perceptions of interactions reflect the values and norms of the institution and its culture" (p. 416). Pascarella and Terenzini's (1980) report on the different types of integration expounds more specifically that "academic integration is determined primarily by the student's academic performance and his or her level of intellectual development", while "social integration is primarily a function of the quality of peer-group interactions and the quality of student interactions with faculty" (p. 62).

Researchers (Chapman & Pascarella, 1983; Pascarella & Terenzini, 1991; Tinto, 1975, 1993) postulate social and academic integration are valuable learning experiences that incorporate classroom learning with out-of-class socialization, which positively impacts students. According to Tinto (1997), the classroom environment is the only place in which students can be involved with the academic and social systems of the institution. Furthermore, "the classroom may be the only place students meet each other and the faculty" (Tinto, 2009, p. 8). Pascarella and Terenzini (2005) discovered faculty and staff interactions have continually shown positive relationships to persistence and degree completion. As students interact and form relationships with faculty and peers, they also form a connection with the institution.

Others point to a connection between the quality and quantity of student involvement, focusing on peer interaction, performance and satisfaction (Astin, 1993). Further studies reveal that students actively engaged in the learning process and receiving frequent feedback from instructors are more likely to remain in school (Astin, 1993; Tinto, 1997). In reference to integration and involvement, Tinto (1997) states:

> Classrooms serve as smaller academic and social meeting places or crossroads that intersect the diverse faculty and student communities that mark the college generally. Membership in the community of the classroom provides important linkages to membership in communities external to the classroom. (p. 616)

Therefore, integration is defined as something that will "involve a reciprocal relationship between the student and the campus. To become integrated, to feel like you belong, a student must learn and adopt the norms of the campus culture, but the institution is also transformed by that merger" (Wolf-Wendel et al., 2009, p. 425). Barefoot (2000)

recognized the significance of integration by claiming, “For many of today’s new students, there is a serious lack of institutional fit, not of their making” (p. 13). In response to institutions offering social and academic programs in an effort to bridge the institutional fit, Skipper and Argo (2003) believe “this kind of involvement is central to student persistence beyond the first year” (p. x).

Institutions must provide services and programs to the growing number of community college students, recognizing that academic integration is significant for these students, which provides the opportunity for them to become socially connected with the institution (Karp et al., 2008). Institutions must first identify intervention and retention strategies at the local level to increase student success (Reason et al., 2006; Roueche, Taber, & Roueche, 1995; Tinto & Pusser, 2006). Regarding the transition to college, Levitz et al. (1999) assert that “freshmen need a prevention plan” (p. 39).

The First-Year Experience

The first-year experience is “more than a single event, program, or course” (Hunter, 2006, p. 6). A first-year experience is a collaborative effort of many initiatives, with varying names, that are designed to have the greatest impact on student success during the first year of college. For Hunter (2006), the following are considered aspects of a first-year experience:

> Recruitment and admissions efforts; new student orientation programs; welcome week activities; rituals, and traditions; first-year, summer, or common reading programs; first-year seminars; academic advising; academic support centers; supplemental instruction; undergraduate research initiatives; learning communities; service learning; and residence education initiatives. (p.6)

A first-year experience course, a feature of the first-year experience, is an intervention program designed to increase student academic performance and integration (Braxton & McClendon, 2002; Karp, 2011; Pascarella & Terenzini, 2005; Reason et al., 2006; O'Gara et al., 2009; Tinto, 1975; Tinto & Pusser, 2006). Because students approach their first year of college with mixed emotions, questions, and unfamiliarity with the institutional environment, many first-year experience programs, including freshman seminars and success courses, focus on helping students navigate the college environment. According to Barefoot (2000), the purpose of a first-year experience program is to promote peer and faculty relationships and improve academic skills and participation in campus events and support services, with the primary goal of providing students with an opportunity to socially and academically integrate with the institution.

College is a complex environment that consists of new values, principles, and expectations for students, both recent high school graduates and students returning to college from work (Hunter, 2006). During their first few weeks of college, many students are overwhelmed with becoming acclimated to the campus, meeting other incoming first-year students, registering for classes, selecting a major, and making a multitude of other decisions that have equally lasting implications. All students, including the emotionally and academically prepared, struggle during this major transitional time. Chickering and Schlossberg (1995) agree the new experience is challenging, especially since "entering college involves letting go of the way you were and creating a new identity" (p. 6).

In community colleges, large numbers of nontraditional students struggle with family and career obligations while refreshing their academic skills and adjusting to the added transition from work to the classroom (Tinto & Pusser, 2006). Additionally, most

students, both traditional and nontraditional, struggle with insecurity and ambiguity about their decision to attend college (Chickering & Schlossberg, 1995). Another obstacle facing students, which may cause a negative experience, can be attributed to unpreparedness. Many students' expectations of their study skills, study time, and motivation required to be successful in college are unrealistic and inaccurate. This misjudgment can cause students to become discouraged, thus lowering their satisfaction with the institution and consequently their persistence (Driscoll, 2007).

Student Success

Despite the popular belief that attending college leads to immediate success, many students, even proficient ones, are faced with large challenges and become frustrated. Feeling as if they are not fitting in with the campus environment, students choose to leave school. With so many competing thoughts, feelings, and emotions occurring during those first weeks, many new students lose their motivation to achieve. Regarding persistence and success in college, Tinto (1993) claims:

> At the very outset, persistence in college requires individuals to adjust, both socially and intellectually, to the new and sometimes quiet world of the college. Most persons, even the most able and socially mature, experience some difficulty in making that adjustment. (p. 45)

A thorough review of the literature on student retention and the first-year experience demonstrates that additional research is needed on how community colleges can effectively use existing resources to promote student success. Although student success has multiple implications for institutions, "one of the most pressing missions of higher education and a critical measure of student success is developing academic and

intellectual competence among our students" (Keup, 2006, p. 28). To reiterate, student success is defined simply as "getting students into and through college to a degree or certificate" (Ewell & Wellman, 2007, p. 2).

Student success can be measured in many ways, both from the student perspective and the institutional perspective. Success includes both student success and institutional success. While academic performance, persistence, and student satisfaction are measurements for student success, retention is the core measurement for institutions (Levitz et al., 1999). As such, "the goal of persistence research must be to explore students within the multiple concentric environments they inhabit, recognizing that different students engage differently within those environments" (Reason, 2009, p.676).

An examination of a current intervention program, a first-year experience course, will provide community colleges with evidence of the impact a first-year experience course has on student and institutional success as measured by academic performance, retention and graduation. A review of the first-year experience literature revealed various names used to reference a first-year experience course such as freshman seminar, first-year seminar, orientation course, student success course and study skills course.

Community Colleges

The common mission of most community colleges is to assist all students in achieving their educational goals (Cohen & Brawer, 2008). Most American community colleges support this mission by maintaining an open-door policy, serving all students (Vaughan, 2004). Historically, local community colleges have continually met the higher education needs of each generation (Boggs, 2012). Significant growth in the community college sector occurred in the 1960s as a growing number of new colleges began opening

their doors. With this steady growth, community colleges continued meeting the demands of increased enrollment by providing more programs and services, enrolling over five million students by the 1990s (American Association of Community Colleges, 2011). The challenge for community colleges today is preserving this open-door philosophy, while at the same time providing effective programs and services for all populations. “To be true to their mission, community colleges must serve all *segments*, but not all *members* of society” (Vaughan, 2004, p. 54).

While community colleges throughout the country have seen unprecedented enrollment growth, the challenge has been recognizing the changing characteristics of students (Miller, Pope, & Steinmann, 2005; Mullin & Phillipe, 2009; Schroeder, 2003; Zeidenberg, 2008). Community colleges are now facing challenging times, attempting to stay abreast of the growing complexities of teaching a diverse student population, especially faced with the increased enrollments of Hispanics and African-American students (Miller et al., 2005).

Also, community colleges are experiencing a growing trend of students focused on transferring instead of obtaining workforce training (VanWagoner, Bowman, & Spraggs, 2005). Not only are community colleges seeing an increase in students from varying ethnic backgrounds, but also a change in student characteristics (i.e. age, gender, culture) and experiences (i.e. academic, skills, work, family, expectations) with the mission to assist all in achieving success (Bailey & Alfonso, 2005; Barr & Schuetz, 2008, Goldrick-Rab, 2010; VanWagoner et al., 2005; Zeidenberg, 2008). Regarding the changing student characteristics at community colleges, VanWagoner, Bowman, and Spraggs (2005) explain:

> Community colleges are a choice for students who want a personalized college experience--challenging but nurturing--regardless of their long-term academic goals. Community colleges are also a choice for students with degrees who are seeking more marketable skills. Increasingly, younger, more traditional-age students are choosing community colleges, or 'reverse-transferring,' following a failed or disappointing university experience. (p. 2)

One significant characteristic that separates community colleges and other institutions is the open-door mission. As Goldrick-Rab (2010) describes, "Open-access institutions are nonselective by definition. This means that students enter with a wide range of goals and expectations, making assessment (and particularly benchmarking) of their outcomes complicated" (p. 438). Community colleges, as part of their core mission, enable "low-income students and those students with relatively weak academic achievement to continue their education and acquire useful skills" (Ziedenberg, 2008, p. 8).

Because community colleges offer open access and serve a wide range of student needs, challenges are increased due to the different variables influencing student success. According to research (Astin 1975, 1993; Braxton, 2000; Braxton, Hirschy, & McClendon, 2004; DeBerard, Spielmans, & Julka, 2004; Fidler, 1991; Noel, Levitz, & Saluri 1985; Pascarella & Terenzini, 1991; Skipper & Argo, 2003; Tinto 1975, 1993) academic background, family background, educational aspirations, study habits, expectations about college, and other characteristics are factors that influence a student's decision to drop out of college. Furthermore, academic preparedness is a significant

factor affecting the probability of a student leaving college (Pascarella & Terenzini, 1991; Porchea et al., 2010; Tinto, 1975).

Retention vs. Recruitment

For many community colleges, recruitment has been a mainstay for protecting enrollment numbers. Because retention has been and will continue to be a major concern for higher education (Astin, 1975, 1993; Beal & Pascarella, 1982; Braxton, 2000; Grosset, 1991; Noel et al., 1985; Reason et al., 2006; Tinto, 1975, 1993, 2009; Tinto & Pusser, 2006), colleges are exploring other factors that affect enrollment numbers. Astin (1975) purports that, "While administrators and faculty have traditionally seen recruitment as the principal means to keeping enrollments up, an equally promising approach is to reduce dropout rates" (p. 2). Blumenstyk, Sander, Schmidt and Wasley (2008) concur that retention, not recruitment, is more cost-efficient.

Likewise, Tinto (1993) claims with lower enrollments (in the early 1990s), colleges have focused their attention on retention programs instead of recruitment activities. Astin (1975) further clarifies the importance of retention by stating, "change that deters students from dropping out can affect three classes of students at once, whereas any change in recruiting practices can affect only one class in a given year" (p. 2). Nonetheless, students who are not identified early in their college experience and choose to leave college prematurely have a two-fold impact on institutions.

Researchers report the first impact is financial. Students who experience difficulty during the first year and drop out will have a negative financial impact on the college and a potential loss of resources from state funding (Cohen & Brawer, 2008; Levitz et al., 1999; Stapleford & Ray, 1996; Summers, 2003). The second impact is the adverse effect

on graduation rates created when students leave college prior to achieving their goals. Accountability is not a new concept to institutions of higher education; however, the federal government is placing more emphasis on retention and graduation rates (Baldwin, Bensimon, Dowd, & Kleiman, 2011; Baily & Alfonso, 2005; Blumenstyk et al.; Ewell, 2011). Pascarella and Terenzini (2005) concur: "As the pressures have grown on public and private institutions to increase retention and degree completion, so has the research examining the effectiveness of programmatic interventions designed to promote both outcomes" (p. 398).

Retention Initiatives

Many factors, including student and institutional characteristics, influence students' decisions to persist toward graduation (Astin, 1975, 1993; Bean, 1982; DeBerard et al., 2004; Fike, 2008; Pascarella & Terenzini, 2005; Tinto, 1993). In order to overcome the challenges presented by student characteristics and the constantly changing student body, community colleges must review, acquire, and implement retention strategies to prevent students from dropping out. Beal and Pascarella (1982) assert the necessity of research on retention, and the claim for first-year experience programs since "the ultimate purpose of retention studies and programs is to implement intervention strategies that can or will make positive difference in retention rates" (p. 74). President Obama (2009) challenged community colleges to evaluate retention and intervention programs during his remarks regarding the American Graduation Initiative:

> Let's figure out what's keeping students from crossing that finish line, and then put in place reforms that will remove those barriers. Maybe it becomes too difficult for a parent to be away from home, or too expensive for a waiter or a

> nurse to miss a shift. Maybe a young student just isn't sure if her education will lead to employment. The point is, we need to figure out solutions for these kinds of challenges--because facing these impediments shouldn't prevent you from reaching your potential. (para. 35)

If the success of retention programs positively correlates with an increase in retention rates, identifying what constitutes a successful first-year retention program is critical. Tinto (1993) declares three principles in establishing successful retention programs. College retention programs must (a) be student-centered, (b) maintain focus on education for all students, and (c) provide opportunities for integration into the academic and social environment of the institution. Tinto emphasizes academic and social integration as significant indictors of student success. Conversely, a lack of integration is rooted in 'institutional fit' and isolation. A lack of interest in the academic and social aspects of the institution can cause students to experience a negative connection, leading to departure.

Hunter (2006a) emphasizes retention programs focusing on students and states, "Attention to student characteristics, needs, behaviors, and experiences is central to creating and sustaining successful transition initiatives" (p. 9). Schroeder (2003) further describes the importance and challenges of retention programs: "Understanding the expectations, attitudes, and behaviors of any individual student is a complex task, and attempting to understand the collective dynamics of a generation is even more daunting" (p. 19). Not to be discouraged, community colleges have implemented several support programs focused on identifying student characteristics and assisting academically

underprepared students with basic skills; these include student skills courses, counseling, and tutoring (Barr & Schuetz, 2008).

Student Retention

Retention research has been, "one of the most widely studied topics in higher education over the past 30 years" (Tinto & Pusser, 2006, p. 4). The majority of the research on retention and student departure focuses on the university sector, specifically on residential students. Researchers have acknowledged the importance of commuter students in reporting enrollment and dropout rates for community colleges (Astin, 1975, 1993; Bailey & Alfonso, 2005; Bean, 1980; Goldrick-Rab, 2010; Pascarella & Terenzini, 1991, 2005; Tinto, 1975, 1993); yet, the volume of research addressing this segment of the student body is insufficient. Because community colleges serve a different population than the retention-rich university segment, results are not translatable to the community college sector (Bailey & Alfonso, 2005).

Although researchers have started to include community college students in the retention discussion, to date this group is underrepresented in the literature. Tinto (1993) found a wide gap in two-year college attrition rates, 44% in 1992, when compared to their four-year counterparts at 26%. During the same year, two-year public colleges reported a 47% attrition rate compared to 27% at private two-year colleges. From 1983 to 1992 graduation rates at community colleges decreased from 40% to 38%. Likewise, in reference to a study in 1984, Tinto reports:

> Among community college entrants, only 12 percent of regularly admitted students and but 3 percent of open admission students completed their degree

> programs on time. After five years those figures rose to 43 and 25 percent respectively, and after nine years to 45 and 27 percent respectively. (p. 26)

As evident of a deficient focus on community college retention, rates from 1983 to 2008 have remained similar to Tinto's findings. For instance, a wide gap in retention from first year to second year has remained, with two-year colleges and their counterparts reporting 55% and 67% respectively. The completion rate for public two-year college students is currently 28%, with public universities reporting 39% (ACT, 2010).

Students attending community colleges in North Carolina, the setting of the present study, have similar results. For example, 70% of North Carolina community college students persisted from fall 2007 to spring 2008 (NCCCS, 2008a). However, only 14% of first year students attending a North Carolina community college during the 2008-09 academic year graduated within one year (NCCCS, 2010). These statistics justify the need for continued retention research focusing on community colleges in North Carolina. As seen from the above measurements, researchers have much to learn and observe in order to contribute to the existing body of knowledge surrounding the issues of retention and degree completion for community colleges.

Once researchers identified the first year as a crucial point in retaining students (Alexander & Gardner, 2009; Reason et al., 2006; Tinto, 1975, 1993, 2009; Upcraft & Gardner, 1989), the development of first-year programs emerged. First-year experience programs are significant contributors to retention, degree completion and student success (Braxton et al., 2004; Filder, 1991; Hunter & Linder, 2005; Karp, 2011; O'Gar et al., 2009; Schnell, Louis, & Doetkott, 2003; Tinto, 1975).

Regardless of the potential the first-year experience holds for impacting retention rates, research studies still remain inadequate (Goodman & Pascarella, 2006). Concerning identifying best practices for community colleges in an attempt to increase student success, degree attainment, and persistence, Goldrick-Rab (2010) states, "Unfortunately much of the best evidence on potential reform is new and scarce" (p. 454). Goodman and Pascarella (2006) claim results on first-year seminars are still new and despite the surge in first-year seminar research, additional research is needed.

Furthermore, results from first-year program studies have not been made available to the research community (Bailey & Alfonso, 2005; Beal & Pascarella, 1982). Regarding methodology when examining community college first-year experience programs, student background characteristics, specifically placement test scores, should be included to increase the validity and reliability of research (Bailey & Alfonso, 2005). A review of the literature reveals a gap in the research on first-year programs at community colleges.

The North Carolina Community College System

In reviewing the literature pertaining to the significance of a first-year experience course, only one empirical study was retrieved from North Carolina, along with one state-wide report conducted by the North Carolina Community College System (NCCCS, 2008). Glass and Garrett (1995) provided a survey instrument to all 58 community colleges in the state in 1990 to solicit feedback regarding each institution's student success course offerings. Of the 50 respondents, 16 colleges reported requiring the course with an additional 23 awarding graduation credit. Findings suggested that retention and

grade-point averages increased when students completed the student success course (Glass & Garrett, 1995).

Community colleges within the NCCCS provide students with opportunities to improve strategies on studying and life skills through various student success courses. Similar to the Glass and Garret (1995) study, a report from the NCCCS (2008) suggested students enrolled in a student success course produced positive student outcomes. The study reviewed student outcomes over a five year period, along with requiring students to enroll in developmental courses based on their academic preparedness. Findings showed that academically underprepared students who enrolled in the student success course achieved higher outcomes than non-participants (2008). Unfortunately, the report did not provide information on how the study was conducted, how the comparison groups were established, or what procedures were used to control for student characteristics. Such inconclusive findings made it difficult to generalize the results to other community colleges in North Carolina.

Need for the Study

Despite the volume of research conducted on college students by the 1960s, a minimal quantity of valid and useful data was collected. According to Astin (1975, 1993), research must consist of "longitudinal data" in order to meet a qualified research design (p. 2). Researchers generally agree that longitudinal studies on first-year seminars are insufficient, with most studies ending at the sophomore (second) year (Porchea et al., 2010; Schenell & Doetkott, 2003). According to Tinto (1993), the formation of student and institutional characteristics that influence a student's decision to withdraw from college develops over an extended period of time. As such, any evaluation of the

departure progression should also be conducted over a lengthy period of time (Schenell & Doetkott, 2003).

In addition to conducting longitudinal research, Astin (1975, 1993) recommends studies to consider precollege characteristics such as gender, academic skill, and socioeconomics. Nonetheless, existing studies have been unable to provide empirical findings on relationships that can be generalized. Tinto (1993) explains:

> Though we have a sense of what sorts of actions seem to work, we are not yet able to tell administrators how and why different actions work on different campuses for different types of students. More importantly, we have not been able to tell institutional officials what procedures they should follow to initiate successful retention programs suited to their own needs and resources. (p. 3)

Likewise, research on students attending four-year institutions is of limited use to community colleges, especially due to the uniqueness of two-year college students (Wild & Ebbers, 2002) who often attend part-time, are older, are more likely to be academically disadvantaged (Bailey & Alfonso, 2005), and are more likely to be categorized as nontraditional (Reason, 2009). According to Reason (2009), two-year colleges must explore intervention programs applicable to the uniqueness of nontraditional students.

As part of the Achieving the Dream: Community College Counts initiative, a group called Cross-State Data Work Group was created. North Carolina was one of six states to participate in the initiative. The purpose of the group was to “come together to develop, test, pilot a better way of measuring community college performance” (Baldwin et al., 2011, p. 76). As a result, this group has recommended analyzing data consistently across each state to ensure comparability of results by using “age, enrollment status, level

of college readiness, income (as measured by students receiving Pell grants), gender, and ethnicity" (p. 77).

Although Astin (1993) identified over 100 precollege characteristics that could serve as input variables when examining student departure, this study used the following variables researchers have identified as highly significant in influencing student outcomes: socioeconomic status as measured by financial aid (Andreu, 2002; Cabrera, Nora, & Castaneda, 1993; Fike, 2008; Goodman & Pascarella, 2006; Lotkowski et al., 2004); academic preparedness as measured by aptitude tests (Andreu, 2002; Astin, 1993; Crisp & Nora, 2010; DeBerard et al., 2004; Feldman, 1993; Lotkowski et al., 2004); enrollment status (Andreu, 2002; Bean, 1982; Crisp & Nora, 2010; Feldman, 1993; Fike, 2008); and age, gender, and ethnicity (Andreu, 2002; Astin, 1975, 1993; Braxton, 2000; DeBarard, Spielmans, & Julka, 2004; Porchea et al., 2010; Tinto, 1975,1993). Although "no one formula ensures student success" (Baldwin et al., 2011, p. 86), institutions must determine which student outcomes provide useful results. Levitz, Noel, and Richter (1999) assert:

> Retention is not the primary goal, but it is the best indicator that an institution is meeting its goal of student satisfaction and success. It is a measure of how much student growth and learning take place, how valued and respected students feel on campus, and how effectively the campus delivers what students expect, need, and want. When these conditions are met, students find a way to stay in school, despite external financial and personal pressures. In sum, retention is a measure of overall "product". (pp. 31-32)

Retention has been shown to be an effective measurement for student and institutional success (Barefoot, 2000; Levitz et al., 1999; Wild & Ebbers, 2002). Another measurement influencing success, retention, and graduation is first term academic performance (DeBerard et al., 2004; Driscoll, 2007; Pascarella & Terenzini, 2005; Nora, Cabrera, Hagedom, & Pascarella, 1996; Cabrera et al., 1993). “Even given their limitations, however, college grades may well be the single best predictors of student persistence, degree completion, and graduate school enrollment” (Pascarella & Terenzini, 2005, p. 396).

Because retention programs, specifically first-year experience courses, are varied, evaluating the impact these programs have on student outcomes becomes complex. Therefore, the present study only focuses on student variables and student outcome measurements identified in a review of related literature. Also, the selected community college for the study is similar in terms of student demographic (i.e., gender, age, ethnicity), enrollment patterns (i.e., full-time and part-time), and student outcome measurements (i.e., retention and graduation rates) to the aggregate community college in North Carolina. Furthermore, similarities exist between the selected community college and the general description of community colleges across the nation as provided by the American Association of Community Colleges (2011). Chapter 4 contains a detailed description of these similarities.

Purpose of the Study

The purpose of this study is to investigate the impact of the first-year experience course on outcomes that measure student success. This first-year experience course is part of an existing retention program that meets Tinto’s (1993) principles for establishing

a successful retention program; specifically, it is focused on academic and social integration opportunities in an effort to assist students with their early college experience.

This study will provide information for community colleges concerning the impact retention programs and student success courses have on student success outcomes. Tinto (1993) explains:

> At some point, institutions will have to ascertain not only how likely different forms of action are to yield acceptable returns in student retention but also which students are likely to benefit most from those actions. They will have to answer for themselves the question, what works in retaining students? (p. 145)

Wang and Grims (2001) further suggest institutions must not only assess intervention programs by utilizing traditional student outcome measurements, but also by identifying the various stages at which students decide to leave college. By identifying these stages, institutions can implement effective intervention programs that appropriately address the barriers preventing students from having a successful college experience.

The purpose of this study is to evaluate the impact, measured by academic performance, retention, and graduation, of a retention program consisting of a first-year experience course on student success outcomes. This longitudinal study examined students in a selected small town community college in North Carolina who participated in a first-year experience course and compare them to students who did not participate in a first-year experience course. This study analyzed student inputs (demographics, academic ability, and institutional goals) and the institutional environment during their first year (fall or spring semester), within the context of the first-year experience course.

Significance of the Study

At a time of budget cuts, limited institutional resources, scrutiny on accountability procedures, and a need for cost-efficient strategies to increase completion rates, higher education administrators need to examine existing programs to determine their influence on student success. During the last decade educators and policy-makers have also shifted their attention to the success of students once they enter community colleges. As a result, state departments of education, accreditation agencies and state regulators are increasingly scrutinizing measures of student outcomes such as persistence and completion rates (Bailey & Alfonso, 2005).

Examining student outcomes (academic performance, retention, and graduation) can provide institutions with measures of the impact of existing retention programs, represented by a first-year experience course. This study provides North Carolina community college leaders with measures of the efficacy of an existing state-wide first-year experience course. The findings may cause administrators to reconsider institutional practices and policies.

Instead of focusing on characteristics that caused students to fail, Zwerling (1980) asserts institutions should start examining internal policies and procedures to determine organizationally what can be changed to improve student success. In a report to the State Board of Community Colleges, the North Carolina Community College System President delivered a challenge to the Board:

> As a college credential becomes increasingly important to the job opportunities our citizens will have--whether that credential be a welding certificate, an Associate in Science or a Ph.D.--it is important for all of us to remember the

> wisdom of this Board in defining our student success agenda to include a focus on access. Our goal with SuccessNC is not to just increase the percentage of students who successfully complete a credential or degree, but the number of students who attain certification, certificate, diploma or degree. That goal will require our continued diligence on student success. (NCCCS, 2011, para.9)

Furthermore, institutional leaders and administrators responsible for the first-year experience at community colleges will benefit from understanding the impact a first-year experience course can have on student academic performance. Finally, North Carolina community colleges can use the findings to focus on (a) improving the first-year experience, (b) the possibility of offering the first-year experience course to all first-year incoming students, and (c) providing a foundation for academic and social integration on the college level.

Research Hypotheses

This study extends the current body of knowledge on the first-year experience by examining the relationship between enrolling in a first-year experience course during the first year of college (fall or spring semester) and student success. This study relies on a correlational methodology, examining archival data that focus on the main independent variable: whether or not students participated in a first-year experience course during the first year of enrollment (fall or spring semester). The study examined student success as measured by grade point average (GPA), retention, and graduation. The study tests the following hypotheses:

1. Research Hypothesis 1: Participants in the first-year experience course will achieve higher student success, measured by academic performance, than students not

participating in a first-year experience course during the first year of enrollment (fall or spring semester).

2. Research Hypothesis 2: Participants in the first-year experience course will achieve higher student success, measured by retention, than students not participating in a first-year experience course during the first year of enrollment (fall or spring semester).

3. Research Hypothesis 3: Participants in the first-year experience course will achieve higher student success, measured by graduation, than students not participating in a first-year experience course during the first year of enrollment (fall or spring semester).

Conceptual Framework

Bean (1982) describes the purpose for a conceptual framework: “It tells us what variables or constructs we should focus on in a study and how those variables are related to what we are trying to explain” (p. 17). Furthermore, Bean posits that a framework can provide guidance for a study to determine which factors are important and identify preexisting associations among the factors being studied.

Astin (1993) and Tinto (1975, 1993) assert that academic and social integration are influential in determining student success, typically measured by persistence and degree completion. Although Astin (1993) concentrates more on engagement and involvement while Tinto (1975, 1993) focuses on integration, these terms frequently are used interchangeably. Astin (1999) describes involvement as students’ immersion in campus life, involvement with campus activities and study sessions, and consistent communication with faculty and peers. In reference to academic and social integration, Tinto (1998) believes, “Individuals are more likely to persist when they are either academically or socially integrated and even more likely to persist when both forms of

integration occur" (p. 168). Furthermore, Tinto asserts, "In most cases, academic integration seems to be the more important form of involvement" (p. 169).

Practitioners interested in improving first-year experience programs have used a variety of student development theories as a framework for implementing an intervention program. This study focuses on two factors central to the research on student success. Incorporating a conceptual framework informed by Tinto (1975) and Astin (1993) assumes students enter college with preexisting characteristics. An examination of the work of both Tinto and Astin is presented in Chapter Two, along with a more complete description of the conceptual framework guiding the study.

Delimitations

Several delimitations exist for the current study. One community college was examined in this study and only first-time students enrolling during the fall 2007 and fall 2008 are participants in the study; this limits the generalizability of the results. The college was selected based on access to student information and the uniformity of the first-year experience course offered during the years evaluated. A final delimitation of this study is its focus only on academic integration. Both academic and social integration have been identified by Tinto (1982) as critical to student success: "[Even though] educators continue to measure and treat the absence of intellectual skills as if this absence alone were responsible for dropout, evidence abounds that social skills are equally important to persistence in college" (p. 6). The present study addresses only academic integration as a foundation. Social integration is not explored; consequently student perceptions and satisfaction are not incorporated.

Limitations

Limitations consist of conditions or factors that may influence student outcomes not controlled or accounted for in the study. One limitation of this study is selection bias. Since the study is retrospective, the researcher did not have influence over students selecting a particular group. Students may have elected to enroll in the student success course because they were interested in learning more about campus services and study skills, thereby influencing academic performance, retention and graduation. Although the course is not required at the institution where the study was done, some students may have enrolled in the course in order to be considered full-time, often a qualification for financial assistance. Additionally, some students may have chosen to enroll in the course as an elective or at the recommendation of an advisor.

The exclusion of student perceptions is another limitation for the current study. Tinto (1993) encourages studies to include student perceptions, saying “no institution should initiate an attempt to deal with departure without first ascertaining student perceptions of the problem being addressed” (p. 136). However, this study did not incorporate student perceptions into the evaluation of first-year experience course. It was not possible to do so because the study used historical data and the students were no longer accessible. Finally, it should be noted that controlling for every variable that influences student academic success is impractical and determining a causal association between the first-year experience course and academic success is unattainable.

CHAPTER TWO: REVIEW OF THE LITERATURE

The purpose of this chapter is to present a comprehensive review of the research on the impact attending a first-year experience course has on student success measurements. In addition, this chapter examines the accountability standards for community colleges and reviews the literature on student retention in higher education, leading to an investigation of academic integration and the unique population of community college students. Furthermore, the conceptual framework for the study is presented based on two theories: Tinto's Theory of Student Departure (1975) and Astin's Inputs-Environments-Outputs model (1993). The literature review concludes with an explanation of the importance of first-year experience programs, followed by the empirical research on first-year experience courses and their impact on student success measurements.

Accountability

Why is research on student success important? Local, state, and federal governments are holding institutions of higher education accountable for student success, specifically increased retention and degree completion rates (Kuh et al., 2007; Kuh, Kinzie, Schuh, Whitt, 2005). Education Secretary Margaret Spelling's *Report of the Commission on the Future of Higher Education* challenged universities and community colleges to restore accountability (Boggs, 2011). According to Boggs (2011), a "lack of commonly accepted performance measures for community colleges has often led to a misunderstanding of the institutions and an underestimation of their effectiveness and their contributions" (p.11). As a result, the Voluntary Framework of Accountability

initiative was implemented to provide success measurements applicable to community colleges.

Another community college initiative focused on student success is the Lumina Foundation for Education. According to Boggs (2011), “the first significant effort to improve student completion in community colleges was set in motion by the Lumina Foundation for Education in 2004, with the launch of the national Achieving the Dream (ATD): Community College Counts initiative” (p.7). The Lumina Foundation for Education provided collaboration among prominent community college organizations in an effort to fund Achieving the Dream. This initiative was “built on the belief that broad institutional change, informed by student achievement data, is critical to significantly improving student success rates” (Achieving the Dream, 2011, para.1). Currently, the initiative is assisting more than 1.6 million students in over 130 community colleges across 24 states.

The expected results for this initiative were that institutions would improve student success by measuring: (a) successful course completion and/or remedial course completion, (b) continuous enrollment in student success courses, (c) persistence to the following semester, and (d) graduation rates. The main goal of Achieving the Dream was to change policies and student culture within the institutions, along with a strong emphasis on collecting data and making decisions for improvement based on institutional research. The joint effort of Achieving the Dream is focused on increasing success rates for low-income and minority students attending community colleges (Achieving the Dream, 2011).

The American Association of Community Colleges (AACC) promotes student success programs by supporting Achieving the Dream, Community College Counts, and the College Completion Challenge. Furthermore, six partners have committed to President Obama's American Graduation Initiative. Joining the initiative are American Association of Community Colleges, The Association of Community College Trustees, The Center for Community College Student Engagement, The League for Innovation in the Community College, The National Organization for Staff and Organizational Development, and Phi Theta Kappa (AACC, 2011a).

As part of the American Graduation Initiative, the government is starting to engage in discussions on student success rates. In the past few years, federal interest in community college performance has increased markedly. The Obama administration has established an ambitious access goal of matching global attainment rates, which means 60 percent of a young adult age cohort will have a college credential by 2025. Reaching this goal will fall disproportionately on the nation's community college sector (Ewell, 2011, p. 26).

During the 1950s and 1960s, Astin (1977, 1993) claimed that policymakers evaluated higher education to determine the significance of an education, similar to today's attention on higher education with regard to increased and new initiatives. Astin writes, "Economic pressures have forced legislators to look for programs where public spending can be cut, and federal and state investments in higher education underscore the need for better information on how colleges affect students" (p. 2).

More recently, Blumenstyk et al., (2008) advised that community colleges "must balance competition from the growing for-profit-education industry, demands from

lawmakers for more accountability, and the shifting needs of an increasingly complex student body" (para. 1). Another challenge affecting accountability is the difficulty in measuring success. The federal government uses graduation rates that do not offer a stand-alone accurate depiction of academic success in community colleges. As part of Achieving the Dream the Cross-State Data Work group, a collaboration of six states, was founded and charged with developing success measurements that accurately portray community college students (Baldin, Bensimon, Dowd, & Kisiman, 2011).

Institutions of higher education, specifically community colleges, are expected to meet certain accountability standards by relying on data to support or improve programs and services that impact student success (Cohen & Brawer, 2003). The Cross-State Data Work Group emphasized that community colleges need "to expand the definition of success to recognize the mission of the community college and embrace the notion of open door institutions" (Baldin et al., 2011, p. 83). Furthermore, arguing that the federal Integrated Postsecondary Educational Data System (IPEDS) is flawed when measuring community college success, the Group recommended community colleges include part-time students and extend the tracking of graduates from four to six years (Baldin et al., 2011). Boggs agrees that IPEDS does not account for the typical community college student attending part-time. Therefore, success measurements according to IPEDS do not reflect favorably on community colleges (Boggs, 2011).

However, community colleges must accept responsibility and accountability for initiating change. According to Achieving the Dream (2011), "Community colleges are a vital component in returning the U.S. to its place as a global leader in higher education

degree attainment" (para. 3). Melinda Gates, of the Bill and Melinda Gates Foundation, stated:

> Community colleges are the unsung heroes of our education system. They prepare today's workers for tomorrow's careers, and they get little support and even less recognition for their efforts. For millions of Americans, the local community college is the gateway to the American Dream. (AACC, 2011b, p.1)

The student success organizations listed above (Voluntary Framework of Accountability, Achieving the Dream: Community College Counts, American Graduation Initiative, and Bill and Melinda Gates Foundation), along with Completion by Design, the Committee on Measures of Student Success, and Complete College America, are among the leaders of a movement to reform student success measurements and interventions (Horn, Radwin, & College Board, 2012).

The purpose of Completion by Design is to "learn where along the pathway to completion students are being lost and to bring the right people together to design a model pathway to completion that employs proven and promising practices at every critical moment from enrollment to credential completion" (Completion by Design, 2010, p.4). The intent of Completion by Design is to provide models, best practices, and interventions that assist students during their educational journey, focused on improving student outcomes.

Jobs for the Future, in partnership with Achieving the Dream and the American Association of Community Colleges, among others, is using credit accumulation as a success measurement. For example, "one measure–passing 80 percent of attempted credit hours–points to momentum in the all-important first year of college" (Jobs, 2012, p.4).

Furthermore, the Voluntary Framework of Accountability initiative promotes success as "students' progress not only in terms of who gets a degree, but, for example, if they pass out of developmental courses, how quickly they earn academic credit, and if they transfer to another institution" (Lipka, 2013).

Studying student success, specifically retention, also has financial implications for the student and institution (Astin, 1975; CCCSE, 2010; Levitz et al., 1999; Summers, 2003; Sydow & Sandel, 1998; Wild & Ebbers, 2002). From the student's perspective, degree completion leads to higher earnings. "The higher a person's educational attainment, the more likely he or she is to be gainfully employed, pay taxes, volunteer…" (CCCSE, 2010, p. 3). Therefore, student success has a direct impact on the sustainability of the economy. Regarding institutional benefits, Levitz et al., (1999) created a retention savings worksheet that provides financial data based on the number of students who drop out and the number of students who are retained. "What is evident in the examples is that even the most modest reduction in attrition rate of 10 percent…would result in savings of hundreds of thousands of dollars even at a very small institution" (p. 32).

In order to accept the challenge of accountability, community colleges must first understand student retention as "significant for measuring institutional effectiveness in the prevailing environment of accountability and budgetary constraints" (Wild & Ebbers, 2002, p. 503). Furthermore, "an institution committed to student success must also be committed to student retention, for often the key to success for many students is mere persistence" (Sydow & Sandel, 1998, p. 635).

Retention Theories

Because a detailed explanation has been provided regarding the significance of studying student success, specifically retention, the next logical question to ask is, why do students decide to leave college early? As Summers (2003) claims, “Many institutions’ primary strategy for reducing attrition is the early identification of students likely to drop out and the development and implementation of intervention services for those students” (p. 64). Models on student departure (retention) attempt to identify the various factors affecting retention. These models, along with retention theories, provide guidance in developing independent and dependent variables that influence retention.

Although researchers have conducted studies on the different types of institutional and student characteristics that directly and indirectly impact student retention, Bean and Metzner’s (1981, 1985) model of student retention for two-year college nontraditional students has added much to this effort by recognizing the influence environmental factors have on student departure. However, the student retention model most often used in retention research is Tinto’s (1975, 1993) longitudinal model of student departure. This model is based on the following: pre-entry attributes; initial student goals and commitments; the institutional environment, including the academic and social systems of the institution; and subsequent goals and commitments leading to student outcomes. Although it focuses on four-year universities, Tinto’s model is invaluable to any study of first-year community college students because it provides a way to visualize student progression through the college environment and it identifies variables that influence students’ decisions to persist.

Astin's (1999) retention model and Input-Environment-Outcome (I-E-O) model (1993) explain the effects college environments have on student outcomes. Astin's (1993) model does not provide a theoretical explanation of the interactions between inputs and environments and their subsequent influence on outcomes; however, it does offer a framework for future studies (Pascarella & Terenzini, 2005). The framework's structure suggests: "(1) initial identification of the student's goal, (2) periodic verification or adjustment of the goal, and (3) persistence of the student toward the goal" (Wild & Ebbers, 2002, p. 506).

Regarding the study of retention, Astin (1993) asserts, "The complexity of the retention phenomenon is underlined by the observation that 33 different student input characteristics carried significant weight in predicting degree completion" (p. 193). Hence, it is worthwhile to explore the models of Tinto (1975, 1993) and Astin (1993, 1999) on student retention to gain a better understanding of retention, student characteristics and student success outcomes.

Tinto's Student Departure Model

Tinto (1975) offered a longitudinal model to help explain why students withdraw and how the interactions within the institution influence departure. Tinto constructed a model based on the works of Durkheim (1961) and Spady (1970). He used Durkheim's theory of suicide (1961) as a foundation for building a conceptual framework for institutional dropouts (Tinto, 1975). Although Tinto (1975, 1993) does not equate student departure to suicide, the comparison between withdrawal from an academic institution and withdrawal from a community shares similarities and therefore warrants examination.

Durkheim's (1961) theory of suicide also correlates to Tinto's theory (1975) of student departure in using integration as its foundation. The more integrated an individual is with society, the less likely that individual is to commit suicide. Likewise, Tinto suggests the more integrated a student is with society (i.e. academically, socially), the more likely he/she will survive or persist. Spady (1970) agrees this concept applies to institutions that operate within their own social system. Students who become socially integrated within an institution's social system are more likely to stay enrolled.

The purpose for using Tinto's (1975, 1993) model of student departure is to provide a framework for understanding what factors and environments impact a student's decision to drop out. Tinto (1975) developed the model by describing the longitudinal process a student follows in deciding to leave school or persist. The model explores student interactions and expectations prior to enrolling, interactions within the college environment (both academic and social), and subsequently, the change in interactions and expectations after enrolling. The longitudinal process allows researchers to examine factors that impact student departure. Tinto explains:

> Individuals enter institutions of higher education with a range of differing family and community backgrounds (e.g., as measured by social status, parental education, and size of community), a variety of personal attributes (e.g., sex, race, and physical handicaps), skills (e.g., intellectual and social), financial resources, dispositions (e.g., motivations; intellectual, social, and political preferences), and varying types of precollege educational experiences and achievement (e.g., high school grade-point average). Each attribute is posited as having a direct impact

> upon departure from college as suggested, for instance, by its well-documented effect upon levels of academic performance in college. (p. 155)

Identifying a student's precollege characteristics early is a critical step in formulating a foundational understanding of those factors that influence his/her decision to remain in school or terminate enrollment.

Bean (1982), who created a retention model for nontraditional students, explains an equally important aspect of Tinto's (1975) student departure model is the longitudinal progression:

> In this model, background characteristics (including family background, individual attributes, and precollege schooling) interact with each other and are expected to influence both goal commitment (commitment to the goal of graduation) and institutional commitment. In the academic system, goal commitment leads to higher grade performance and intellectual development, which leads in turn to academic integration, which, in circular fashion, leads to even greater goal commitment. Goals commitment reduces the likelihood of dropping out. In the social system, institutional commitment is expected to produce peer group and faculty interaction, which leads to social integration, which in turn increases institutional commitment. Institutional commitment is also expected to reduce the likelihood of dropping out. (p.21)

In short, the model proposes that precollege student characteristics do have an influence on initial commitments. The goals and commitments are identified as the specific degree to which students are pursuing their goals, and their intent to graduate from the institution in which they are enrolled. Therefore, according to the model,

precollege student characteristics and initial commitment can combine to influence success. Student success is then dependent on the level of integration in the academic and social systems of the institution. It is the revised level of commitment, after integrating with the institution, which ultimately determines a student's decision to dropout or persist to degree completion (Tinto, 1975).

Student commitments are continually changing over time, often due to institutional experiences such as interactions with peers, faculty and staff (Tinto, 1993). This interaction occurs in the academic and social aspects of the model. Students who experience a positive integration strengthen their commitment, which in turn, results in positive student outcomes. Conversely, a negative experience in the integration process may cause students to remove themselves from the environment. Goal commitment is an important indicator of achievement and persistence. When students enter college with a set of goals (e.g., completing a program of study, obtaining retraining skills, or gaining personal enrichment), the more committed they are to those goals, the more likely they are to persist (Tinto, 1975).

According to Tinto (1975, 1993), the primary foci of the student departure model are academic and social integration. Tinto's model depicts a series of events that occur prior to entering college and culminate after the student experiences the college environment (beginning the process of academic and social integration). Thus, after the academic and social system phase, the next stage consists of subsequent goals and commitments, as influenced by successful or unsuccessful integration (Tinto, 1975). It is at this critical stage of the model, with the reevaluation of goals and commitments, that a student's decision to persist or drop out will take place.

In describing the difference between the academic and social aspects of the college environment, Tinto (1993) states: “Colleges are made up of both academic and social systems, each with its own characteristics, formal and informal structure…” (p. 106). The academic environment of an institution consists of classroom activities, while the social environment of an institution consists of interactions with peers, faculty, and staff, normally outside of the classroom environment (Tinto, 1993). Likewise, “integration into the academic system of the college most directly affects goal commitment, whereas behaviors in the social system most directly relate to a person’s institutional commitment” (Tinto, 1975, p.110).

Academic and social integration can occur outside or inside the classroom environment. As Tinto (1998) explains, “We also know that there are many different pathways to integration, that involvement or integration may take place inside and/or outside the classroom” (p. 169). The current study uses academic integration as part of the conceptual framework, and even though social integration impacts student outcomes (Tinto, 1975), a discussion of the social system of the college environment is excluded for practical reasons. The researcher acknowledges social integration, as measured by student-peer and student-faculty interactions, influences subsequent levels of commitment; however, this measurement is not the focus of the current study. Instead, the study focuses on community college students, who have limited social integration opportunities (Bean & Metzner, 1985; Tinto, 1993) compared to their four-year counterparts.

In summation, Tinto’s (1975, 1993) longitudinal student departure process occurs over the college life of the student, constantly changing as the multiple variables involved

continue to evolve. As students transition through the college experience, their motivations, expectations, and commitments change, impacting their decisions to continue enrollment. As a result of these events, and depending on the student's level of integration, the student decides to persist or depart. All factors being equal, the more strongly a student is integrated into both the social and academic environments, the stronger his/her commitment to the institution; this results in a positive impact on persistence and degree completion (Tinto, 1975).

Astin's Input-Environment-Output Model

Astin (1977, 1993) developed the second model that guides the study, Inputs-Environment-Outputs (I-E-O) in an attempt to determine institutional variables that impact student outcomes. Because educators and researchers are consistently asking what changes occur to the institutional environment that impact student outcomes or persistence, Astin's (1977, 1993), model provides an ideal conceptual framework for addressing the research questions.

Following Tinto's (1975) conceptualization, this model provides a framework for examining student inputs and college environment, with outcomes measured as academic achievement, retention, and graduation rates. According to Astin (1993), failure to control for incoming variables will result in an inaccurate determination of the college environment as a predictor of student persistence. Astin writes, "The basic purpose of the [I-E-O] model is to assess the impact of various environmental experiences by determining where students grow or change differently under varying environmental conditions" (p.7).

Astin (1993) describes the foundation of the I-E-O model:

> *Inputs* refer to the characteristics of the student at the time of initial entry to the institution; *environment* refers to the various programs, policies, faculty, peers, and educational experiences to which the student is exposed; and *outcomes* refers to the student's characteristics *after* exposure to the environment. (p. 7)

Astin also identifies student precollege characteristics, including academic preparedness (e.g., the need for remedial education), demographics (e.g., ethnicity and gender), and student attitudes and behaviors (e.g., motivation and expectations) as inputs. The environmental phase focuses on a treatment or intervention program implemented by an institution. In the case of this study, this is the first-year experience course. Finally, as part of the model, outcomes can be categorized as academic (e.g., persistence and graduation), attitudinal (e.g., satisfaction and engagement), cognitive (e.g., knowledge of campus services and policies), or developmental (e.g., social) (Astin, 1993).

According to Astin (1993), in order to determine how and when students change in their pursuit of a college education, administrators must control for inputs to find the resulting impact of a particular action in the environment. In a review of related research on college students since 1967, Pascarella and Terenzini (1991) developed the following concept: "[V]irtually all of the studies done to date shed useful light on the extent to which students *change during the college years*, but change *during* college is not the same as change *due* to college" (p.85). As such, this study incorporated Astin's (1993) I-E-O model to control for student inputs in an effort to determine the impact a first-year experience course (environment) has on student outcomes.

Bean and Metzner's Nontraditional Model

Recognizing that previous models on student departure such as Tinto's (1975) focused on social integration, Bean (1982) developed a model for commuter students who do not have the same opportunities of social integration as four-year residential students. Bean's (1982) model on student retention called attention to student attitude and intent. Comparing student retention and employee performance, Bean believed both groups leave (employment or college) for similar reasons. For instance, communication and commitment influence the level of satisfaction of both employees and students, which in turn affects turnover and attrition rates. Furthermore, Bean (1982) placed significant emphasis on environmental factors in relation to retention.

In order to include environmental factors, Bean and Metzner (1985) capitalized on Bean's previous framework to include nontraditional students. Bean and Metzner classified nontraditional students based on residency, age, and enrollment status. They studied nontraditional students in both the two-year and four-year environments. They placed less emphasis on social integration and incorporated outside factors, including career and family obligations. They decided various factors influencing a student's decision to persist are outside the control of the institution (Bean & Metzner, 1985).

In an effort to satisfactorily represent Bean and Metzner's (1985) model, Summers (2003) provided a detailed description:

> Bean and Metzner's model posits that a student's dropout decision is primarily based on four sets of variables: (a) academic performance as measured by grade point average; (b) intent to leave, which is influenced primarily by psychological outcomes and academic variables; (c) background and defining variables, primary

> high school performance and educational goals; and (d) environmental variables, which are expected to have substantial direct effects on dropout decisions. (p. 68)

The inclusion of environmental factors is a major reason this model accounts for the nontraditional student.

According to the model (Bean & Metzner, 1985), a student's academic performance is influenced by his or her habits, program of study, advising, and external influences. Outside environmental factors that impact academic performance include career and family obligations and finances. If a student experiences good academic performance yet lacks integration in the environmental level, he/she is more likely to drop out. Bean and Metzner recognized the potential consequences social integration has on a student's decision to drop out; however, due to limited social opportunities for nontraditional students, they concluded academic integration has a significant influence on student outcomes.

Community College Students

Why is research on community college students important? According to the National Student Clearinghouse Research Center (2012), nearly seven million credit-seeking students have attended a community college, and community colleges served 34% of all students attending a higher education institution during fall 2012. Also, it is critical to recognize that institutional and student characteristics vary between two-year and four-year institutions (Bailey & Alfonso, 2005; CCCSE, 2010; Fike, 2008; Goldrick-Rab, 2010; Howell, 2001; Karp, 2011; Maxwell, 2000; Miller et al., 2005; Schuetz, 2005; Tinto, 1975, 2006; Wild & Ebbers, 2002). After acknowledging differences exist between the two higher education sectors, examining those differences provides an understanding

of community colleges and their students, and how those differences affect student success outcomes.

The most obvious difference between the types of institutions relates to their mission. “Many first-time college students arrive on campus unprepared to succeed in college. This is especially the case at community colleges, which pursue an “open door” mission of serving all students, regardless of prior educational background” (Zeidenberg, Jenkins, & Calcagno, 2007, p.1). As a result of the open-door admissions policy, students with academic difficulties are more likely to enroll in community colleges than in four-year institutions (Bailey & Alfonso, 2005; Fike, 2008; Karp, 2011; Schuetz, 2005; Zeidenberg et al., 2007).

Academic underpreparedness can be described as “deficiencies in students' basic academic skills, specifically in those skills integral to the reading, writing, and mathematics subject areas” (Zeidenberg et al., 2007, p.1). During the 2007-08 academic year, approximately 42% of community college students were academically underprepared and required remedial coursework (NCES, 2011). Zeidenberg, Jenkins, and Calcagno (2007) conducted a study that compared new students attending two-year and four-year institution. They found that 42% of students attending a two-year institution were required to enroll in a remedial course, compared to 20% of students attending a four-year institution.

Another difference between the typical two-year and four-year institution is residency and the implications it has for the institutional environment. Community college students have limited opportunities for on-campus integration due to their commuter status (Karp et al., 2008; Tinto, 1998, 2009), leading to an increased

probability of withdrawal (Astin, 1975, 1999). In addition, Miller, Pope, and Steinmann (2005) report community college students are not actively involved on their campus due to work and family commitments. Although the classroom environment in the community college affords students the opportunity for social integration, they are more likely to depend on family support, rather than the college (Hirschy, Bremer, & Castellano, 2011). Community college students are often unavailable to take advantage of social and extracurricular opportunities. Conversely, four-year institutions provide more opportunities for students to engage in social activities such as fraternities, student clubs, and organizations (Astin, 1999; Karp et al., 2008).

The number of nontraditional students is another difference between two-year and four-year institutions. Community colleges enroll both traditional and nontraditional students, while the four-year university student body consists of primarily traditional students (CCCSE, 2010; Howell, 2001; Miller et al., 2005). Nontraditional students are older (AACC, 2011;Fike, 2008), are enrolled part-time (AACC, 2011; Fike 2008; Howell, 1998) and have work and family obligations (AACC, 2011; Astin, 1999; CCCSE, 2010; Howell, 2001). The National Center for Education Statistics (NCES, 2004) and Bean and Metzner (1985) identify similar characteristics of nontraditional students, stating students over the age of 24 are classified as nontraditional.

Consequently, community colleges enroll a more diverse student population than four-year institutions, with factors influencing student success such as family backgrounds (e.g., ethnicity, income) and family support (e.g., first-generation students) (Barr & Schuetz, 2008). According to Schroeder (2003): “Today’s students are indeed diverse, not simply in terms of race and ethnicity, but in terms of age, part-time or full-

time status, expectations, attitudes, beliefs, learning styles, and social patterns" (p. 21). The average age of a community college student is 28, 60% are pursing education part-time, and 40% attend full-time (AACC, 2011). As a result of the current recession and high unemployment rates, the need for retraining skills and the cost savings of attending a community college versus a four-year university are factors influencing enrollment at community colleges (Mullin & Phillipe, 2009).

Additionally, community colleges enroll more first-generation students (AACC, 2011; Goldrick-Rab, 2010; VanWagoner et al., 2005; Zeidenberg, 2008), minorities (Goldrick-Rab, 2010; Fike, 2008; VanWagoner et al., 2005) and students limited by income (Fike, 2008; Schuetz, 2005). As a result, community colleges have lower retention and graduation rates than their counterparts (Astin, 1999; Karp et al., 2008). For example, for cohort year 2001, 56% graduated from four-year institutions while only 31% graduated from all two-year institutions in 2004. Only 22% of public two-year community college students graduated during this time (NCES, 2007). According to a study of 4,500 community college students in 2003, almost half of the entering first-year students did not graduate or transferred to a four-year institution within six years (Porchea et al., 2010). Furthermore, students with work responsibilities while attending college have lower retention rates (Astin, 1999). Student outcomes are traditionally lower at community colleges (Bailey, Leinbach, & Jenkins, 2006), with a percentage of the difference attributed to first-generation students who lack the necessary knowledge of operating in a college environment, student skills, and family support (Zeidenberg, 2008).

As discussed previously, the mission and the student residency patterns of two-year and four-year institutions are different, resulting in different student characteristics

such as academic preparedness, nontraditional status, and student demographics, all of which impact student outcomes. Four-year institutions that have selective admissions, meaning they can limit admissions to those students whose characteristics align with the institution, will experience higher rates of persistence. Another difference separating four-year and two-year institutions is the person-fit concept. Community colleges, by nature of their open door mission, cannot be selective in admissions, thereby enrolling students who do not necessary fit well with the institution.

Integration

Why is the consideration of integration important? Tinto's model (1975) provides a structure for examining the longitudinal process of student departure, suggesting the need for a person-fit environment. According to the model, academic and social integration influence student persistence; institutional and student characteristics impact a student's opportunity to fit, integration. As previously explained, students attending two-year institutions experience integration differently than students attending four-year institutions. As a result, an understanding of the impact institutional and student characteristics have on academic integration, and subsequent student outcomes, is essential.

In reference to Tinto's (1993) integration framework not being relevant for community college students, Karp et al., (2008) state, "This is because one of the linchpins of the framework–social integration–is generally considered an unlikely thing for students at these institutions to attain" (p.1). Tinto (1982) recognized weaknesses in his own model: "the model does not give sufficient emphasis to the role of finances in

student decisions concerning higher educational persistence," and the framework was not developed with community colleges in mind (p. 689).

In testing Tinto's (1975) student departure model on community college students, Karp et al., (2008) discovered that community college students do integrate with the institution both academically and socially. More specifically, the institutional fit, as Tinto states, is the key; students who fail to connect with the institution and become detached persist at lower rates than students who fit with the institution. Thus, according to Karp et al., (2008):

> Its usefulness for community college students, however, has been questioned, as it is assumed that community colleges provide students with fewer opportunities for social integration and that the social aspect of postsecondary education may be less appealing to students attending two-year commuter institutions. (p. 3)

Halpin (1990) conducted a study of first-time, full-time students attending a commuter college to determine the impact of integration. According to Halpin, "The apparent greater influence of academic integration compared to social integration is particularly noteworthy. This outcome is consistent with other findings at commuter colleges generally" (p.30). Chapman and Pascarella (1983) confirmed that commuter students were less involved and participated less in campus events than four-year students, which impacted student outcomes. Further, Pascarella and Chapman discovered that academic and social integration are lower for two-year students. Other researchers (Haplin, 1990; Strauss & Volkwein, 2001) cited academic integration as having a greater effect on student outcomes, compared to social integration, for commuter students.

Additionally, Strauss and Volkwein (2001) suggested academic integration is the most significant factor for two-year institutions, whereas social integration is significant for four-year institutions. Social integration has a major impact on four-year institutions due to the increased opportunity for student to attend events, join organizations, and participate in extracurricular activities (Halpin, 1990; Kish, Kuh, & Palmer, 2003; Miller et al., 2005). This does not imply that community college students have a negative perception of the social environment. According to Maxwell (2000), community college students perceive the social environment to be friendly and cordial. However, students indicate less involvement on campus with student government, clubs, organizations, and activities due to outside commitments. Results from the same study indicate students spend most of their time outside of the classroom studying with other students.

Conversely, a report on student perceptions from four states, including North Carolina, as part of the Completion by Design initiative, states, “students want to be more connected to their colleges, from the moment they enter until the day they complete their studies” (Nodine, Jaeger, Vanezia, & Bracco, 2012, p.1). According to the report, students desire to engage with their faculty and peers, both during class and outside of the classroom. Students also indicate connections with members of staff who are involved with support services as critical to their college experience.

A major aspect of the academic setting occurs within the classroom, which is vital to student success (Tinto & Pusser, 2006; Tinto, 2009). Tinto (1982) states, “the more time faculty give to their students, and students to each other, the more likely students are to complete their education” (p. 697). Furthermore, academic involvement such as faculty and peer interaction and studying has a positive influence on college GPA and retention

(Astin, 1993; Karp et al., 2008; Skipper & Argo, 2003). Although sustaining a relationship with faculty outside the classroom environment is critical (Chickering & Schlossberg, 1995), peer relationships outside the classroom also have a strong connection to persistence (Kish et al., 2003).

Astin's (1993) longitudinal study, investigating over 25,000 students, claimed student involvement impacted student development. For instance, student interactions with peers showed a significant relationship to student involvement. Also, the study suggested students engaged in study sessions with faculty outside the classroom had positive impact on academic performance, retention, and graduation (1993).

In concurrence with Tinto (1975) and Astin (1984), Wolf-Wendel et al., (2009) claim, "To put it simply, successful integration results in retention and unsuccessful integration contributes to departure" (p. 416). Essentially, student integration leads to an increase in degree completion (Karp, 2011). Furthermore, students involved with the campus academically are more likely to persist (Astin, 1975; Braxton et al., 2004; Chapman & Pascarella, 1983; Pascarella & Terenzini, 1980, 2005; Skipper & Argo, 2003; Tinto & Pusser, 2006). Additional research indicates institutional fit is a predictor of persistence and degree completion (Pascarella, Smart, & Ethington, 1986).

Integration for community college students begins with academic related activities in the classroom, especially a classroom structure focused on assisting students with the transition to the college environment. In reference to involvement, Tinto and Pusser (2006) state, "Finally, involvement, or what has frequently been described as academic and social integration, is a condition for student success" (p. 7). Community college students who become socially integrated do so by way of academic activities as

opposed to social activities (Karp et al., 2008). Hence, academic integration is more useful in predicting persistence at community colleges, whereas both academic and social integration are predictive of persistence at four-year universities using Tinto's model (Halpin, 1990).

Conceptual Framework

The purpose of this study is to investigate a first-year experience course, as a form of academic integration, to determine the effect on student outcomes. The intent is to improve the understanding of the relationship of student change related to the interactions between the student and institution.

This study focuses on the degree of integration a student shows within the college environment, how a student navigates the college process, and the impact of these variables on student outcomes. The primary models that guide this study are Tinto's Student Departure Model (1975) and Astin's Inputs-Environment-Outputs model (1977, 1993). The models share similarities regarding the importance of integration. For instance, each postulates the more a student is engaged with the institution, the more likely the student is to persist.

The current study uses Tinto's (1975) and Astin's (1993) models as the framework for evaluating an intervention program intended to increase integration, specifically within the academic system. Tinto (student departure) and Astin (involvement) have been cited frequently in studies related to the first-year experience (Burgett & Magun-Jackson, 2008; Clark & Cundiff, 2011; Davig & Spain, 2003; Miller, Janz, & Chen, 2007; Porter & Swing, 2006; Schnell & Doetkott, 2003). In addition, Astin's I-E-O model has been used as a framework in studying first-year experience

courses (Crissman, 2001; Derby & Smith, 2004; Keup & Barefoot, 2005). Therefore, the combination of Tinto and Astin's work, as described below, is the foundation by which this study examined a first-year experience course:

> The relative importance of academic and social integration in predicting persistence suggests that what happens to a student after he or she enrolls at an institution may be as important to ultimate persistence in postsecondary education as the influence of precollege variables. In short, the student's experience of college may have an important, unique influence on system persistence beyond that of differences in family background, secondary-school experiences, individual attributes, and the initial commitments with which he or she enters college. (Pascarella et al., 1986, p. 66)

The conceptual framework, *Figure 1*, postulates that a student's prior experiences and characteristics at the entrance phase of the college experience, including student demographics, academic ability, and institutional goals, directly influence the college experience and institutional environment. The foundation of the framework focuses on the interaction within the college experience of academic integration and environment. The first-year experience, specifically the first-year experience course, incorporates academic integration as its core.

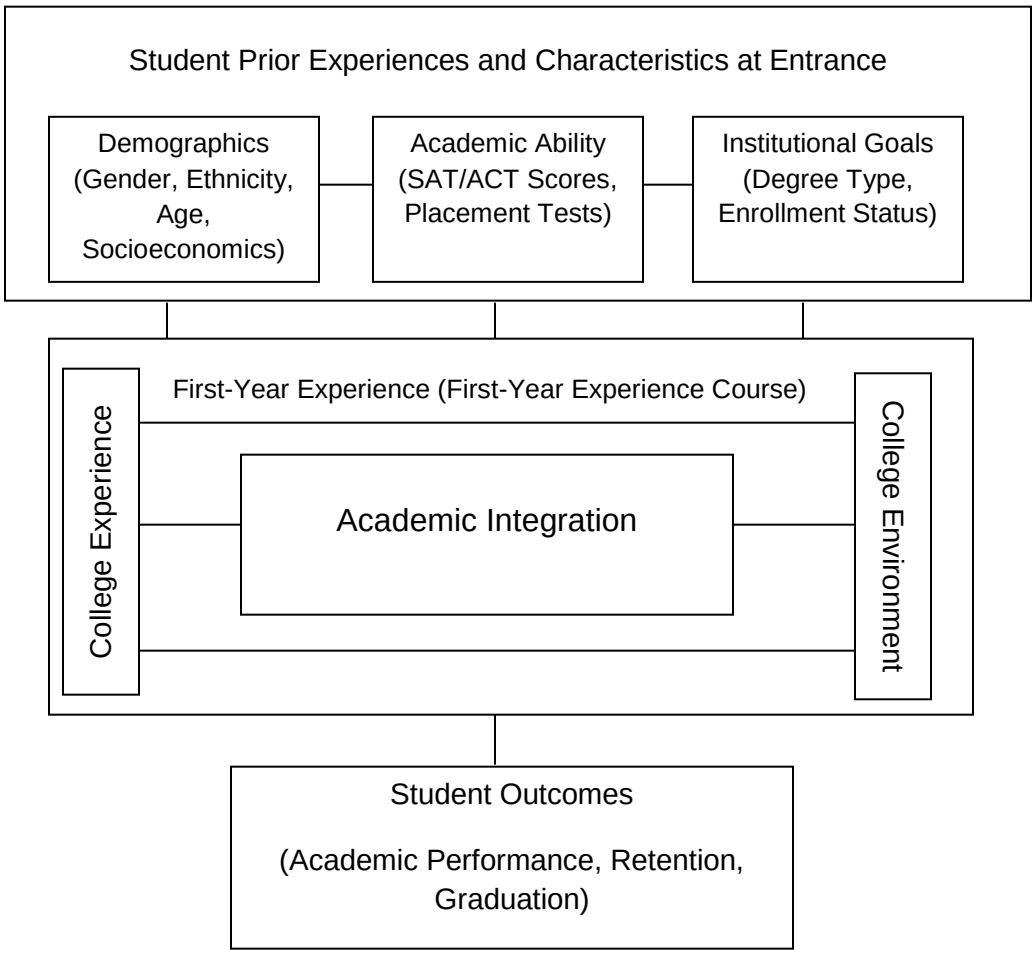

Figure 1. Conceptual Framework (modified framework of Tinto, 1975 and Astin, 1993).

According to the framework, the first-year experience course is the focus of the current study, controlling for student prior experiences and characteristics, and examining the intervention program as a predictor of student outcomes. Specific attention was given to measuring differences between first-year students attending a first-year experience course and first-year students who do not attend a first-year experience course with regard to inputs (preentry attributes) characterized as student demographics (i.e., gender, ethnicity), prior schooling (i.e., placement into remediation) and family background (i.e.,

financial assistance). The framework identifies, over a four-year period, the college environment (first-year experience course) and the interactions with student background characteristics and student persistence, in the context of Astin's I-E-O model (1993) and Tinto's Student Departure Theory (1975).

The current study also examines students at two stages to determine the impact of a first-year experience course: first-term enrollment, controlling for various student characteristics; and, at the end, examining academic performance, retention, and graduation. Thus, both measuring the student using inputs and outputs and assessing the environment are essential in evaluating the effectiveness of the first-year experience course. One caution Astin (1993) offers is that outputs must be measured with the quality of inputs in mind. This caution suggests that outputs alone do not measure the quality of the environment or program. Therefore, it is suggested that an assortment of variables be controlled, as previously discussed.

First-year Experience

Why is the first year of college most critical? According to extensive research (Alexander & Gardner, 2009; Levitz et al., 1999; Pascarella & Terenzini, 1991; Reason et al., 2006; Tinto, 1975, 1993, 2009; Upcraft & Gardner, 1989), the first year is critical to persistence and degree completion and is a time when students are most likely to drop out. Additionally, this is a vulnerable time because students are familiarizing themselves with their new surroundings and connections. Levitz et al. (1999) agree, saying, "as is true nationwide, freshmen enter with some anxiety or apprehension about beginning a new educational venture" (p. 37).

First-year students experience the transition to college with different academic and social proficiencies and at different periods in their development. “First-year students often are ill-equipped for the academic demands of college during the first year, which may help explain declines in first-year collegiate achievement as measured by GPA” (Keup, 2006, p.28). Therefore, first-year students adjust to the college setting in different ways. Numerous students, including students classified as academically prepared, experience difficulty adjusting to college life and the new environment, and to understanding institutional expectations. This lack of fit with the institution can have negative repercussions, which can lead to lower academic performance (Tinto, 1993).

The first year is especially important for community colleges that enroll a large percentage of underprepared students, who lack study skills, educational guidance, and awareness of campus resources (Zeidenberg et al., 2007). According to Driscoll (2007), some students attribute their negative experience with the institution to their unpreparedness. This misjudgment causes students to be discouraged, lowers their satisfaction with the institution, and subsequently affects their persistence.

In addition to enrolling a high number of underprepared students, community colleges also enroll a more diverse study body. “Today’s students are indeed diverse, not simply in terms of race and ethnicity, but in terms of age, part-time or full-time status, expectations, attitudes, beliefs, learning styles, and social patterns” (Schroeder, 2003, p. 21). Regarding this diversity, Barr and Schuetz (2008) pose a challenging question to community college leaders: “Are community colleges as institutionally underprepared for underprepared students as these students are for college-level work?” (p. 7).

Institutions, specifically community colleges, can offer programs during the first year to assist students during the transition to college and establish accurate college expectations. As Pascarella and Terenzini (1980) claim, “a significant portion of student attrition might be prevented through timely and carefully planned institutional interventions. Such interventions will be most effective if those students with a high probability of dropping out can be accurately identified” (p.61). Braxton and McClendon (2002) discovered that administrative policies and procedures influence integration. For example, it is crucial for students to know about student responsibilities, college regulations, and expectations (e.g., student code of conduct, academic policies, appeals process) in order to promote their successful integration. Furthermore, results from a study conducted by Reason et al., (2006) indicate:

> The findings highlight the importance of the first year of college and suggest the need to reconsider and restructure current approaches, services, practices, and policies relating to the first college year in order to enhance the educational effectiveness of that critical period in students’ lives. (p. 170)

Successful adjustment is significant during the first year. As Wolf-Wendel et al., (2009) state, “Integration is most important for students in their first year at an institution” (p. 416). Students who have a positive experience with an institution during their first semester are more likely to return for subsequent terms (Driscoll, 2007). As part of a positive experience “students must understand the unwritten rules of the postsecondary environment” (Karp, 2011, p.2).

Academic support consisting of advising, increasing student skills, ensuring awareness of support services, and promoting interaction with peer groups is important in

easing the transition to college. These services help students identify with the college environment and "safely navigate the unfamiliar terrain" (Tinto, 2009, p. 3). Thus, it may be possible to enhance student persistence in postsecondary education through purposeful institutional policies and practices designed to enhance student social and academic integration (Pascarella et al., 1986, p. 66).

The institutional environment, including support services, institutional policies, and faculty interaction, have been identified as contributing to a student's decision to leave early or drop out (Astin, 1993; Noel et al., 1985; Tinto, 1993). Furthermore, Astin (1993) believes the changing student body is forcing institutions to analyze institutional policies and identify those that impact student satisfaction and academic performance.

According to Porter and Swing (2006), over 90% of four-year institutions offer incoming students a first-year experience program, specifically a first-year seminar. The purpose of first-year experience programs is to provide opportunities for students to interact with their peers and faculty by spending more time on-campus (Barefoot, 2000). An objective of these programs is to provide academic support for all students, especially the underprepared. Finally, first-year programs focus on academic integration, sharing Tinto's theory that students must be academically successful in order to fit with the institution, which ultimately leads to degree completion (Barefoot, 2000).

During the 1960s and 1970s, a shift in faculty focus and responsibility from providing student services to primarily teaching emerged as colleges were experiencing an increase in enrollment of first-generation students and veterans. As a result, first-year experience programs became popular through the leadership of John Gardner at the University of South Carolina. These changes brought about a new movement in student

development and the first year (Hunter, 2006). As such, “a perfect storm was brewing … that led to significant change in higher education and specifically addressed issues related to entering college students in transition” (p.8).

John Gardner was instrumental in providing assistance to colleges on the significance of the first year. As a result, in 1986, the National Research Center for the Freshmen Year Experience was founded and became the central place for research on the first-year experience. Noticing a theme during the first year toward students in transition, the center was renamed in 1995, The National Resource Center for the First-Year Experience and Students in Transition (Hunter, 2006).

First-year experience programs were implemented with the focus on meeting the needs of students during the first year and providing support, both academic and nonacademic, during the transitional period (Braxton et al., 2004; Colton et al., 1999; Filder, 1991; Karp, 2011; Lotkowski et al., 2004; Schnell et al., 2003). In addition, Lotkowski, Robbins, and Noeth’s (2004) research concluded the following:

> Intervention programs that focus primarily on helping students master course content alone may only address immediate, rather than longer-term deficiencies. Students who master course content but fail to develop adequate academic self-confidence, academic goals, institutional commitment, achievement motivation, and social support and involvement may still be at risk of dropping out. (p. 10)

First-year experience programs can have a significant impact on retention and graduation rates (Braxton et al, 2004; Goldrick-Rab, 2010; Karp, 2011; O’Gara et al., 2009; Schnell et al., 2003). As stated previously, student retention and graduation rates are lower at community colleges than at four-year institutions. First-generation students,

who are less prepared for the college environment and receive less family support, contribute to the difference in graduation rates between two-year and four-year institutions (Zeidenberg, 2008).

The First-year Experience Course

The first year is an important indicator of student outcomes, especially the first semester. Tinto (1998) recommends that first-year programs "should span the first six weeks of the academic year, if not the first semester" (p. 451). In describing an effective retention program, or first-year experience, Tinto (1993) identifies five services or themes each program must offer: transition assistance, early contact, academic support, early warning, and counseling. As part of a first-year experience program, transition programs offer courses that focus on study skills, awareness of campus resources, student activities, advising, and career planning. Barefoot (2000) concurs with Tinto (1993) in emphasizing the importance of effective transition programs that promote strong peer and faculty-student relationships. These relationships established among students, peers and faculty within the classroom environment are just as important as the connections formed outside the classroom. Barefoot (2000) also suggests first-year experience programs focus on improving study skills, echoing Tinto's (1993) call for academic support.

Jamelske (2009) states: "First year experience (FYE) programs vary widely across institutions ranging from highly organized learning communities to basic courses introducing students to college life" (p.374). An example of a first-year experience program, a first-year experience course (often referred to as student success course) assists students with establishing peer and faculty relationships, while also concentrating on awareness and understanding of the campus (O'Gara et al., 2009).

As Tinto and Pusser (2006) state, “Another form of academic support that also provides social support is the now-popular freshman seminar. The seminars, which take a great variety of forms, provide new students support to make a successful transition to college” (p.15). For instance, in an attempt to increase student success by providing best practices for community colleges, Goldrick-Rab (2010) suggests one such initiative should be “orientation courses that attend to different learning styles and introduce study skills, time management, and effective college habits” (p. 456).

Bailey and Alfonso (2005) argue community colleges should offer opportunities for students to be more academically integrated with the institution. “This [first-year experience course]…is where even commuter students [can] interact with faculty and potentially with other students. Designing the classroom experience to promote more meaningful interaction among students and teachers is one promising strategy for community colleges” (p. 14). The classroom environment is crucial for community college students. In reference to a student success course and similar to Tinto’s (1997) classroom as communities model, Karp et al., argue, “Classroom discussions, for example, help students feel academically connected to the college while also promoting relationships that can be used to access information and that extend to social activities outside the classroom” (2008, p. 18).

Furthermore, these courses offer assistance in student life skills (Goldrick-Rab, 2010; Zeidenberg, 2008), advising (Braxton & McCLendon, 2002; Karp, 2011), career planning (Braxton & McCLendon, 2002; Karp, 2011), time management (Braxton & McCLendon, 2002; Goldrick-Rab, 2010; Jamelske, 2009; Mayhew, Stipeck, & Dorow,

2011), study skills (Goldrick-Rab, 2010; Jamelske, 2009; O'Gara et al., 2009; Mayhew et al., 2011) and awareness of campus resources (Braxton et al., 2004; Karp et al., 2008).

First-year seminars vary in name, format, purpose, and by institution, but their goal is essentially the same--to support first-year students. Some seminars target specific student populations while others reach out to every new student. Some institutions' first-year experience courses are ongoing throughout the semester, others are offered only over a few days or weeks. Finally, some institutions require attendance in a student success course, while others only recommend participation in the program (Pascarella & Terenzini, 2005).

According to Goodman and Pascarella (2006), the purpose of a first-year seminar is "to increase academic performance and persistence through academic and social integration. The long-term goal is increased degree attainment" (p. 26). Additionally, first-year seminars provide students with the necessary information they need to successfully guide them through the complex settings and to "develop…college know-how" (Karp, 2011, p. 3). A study conducted by Karp et al., (2008) indicated students who attended a success course experienced a better fit with the institution due to learning about campus resources and becoming familiar with the campus community. In addition, participating in this course promoted student integration. They state, "a number of students reported feeling more comfortable taking advantage of these supports [services] once they had developed relationships with support staff" (p. 9).

As such, a goal of a first-year experience course is to encourage instructors to give early feedback on projects and evaluate student development early in the semester (Barefoot, 2000). Also, there is a need for student success courses to promote study skills,

time management techniques, note-taking skills, and preparation for class. The Center for Community College Student Engagement (2010) reports 69% of students attend class unprepared, while 37% of students report "spending five or fewer hours per week preparing for class" (p. 9). First-year experience programs, specifically first-year experience courses, are effective methods to improve integration and retention (Braxton & McClendon, 2002; Karp, 2011; Pascarella & Terenzini, 2005; Reason et al., 2006; O'Gara et al., 2009; Tinto, 1975; Tinto & Pusser, 2006).

Students enrolled in a student success course, which was designed to inform students of campus resources and college expectations as well as to improve basic student skills, were more likely to persist (Karp et al., 2008). A review of first-year experience courses indicates these courses have significant impact on first-term GPA (Burgette & Magun-Jackson, 2009; Jamelske, 2009; Noble, Flynn, Lee, & Hilton, 2007), retention (Burgette & Magun-Jackson, 2009; Lang, 2007; Miller et al., 2007), and graduation (Lang, 2007; Noble et al., 2007; Schnell et al., 2003).

In 2011, the American Association of Community Colleges (AACC, 2011a) issued a report suggesting ways community college could improve their graduation rates. Offering early intervention programs was among the recommendations mentioned. Furthermore, the report recommended mandatory orientation and first-year experience courses as early intervention initiatives. According to Chickering and Schlossberg (1995), providing resources and classes on time management and other academic skills can increase student success and satisfaction in college (1995). Furthermore, study skills and time management topics impact academic integration, which in turn impacts retention

(Braxton & McClendon, 2002; Braxton et al., 2004; Karp, 2011; Lotkowski et al., 2004; O'Gara et al., 2009; Schnell et al., 2003).

A review of literature by Pascarella and Terenzini (2005) suggests that first-year seminars, in addition to increasing persistence and academic performance, have shown positive effects on student satisfaction, increases in faculty and peer interactions, and increases of participation in campus activities. Through academic and social integration, each of these outcomes has positively influenced student retention and degree completion (Pascarella & Terenzini, 2005). The current body of research is focusing more and more on the different variables associated with students and institutions and their impact on college outcomes, such as age, ethnicity, gender, enrollment status, working responsibilities, and commuter status (Pascarella & Terenzini, 2005).

Studies on the relationship between intervention programs and outcomes, particularly with regard to student achievement and retention, "are rarely done, rarely done well, and very difficult to design and implement" (Upcraft, Ishler, & Swing, 2005, p. 497). In response to the current body of knowledge relating to the first-year experience, Upcraft (2005) asserts that:

> First, some of this research is poorly done and thus lacks credibility. Second, even if done well, this research is not well known among administrators and faculty and not often taken into account in developing and implementing courses, programs, and services. And even if it is well known, the question of local applicability always arises. (p. 473)

Despite the impact first-year experience courses have on student outcomes, research on these courses at community colleges is insufficient and researchers recommend additional

studies need to be conducted (Goodman & Pascarella, 2006; Zeidenberg et al., 2007). The purpose of this study is to determine the impact of a first-year experience course on student success measured by academic performance, retention, and graduation.

CHAPTER THREE: METHODOLOGY

The purpose of this study is to determine the relationship between participating in a first-year experience course and student success performance measures. This chapter describes the methodology used to explore the hypotheses presented in Chapter One. A description of the research design, the institution selected for the study, and participant selection will be provided. Finally, a description of the first-year experience course, data collection methods, associated variables, and statistical analyses will be given.

Research Design

The study employed a correlational research design. A correlational research design does not confirm causality; instead it is used to predict outcomes. Correlation determines if one variable is associated with another variable. For instance, correlation research determines if the mean score of one variable is within range of the mean score on another variable, thus determining if a relationship exists. Correlation, measured as positive or negative, allows for the predication of an outcome variable based on a score of the measured variable.

The purpose of this study is to examine the impact of a first-year experience course on student success performance measures; this requires the observation of variables that have already occurred. This retrospective study attempts to determine if one or more variables can predict other variables. Therefore, the correctional research design provides the opportunity to identify which variables may be related or statistically associated.

A sample of students attending a small town community college in North Carolina was examined as cohorts. This longitudinal investigation, encompassing four academic years, evaluated data for two cohorts: the first cohort incorporated new students beginning in fall 2007 and the second incorporated new students beginning in fall 2008. Terenzini (1982) clarifies a longitudinal research design as "represent[ing] something of a family album, involving the same information collected at two or more points in time" (p. 60).

Institutional Description

This study used Small Town Community College (pseudonym) located in North Carolina as its setting. This two-year public community college is one of 58 educational institutions belonging to the North Carolina Community College System. Small Town Community College, established in 1965, offers two-year associate degrees, one-year diplomas, and one-year certificates.

Small Town Community College is an open-enrollment institution with only a limited number of competitive programs (e.g., Allied Health and Basic Law Enforcement Training). Therefore, when students apply for enrollment in a program at Small Town Community College, they are directly admitted into that specific program. However, students are required to submit high school SAT or ACT scores, or complete the College Placement Exam to meet course prerequisites. Additionally, 50% of all students attending Small Town Community College received financial assistance during the fall 2010 term.

According to the National Center for Education Statistics (2011, 2011a), the North Carolina Community College System (NCCCS, 2010) and the American Association of Community Colleges (AACC, 2011), Small Town Community College is

similar to the average community college in North Carolina and typical of national two-year community college regarding student demographics and enrollment patterns. For example, 61% of students are female, while 39% are male. These are identical to aggregate percentages for North Carolina community colleges and very close to national percentages of 58% and 42% respectively.

Furthermore, White/non-Hispanic students attending Small Town Community College, North Carolina community colleges and national community colleges are 67%, 62%, and 68% respectively. Black /non-Hispanic students account for 27%, 25%, and 27% respectively. Small Town Community College has a slightly higher percentage of full-time enrolled students at 46%, compared to North Carolina community colleges at 42% and national community colleges at 40%.

Another similarity between Small Town Community College and the typical North Carolina community college is in student success outcome measures, specifically with regard to retention and graduation rates of full-time students. Retention and graduation rates for Small Town Community College are 65% and 24%, while the aggregate rates for North Carolina community colleges are 61% and 20% respectively. In addition to student outcomes, Small Town Community College is representative of a community college in a typical small, rural community.

According to the North Carolina Rural Economic Development Center (2011), Small Town Community College is located in a rural town with a per capita income of $20,216 and a total population of 20,323. The per capita income for the county is $18,978, compared to $24,547 for all North Carolina counties and $20,472 for rural counties. In comparison to other regions across North Carolina, Small Town Community

College is located in a county with a median household income of $37,889. The average median household income for all counties in North Carolina and designated rural counties in North Carolina are $45,067 and $38,774 respectively. Another area of comparison is the unemployment rate, which is representative of a typical small community. The county where Small Town Community College is located has an unemployment rate of 12%, compared to 10.1% and 10.8% for all of North Carolina and rural counties respectively.

Finally, the educational statistics for residents of this community are: (a) citizens with an Associate's degree, 7%; (b) citizens who have attended college, 16%; (c) citizens with a bachelor's degree or higher, 21%; (d) citizens who have a high school diploma, 27%; and (e) citizens with less than a high school education, 18.6%. Furthermore, 54% of the population is White and 41.3% Black, with the remaining percentage including Hispanic, Asian, and American Indian.

Based on student demographics, student enrollment trends, and socioeconomic statistics (NCES, 2011, 2011a; NCCCS, 2010; AACC, 2011), Small Town Community College is typical of a public two-year community college in North Carolina and the United States.

Participants

The population selected for this study consisted of students at Small Town Community College. As a result of using archival data, convenience sampling was employed. According to Tinto (1993), the first year of college is the most critical for a student to drop out. Additionally, "The first year of college is the best opportunity to establish baseline data by recording entry-level skills, attitudes, expectations, and other information" (Upcraft et al., 2005, p. 487). Therefore, targeting first-time students

attending Small Town Community College provided data for examining a first-year experience retention program.

For purposes of this study, students were separated by participation in a first-year experience course to explore association with student success, as measured by academic performance, retention, and graduation. Only students who declared their intent to enroll for the first time during the 2007 and 2008 fall terms were included in the research. Furthermore, only students declaring a two-year degree or diploma as their primary program of study were included; consequently, students declaring a certificate, undecided, and high school students (e.g., Early College High School, dual enrollment) were eliminated from consideration.

Description of Students Selected

New students attending Small Town Community College, located in the western region of North Carolina, were the target population. Newly enrolled students during both 2007 and 2008 fall terms comprised the sample for this study. The 2007 cohort group consists of any student classified as a first-year student attending Small Town Community College, n= 302. Likewise, the 2008 cohort group consist of the same classification of first-year students, n = 343.

After controlling for first-time attendance, a student sample was created for the fall 2007 and fall 2008 cohorts. Students resided in different groups depending on their participation in the first-year experience course during their first year of enrollment (fall or spring semester). Additionally, numerous covariate variables were collected for each student including age, race/ethnicity, gender, enrollment status, college placement and financial aid.

Course Description

The first-year seminar offered at Small Town Community College uses the course description established by the North Carolina Community College System. The optional first-year experience course is focused on student success, study skills and providing awareness of available programs and services. In 2007, the College received a Title III grant and used this opportunity to establish the Student Success Center. The center, as part of reorganizing the academic support center at Small Town Community College, allowed the campus to designate responsibility of the first-year experience course to the Title III director. Since that time, all first-year experience courses at Small Town Community College have followed the same course syllabi, thus ensuing similar student learning outcomes and course objectives.

The number of first-year experience course sections available for students has increased since 2007. In 2007 and 2008, the College only offered ACA 115, Success and Study Skills. This course was available for students over a traditional 16-week term and was offered one day a week face-to-face. While the College continues to offer ACA 115, a variation called ACA 122, College Transfer Success, is also being offered to students interested in transferring to a four-year university. This course, while providing the same resources as ACA 115, focuses more on the transfer process to senior institutions.

The first-year experience course, as established by the North Carolina Community College System, goes by a variety of titles and offers a range of credit hours. Community colleges in North Carolina have the option of choosing from a variety of first-year experience courses including: Improving Study Skills, Study Skills, College Student Success, College Study Skills, Success and Study Skills and College Transfer Success.

Across North Carolina, first-year experience course are offered either during a traditional 16-week term or a mini-semester. They may be offered online or face-to-face and may be taught by full-time or part-time instructors. For the present study, the focus remains on ACA 115 offered during a traditional 16-week term.

The purpose of the first-year experience course, ACA 115, as stated in the course syllabus (see Appendix B), and displayed in Table 1, is to introduce students to campus resources, guidance in career planning and effective study skills behavior. Moreover, the course introduces students to academic policies and procedures and effective academic planning resources. Finally, the course provides opportunities for students to engage in the social and academic offerings of the institution. Overall, students build a stronger connection with the institution, become familiar with campus resources, and engage with faculty and students. These objectives are similar to most first-year experience programs.

Table 1

Comparing the Purpose of a First-Year Experience Course to ACA 115

Purpose of FYE course	Reference	ACA 115 Learning Outcomes
Campus Resources	Barefoot, 2000; Braxton et al., 2004; Karp et al., 2008; O'Gara et al., 2009	Learn about campus resources; Identify and use college resources for students
Career Planning	Braxton & McClendon, 2002; Karp, 2011	Determine individual career goals
Advising	Braxton & McClendon, 2002; Karp, 2011	Detect personal strengths and weaknesses for academic planning
Study Skills	Barefoot, 2000; CCCSE, 2010; Goldrick-Rab, 2010; Mayhew et al., 2011; O'Gara et al., 2009; Zeidenberg, 2008	Develop study skills
Time Management	Braxton & McClendon, 2002; CCCSE, 2010; Goldrick-Rab, 2010; Jamelske, 2009; Mayhew, Stipeck, & Dorow, 2011	Develop personal skills for time management; Explain the value of time management
Note-Taking	CCCSE, 2010	Develop personal skills for note-taking

Data Collection

In several stages, using the research design, the Ellucian student database was used to collect student data for the longitudinal research. Ellucian, required by all North Carolina community colleges, has been employed by them since fall 2007. Data on student precollege characteristics and college academic performance indicators were requested by the Institutional Researcher at Small Town Community College. Student demographic information, including precollege characteristics, was collected from admissions applications. Likewise, degree information, degree completion, course enrollment, college placement and financial aid information was extracted from the

Ellucian system. Student identification was protected, according to the Family Educational Rights and Privacy Act, by assigning a numerical identifier unique to each student.

To initiate the study, a list of all students from Small Town Community College was obtained from Ellucian. Only first-time students who completed the semester with at least one assigned grade not equal to a Withdrawal (W), Audit (AU), Failure (F), or Incomplete (I) during the fall 2007 and fall 2008 semester were included in the initial sample. The intent is to select students for the study who did not drop out during their first term of enrollment, while including students who had successfully completed at least one course. Student variables such as, age, race/ethnicity, financial aid eligibility, program of study, gender, college placement scores, enrollment status and participation in the first-year experience course were collected for students meeting the above criteria.

Data on academic performance, measured by GPA, and enrollment status, were collected through the 2012 spring term to establish the degree of impact on student success over four academic years. The longitudinal study provides short-term and long-term data for statistical analysis to help determine the effect on student success. When all potential student data had been identified and extracted from Ellucian, student information was exported to Excel and SPSS version 20 for further analysis.

Variables

A review of literature, as previously discussed, identified multiple institutional and student variables that contribute to student success as measured by college grades, retention, and graduation. The purpose of this study is to examine the association of participating in a first-year experience course on student success outcomes by accounting

for specific variables. In an effort to increase internal and external validity, each variable is operationally defined. Table 2 provides a summary of variables and the coding method.

Independent Variable

Participation in the first-year experience course. When examining students who completed the first-year experience course during the first year of enrollment (fall or spring semester), the variable is dichotomous; participation in the first-year experience course was coded as 1, non-participation in the first-year experience course was coded as 0. For purposes of this study, student completion of the first-year experience course is defined as receiving a grade of A, B, C, or D. Consequently, students receiving a grade of W, F, or I were excluded from the study.

Dependent Variables

The study evaluated student success outcomes using three dependent variables: academic performance (GPA), retention, and graduation.

Academic performance. Academic integration, as evidenced by academic performance, is measured for this study utilizing the following quality point grading system: A = 4.0; B = 3.0; C = 2.0; and D = 1.0. Grade data was collected from the student academic transcripts each academic year. College academic performance as measured by GPA is a common measurement of academic integration. The dependent variable is classified as a scale variable for statistical analysis.

Retention. The second student success outcome evaluated is retention. This value was determined by the students' continuous enrollment each academic year and was calculated at multiple increments. Retention was measured as a dichotomous nominal categorical variable; students who persisted to any subsequent fall or spring semester,

regardless of the number of credit hours enrolled, were coded as “1”. Students who are not retained for any subsequent fall or spring semester are coded as “0”. Essentially, students receive a “0” for any subsequent fall or spring semester they do not return to Small Town Community College following their first term of enrollment. Likewise, students receive a “1” for any subsequent fall or spring semester in which they do return to college following their first term of enrollment.

Graduation. The last measurement of student success is graduation. At Small Town Community College, measureable academic attainments include a two-year Associate’s degree, a one-year diploma and a certificate credential. The College does not track students who transfer to a four-year institution, thus the study only incorporates three graduation outcomes as measurements (i.e. associate in applied science degree, transfer degree, and diploma credential). An associate degree at Small Town Community College typically requires between 65 and 75 credit hours for degree completion, including major courses and general education courses. Diploma programs require approximately 40 credit hours for goal attainment.

The graduation value is determined by the student’s academic record in accordance with program graduation requirements. Potential graduates are required to submit an application for graduation that is ultimately verified by a Student Services representative. Graduation was measured as a continuous dichotomous nominal categorical variable: graduated = 1, did not graduate = 0.

Covariate Variables

The following covariate variables are based on past research indicating their influence on student success outcomes, previously discussed in Chapter Two. The study incorporates six covariate variables operationalized below.

Age. Age is a dichotomous categorical, ordinal variable collected from the admissions application and coded in numerical form based on date of birth at time of entrance. Students less than 24 were coded as 1, while students 24 or older were coded as 0.

College placement. Small Town Community College has an open admissions policy. Because the college does not impose any admission restrictions based on academic preparedness, many students enroll at the college underprepared for college-level work. The college does require students to take the COMPASS academic assessment test, which is administered by American College Test Program, to determine academic preparedness. However, students may be exempted from completing the COMPASS placement test by submitting college placement test scores completed during high school as part of the admissions application and having results sent to the institution from the test administration.

The college uses placement tests such as SAT, administrated by the College Board, and ACT, administered by American College Test Program, to determine appropriate placement into courses. Each of these assessments evaluates a student's proficiency in reading, writing, and math. The scores from each assessment specify the student's skill level in each subject area, thus facilitating the placement of students into appropriate level courses.

Students defined as academically underprepared are classified in this study as needing remediation in at least one of the following areas: English, reading, or math. College placement was assigned a dichotomous category as following: enrolled in remediation during first year (fall or spring semester) = 1; not enrolled in remediation during first year (fall or spring semester) = 0.

Enrollment status. Enrollment status information was collected from the admissions application at time of entrance and coded as: full-time = 1, less than full-time = 0. Enrollment status is classified as an ordinal variable for statistical analysis. Full-time students are considered to be enrolled in 12 or more credit hours during a semester.

Ethnicity. Data on ethnicity was obtained from the admissions application in which students have the following nine options, as required by the Department of Education: Nonresident Alien, Race and Ethnicity unknown, Hispanics of any race, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, or two or more races. For this study, the classification of minority student includes all races on the admissions application except for White. The following dichotomous categorical values were assigned for ethnicity: minority = 1, White = 0.

Financial aid eligibility. Financial aid eligibility data was attained from the Department of Education, as reported on the Free Application for Federal Student Aid (FAFSA). The FAFSA information is imported into Ellucian from the Department of Education. For this study, the variable is assigned the following dichotomous category: students eligible for federal financial aid = 1, students not eligible for federal financial aid = 0.

Gender. Data on gender, a dichotomous categorical variable, was collected from the admissions application and coded as: female = 1; male = 0.

Table 2

Variable Definitions

Variable Name	Definition	Coding
FYE course	The first-year experience course	1= Enrolled 0 = Not enrolled
Enrollment Term	Term of enrollment	1 = Fall 2007 0 = Fall 2008
Age	Age of student at time of enrollment	1 = Less than 24 0 = 24 or older
Gender	Student gender	1 = Female 0 = Male
Ethnicity	Minority includes all races/ethnicity except White	1 = Minority 0 = White
Financial Aid	Need based financial aid eligibility	1 = Eligible 0 = Not eligible
FT or PT	Enrollment status during the first-term	1 = Full-time 0 = Less than full-time
Developmental	Students needing remediation	1 = Enrolled 0 = Not enrolled
GPA	Cumulative academic performance	Scale = 0.0 to 4.0
Retention	Retention from fall to fall	1 = Retained 0 = Not retained
Graduation	Graduation during the study	1 = Graduated 0 = Not Graduated

Data Analysis

This study examined the relationship between participation in a first-year experience course and student success measurements (academic performance, retention, and graduation) controlling for covariates (age, gender, ethnicity, financial aid, enrollment status, and college placement). The study used various quantitative analyses

to evaluate the relationship of participating in a first-year experience course and student success outcomes. Student data were retrieved from Ellucian, and imported to the Statistical Package for Social Sciences (SPSS), version 20 for analysis. SPSS software was used to accurately and consistently analyze the variables.

This study employs descriptive (i.e., mean, standard deviation, frequency), correlational, and regression statistics. Pearson correlations were used first to determine if any significant correlation exists between the independent variable (first-year experience course) and dependent variables (academic performance, retention, graduation). Correlation does not determine cause; rather it means the difference in scores from one variable corresponds to the difference in scores from a second variable. Correlational values are described as positive or negative (Creswell, 2005). If a result indicates a high score on one variable (predictor) is related to a high score on the second variable (outcome), the correlation is positive. Likewise, a positive correlation means a low score on one variable is related to a low score on the second variable. Conversely, a negative correlation indicates a high score on one variable is related to a low score on the second variable. Where any correlation was indicated, regression was employed.

Regression allows for the flexibility of categorical or continuous independent variables, although dependent variables must be categorical. According to Urdan (2005):

> Regression, particularly multiple regression, allows researchers to examine the nature and strength of the relations between the variables, the relative predictive power of several independent variables on a dependent variable, and the unique contribution of one or more independent variables when controlling for one or more covariates. (p. 145)

According to Astin (1993), before multiple regression is employed, correlation must be established between the covariates (i.e., age, gender, ethnicity, financial aid, enrollment status, and college placement), the college environment predictor variable (first-year experience course) and an outcome (i.e., academic performance, retention, and graduation). If correlation is indicated, Astin recommends using multiple regression to allow for the examination of a dependent outcome variable (academic performance, retention, graduation), student input covariates (age, gender, ethnicity, financial aid, enrollment status, and college placement), and the college environment predictor variable (first-year experience course).

The multiple regression model determines if the addition of the first-year experience course has an impact on the predictability of student outcomes. Therefore, Astin (1993) suggests inserting the input variables into the regression model first, followed by the college environment variable. By including the first-year experience course, if correlated, in the regression equation, a predicted score is calculated that represents the difference in variance associated with student outcome. The implication is once the input variables are controlled by the regression model, the analyses will determine the impact the first-year experience course has on the specific student outcome that is in addition to the variance anticipated by the covariate inputs.

Validity

The correlational study accounts for covariate variables (age, gender, ethnicity, financial aid eligibility, enrollment status, and college placement) in an attempt to validate the relationship between the first-year experience course and student outcomes. Additionally, in an attempt to strengthen the results of the study, a complete sample of all

entering first-year students during the 2007 and 2008 fall terms was included. Therefore, the population of all new students at Small Town Community College were identified and filtered through the various constraints. External validity was addressed earlier in this chapter, comparing the similarities of student enrollment and demographics between Small Town Community College, North Carolina community colleges, and the national average of all public two-year community colleges.

Ethical Assurances

Permission for access to student data, via the Institutional Research Office, was granted by the President of Small Town Community College. Institutional Review Board (IRB) approval was not necessary from the participating institution. Also, IRB approval was not required from the dissertation granting university since human subjects would not be contacted during this study. Moreover, since historical data are the only information being analyzed, no threats to participants exist. Measures to safeguard student identification numbers were in place. Only the primary researcher had access to student identifiable information, which was password protected. All data pertaining to this research remained the property of Small Town Community College upon completion.

CHAPTER FOUR: RESULTS

The purpose of this study was to determine the relationship between participating in a first-year experience course to the student success performance measures of academic performance, retention, and graduation. The study examined student outcomes over a four-year period at Small Town Community College in North Carolina from fall 2007 to spring 2012. Guided by the conceptual framework, Figure 1, the study analyzed student inputs (student demographics, academic ability, and institutional goals) and the institutional environment during their first year within the context of the first-year experience course.

The study used descriptive, correlational, and regression statistics to test the hypotheses that guided the study, and identify the correlation, if any, between participation in the first-year experience course and student success outcomes. This chapter presents the analysis consisting of descriptive, correlational, and regression statistical tools. The first section provides descriptive statistics of student demographic data related to the study, while the final section presents student outcomes associated with each hypothesis.

Student Demographics

Descriptive analyses, using frequencies and percentages, were employed to identify the students selected for the study. Students were categorized in two groups, as displayed in Table 3; those who participated in the first-year experience course during the first year of enrollment (fall or spring semester) and those who did not (participants, n = 186; nonparticipants, n = 459). The study examined students enrolling at Small Town

Community College for the first time during fall 2007 and fall 2008. The demographic information about the student participants in the study (n = 645), is presented in Table 3. In the table students are separated according to whether they enrolled in the first-year experience course.

Table 3

Frequencies and Percentages of Demographics of First-Time Students

	Participant (n= 186)		Nonparticipant (n= 459)	
Variable	*f*	%	*f*	%
First-time student				
Fall 2007	80	26.5	222	73.5
Fall 2008	106	30.9	237	69.1
Age				
Less than 24	112	60.2	200	43.6
24 or older	74	39.8	259	56.4
Gender				
Female	123	66.1	244	53.2
Male	63	33.9	215	46.8
Ethnicity				
Minority	62	33.3	129	28.1
White	124	66.7	330	71.9
Financial Aid Eligibility				
Eligible	132	71.0	159	34.6
Not eligible	54	29.0	300	65.4
Enrollment Status				
Full-time	113	60.8	156	34.0
Less than full-time	73	39.2	303	66.0
College Placement				
Enrolled in remediation	99	53.2	101	22
Not enrolled in remediation	87	46.8	358	78

The demographic information about the participants in the study (n = 645) indicates the majority of students are female (367), and over 66% of all first-time female students participated in the first-year experience course. Frequency analyses of

enrollment status indicate 58% of first-time students enrolled less than full-time (less than 12 credit hours), although 61% of first-time students enrolled in the first-year experience course attended college full-time. The analyses also demonstrate 45% of students in the study received financial aid, with the majority participating in the first-year experience course (71%).

Of the participants in the study, 48% are under the age of 24 and 52% are older; 70% are White and 30% non-White. Of all first-time students, 121 (31%) were required to enroll in at least one developmental course, while a majority (53%) of those students participated in the first-year experience course.

Student Outcomes

The hypotheses developed for this study emerge from the conceptual framework and literature review. Frequencies, percentages, means, standard deviations, correlation and regression analyses were employed to address each hypothesis. The results of the statistical analysis for each hypothesis are presented in this section.

> Research Hypothesis 1: Participants in the first-year experience course will achieve higher student success, measured by academic performance, than students not participating in a first-year experience course during the first year of enrollment (fall or spring semester).

Research Hypothesis 1 Descriptive Statistics

Table 4 presents a summary of academic performance, measured by GPA, comparing students who participated in the first-year experience course and those who did not during the first year of enrollment (fall or spring semester). Year 1 GPA includes all students who enrolled for the first time during fall 2007 or fall 2008 terms (n = 645).

Year 2 GPA includes students retained from the first year to the subsequent year (enrolling fall or spring semester). For example, students who enrolled for the first time in fall 2007 and enrolled in fall 2008 or spring 2008, were included in Year 2 calculations. Likewise, students who enrolled for the first time in fall 2008 and enrolled in fall 2009 or spring 2010, were included in Year 2 calculations. Therefore, each year GPA was calculated, students who dropped out were not included; Year 2 (n = 282) and Year 3 (n = 161) displayed a decrease in the sample used.

Year 1 GPA is captured at the end of the first year (spring semester) for both the fall 2007 and fall 2008 new students. Year 2, 3, and 4 GPA only includes students who were identified as being retained for the respective years. As a result, Year 4 (n = 93) only includes students who enrolled in Small Town Community College during the fall or spring semester of the fourth year since their first semester of enrollment in fall 2007 or fall 2008.

Table 4

Descriptive Statistics of Academic Performance, measured by cumulative GPA, at the end of each spring semester for students retained each year

Variable	*n*	M	SD
Year 1			
Participants	186	2.95	1.01
Non Participants	459	2.96	1.04
Year 2			
Participants	103	2.93	.76
Non Participants	179	2.85	.80
Year 3			
Participants	61	2.99	.69
Non Participants	100	2.84	.75
Year 4			
Participants	35	2.94	.64
Non Participants	63	3.14	.61

Although year one academic performance was similar between the groups, students who participated in the first-year experience earned a slightly higher GPA than students who did not participate. This relationship continued during years two and three. However, year four indicates students who did not participate in the first-year experience course earned a slightly higher GPA.

Research Hypothesis 1 Correlation

The analysis tested the hypothesis for statistical significance at the .05 level of probability, which measures the confidence of the results. Pearson's correlation provided a method to determine if an association existed between the first-year experience course and academic performance. Pearson's product-moment correlation examined the strength of relationship between the covariates, (age, gender, ethnicity, financial aid, enrollment status, and college placement), first-year experience course participation and academic

performance. Appendix C provides the correlation matrix displaying the relationships among all input, environmental (first-year experience course), and output variables.

Preliminary analyses ensured assumptions were not violated before using bivariate correlation. In order to test the hypothesis, it was necessary to assess the impact of the first-year experience course on academic performance. Tables 5 displays the correlation among the first-year experience course participation and academic performance for each academic year.

Table 5

Pearson Correlations of Environmental Variable on Academic Performance

		AY 1 GPA	AY 2 GPA	AY 3 GPA	AY 4 GPA
FYE Course	Pearson Correlation	.003	-.054	-.098	.125
	Sig. (2-tailed)	.934	.367	.215	.221
	N	645	282	161	98

**. Correlation is significant at the 0.01 level (2-tailed).

As Table 5 indicates, no significant correlation between participation in the first-year experience course and academic performance existed. Therefore, there is no need to further analyze academic performance.

Research Hypothesis 2: Participants in the first-year experience course will achieve higher student success, measured by retention, than students not participating in a first-year experience course during the first year of enrollment (fall or spring semester).

Research Hypothesis 2 Descriptive Statistics

Table 6, *Frequencies and Percentages of Retention and the First-year Experience Course*, presents student retention, measured fall to fall, for three years comparing students who participated and did not participate in the first-year experience course during their first year of enrollment (fall or spring semester).

Table 6

Frequencies and Percentages of Retention and the First-year Experience Course

	Participant		Non- Participant	
Variable	*f*	%	*f*	%
Year 1 (*n* = 645)				
Retained	105	56	178	39
Non Retained	81	44	281	61
Year 2 (*n* = 645)				
Retained	63	34	103	22
Non Retained	123	66	356	78
Year 3 (*n* = 645)				
Retained	30	16	62	13
Non Retained	156	84	397	87

After three years, 16% of students participating in the first-year experience course were retained (*n* = 186), compared to 13% (*n* = 459) of students who did not participate in the first-year experience course during the first year of enrollment (fall or spring semester). Students participating in the first-year experience course were retained to the fall term in their second year at a higher rate (56%) than students who did not participate in the first-year experience course (39%). For each year of the study, students enrolled in the first-year experience course persisted to the following year at a higher rate than students who did not enroll in the course.

Research Hypothesis 2 Correlation

The analysis tested the hypothesis for statistical significance at the .05 level of probability, which measures the confidence of the results. Pearson's correlation determined if an association between the first-year experience course and retention existed. Pearson's product-moment correlation examined the strength of relationship between the covariates, (age, gender, ethnicity, financial aid, enrollment status, and college placement), first-year experience course participation and retention. Appendix C provides the correlation matrix displaying the relationships among all input, environmental (first-year experience course), and output variables.

Preliminary analyses ensured assumptions were not violated before using bivariate correlation. In order to test the hypothesis, it was necessary to assess the impact of the first-year experience course on retention. Accordingly, Table 7 displays the correlation among the first-year experience course and retention for each academic year.

Table 7

Pearson Correlations of Environmental Variable on Retention

		AY 1 Retention	AY 2 Retention	AY 3 Retention
FYE Course	Pearson Correlation	.161**	.113**	.027
	Sig. (2-tailed)	.000	.004	.492
	N	645	645	645

**. Correlation is significant at the 0.01 level (2-tailed).

There is a small positive correlation between first-year experience course and retention, as displayed in Table 7. The significant correlation for academic year one and two is $r = .161$, $n = 645$, $p < .000$, and $r = .113$, $n = 644$, $p < .004$ respectively. Consequently, regression analysis provided a means to further evaluate the relationship between participation in the first-year experience course and retention.

Research Hypothesis 2 Regression

The regression analysis determined the predictability power of the first-year experience course on retention. The analysis used a standard Enter method of entering all six inputs (age, gender, ethnicity, financial aid, enrollment status, and college placement) followed by the environment variable (first-year experience course participation), with retention as the dependent variable over a four year period. The covariate variables remained in the equation.

Table 8 and 9 display an example of the results for each academic year. Stepwise regression was not employed for this study, therefore only Model 6 and Model 7 were analyzed. Model 6 indicates the predictability of all covariates (age, gender, ethnicity,

financial aid, enrollment status, and college placement) while Model 7 indicates the predictability of all covariates and the first-year experience course on retention.

As a result, the change between Model 6 and Model 7 provides the predictability of the first-year experience course on retention during the first academic year. Accordingly, as Model 7 provides the predictability of all input and environmental variables as it relates to retention, several results determine the significance of the predictability. The R^2 change (R square change) value indicates if the addition of the first-year experience course to the regression model improved the model fit, by representing the percentage of variation of the dependent variable (retention).

Another significant result is the *F* change value, as it signifies the variance to the dependent variable that is contributed by the independent variable (first-year experience course), rather than the combination of the covariates. The Sig. F change indicates the strength of the first-year experience course on retention, which is the contribution the course has on retention. Tables 8 and 9 display the results of the multiple regression analysis.

Table 8

Dataset for Regression, Missing Pairwise, for First-Year Experience and Year One Retention.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.053[a]	.003	.001	.496	.003	1.839	1	643	.176
2	.090[b]	.008	.005	.495	.005	3.420	1	642	.065
3	.105[c]	.011	.006	.495	.003	1.830	1	641	.177
4	.106[d]	.011	.005	.495	.000	.209	1	640	.648
5	.142[e]	.020	.012	.494	.009	5.734	1	639	.017
6	.190[f]	.036	.027	.490	.016	10.482	1	638	.001
7	.220[g]	.049	.038	.487	.013	8.441	1	637	.004

a. Predictors: (Constant), Ethnicity

b. Predictors: (Constant), Ethnicity, Age

c. Predictors: (Constant), Ethnicity, Age, Financial Aid

d. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender

e. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender, Developmental

f. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender, Developmental, FT or PT

g. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender, Developmental, FT or PT, FYE Course

Table 9

Dataset for Regression, Missing Pairwise, for First-Year Experience and Year Two Retention

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.077[a]	.006	.004	.436	.006	3.810	1	643	.051
2	.077[b]	.006	.003	.436	.000	.022	1	642	.882
3	.090[c]	.008	.003	.436	.002	1.375	1	641	.241
4	.093[d]	.009	.002	.436	.001	.407	1	640	.524
5	.138[e]	.019	.011	.434	.010	6.739	1	639	.010
6	.157[f]	.025	.015	.433	.006	3.600	1	638	.058
7	.174[g]	.030	.020	.432	.006	3.836	1	637	.051

a. Predictors: (Constant), Ethnicity

b. Predictors: (Constant), Ethnicity, Age

c. Predictors: (Constant), Ethnicity, Age, Financial Aid

d. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender

e. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender, Developmental

f. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender, Developmental, FT or PT

g. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender, Developmental, FT or PT, FYE Course

The coefficient of determination (R^2) for the Control model ($R^2 = .036$) demonstrated a reasonable correlation between the six input variables and student retention for year one. After including the first-year experience course in the model, the correlation value ($R^2 = .049$) identifies an association. The R^2 value (.049) indicates a predictability of 4.9% of the variance related to student retention is associated to all input and environmental variables. Conversely, R^2 change (.013) value between the first-year experience course and the control variables indicates the first-year experience course alone predicts 1.3% of the variance related to retention for the first year. The multiple

regression models confirmed a statistically significant relationship between the first-year experience course and retention during year one and two.

Research Hypothesis 3: Participants in the first-year experience course will achieve higher student success, measured by graduation, than students not participating in a first-year experience course during the first year of enrollment (fall or spring semester).

Research Hypothesis 3 Descriptive Statistics

Table 10, *Frequencies and Percentages of Graduation*, shows the graduation percentages of the first four years comparing participation and non-participation in the first-year experience course during the first year of enrollment (fall or spring semester).

Table 10

Frequencies and Percentages of Graduation

	Participant		Non- Participant	
Variable	*f*	%	*f*	%
Year 1 (*n*= 645)				
Graduated	13	7	37	8
Not Graduated	173	93	422	92
Year 2 (*n*= 645)				
Graduated	15	8	14	3
Not Graduated	171	92	445	97
Year 3 (*n*= 645)				
Graduated	7	4	11	2
Not Graduated	179	96	448	98
Year 4 (*n*= 645)				
Graduated	8	4	32	7
Not Graduated	178	96	427	93

There is no significant difference in graduation percentages between students who participated and did not participate in the first-year experience course. After the

completion of year one and four, non-participants produced a slightly higher graduation percentage than participants. Conversely, participants displayed a slightly higher graduation percentage than nonparticipants after the completion of year two and three. Overall graduation percentage, including all new students who enrolled during the fall 2007 and fall 2008 terms, is 20% (n = 137) after the completion of spring 2012. The aggregate graduation percentage for participants in the first-year experience course and nonparticipants in the first-year experience course were 21% and 19% respectively.

Research Hypothesis 3 Correlation

The analysis tested the hypothesis for statistical significance at the .05 level of probability, which measures the confidence of the results. Pearson's correlation determined if an association between the first-year experience course and graduation existed. Pearson's product-moment correlation examined the strength of relationship between the covariates, (i.e. age, gender, ethnicity, financial aid, enrollment status, and college placement), first-year experience course and graduation. Appendix C provides the correlation matrix displaying the relationships among all input, environmental (first-year experience course), and output variables.

Preliminary analyses ensured assumptions were not violated before using bivariate correlation. In order to test the hypothesis, it was necessary to assess the impact of the first-year experience course on graduation. Accordingly, Tables 11 displays the correlation among the first-year experience course and graduation for each academic year.

Table 11

Pearson Correlations of Environmental Variable on Graduation

		AY 1 Graduation	AY 2 Graduation	AY 3 Graduation	AY 4 Graduation
FYE Course	Pearson Correlation	-.018	.110**	.038	-.050
	Sig. (2-tailed)	.645	.005	.340	.203
	N	645	645	645	645

**. Correlation is significant at the 0.01 level (2-tailed).

A small positive correlation was identified between first-year experience course and second academic year graduation, displayed as $r = .110$, $n = 645$, $p < .005$. Consequently, regression analysis provided a way to further evaluate first-year experience course and graduation.

Research Hypothesis 3 Regression

The regression analysis determined the predictability power of the first-year experience course on graduation. Regression analysis used a standard Enter method of entering all six inputs (age, gender, ethnicity, financial aid, enrollment status, and college placement) followed by the environment variable (first-year experience course), with graduation as the dependent variable over a three year period. All covariate variables remained in the equation.

Table 12 displays an example of the results between the first-year experience course and second year graduation. Accordingly, Model 7 provides the predictability of all input and environmental variables as it relates to graduation during the second academic year. The R^2 change (R square change) value indicates if the addition of the

first-year experience course to the regression model improved the model fit, by representing the percentage of variation of the dependent variable (graduation).

Another significant result is the F change value, as it signifies the variance to the dependent variable that is contributed by the independent variable (first-year experience course), rather than the combination of the covariates. The Sig. F change indicates the strength of the first-year experience course on graduation, which is the contribution the course has on graduation.

Table 12

Dataset for Regression, Missing Pairwise, for First-Year Experience and Year Two Graduation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.059[a]	.003	.002	.207	.003	2.230	1	643	.136
2	.061[b]	.004	.001	.207	.000	.209	1	642	.647
3	.080[c]	.006	.002	.207	.003	1.733	1	641	.188
4	.088[d]	.008	.001	.207	.001	.775	1	640	.379
5	.097[e]	.009	.002	.207	.002	1.181	1	639	.278
6	.126[f]	.016	.007	.207	.006	4.189	1	638	.041
7	.162[g]	.026	.016	.206	.010	6.750	1	637	.010

a. Predictors: (Constant), Ethnicity

b. Predictors: (Constant), Ethnicity, Age

c. Predictors: (Constant), Ethnicity, Age, Financial Aid

d. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender

e. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender, Developmental

f. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender, Developmental, FT or PT

g. Predictors: (Constant), Ethnicity, Age, Financial Aid, Gender, Developmental, FT or PT, FYE Course

The R^2 value (.026) for the first-year experience course indicates that a combination of all variables, covariates and the first-year experience course, account for a 2.6%

predictability of variance related to second year graduation. Nonetheless, the R^2 change value (.010) indicates the first-year experience course alone predicts a 1% variance related to second year graduation. The regression model did confirm a statistically significant relationship (Sig. F Change = .010) between the first-year experience course and graduation.

Summary

This chapter provides data analyses that address each research hypothesis. Descriptive statistics provide student demographic information, while descriptive, correlational, and regression statistics explore each hypothesis to determine if relationships exist between the environmental variable (first-year experience course), while controlling for inputs (age, gender, ethnicity, financial aid, enrollment status, and college placement), on student outcomes (academic performance, retention, graduation).

Analysis of Hypothesis 1 did not indicate a significant association between the first-year experience course and academic performance. Analysis of Hypothesis 2 indicated a statistical significance between the first-year experience course and retention during the first two years. Finally, Analysis of Hypothesis 3 showed a statistical significance related to graduation during year two.

CHAPTER FIVE: SUMMARY, DISCUSSION AND RECOMMENDATIONS

Introduction

Community colleges have an obligation to ensure student success by providing the opportunity for students to enroll, learn, and become productive members of society. Local policy makers and leaders must accept this challenge and provide the resources to prepare students for achievement. The American Association of Community College (2012) recently provided a framework for community colleges:

> In a rapidly changing America and a drastically reshaped world, the ground beneath the nation's feet has shifted so dramatically that community colleges need to reimagine their roles and the ways they do their work…The American Dream is at risk. Because a highly educated population is fundamental to economic growth and a vibrant democracy, community colleges can help reclaim that dream. But stepping up to this challenge will require dramatic redesign of these institutions, their mission, and, most critically, their students' educational experiences. (p. vii)

Community colleges have an opportunity to improve student success by using a student success course, i.e., a first-year experience course, to improve retention and completion (Peterkin, 2012).

The purpose of this study was to examine the influence a first-year experience course had on student success measured by academic performance, retention and graduation. The study compared students who participated in a first-year experience course during their first year of enrollment (fall or spring semester) to those who did not

participate. The study observed new students who enrolled at Small Town Community College during the fall 2007 and fall 2008 terms.

Accordingly, the study provided empirical evidence of the relationship between the first-year experience course and student success measurements for community college stakeholders. Therefore, data analyses were employed to examine the predicative power of the first-year experience course on academic performance, retention, and graduation. The final chapter is comprised of a discussion of the findings and limitations of the study, an exploration of implications, and suggestions for future and continued research on the first-year experience and community colleges.

The conceptual framework employed for this study recognized that certain student variables influence outcomes. Within the scope of the framework, three research hypotheses guided the study. Data analyses, consisting of descriptive, correlational, and regression statistics, provided insight into the predictability power of the first-year experience course on student success.

Summary and Discussions of Main Findings

This study examined archival data focused on: a) students participating in a first-year experience course during the first year of enrollment (fall or spring semester), and b) students not participating in a first-year experience course during the first year of enrollment (fall or spring semester). Previous studies (Barefoot, 2000; Porchea et al., 2010; Wild & Ebbers, 2002) associated student success, measured by retention and graduation, with a first-year experience course. Similarly, results from this study indicated a positive relationship between student success and the first-year experience course. The following hypotheses directed this study:

Research Hypothesis 1: Participants in the first-year experience course will achieve higher student success, measured by academic performance, than students not participating in a first-year experience course during the first year of enrollment (fall or spring semester).

Research Hypothesis 2: Participants in the first-year experience course will achieve higher student success, measured by retention, than students not participating in a first-year experience course during the first year of enrollment (fall or spring semester).

Research Hypothesis 3: Participants in the first-year experience course will achieve higher student success, measured by graduation, than students not participating in a first-year experience course during the first year of enrollment (fall or spring semester).

The sample included new students enrolling at Small Town Community College during fall 2007 and fall 2008 (n = 645). Although the study focused on participation in the first-year experience course on the various student success measurements, several variables (age, gender, ethnicity, financial aid, enrollment status, and college placement) were controlled to measure the relationship between the independent and dependent variables.

Analysis of the controlled variables indicated a majority of all students (n = 645) were 24 years of age or older (52%), White (70%), not eligible for financial aid (54%), female (57%), not enrolled in development coursework (69%), and enrolled part-time (58%). Additional analysis comparing participation indicated a higher percentage of

participants in the first-year experience course were under 24 years of age, female, White, receiving financial aid, enrolled full-time and in developmental coursework.

Hypothesis 1

Hypothesis 1 predicted students who enrolled in the first-year experience course would obtain a higher academic performance, measured by GPA, than students who did not enroll during the first year (fall or spring semester). Participation was as examined against academic performance, controlling for covariates, to identify if a relationship occurred. Results did not indicate a significant relationship between the two variables. Therefore, participation in a first-year experience course did not significantly influence GPA in this study.

Findings were not consistent with previous studies that suggested a first-year experience course and GPA are highly correlated (Lang, 2007; Nora et.al, 1996). Conversely, results were similar to studies that did not indicate a significant increase in GPA for participants in a first-year experience course (Burgette & Magun-Jackson, 2009; Strayhorn, 2009). Furthermore, a recent study at Guildford Technical Community College in North Carolina (Rutschow, Cullinan, & Welbeck, 2012) did not confirm a relationship between participation in a first-year experience course and academic performance.

A possible explanation for the lack of a significant relationship between participation in a first-year experience course and academic performance is how GPA was measured. For instance, the study analyzed academic performance yearly (at the end of spring semester), not each term. Several studies indicate a positive relationship between the academic performance and participation in a first-year experience course

(Glass & Garrett, 1995; Lang, 2007) when examining first-term GPA. Another explanation for the lack or relationship between participation and academic performance is that a majority of participants in the first-year experience course were under 24 years of age, which, according to research, impacts academic performance. For these students, high school GPA is a stronger predictor of college academic performance and should be controlled (Summers, 2003; Tinto, 1975). Also, a majority of the participants in the first-year experience course were enrolled in developmental courses; this may have had a negative impact academic performance (Astin 1975, 1993; Braxton, 2000; Tinto 1975).

Interestingly, year two GPA was significantly correlated to financial aid, which is the only variable to display significant correlation to academic performance. Students on financial aid often work while attending school and are more likely to experience financial hardships. As a result, financial aid students may have limited time dedicated to studying and interacting with faculty and students, which impacts their academic performance.

In summary, academic performance of the two groups, while similar, did not indicate a significant relationship. Year two and three academic performance for nonparticipants displayed the lowest mean GPA of 2.84 and 2.85 respectively. Although not significant, participants had a mean GPA above 2.93 in each year analyzed, while nonparticipants only experienced a GPA above 2.93 during the first and last year.

The purpose of first-year experience courses is to promote study skills, time management and provide students with a better understanding of college resources (Barefoot, 2000; Jamelske, 2009; O'Gara et al., 2009; Tinto & Pusser, 2006). In order to have a greater impact on academic performance, the course may need to be required for

all new first-year students or combined with developmental studies. Finally, other factors (e.g., family and/or career obligations) not included in this study may have influenced academic performance; this will be discussed in more detail in limitations and recommendations for future research.

Hypothesis 2

Hypothesis 2 predicted students who enrolled in the first-year experience course would be retained at a higher percentage than students who did not enroll during the first year (fall or spring semester). Participation was examined against retention, controlling for covariates, to identify if a relationship existed. Results indicated participation in a first-year experience course had a statistically significant influence on retention in year one and two, although minor, which supports research that a positive experience during the first year has an impact on future success measured by persistence (Tinto, 1975, 1993). Nevertheless, participation in the first-year experience course only explains 1.3% of variance for retention in year one.

Results from this study confirm recent studies that indicate a statistically significant relationship between participation in a first-year experience course and retention (Crissman & Upcraft, 2005; Derby & Smith, 2004; Lang, 2007; Schnell et al., 2003; Zeidenberg et al., 2007). Furthermore, a recent study at Aims Community College in Colorado indicated a significant increase in retention (21%) when comparing students who participated and did not participate in a student success course during fall 2008 (Fain, 2013).

Findings from the present study did not confirm a continued significant relationship between participation and retention beyond year three. One reason for this

may include student prior experiences before enrolling at Small Town Community College. For example, more developmental students participated in the first-year experience than nondevelopmental students. Developmental students are required to enroll in more courses before graduation and have more opportunity for life circumstances to arise that force them to leave before completing. In this study, 52% of developmental students were retained after one year, compared to 40% of nondevelopmental students.

Another explanation for the results is students who complete the first-year experience course may have used college support services more than students who did not take the course, resulting in higher retention. Also, students selecting the course during the first-year may be more motivated to accomplish their goals, therefore persisting at a higher rate. Additionally, higher retention percentages may be attributed to first-year experience course instructors encouraging retention and completion more than instructors teaching other subjects.

Between 2007 and 2009, the number of students attending community colleges full time increased by 24% nationally (Mullin & Philliple, 2009). Some of the increase is attributed to high unemployment rates, the need for retraining, and the costsavings of attending a community college versus a four-year university. Small Town Community College was not exempt from this impact. As such, 53% of full-time students were retained after one year, while only 37% of part-time students were retained. For year two, retention rates were 31% and 22% respectively.

Enrollment status was shown to have a positive correlation with retention during years one and two, similar to the findings of Cho and Karp (2012). These findings may be

attributed to the fact that students who enrolled full-time are earning more credits toward graduation and may be more motivated to continue their enrollment until completion is achieved. In summary, Cho and Karp (2012) consider the first-year experience course to have a greater impact on short-term accomplishment, usually persistence into the second year, as opposed to goal attainment which must be measured within three or more years to allow adequate time for completion.

Hypothesis 3

Hypothesis 3 predicted students who enrolled in the first-year experience course would graduate at a higher percentage than students who did not enroll during the first year (fall or spring semester). Participation was examined against graduation, controlling for covariates, to identify if a relationship existed. Results indicated a significant relationship during year two only, by accounting for 1% of variance. Although not significant, nonparticipants graduated at a higher rate (2%) than participants during year one; participants also graduated at a higher rate during years two (6%) and three (1.5%). Since most programs offered by Small Town Community College are two-year programs, year two graduation results are most meaningful.

Students enrolled in the first-year experience course were retained at a higher rate during the first three years, which may explain the significance for year two graduation. Year one and two retention is significantly correlated to year two and three graduation, while year three retention is significantly correlated to year three and four graduation. Although participants achieved higher retention percentages each year compared to nonparticipants, year three was the least significant; this means graduation results would become less meaningful after year three.

Another explanation for significance in graduation, although only for one year, is the first-year experience course promotes advising and career planning. This means participants are more likely to enroll in courses required for their program of study. Consequently, nonparticipants may have been more likely to change programs during the first few years, which may have a negative impact on completion. Additionally, the first-year experience course may have greater short-term influence on outcomes for community colleges. For example, community colleges enroll some students who have no intent of receiving a credential. These students enroll in courses for their personal enrichment or to attain skills related to their existing employment.

Furthermore, community colleges enroll a higher percentage of developmental students than four-year institutions (Bailey & Alfonso, 2005; Fike, 2008; Karp, 2011; Schuetz, 2005; Zeidenberg et al., 2007). Developmental students usually need additional semesters compared to nondevelopmental students to accomplish their goals. As a result, developmental students are less likely to graduate during the normal time period. Nevertheless, a study conducted by Zeidenberg et al., (2007) determined developmental students enrolled in a first-year experience course graduated at a higher rate than developmental students who did not enroll in the course. Findings from the current study indicated a negative correlation between developmental status and year one graduation. For example, only 3% of developmental students graduated after one year, while 10% of nondevelopmental graduated in one year. Developmental courses usually extend the time needed to graduate by at least one semester, most developmental students are unable to complete even a one year diploma program in one year.

Lastly, year one and two produced more graduates (*n*= 71) than year three and four (*n* = 51). A possible explanation is the length of the programs of study. For example, 20% of all students (*n* = 645) were diploma seeking, which is a one year program if attending full-time. Likewise, students enrolled in the diploma degree graduated at a higher percentage in three of the four years. Of the remaining 80% of the students seeking a two-year degree, 70 and 122 were attending full-time pursing an Associate in Applied Science or Transfer, respectively. Over 40% of all students attended full-time, increasing the likelihood of graduation within the first three years.

In summary, a closer examination of students' intent, based on selected goals from the admission application, should be considered when analyzing completion outcomes. Students enrolling with the purpose of a short-term goal, not identified by a credential, could achieve their goal, but will not show up in the graduation outputs. Also, other factors (e.g., family and/or career obligations) not included in this study may have influenced graduation.

Summary

Results support suggestions by Astin (1975, 1993) and Tinto (1975, 1993) that controlling for inputs (academic preparedness), academic integration, identified as the first-year experience course, has an influence on outcomes. The first-year experience course promotes academic integration and student involvement in the campus environment. Therefore, as students become more integrated and satisfied with their college experience they are more likely to succeed.

Findings presented in this study, along with previous research, support the significant impact participating in a first-year experience course has on retention and

graduation. Although previous research on community colleges indicate a significant relationship between a first-year experience course and academic performance, this study was unable to substantiate those findings for Small Town Community College. Although this was a longitudinal study, after the third year, the first-year experience course in relation to the outcomes disappeared as a significant variable. However, only 93 students were still enrolled in year four and 24 students in year five, providing less confidence in the results.

Limitations

According to Bean and Metzner (1985), several external variables, those over which the institution does not have control, impact student retention. Family and career responsibilities are not controlled by the institution and, accordingly, were not included in this study. Nevertheless, these variables play a significant role for nontraditional students. Consequently, the current study does not include all variables identified as influencing persistence and academic performance, and, subsequently, completion. These variables include, but are not limited to, high school GPA, social integration, and parental education (Astin, 1999; Pascarella & Terenzini, 1991; Tinto, 1975).

Community colleges should use results from this study with caution. Although several factors can be controlled by the institution, ultimately, student success is influenced by the student. Additionally, input variables identified by previous research (e.g., first-generation status, high school rank, high school GPA) as impacting student success would have required a survey, which was not possible since the current study is based on archival data.

Furthermore, several environmental variables not included (e.g., work-study, employment, grade earned in the FYE course, study habits, involvement in extracurricular activities, satisfaction with the college, participation in campus resources) in the current study have demonstrated influence on student success. These variables, if included, would strengthen the study. Again, these data were not available from archival records. Also, the study examined a single intervention, the first-year experience course, which lasts only one semester. Therefore, the impact on student outcomes may be limited since many other intervening variables and interventions may have been present.

Another weakness of the study is the tracking of transfer students. For this study, students attending Small Town Community Colleges who achieve their intended goal of transferring to another college are considered as noncompleters regarding graduation. Transfer rates are difficult to determine since community colleges and universities typically do not have a method of reporting between the two entities. As a result, Boggs (2011) recently acknowledged:

> …community colleges do not receive credit for the work they do…while community colleges prepare thousands of students for transfer to four-year institutions and the baccalaureate, the students who transfer from their institutions before attaining an associate degree are classified as drop-outs (p.12).

As community colleges continue enrolling more students who are likely to transfer (VanWagoner et al., 2005), future studies must track transfer students and include them in success measurements.

Although Small Town Community College is similar to the average community college in North Carolina and in other states (AACC, 2011; NCES, 2011, 2011a;

NCCCS, 2010), caution should be used before generalizing the results to specific types of student populations. This study includes only first-time, degree seeking students; therefore, findings should be limited to similar student populations.

Finally, the study does not incorporate all suggested and available measurements for community colleges. For example, according to Jobs for the Future (2008), several new measurements are being tested in various states and via various initiatives. Some of the suggested measurements include enrollment with at least 30 credit hours after six years, and term-to-term persistence.

Implications

According to Cohen and Brawer (2003), assessment of student success should be encouraged and continued with the following condition:

> Students attend, learn, and move on to other pursuits. Those outcomes can be assessed as, indeed, they are in many districts and states. More such studies should be done in individual colleges. But too few institutional research officers are available to coordinate them, too few high-level administrators appreciate their importance, and when they are conducted, too many well-meaning futile attempts are made to relate the findings to particular college practices. (p.426)

This study was conducted at one rural, small town, community college located in North Carolina. Such single institution studies should be pursued in an effort to provide results related to each college segment and student population. Researchers should expand the current study and provide broader experimental data.

External

The present study has practical implications for foundations, researchers, and state and federal leaders. These constituents can use the results presented when evaluating and determining which interventions are effective for community college students. Findings from the study support the positive impact a first-year experience course has on student success, especially first-to-second year and second-to-third year retention. Results indicated first-year experience course participants are retained at a higher percentage and graduate within two years more than students who did not participate. The outcomes are consistent with Tinto's (1975, 1993) model that suggests students who are more integrated with their institution are more likely to persist. As a result, this study helps close the research gap on first-year experience courses and community college students. The results contribute to and support the growing body of research on first-year experience and student success.

Finally, as results from the study showed correlation disappearing after three years between the first-year experience course and student outcomes, future studies should focus on short-term success and completion of intermediate milestones, such as "…accumulation of credits within a particular time frame…" (Jobs, 2012, p.2).

Research is discovering the completion of a specific number of credit hours within a time period is a more accurate measurement than graduation (Horn & Radwin, 2012). Therefore, it is suggested to no longer use graduation as a measurement since many students transfer without earning a credential provided by the college.

Internal

This study supports assessment of a first-year experience program in order to achieve student success. Community college leaders must evaluate the various services and programs available for students in an effort to improve academic performance, retention and completion. This is particularly true of first-year experiences, which are the foundation of further success. Another purpose for the assessment of first-year experience programs is to provide empirical evidence of the impact such an intervention has on student success, thereby allowing an institution to make data-based decisions.

Policy, procedure, and program recommendations. This research can be used by community college leaders and administrators to evaluate policies, procedures, and programs. Community college stakeholders should "encourage institutions to implement their commitment to their first year of college by providing the resources to promote first-year student success" (Upcraft, Gardner, & Barefoot, 2005, p. 523). Institutions have a responsibility to encourage and equip students for success. Consequently, some policies, procedures, programs, and services related to the first-year experience and student success should be mandatory and not left to the student's discretion.

Community college leaders and administrators should consider implementing a mandatory first-year experience program, requiring new students to enroll in the first-year experience course during the first semester. The study found the first-year experience course to have a positive impact on student retention, consistent with research (e.g., Karp et al., 2008). Students enrolled in the course are more likely to persist during their first two years of college than students not enrolled in the course. Additionally, the course provides the opportunity for academic and social integration, encouraging students

to establish a relationship with the institution. Therefore, campus leaders and administrators should consider the first-year experience course as a cost-effective retention tool.

Requiring students to participate in the first-year experience course may not be possible at some institutions because of the fear of a drop in enrollment. During a time in which enrollment is already low and funding scarce, implementing a mandatory first-year experience course for new students may become costly in the short term (Lipka, 2013). The President of Klamath Community College in Oregon recently made the difficult decision to require orientation for all new students with the intent of improving retention and completion (Fain, 2013). He stated, "We were driven by doing the right thing, but it does hurt" (Fain, 2013, para. 4). During the first year of requiring orientation at Klamath, enrollment declined 20%, resulting in $800,000 less in state funding. Nevertheless, as the present study and past findings indicate, community colleges should explore first-year experience research and make decisions based on data (Upcraft, Gardner, & Barefoot, 2005).

Another implication for Small Town Community College and other similar schools in conjunction with the first-year experience course is students required to enroll in developmental courses. In the current study, developmental status, whether students were enrolled in a developmental course or not, correlated significantly with year one and year two retention with r = .106 and r = .103 respectively. In addition, the developmental variable correlated negatively with year one graduation (r = -.107). Therefore, community colleges should consider combining the first-year experience course with developmental courses for students during the first semester.

Community colleges should consider the following interventions with, or separately from, the first-year experience course in order to remove barriers for students and ultimately improve student success: learning communities (Brown, King, & Stanley, 2011; Upcraft & Ishler, 2005); supplemental programs (Upcraft & Ishler, 2005), orientation programs (Braxton & McClendon, 2002; Brown et al., 2011;); tutoring (McClenney, 2011); creating an advising center (Braxton & McClendon, 2002; McClenney, 2011); career services (Braxton & McClendon, 2002); and creating welcome centers (Brown et al., 2011). Orientation is not required at Small Town Community College and other similar colleges; therefore, a similar study comparing participants to nonparticipants of orientation would provide additional empirical evidence for college administrators.

Community college leaders and administrators should consider conducting a comprehensive review of programs, services, interventions, and strategies as they relate to the first-year experience. According to Nodine, Venezia, and Bracco (2011):

> Colleges will need to rethink their major programs and services and, where appropriate, redesign them to increase student completion. In particular, this will require faculty, staff, and administrators to work together--across departments, functions, and other organizational silos--to effect systemic and structural change to improve the coherence of instructional programs and of support services for students. (p.7)

Community colleges in North Carolina are guided by new performance measures recently approved by the State Board of Community Colleges (NCCCS, 2013). As the

Performance Measure Update Report indicates, North Carolina community colleges have realistic criteria focused on short-term student success:

> While the names of the performance measures may resemble some that have been adopted in the past, the descriptions and methodologies highlight some distinct improvements including making the measures closely aligned with key initiatives, more focused on student successes, more objective, uniform across colleges, more valid and reliable, and more cohort based in order to track student success. Additionally, these measures are not static. Instead, the measures and methods of evaluating colleges will continually be reviewed and revised as necessary to ensure that the focus is always on improving student success. (NCCCS, 2013, p.1)

The present study indicated support of a first-year experience course is critical to meeting performance measures. The new performance measures place an emphasis on course completion, short-term persistence (measured by credit hour completion), and achievement for developmental students; this is similar to other initiatives (e.g., Achieving the Dream, 2011).

For example, in order to meet the new standard for first-year progression at a community college in North Carolina, students are measured after attempting 12 credit hours. In this case, after attempting 12 or more credit hours, if a student earned a “C” or higher for those 12 hours during the first year, they are classified as a success. In addition, a student is measured as a success once they complete 36 hours, transfer or graduate within six years (NCCCS, 2013). These new standards are similar to revisions community colleges in other states have made to their success goals in recent years.

Finally, since data on the outcomes of first-year experience courses are still new (Goodman & Pascarella, 2006), the present study should be replicated, examining more recent cohorts of students enrolling in the first-year experience course. Small Town Community College has not conducted a complete study analyzing the relationships among the first-year experience course and the many student success variables. While the current study provides results specific to North Carolina and the host college regarding first-year progression, other similar institutions may benefit from the study.

Faculty and staff. In addition to its benefits to community college leaders and administrators, the results of the current study could be of use to community college faculty and staff. Currently, at Small Town Community College and most community colleges, full-time and part-time faculty and staff teach the first-year experience course. Research indicates full-time college representatives are more integrated with the institution and available to student, thus providing a better chance for students to fit with the institution and improve their likelihood of success (Tinto 1975, 1993).

Students. Students also are internal stakeholders who could benefit from this study. Students attending Small Town Community College, and similar institutions, should be informed of the potential impact the first-year experience course has on their success. As paying customers for a product (education), students should be aware of success rates regarding initiatives and intervention programs. Also, in order to take advantage of interventions, students need to know which programs work and which programs do not work. As Boggs (2011a) suggests, "…focus on educational attainment has taken on a renewed sense of national urgency. It is now commonly accepted that educational achievement is correlated with higher individual lifetime earnings and a

better quality of life" (p.3). As a result, participation in a first-year experience course may lead to a higher probability of completion, which subsequently may lead to higher income.

Most importantly, this study will benefit future community college students by increasing opportunities for them to become more engaged in a supportive environment and achieve higher rates of success in obtaining their academic goals. Even for students who plan to transfer to a four-year university, the first year is critical. Findings suggest, "those who do well in their first semester classes and who manage to persist in their education and maintain their high aspirations after the first semester are much more likely to transfer than the majority of students who do not" (Driscoll, 2007, p.2).

Recommendations for Future Research

The current study recognized several variables as influencing student success; therefore, participation in a first-year experience course alone is not the only effect. The following recommendations are presented for future research as a result of this study:

1. Although first-year experience programs are significant predictors of retention and completion (Braxton et al., 2004; Hunter & Linder, 2005; Karp, 2011; O'Gara et al., 2009), researchers must continue to explore academic integration and first-year experience programs.
2. Future research should consider first-generation students, who are more likely to enroll at a community college (AACC, 2011; Goldrick-Rab, 2010; McClenney, 2011; Zeidenberg, 2008) and contribute to the low graduation rates for community colleges (Zeidenberg, 2008).

3. Future studies should focus on the nontraditional student at community colleges (Astin 1999) by incorporating Bean and Metzner's (1985) model on external factors (e.g., family and work commitments) for community college students.
4. Future research should consider using Astin's I-E-O model and a stepwise regression methodology in order to enter and control for certain variables in a specific order to identify (Crissman, 2001; Debry & Smith, 2004; Keup & Barefoot, 2005).
5. Community college students are more likely to transfer (VanWagoner et al., 2005); therefore, future studies should focus on a first-year experience course specific to transfer students. Colleges may use the findings to promote student success and provide resources for transfer students (AACC, 2012).
6. Future research should focus on identifying which aspect of the first-year experience course has the most impact on student outcomes. The current study did not include variables such as course outcomes, teaching methods, instructors, topics covered, engagement, and student satisfaction. Academic integration (e.g., interactions between faculty and students, and students and peers) has a significant impact on student success (Astin, 1993, Karp et al., 2008; Skipper & Argo, 2003; Tinto, 1982, 2009; Tinto & Pusser, 2006), therefore, future studies should consider an assessment of in-classroom and out-of classroom integration.

Conclusions

Student success measurements are a leading topic of discussion in higher education, with a specific focus on community colleges. As open-door institutions, community colleges are placed in the spotlight of improving success measurements while

enrolling more nontraditional and academically disadvantaged students than four-year institutions. The present study evaluated an intervention program to determine the effectiveness in predicting student success. Findings from this study emphasize the importance of promoting first-year experience programs, specifically courses, to campus stakeholders in an effort to increase student success. Although "…success rates of students is an ambitious goal for institutions that are the least well-funded in American higher education and that attract the most at-risk students" (Boggs, 2011a, p.12), community colleges must promote the importance of the first year and provide support and interventions that remove barriers and encourage success. Everyone should have a sense of urgency and a commitment to improve student learning, engagement, and the student experience.

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Appendix A

Definitions of Key Terms

The purpose of this section is to provide a clearer understanding of key terms discussed in this study.

Attrition. Attrition describes a student who leaves an institution before achieving his or her intended goal. Often times used in exchange with dropout, persistence and retention.

Dropout. Dropout describes a student who discontinues enrollment at an institution and does not continue their education. Often times used in exchange with attrition, persistence and retention.

First-time Student. A first-time student is a student who enrolls at Small Town Community College for the first time during the fall 2007 or fall 2008 term.

First-year Program. First-year program is a comprehensive term describing any program or service offered specifically to first-year students intended to promote academic success, including orientation, first-year seminar, and student support services.

First-year Student. A first-year student is a student who is traditionally between 17-24 years old and enrolled for the first time. A first-year student is any student who has graduated from high school or received their GED and attending the college for the first time. First-year student includes both the traditional and nontraditional populations. For this study, first-year student may include students who have transferred from another college, but is enrolling at Small Town Community College for the first time.

First-year Experience Course. A first-year experience course, also labeled as a first-year seminar, is a course offered to first-year students to assist with the transition to

college. Course names, topics, and credit hours earned vary by institution. Emerging themes with all seminar courses focus on study skills.

*Grade-Point Average (GP*A). The measure of academic performance is determined by GPA, utilizing quality points assigned by each grade a student receives. A semester GPA is the calculation for the courses a student is enrolled in within a specific semester. It measures academic standing. Cumulative GPA is the calculation for all courses a student has enrolled in up through the completion of the previous semester.

Graduation. Graduation is the completion of all coursework requirements for an associate degree, diploma or certificate. This does not include students who transfer to another institution and graduate.

Persistence. Persistence describes a student who remains enrolled, during the fall or spring semester each academic year, until achieving his or her intended goal. According to Pascarella & Terenzini (2005), persistence is "progressive reenrollment in college, whether continuous from one term to the next or temporarily interrupted and then resumed" (p.374). Often-times used in exchange for attrition, dropout and retention. Persistence is a student-focused measurement.

Retention. Retention is a measure of student enrollment from term-to-term or year-to-year, excluding summer. According to Astin (1993), retention is continued enrollment until degree completion. Often times used in exchange with attrition, dropout and persistence. Retention is an institutional-focused measurement. For this study, retention describes a student who remains enrolled, during the fall or spring semester each academic year, until achieving his or her intended goal.

Student departure. Student departure is a term often associated with attrition, persistence, and retention. Student departure includes dropping out of an institution. Tinto (1982) adequately explains, “The simple act of leaving an institution may have multiple and quite disparate meanings to those who are involved in or are affected by the behavior” (p.4). For the purpose of this study, student departure will refer to any interruption in attendance regardless of student intention or reenrollment.

Appendix B

ACA 115 Course Syllabus

Course Syllabus for ACA 115- Success and Study Skills Fall 2010 | Meeting Time and Location: Thursdays 5:30 – 6:15 p.m., Room 2052 **Instructor Information**

Instructor:

Office Hours and Location: Available Online via Pronto Tuesdays and Thursdays 8:00 a.m.-12:00 p.m. | Available by appointment Room 2162 in the Campus Center

Course Description ACA 115 | Success and Study Skills (Class = 0, Lab = 2, Credit = 1) Prerequisites: None | Co-requisites: None This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals. Basic computer skills will be introduced to students unfamiliar with computers.

Student Materials Needed

1. Textbook (required): *FOCUS on Community College Success* (2010). Constance Staley. First edition. Wadsworth, Cengage Learning. ISBN: 0-495-57176-8

2. Access to the internet at least 2-3 days a week, each week

3. E-mail account; All students are required to have a valid e-mail address for this class. Please use your College e-mail address. Currently enrolled high school students may use their high school assigned e-mail address.

Course Goals

a. Development of academic skills

b. Orientation to campus resources and services

c. Self exploration/personal development

Methods of Instruction Whole and small group learning situations, journals, quizzes, lectures, student presentations, audio/video supplements, guest speakers, online auxiliary learning, skills and aptitude assessments. **Learning Activities** Learning about campus resources; developing critical thinking skills; setting academic and career goals; discovering personal learning styles; developing personal skills for time management, stress management, and financial management; developing technology, research, and information literacy skills; learning to develop note-taking, test-taking, and study skills; developing intra and interpersonal skills, planning for careers. **Critical/Analytical Thinking Activities** The course activities will emphasize affective, behavioral, and cognitive goals, help to cultivate attitudes and beliefs in first-year students, help to foster behaviors that will lead to academic success, and to help students learn about learning from a variety of vantage points and in a variety of ways. **Learning Outcomes**

1. Determine individual academic and career goals
2. Identify and use College resources for students
3. Detect personal strengths and weaknesses for academic and career planning
4. Analyze and develop critical thinking skills
5. Explain the value of time and stress management, maintaining a healthy lifestyle, and money management
6. Apply information literacy and research skills
7. Assess personal learning styles

Evaluation 10 % of final grade = Blackboard Orientation Activity and Submission of FOCUS Entrance Interview Assessment 35% of final grade = Journals = (3 Journals total; 1 journal from Chapters 1-3, 1 journal from Chapters 7-9, and 1 journal from Chapter 13) 15% of final grade = Quizzes = (2 quizzes total; 1 quiz on Chapters 4-6 and 1 quiz on Chapters 7-9) 20% of final grade = Final exam (including FOCUS Exit Interview Assessment) 10% of final grade = Student Presentation 10% of final grade = Library Instruction Assignment(s) **Late Work and Make-up Work Policy** Late assignments will ***not*** be accepted or graded for credit unless there are extenuating circumstances beyond the student‟s control such as illness. Documentation may be required at the discretion of the instructor.

Grading Scale 93-100 = A Excellent 85-92 = B Good 77-84 = C Average 70-76 = D Below Average Below 70 = F Failing/No credit WA = Withdrawal/no credit AU = Audit/ no credit I = Incomplete (requires instructor‟s prior approval)

Note: *Final Grade may be rounded on a case-by-case basis by instructor. Factors such as class participation and attendance may be considered. Grades will be earned with no absences beyond the limit of 3. Students who exceed the absence limit after the designated withdrawal period will automatically fail the course, regardless of their current average.*

Attendance Policy Absences are a serious deterrent to good scholarship; it is impossible to receive instruction, obtain knowledge or gain skills when absent. Students may not miss more than **3** total days of this class. An instructor may refuse admission to class to any student who arrives more than ten minutes late to a class. One-half day‟s absence will be counted if a student leaves thirty minutes or more early. According to College

Policy, “A student, who, during a term, incurs in any course absences in excess of twenty percent (20%) of the class hours for that course may be withdrawn from the course (without credit). Students who have not attended class at least once by the 10% date of the course will be withdrawn by the instructor as “never attended.”” Attendance policies for students beginning online courses are determined when a student successfully logs into Blackboard® **and** completes the first assignment requested by the instructor. Absences may be considered legitimate and eligible for makeup at the discretion of the instructor. **Cellular Phone and Other Electronic Device Use** According to College Policy, “The College is committed to providing an environment conducive to learning. To that end, cellular phone and other electronic device use should be kept to a minimum and conducted in areas that do not disturb others, preferably out-of-doors. If cellular phones or other electronic devices must be used while on the campus, follow these procedures”: (1) Turn cellular phone ringer off or set to „silent‟ upon entering any classroom, computer lab, library, auditorium, or instructional area. 3
(2) Short, quiet cellular phone conversations may take place in corridors, away from doorways. Please move extended conversations outside of the buildings. (3) Move immediately to a hallway when receiving or placing calls. Take your belongings with you if you must move to conduct a phone call. (4) Be courteous to others by keeping your voice at a low volume. (5) Faculty members have the right to limit the use of cell phones and other electronic devices during class time. Violating classroom rules may result in a finding of academic dishonesty if violations occur during examinations or individual projects. Faculty members reserve the right to confiscate any electronic device visible during examinations or individual projects. (6) Cell phones cannot be used in the library.

(7) Cell phones with picture taking capabilities are not allowed in restrooms, changing rooms, or locker rooms. **Food and Drink in the Classroom** No food or drinks are allowed in Classrooms or Labs. **Inclement Weather** The College President will make the decision as to whether or not classes will be held during periods of inclement weather. Announcements will be made on local radio and television stations. If day classes are canceled, night classes are automatically canceled. Check the College website under "Campus News" for inclement weather cancellations. **Academic Honesty** The College expects students to practice academic honesty at all times. Academic dishonesty refers to cheating on tests, examinations, projects, and other assigned work. Plagiarism, a very serious form of academic dishonesty, is work that has been written by someone other than the student submitting the work or work obtained from an undocumented or improperly documented resource. Students are responsible for documenting both direct quotations and paraphrased material. Direct quotations must appear within quotation marks and must be documented. Paraphrased material (written in the student‟s own words but taken from another source) must also be documented completely and accurately. When a suspected incidence of academic dishonesty occurs, the College will follow the procedures as stated in the Academic Bulletin and Student Handbook. **Americans with Disabilities Act/Section 504 Regulations** The College, in compliance with The Americans with Disabilities Act and Section 504 Regulations, does not discriminate and is dedicated to providing equal educational and employment opportunities for qualified adults. The College will make reasonable accommodations in its programs, services and facilities for disabled students and disabled employees who are otherwise qualified. Students with special needs should contact the Student Services

Department for assistance such as note takers, readers, interpreters, etc. **Additional Information About Assignments Journals** (for Chapters 1-3, Chapters 4-6, and Chapter 13 only)

Go to the course Blackboard site and click on "Assignments." You will see the questions for each Journal Assignment listed there.

Journal #1 is due ***September 8th.*** Journal #2 is due ***October 27th.*** Journal #3 is due ***November 17th.***

You will be submitting your Journals through Blackboard.

Journals must be typed and clearly address each prompt. A brief paragraph of 5-6 sentences for each question is required.

Up to 100 points will be awarded for the completion of each journal.

Library Instruction Week

We will be meeting in the Studies Room (located in the Library, main level) on ***Thursday, October 21st***. You should report directly to the Studies Room on this day as we will meet as a class.

Up to 100 points will be awarded for the completion of each Library Instruction Assignment provided during the Library Instruction Week.

Student Presentations

Each student will choose one of the following topics and conduct a 4-5 minute presentation to the class on December 2nd. Students will sign up for a topic and presentation date in class during the semester.

You are encouraged to be as creative as you want to be when presenting your topic to the class. Some choices could be, but are not limited to: a presentation with a PowerPoint,

video, poster(s), sing/act out their topic. It is not required to choose a creative way to present, but it certainly makes it more entertaining for your audience and also allows you to have some fun with your topic!

Students will be graded on 4 criteria: 1.) how well you covered your topic; 2.) the ability to keep your presentation to 4-5 minutes; 3.) evidence of how much preparation you put into your presentation; and 4.) proof that you incorporated at least one topic you learned from Chapters 1-9 into your presentation.

Choices of Chapter Topics

1. Why Am I In College In The First Place?

2. Why Did I Return To College After All These Years?

3. What Do I Hope To Accomplish At College?

4. What Or Who Motivates Me To Succeed In College?

5. The Hardest Part About College For Me Is _____ And My Plan to Overcome That Is To _____.

Weekly Schedule August 19: Introductions; review of course syllabus & schedule

Homework: Read Chapter 1. Complete your Orientation on our course Blackboard site ***by 11:55 p.m. on Saturday, August 28th.*** Start working on your FOCUS Entrance Interview Assessment on page xxviii-xxxii (immediately before Chapter 1). This will be due in class on **Thursday, September 2nd**. **August 26th:** Chapter 1 Discussion

Homework: Complete your Orientation on our course Blackboard site ***by 11:55 p.m. on Saturday, August 28th.*** Bring your completed FOCUS Entrance Interview Assessments to class next week on September 2nd. Read Chapter 2 and 3. Come to next week‟s class prepared to discuss Chapter 2 and 3. **September 2nd:** Chapter 2 and 3 Discussion.

Submit FOCUS Entrance Interview Assessment in class today. **Homework:** Read Chapter 4. Come to next week‟s class prepared to discuss Chapter 4. Work on Journal #1 (from Chapters 1-3). The journal questions for this assignment appear in our course Blackboard site under the "Assignments" link. Journal #1 must be submitted through Blackboard by ***11:55 p.m. on Wednesday, September 8th*** **September 9th:** Chapter 4 Discussion **Homework:** Read Chapter 5. Come to the next class prepared to discuss Chapter 5. **September 16th:** Culminating activity in class for Ch. 1-3. Chapter 5 Discussion 5

Homework: Read Chapter 6. Come to next week‟s class prepared to discuss Chapter 6. **September 23rd:** Chapter 6 Discussion **Homework:** Review chapters 4-6 prior to completing QUIZ #1. Complete QUIZ #1 on Chapters 4-6 in Blackboard under the "Assignments" tab ***before 11:55 p.m. on Wednesday, September 29th. *The QUIZ will be timed and the use of textbooks is not allowed* Also-*** Read Chapter 7. Come to next week‟s class prepared to discuss Chapter 7. **September 30th:** Chapter 7 Discussion **Homework:** None **October 7th**: No Class/Fall Break **Homework:** Read Chapter 8 & 9. Be prepared to discuss both Chapter 8 and 9 in class on ***October 14th.*** **October 14th:** Chapter 8 & 9 Discussion **Homework:** Review Chapters 7-9 prior to completing QUIZ #2. Complete QUIZ #2 on Chapters 7-9 in Blackboard under the "Assignments" tab ***before 11:55 p.m. on Wednesday, October 20th. *The QUIZ will be timed and textbooks may not be used.* Also-*** Read Chapter 10. Come to our next class prepared to discuss Chapter 10. **October 21st:** Meet in Studies Room (in Library) for Library Instruction **Homework: Also-** Work on Journal #2 (from Chapters 7-9). The journal questions for this assignment appear in our course Blackboard site under the

"Assignments" link. Journal #2 must be submitted through Blackboard before ***11:55 p.m. on Wednesday, October 27th.*** **October 28th:** Chapter 10 Discussion **Homework:** Observe your classes this week (or think about your classes in the past, especially if you have mostly online classes this semester.) Be prepared to come to class and briefly describe the type of lecturers you have (or have had in the past). Also- Read Chapters 11 and 12. Come to our next class prepared to discuss Chapters 11 and 12. **November 4th:** Chapters 11 and 12 Discussion **Homework:** You will need to decide which topic you will choose for your upcoming Student Presentation. See the Syllabus on page 4 for the choices of topics. Post your topic under the Student Presentation topic link under the "Assignment" tab in Blackboard ***by 11:55 p.m. on Wednesday, November 10th.*** Read Chapter 13. Come to our next class prepared to discuss Chapter 13. **November 11th:** Chapter 13 Discussion **Homework:** Work on Journal #3 (from Chapter 13). The journal questions for this assignment appear in our course Blackboard site under the "Assignments" link. Journal #3 must be submitted through Blackboard before ***11:55 p.m. on Wednesday, November 17th. Also-***Student Presentations are due in class on ***December 2nd. Also- Final Exam will be given in class on December 9th.*** **November 18th:** Final Exam Review **Homework:** Review for Exam & work on Student Presentations **November 25th: No Class/Thanksgiving Break - Happy Thanksgiving!- Homework:** FOCUS Exit Interview Assessment due in class on **December 14thth. Also-** Student Presentations are due December 2nd. 6

December 2nd: STUDENT PRESENTATIONS **Homework:** FOCUS Exit Interview Assessment will be due in class on **December 14th. Final Exam December 9th.**

December 9th: Final Exam in class today. **December 14th: (Note-Tuesday Make Up**

Day): FOCUS Exit Interview Assessment. Course evaluations completed. Graded Final Exams returned. Semester Wrap-Up.

Appendix C

Correlational Matrix

Correlations

		FYE Course	Ethnicity	Age	Financial Aid	Prog Type
FYE Course	Pearson Correlation	1	-.052	.151**	.331**	.117**
	Sig. (2-tailed)		.188	.000	.000	.003
	N	645	645	645	645	645
Ethnicity	Pearson Correlation	-.052	1	-.059	-.169**	-.018
	Sig. (2-tailed)	.188		.138	.000	.656
	N	645	645	645	645	645
Age	Pearson Correlation	.151**	-.059	1	.238**	.018
	Sig. (2-tailed)	.000	.138		.000	.654
	N	645	645	645	645	645
Financial Aid	Pearson Correlation	.331**	-.169**	.238**	1	.031
	Sig. (2-tailed)	.000	.000	.000		.431
	N	645	645	645	645	645
Prog Type	Pearson Correlation	.117**	-.018	.018	.031	1
	Sig. (2-tailed)	.003	.656	.654	.431	
	N	645	645	645	645	645
Gender	Pearson Correlation	-.119**	-.053	.041	.004	-.154**
	Sig. (2-tailed)	.003	.182	.300	.927	.000
	N	645	645	645	645	645
Developmental	Pearson Correlation	.301**	-.076	.112**	.229**	.046
	Sig. (2-tailed)	.000	.053	.005	.000	.247
	N	645	645	645	645	645

FT or PT	Pearson Correlation	.246**	-.078*	.207**	.301**	-.147**
	Sig. (2-tailed)	.000	.047	.000	.000	.000
	N	645	645	645	645	645
AY 1 Retention	Pearson Correlation	.161**	.053	.069	.059	.008
	Sig. (2-tailed)	.000	.176	.078	.138	.840
	N	645	645	645	645	645
AY 2 Retention	Pearson Correlation	.113**	.077	.001	.033	.016
	Sig. (2-tailed)	.004	.051	.973	.409	.688
	N	645	645	645	645	645
AY 3 Retention	Pearson Correlation	.027	.029	.000	.062	.027
	Sig. (2-tailed)	.492	.466	.997	.115	.495

Correlations

		Gender	Developmental	FT or PT	AY 1 Retention
FYE Course	Pearson Correlation	-.119	.301	.246**	.161**
	Sig. (2-tailed)	.003	.000	.000	.000
	N	645	645	645	645
Ethnicity	Pearson Correlation	-.053	-.076	-.078	.053**
	Sig. (2-tailed)	.182	.053	.047	.176
	N	645	645	645	645
Age	Pearson Correlation	.041**	.112	.207	.069**
	Sig. (2-tailed)	.300	.005	.000	.078

	N	645	645	645	645
Financial Aid	Pearson Correlation	.004**	.229**	.301**	.059
	Sig. (2-tailed)	.927	.000	.000	.138
	N	645	645	645	645
Prog Type	Pearson Correlation	-.154**	.046	-.147	.008
	Sig. (2-tailed)	.000	.247	.000	.840
	N	645	645	645	645
Gender	Pearson Correlation	1**	-.024	.070	-.019
	Sig. (2-tailed)		.537	.075	.634
	N	645	645	645	645
Developmental	Pearson Correlation	-.024**	1	.284**	.106**
	Sig. (2-tailed)	.537		.000	.007
	N	645	645	645	645
FT or PT	Pearson Correlation	.070**	.284*	1**	.158**
	Sig. (2-tailed)	.075	.000		.000
	N	645	645	645	645
AY 1 Retention	Pearson Correlation	-.019**	.106	.158	1
	Sig. (2-tailed)	.634	.007	.000	
	N	645	645	645	645

AY 2 Retention	Pearson Correlation	-.030**	.103	.095	.506
	Sig. (2-tailed)	.454	.009	.016	.000
	N	645	645	645	645
AY 3 Retention	Pearson Correlation	.016	.073	.037	.333
	Sig. (2-tailed)	.685	.064	.354	.000

Correlations

		AY 2 Retention	AY 3 Retention	AY 1 Graduation	AY 2 Graduation
FYE Course	Pearson Correlation	.113	.027	-.018**	.110**
	Sig. (2-tailed)	.004	.492	.645	.005
	N	645	645	645	645
Ethnicity	Pearson Correlation	.077	.029	-.091	.059**
	Sig. (2-tailed)	.051	.466	.020	.136
	N	645	645	645	645
Age	Pearson Correlation	.001**	.000	.021	.015**
	Sig. (2-tailed)	.973	.997	.594	.712
	N	645	645	645	645
Financial Aid	Pearson Correlation	.033**	.062**	.005**	.044
	Sig. (2-tailed)	.409	.115	.896	.266
	N	645	645	645	645
Prog Type	Pearson Correlation	.016**	.027	-.031	-.019
	Sig. (2-tailed)	.688	.495	.427	.630
	N	645	645	645	645

Gender	Pearson Correlation	-.030**	.016	.005	-.038
	Sig. (2-tailed)	.454	.685	.894	.338
	N	645	645	645	645
Developmental	Pearson Correlation	.103**	.073	-.107**	-.033**
	Sig. (2-tailed)	.009	.064	.007	.407
	N	645	645	645	645
FT or PT	Pearson Correlation	.095**	.037*	-.034**	.074**
	Sig. (2-tailed)	.016	.354	.395	.059
	N	645	645	645	645
AY 1 Retention	Pearson Correlation	.506**	.333	.012	.200
	Sig. (2-tailed)	.000	.000	.753	.000
	N	645	645	645	645
AY 2 Retention	Pearson Correlation	1**	.548	-.077	.181
	Sig. (2-tailed)		.000	.051	.000
	N	645	645	645	645
AY 3 Retention	Pearson Correlation	.548	1	-.068	-.045
	Sig. (2-tailed)	.000		.087	.254

Correlations

		AY 3 Graduation	AY 4 Graduation	AY 1 GPA	AY 2 GPA
FYE Course	Pearson Correlation	.038	-.050	.003**	-.054**
	Sig. (2-tailed)	.340	.203	.934	.367
	N	645	645	645	282

Ethnicity	Pearson Correlation	.027	-.002	.029	.051**
	Sig. (2-tailed)	.487	.956	.456	.391
	N	645	645	645	282
Age	Pearson Correlation	.062**	.047	-.053	-.088**
	Sig. (2-tailed)	.116	.234	.177	.138
	N	645	645	645	282
Financial Aid	Pearson Correlation	.017**	-.001**	-.053**	-.136
	Sig. (2-tailed)	.673	.988	.175	.022
	N	645	645	645	282
Prog Type	Pearson Correlation	.004**	-.044	.001	.015
	Sig. (2-tailed)	.927	.262	.970	.806
	N	645	645	645	282
Gender	Pearson Correlation	.005**	.049	.028	.031
	Sig. (2-tailed)	.907	.216	.471	.605
	N	645	645	645	282
Developmental	Pearson Correlation	.048**	.021	-.018**	-.046**
	Sig. (2-tailed)	.221	.592	.640	.438

FT or PT	N	645	645	645	282
	Pearson Correlation	-.010**	.043*	.030**	.061**
	Sig. (2-tailed)	.806	.273	.444	.308
AY 1 Retention	N	645	645	645	282
	Pearson Correlation	.173**	-.033	-.003	.011
	Sig. (2-tailed)	.000	.402	.937	.850
AY 2 Retention	N	645	645	645	282
	Pearson Correlation	.267**	.070	.014	-.083
	Sig. (2-tailed)	.000	.075	.713	.165
AY 3 Retention	N	645	645	645	282
	Pearson Correlation	.229	.173	-.030	-.095
	Sig. (2-tailed)	.000	.000	.451	.112

Correlations

		AY 3 GPA	AY 4 GPA
FYE Course	Pearson Correlation	-.098	.125
	Sig. (2-tailed)	.215	.221
	N	161	98
Ethnicity	Pearson Correlation	.033	.020

	Sig. (2-tailed)	.676	.847
	N	161	98
	Pearson Correlation	-.036**	-.048
Age	Sig. (2-tailed)	.653	.642
	N	161	98
	Pearson Correlation	-.152**	.078**
Financial Aid	Sig. (2-tailed)	.054	.444
	N	161	98
	Pearson Correlation	.057**	-.060
Prog Type	Sig. (2-tailed)	.476	.560
	N	161	98
	Pearson Correlation	.056**	-.187
Gender	Sig. (2-tailed)	.478	.065
	N	161	98
	Pearson Correlation	-.009**	-.015
Developmental	Sig. (2-tailed)	.913	.886
	N	161	98
	Pearson Correlation	.026**	.086*
FT or PT	Sig. (2-tailed)	.741	.402
	N	161	98
	Pearson Correlation	-.107**	.174
AY 1 Retention	Sig. (2-tailed)	.176	.086
	N	161	98
	Pearson Correlation	.101**	-.019
AY 2 Retention	Sig. (2-tailed)	.205	.855

AY 3 Retention	N	161	98
	Pearson Correlation	-.121	.077
	Sig. (2-tailed)	.126	.450

Correlations

		FYE Course	Ethnicity	Age	Financial Aid	Prog Type
AY 3 Retention	N	645	645	645**	645**	645**
	Pearson Correlation	-.018	-.091	.021	.005	-.031
AY 1	Sig. (2-tailed)	.645	.020	.594	.896	.427
Graduation	N	645	645	645	645**	645
	Pearson Correlation	.110	.059	.015	.044	-.019
AY 2	Sig. (2-tailed)	.005	.136	.712	.266	.630
Graduation	N	645**	645	645	645**	645
	Pearson Correlation	.038	.027	.062	.017	.004
AY 3	Sig. (2-tailed)	.340	.487	.116	.673	.927
Graduation	N	645**	645**	645**	645	645
	Pearson Correlation	-.050	-.002	.047	-.001	-.044
AY 4	Sig. (2-tailed)	.203	.956	.234	.988	.262
Graduation	N	645**	645	645	645	645
	Pearson Correlation	.003	.029	-.053	-.053	.001
AY 1 GPA	Sig. (2-tailed)	.934	.456	.177	.175	.970
	N	645**	645	645	645	645**
AY 2 GPA	Pearson Correlation	-.054	.051	-.088	-.136	.015

	Sig. (2-tailed)	.367	.391	.138	.022	.806
	N	282**	282	282**	282**	282
	Pearson Correlation	-.098	.033	-.036	-.152	.057
AY 3 GPA	Sig. (2-tailed)	.215	.676	.653	.054	.476
	N	161**	161*	161**	161**	161**
	Pearson Correlation	.125	.020	-.048	.078	-.060
AY 4 GPA	Sig. (2-tailed)	.221	.847	.642	.444	.560
	N	98**	98	98	98	98

Correlations

		Gender	Developmental	FT or PT	AY 1 Retention
AY 3 Retention	N	645	645	645**	645**
	Pearson Correlation	.005	-.107	-.034	.012
AY 1 Graduation	Sig. (2-tailed)	.894	.007	.395	.753
	N	645	645	645	645**
	Pearson Correlation	-.038	-.033	.074	.200
AY 2 Graduation	Sig. (2-tailed)	.338	.407	.059	.000
	N	645**	645	645	645**
	Pearson Correlation	.005	.048	-.010	.173
AY 3 Graduation	Sig. (2-tailed)	.907	.221	.806	.000
	N	645**	645**	645**	645
	Pearson Correlation	.049	.021	.043	-.033
AY 4 Graduation	Sig. (2-tailed)	.216	.592	.273	.402
	N	645**	645	645	645

	Pearson Correlation	.028	-.018	.030	-.003
AY 1 GPA	Sig. (2-tailed)	.471	.640	.444	.937
	N	645**	645	645	645
	Pearson Correlation	.031	-.046	.061	.011
AY 2 GPA	Sig. (2-tailed)	.605	.438	.308	.850
	N	282**	282	282**	282**
	Pearson Correlation	.056	-.009	.026	-.107
AY 3 GPA	Sig. (2-tailed)	.478	.913	.741	.176
	N	161**	161*	161**	161**
	Pearson Correlation	-.187	-.015	.086	.174
AY 4 GPA	Sig. (2-tailed)	.065	.886	.402	.086
	N	98**	98	98	98

Correlations

		AY 2 Retention	AY 3 Retention	AY 1 Graduation	AY 2 Graduation
AY 3 Retention	N	645	645	645**	645**
	Pearson Correlation	-.077	-.068	1	-.035
AY 1 Graduation	Sig. (2-tailed)	.051	.087		.376
	N	645	645	645	645**
	Pearson Correlation	.181	-.045	-.035	1
AY 2 Graduation	Sig. (2-tailed)	.000	.254	.376	
	N	645**	645	645	645**
	Pearson Correlation	.267	.229	-.049	-.037
AY 3 Graduation	Sig. (2-tailed)	.000	.000	.213	.351
	N	645**	645**	645**	645

	Pearson Correlation	.070	.173	-.075	-.056
AY 4 Graduation	Sig. (2-tailed)	.075	.000	.058	.157
	N	645**	645	645	645
	Pearson Correlation	.014	-.030	-.050	-.021
AY 1 GPA	Sig. (2-tailed)	.713	.451	.202	.602
	N	645**	645	645	645
	Pearson Correlation	-.083	-.095	-.087	-.098
AY 2 GPA	Sig. (2-tailed)	.165	.112	.143	.101
	N	282**	282	282**	282**
	Pearson Correlation	.101	-.121	.006	-.061
AY 3 GPA	Sig. (2-tailed)	.205	.126	.938	.443
	N	161**	161*	161**	161**
	Pearson Correlation	-.019	.077	-.005	.076
AY 4 GPA	Sig. (2-tailed)	.855	.450	.960	.460
	N	98**	98	98	98

Correlations

		AY 3 Graduation	AY 4 Graduation	AY 1 GPA	AY 2 GPA
AY 3 Retention	N	645	645	645**	282**
	Pearson Correlation	-.049	-.075	-.050	-.087
AY 1 Graduation	Sig. (2-tailed)	.213	.058	.202	.143
	N	645	645	645	282**
	Pearson Correlation	-.037	-.056	-.021	-.098
AY 2 Graduation	Sig. (2-tailed)	.351	.157	.602	.101
	N	645**	645	645	282**

	Pearson Correlation	1	-.044	-.050	-.102
AY 3 Graduation	Sig. (2-tailed)		.269	.204	.087
	N	645**	645**	645**	282
	Pearson Correlation	-.044	1	-.136	-.148
AY 4 Graduation	Sig. (2-tailed)	.269		.001	.013
	N	645**	645	645	282
	Pearson Correlation	-.050	-.136	1	.819
AY 1 GPA	Sig. (2-tailed)	.204	.001		.000
	N	645**	645	645	282
	Pearson Correlation	-.102	-.148	.819	1
AY 2 GPA	Sig. (2-tailed)	.087	.013	.000	
	N	282**	282	282**	282**
	Pearson Correlation	-.136	-.206	.759	.925
AY 3 GPA	Sig. (2-tailed)	.085	.009	.000	.000
	N	161**	161*	161**	145**
	Pearson Correlation	-.096	-.174	.705	.888
AY 4 GPA	Sig. (2-tailed)	.345	.086	.000	.000
	N	98**	98	98	79

Correlations

		AY 3 GPA	AY 4 GPA
AY 3 Retention	N	161	98
	Pearson Correlation	.006	-.005
AY 1 Graduation	Sig. (2-tailed)	.938	.960
	N	161	98

	Pearson Correlation	-.061	.076
AY 2 Graduation	Sig. (2-tailed)	.443	.460
	N	161**	98
	Pearson Correlation	-.136	-.096
AY 3 Graduation	Sig. (2-tailed)	.085	.345
	N	161**	98**
	Pearson Correlation	-.206	-.174
AY 4 Graduation	Sig. (2-tailed)	.009	.086
	N	161**	98
	Pearson Correlation	.759	.705
AY 1 GPA	Sig. (2-tailed)	.000	.000
	N	161**	98
	Pearson Correlation	.925	.888
AY 2 GPA	Sig. (2-tailed)	.000	.000
	N	145**	79
	Pearson Correlation	1	.865
AY 3 GPA	Sig. (2-tailed)		.000
	N	161**	79*
	Pearson Correlation	.865	1
AY 4 GPA	Sig. (2-tailed)	.000	
	N	79**	98

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).