

Abstract

C. Lisa Rogerson. THE IMPACT OF POPULATING THE FRESHMAN SEMINAR ON RETENTION, STUDENT PERCEPTION OF CONTENT, STUDENT SATISFACTION AND CONNECTION TO THE INSTITUTION. (Under the direction of Dr. Michael Poock) Department of Educational Leadership, November, 2008.

The purpose of this study was to examine the relationship between how the freshman seminar course in extended orientation format is populated at a large research institution and its impact on student perception of content, student satisfaction with the course as a vehicle for successful transition to the institution and building relationships with peers and faculty, as well as, student retention. Race and gender were considered as well. The study, involving survey research, addressed five research questions and fifteen null hypotheses.

Analysis of the dependent and independent variables in this study allowed for the retention of twelve and rejection of three of the hypotheses. Findings indicate that populating the freshman seminar intentionally by major and/or advisor allows for greater opportunities for students to make connections with peers and faculty members. This, in turn, can perpetuate higher retention of these students. Population method of the freshman seminar does not appear to have a significant impact on student perception of content, student satisfaction with the course or opportunities for building connections with the university. Race and gender appear to have no significant impact on the outcomes of the study.

Seven implications for practitioners and four recommendations for further research were suggested. Both implications and recommendations focused on how the freshman seminar, currently a viable retention tool, might be enhanced to yield greater student benefits resulting in increased retention.

THE IMPACT OF POPULATING THE FRESHMAN SEMINAR ON RETENTION,
STUDENT PERCEPTION OF CONTENT, STUDENT SATISFACTION AND
CONNECTION TO THE INSTITUTION

A Dissertation

Presented to

The Faculty of the Department of Educational Leadership

East Carolina University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

by

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November, 2008

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ACKNOWLEDGEMENTS

The culmination of this endeavor is certainly due to the help and support of many. God has richly blessed my life and for that, I am eternally grateful.

I would like to thank my dissertation committee, Drs. Mike Poock, Sandra Warren, Guili Zhang and Cheryl McFadden for offering their expertise, guidance, support and encouragement throughout this process.

I am indebted to my work family in the College of Education Advising Center as well as my colleagues in the Department of Curriculum and Instruction and the College of Education. Thank you for listening to me, supporting me, commiserating and celebrating with me.

I owe a special debt of gratitude to friends who have been and continue to be there for me at all times. I would especially like to thank Janice and Alan Hill, Eva and Bill King and their children for always serving as second families for my daughter and me and especially for stepping in whenever we needed you during the course of this study.

Thank you to my parents, Jesse and Peggy Rogerson, for always encouraging and supporting me in whatever I choose to do. I am so fortunate to have such wonderful, loving role models who have such faith in me.

Finally, I want to thank my daughter, Jessy, for supporting me, encouraging me, motivating me and believing in me. You always give me a reason to smile, play, laugh and enjoy life.

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CHAPTER 1: INTRODUCTION

Student attrition is a concern for administrators of colleges and universities across the nation, especially at larger institutions, and the attrition rate is at its highest between the first and second year of college, regardless of race and gender (Barefoot, 2004; Habley & McClanahan, 2004a; Porter & Swing, 2006). Results from the 2004 American College Testing's (ACT) annual survey of 2,500 post secondary institutions specify a first to second year mean institutional attrition rate of 31.8% for Bachelor's, 25.7% for Master's, and 22.7% for Doctoral level institutions (*What Works in Student Retention*, 2004). In efforts to address this concern, leaders at post secondary institutions have introduced an assortment of intervention programs reflecting student development theory to promote student success, satisfaction and connection with peers, faculty and the institution, with the most ubiquitous initiative being the first year or freshman seminar (Porter & Swing). These terms will be used interchangeably in this study to refer to the seminar designed to assist students entering higher education for the first time, historically referred to as freshmen, with transition to post secondary study.

Serving as a precursor for other retention initiatives used today is the first year or freshman seminar, which has emerged over the last 20 years as a core staple of the traditional four-year higher education experience at institutions across the United States. Institutional utilization of this initiative can directly be traced to increased emphasis on student retention (Gardner, 1986; Gordon, 1989).

The notion of a seminar course designed to prepare first year students for campus life at a college or university can be traced back to the late 1880s. Boston University is

credited with the first seminar course, followed by the University of Michigan and Oberlin College in the early 1900s (Barefoot & Gardner, 1993). The first for-credit first year seminar was offered at Reed College in 1911 and was required for all entering freshmen. By 1926, 82 colleges and universities had established such a course. By 1930, approximately one third of the colleges and universities in America offered a version of the first year seminar (Gordon, 1989).

According to Barefoot and Gardner (1993), utilization of the freshman seminar course fluctuated through the twentieth century, reflecting the trends and attitudes of each decade; however, by the late 1970s, the freshman seminar had regained widespread recognition. The American Association of State Colleges and Universities (AASCU) credits the renewed interest in offering a seminar to a major influx of students to colleges and universities, many of whom were first generation college students from middle class families as opposed to the more elite population that had traditionally been found on college campuses (AASCU Report, 2005). This influx prompted educators to appreciate that many of these students, having no family members with previous connections to or experience with institutions of higher education, needed more formal supports in place to assist them with transition and success. The informal networks provided by peers on college campuses were not adequate to assist such students with the navigation of college and university requirements and policies (Barefoot & Gardner). This new influx of first generation students changed the profile of the average college student, providing new challenges for colleges and universities as theory on learning, initiatives for retention, and trends in behavior of college students were reflective of students that had been the core of

college populations for years, those from more affluent families with a family history with higher education (AASCU Report, 2005).

In effort to address the new challenge of assisting students with no prior connections to post secondary study, Gardner and colleagues championed an endeavor to reinstitute the freshman seminar on American campuses (Mamrick, 2005) and by the late 1980s, approximately 66% of American colleges and universities offered some version of the freshman seminar course (Barefoot & Gardner, 1993). Results from a 2002 study conducted by the Policy Center on the First Year of College revealed that 94% of accredited four year colleges and universities in the United States offered some form of a first year seminar, with over half of these institutions delivering the seminar to more than 90% of their first year students, some by choice and others by requirement, determined by institutional preference.

Statement of the Problem

In *How College Affects Students*, Pascarella and Terenzini (2005) cited the freshman seminar as notably effective as a retention initiative as well as the initiative most commonly used by colleges and universities today. A multitude of additional research indicates similar results (Barefoot & Gardner, 1993; Dooris & Nugent, 2001; Ewell, 2001; Fidler, 1991; Gordon, 1989; Porter & Swing, 2006; Tobolowsky, 2005). Additional research also suggests that these findings hold true, regardless of race or gender (Davis-Underwood & Lee, 1994; Fidler, 1991; Glass & Garrett, 1995; Hoff, Cook, & Price, 1996; Schnell & Doetkott, 2002-2003; Strumph & Hunt, 1993).

Research also indicates that seminars come in many forms, having some commonalities such as regularly scheduled meeting times with consistent instructors; however, vary somewhat regarding frequency of meeting times, content, pedagogy, credit hours and whether required or elective. Due to these differences, no particular attribute appears to singularly perpetuate the success of the seminar as a retention tool. Instead, the success of the seminar appears to be the result of an amalgamation of these components, vested in student development theory, and related to how such a course connects new students to the academic and social pulse of an institution through opportunities to hone academic and personal skills, acquire knowledge and build relationships (Astin, 1984; Mallette & Cabrera, 1991; Pascarella & Terenzini, 1980; Terenzini & Pascarella, 1977). Interestingly, there appears to be little to no research examining the impact of how seminars are populated; that is, how students are assigned to or select given sections of the course, which could provide avenues of connection for students related to common interests or future goals.

Even with the successful utilization of initiatives designed to assist first year students with adjustment to post secondary study, student attrition continues to be a concern; thus, continued research regarding how to maximize student benefits from such initiatives has been recommended (Porter & Swing, 2006; Williford, Chapman & Kahrig, 2001). Given the superfluity of research previously noted connecting student accomplishment, satisfaction and perseverance to social and academic acclimation to the university, how freshman seminars are populated to productively facilitate adjustment could be an integral piece of information for leaders at post secondary institutions as they

plan programming for freshmen in efforts to enhance student transition, satisfaction and retention.

Purpose of the Study

The purpose of this study was to augment current research on the outcomes of the freshman seminar by targeting an attribute which could maximize student benefits. This study examined the relationship between how the freshman seminar course in extended orientation format is populated at a large research institution and its impact on student perception of content, student satisfaction with the course as a vehicle for successful transition to the institution and building relationships with peers and faculty, as well as, student retention. Race and gender were considered as well.

Although freshman retention initiatives including seminars are utilized at all levels of higher education, studies involving the impact of such initiatives are particularly relevant at larger research institutions where community is sometimes more difficult to build due to sheer size (Boyer, 1990) and there are more opportunities for students to experience courses taught by graduate assistants or adjunct faculty members, limiting prospects of contact and opportunities to build relationships with full faculty members (Fidler & Moore, 1996; Graham & Diamond, 1997).

Additionally, community colleges utilize first year seminars to as initiatives to assist students, yet they often address issues associated with remediation as opposed to the transition and retention issues addressed by first year seminars at four year and graduate degree granting institutions (Cowart, 1987; Habley & McClanahan, 2004b; Rice & Coll, 1991). Thus, research including four year institutions with a Carnegie

classification of Masters or Doctoral/Research was targeted for this study. Likewise, involving multiple institutions in a study such as this is not commonly a viable option as universities tend to tailor seminars for their particular institutions or combine them with other customized first year experience initiatives, creating multiple variations in seminars across institutions (Barefoot, Warnock, Dickinson, Richardson, & Roberts, 1998).

Such a study requires an institution where sections of the seminar are populated purposely based on advisor, intended major/area of study or generically for students who are undecided, presenting the opportunity to determine how course population could impact desired outcomes of the seminar. Additionally, seminars at this institution should not specifically be associated with other initiatives; instead, serve as one of many options in which students can elect to participate. East Carolina University is such an institution; therefore, was selected as the site for this study.

Conceptual Framework

The study was based on Tinto's (1975, 1987, 1993) theory of student development as it specifically addresses freshman development as related to educational interventions and the issue of student retention. Outlining stages of freshman adjustment incorporating the need for and seeking of connections to campus culture, both academically and socially, Tinto's theory is directly connected to the premise and purpose of the freshman seminar.

This study sought to address several questions related to this theory. Would sections of the seminar populated by major/area of study and/or advisor provide richer opportunities for students, due to commonalities or interests, to respond to the content of

the seminars and build connective relationships with peers, faculty members and the university than those populated generically? Would these connections, in turn, be reflected in student satisfaction with the course and post secondary experience, resulting in successful student transition, decreased attrition and increased retention? Would race or gender have an impact on these findings?

Design of Study

In an effort to answer these questions, a self administered online survey, cross sectional in nature, was used. The survey items mirrored consistently conducted national surveys regarding the freshman seminar and freshman year experience. Items addressing course content were based on items from results of the National Survey on First Year Seminars (NSFYS), conducted nationally every three years since 1988 by the National Resource Center for the Freshman Year Experience with published results. Additionally, items regarding connectivity and student satisfaction were based on items from the First Year Initiative Survey (FYI), a joint effort between the Policy Center on the First Year of College and Educational Benchmarking (EBI). Retention data was generated based on the reenrollment of surveyed students for the subsequent semester/year.

Developed by the researcher and originally pilot tested in the fall of 2006 to address validity and reliability, the survey was designed to address how students rate the most frequently reported topics for freshman seminars covering the three main objectives of the course as noted on the NSFYS: academic skills, orientation to/ knowledge of the institution/higher education, and development of self through the college years and beyond, as well as opportunities to build connections with other classmates and faculty

members through course participation and recommendation of the course to future freshmen. All students electing to participate in the freshman seminar at East Carolina University during the fall 2007 semester, approximately one third of the 4,000 students in the freshman class, were invited to participate. The survey was conducted the semester following participation in the course, spring 2008, in an effort to provide students the opportunity to complete the course prior to being asked to reflect upon the benefits from participation.

Implications for Educational Leaders

This study has implications for educational leaders as they seek to create campus cultures with expectations for and initiatives to augment success for all students at all levels. Such research could enhance effective programming for first year students, assisting with transitioning to the post secondary arena, increasing student retention to the sophomore year and ultimately, improving graduation rates.

Operational Definitions

To assist in the understanding of this study, the following explanation of definitions is offered. These definitions may vary by user and/or institution.

Attribute- a quality, property, or characteristic.

Attrition- reduction in enrollment at an institution due to non-completion of degrees or programs of study.

Extended Orientation Format- organization of a freshman seminar to expand the opportunity to provide introductory information to assist participants with transitioning to something new such as post secondary study.

Freshman Seminar- an undergraduate course designed to assist students with transition to and success with post-secondary study.

Generic- available to any member of a group requiring no particular major or area of study.

Heterogeneity- the diverse nature of something.

Homogeneity- being of the same or a similar nature.

Intervention- a strategy designed to influence events or address undesirable consequences.

Initiative- a strategy designed to influence events or address undesirable outcomes.

Orientation- a series of events/meetings designed to provide introductory information to assist participants with transitioning to something new such as post secondary study.

Populate- how students are assigned to or voluntarily register for classes.

Null Hypotheses

This study allowed for retention or rejection of the following null hypotheses:

H₀₁ There is no significant difference across methods of populating freshman seminars and/or gender regarding overall student satisfaction with the freshman seminar.

H₀₂ There is no significant difference across methods of populating freshman seminars and/or gender regarding opportunities for student connections with peers.

- H₀₃ There is no significant difference across methods of populating freshman seminars and/or gender regarding opportunities for student connections with faculty members.
- H₀₄ There is no significant difference across methods of populating freshman seminars and/or gender regarding opportunities for student connections with the university.
- H₀₅ There is no significant difference across methods of populating freshman seminars and/or gender regarding the retention of students participating in the freshman seminar.
- H₀₆ There is no significant difference across methods of populating freshman seminars and/or race regarding overall student satisfaction with the freshman seminar.
- H₀₇ There is no significant difference across methods of populating freshman seminars and/or race regarding opportunities for student connections with peers.
- H₀₈ There is no significant difference across methods of populating freshman seminars and/or race regarding opportunities for student connections with faculty members.
- H₀₉ There is no significant difference across methods of populating freshman seminars and/or race regarding opportunities for student connections with the university.
- H₀₁₀ There is no significant difference across methods of populating

freshman seminars and/or race regarding the retention of students participating in the freshman seminar.

H₀11 There is no significant difference across methods of populating freshman seminars regarding overall student satisfaction with the freshman seminar.

H₀12 There is no significant difference across methods of populating freshman seminars regarding opportunities for student connections with peers.

H₀13 There is no significant difference across methods of populating freshman seminars regarding opportunities for student connections with faculty members.

H₀14 There is no significant difference across methods of populating freshman seminars regarding opportunities for student connections with the university.

H₀15 There is no significant difference across methods of populating freshman seminars regarding the retention of students participating in the freshman seminar.

Limitations

This study was not longitudinal extending to graduation. All sections of the freshman seminar studied used the same syllabus, content and text and all instructors experienced the same training; however, variation of teaching style, learning style and student background could have caused disparity in student response to the survey.

Voluntary participation in the freshman seminar as well as in completing the survey suggests a convenience sample; however, student population in the seminar was representative of the student body of the freshman class. Still, students electing to enroll in a freshman seminar could be perceived as feeling either less confident or prepared or, in contrast, more knowledgeable of personal strengths and weaknesses than those electing not to take the seminar, thus skewing data. Additionally, as this study was conducted at one institution, the results can only be generalized to peer institutions with similar population methods.

Summary

As student retention and graduation rates continue to garner attention and significance, colleges and universities nationally have developed and instituted a variety of initiatives to assist students with transition to post secondary study. Although many initiatives are used today, none has a longer history, more collective success across all facets of the student population or is more universally used than the freshman seminar. Grounded in student development theory, the purpose of the freshman seminar is to provide a support network to assist students with successfully transitioning, academically and socially, to the post secondary arena.

While research exists to support a link between initiatives such as the freshman seminar and student satisfaction and retention, student attrition remains an area of institutional concern; thus, the need for further research vis-à-vis proven retention initiatives such as the seminar, in efforts to improve effectiveness of freshman programming. In an endeavor to maximize student benefits from participation in the

freshman seminar, this study examined the impact of how the freshman seminar course in extended orientation format is populated on student perception of the content of the seminar, student satisfaction with the seminar and student retention.

CHAPTER 2: REVIEW OF LITERATURE

The function of this chapter is to provide a review of literature related to this research study. The review includes research specific to retention and graduation rates, the importance of freshman programming, theoretical background of initiatives, effective first year initiatives, the format, content and benefits of the freshman seminar and challenges related to delivery and study of the seminar. The vast majority of research found for review was generated between the years of 1988 and the present, notably due to the increased interest in and need for the freshman seminar since the late 1980s as noted by Barefoot and Gardner (1993).

Retention and Graduation

As retention and ultimately graduation have emerged as significant issues for post secondary institutions, both externally in the form of recruitment and retention to the institution and internally in the form of recruitment and retention into specific colleges and schools within the institution (Porter & Swing, 2006), leaders at colleges and universities across the nation have become overwhelmingly concerned about student attrition. Tinto's work (1975, 1987, 1993), directly related to the issues of retention and attrition, has been used extensively in efforts to address these issues and is also used as a basis for this study.

Most often measured between the first and second year of post secondary study, attrition is now reported along with other statistical analyses in annual collegiate comparisons by *US News and World Report* (Barefoot, 2004) as well as a wide array of reports from significant informational organizations such as the American Association of

State Colleges and Universities (AASCU), the National Association of System Heads (NASH) and the Education Trust (AASCU Report, 2005).

According to the AASCU Report (2005), the aforementioned organizations have identified the issues of retention and graduation as critical, noting graduation rates as a measure of institutional effectiveness. The Education Trust has made retention and graduation information widely accessible through their interactive web tool, www.CollegeResults.org, where interested parties can select any four-year institution in the nation to compare graduation rates with other institutions of similar mission and size (Carey, 2005). Institutional image is often impacted by such reports as, from a public viewpoint, this is an indication of the institution's effectiveness, quality and commitment to its students (Schnell & Doetskott, 2002-2003).

As a result of such national attention, retention and graduation rates have been identified as important on the state level by organizations such as the General Administration of the University of North Carolina System (UNC-GA). Leaders in such state organizations have, in turn, set goals in these areas. For example, UNC-GA seeks to be notably above the national retention average, 78% according to American College Testing (ACT) in 2007, on each of the 16 campuses that comprise the UNC System (UNC Report on Retention and Graduation, 2005). Using this statistic, six of the sixteen schools in the UNC System currently have retention rates above the national average, perpetuating continued attention (University of North Carolina Institutional Profiles, 2007-2008). Retention rates for UNC System schools are as follows: Appalachian State University, 84.5%; East Carolina University, 78.7%; Elizabeth City State University,

72.3%; Fayetteville State University, 70.8%; North Carolina Agricultural and Technical College 68.9%; North Carolina Central University, 70.9%; North Carolina School of the Arts, 76.6%; North Carolina State University, 89.4%; University of North Carolina at Asheville, 80.7%; University of North Carolina at Chapel Hill, 96.5%; University of North Carolina at Charlotte, 77.4%; University of North Carolina at Greensboro, 76.1%; University of North Carolina at Pembroke, 67.5%; University of North Carolina at Wilmington, 83.1%; Western Carolina University, 71.3%; and Winston Salem State University, 73.0%.

Institutional costs, attributed to student attrition, in the form of loss of revenue from tuition and student fees, contributing to diminishing revenue for faculty and staff has also contributed to the post secondary focus on student retention and graduation (Habley & McClanahan, 2004a). As a result, leaders at colleges and universities have increased accountability for providing effective, quality experiences for students, utilizing practices and initiatives that impact student retention and degree completion (Habley & McClanahan, 2004a).

In spite of these increased efforts, however, data collected by American College Testing (ACT) over the last two decades indicates that graduation rates for four year institutions have changed very little in that time period (Habley & McClanahan, 2004a). Graduation rates are customarily based on a group of first time college students attending full-time at a given institution, graduating from that institution in a set number of years, usually four or six (UNC Report on Retention and Graduation, 2005). However, data collected by the National Center for Education Statistics through the Graduation Rate

Survey under the Integrated Postsecondary Education Systems in 2006 suggests not including transfer students who complete degrees at the institutions transferred to or part time students who, for all general purposes, drop out and restart due to financial or personal obligations but eventually complete degrees. Students falling into either of these categories are considered non-completers in the graduation rate of the original institution of attendance (A test of leadership: Charting the future of U.S. higher education, 2006). In response to the lack of change in graduation rates, institutions have continued the quest of creating or modifying initiatives that enhance student satisfaction and success, promoting retention and ultimately, graduation.

Theoretical Framework

The underpinning of such freshman retention initiatives lies in student development theory, involving the growth and development of the whole person through the promotion of educational interventions that address self awareness, strengthening of skills and building a base of knowledge (Clarkson, 2007). The work of Tinto (1975, 1987, 1993) directly relates to student development and the issue of retention; therefore, was used as the basis of this study. However, the works of many theorists in this realm speaks to growth in the cognitive, social, and emotional domains of students and emphasizes the developmental nature and importance of student experiences in shaping such growth (Clarkson). Such theoretical work serves to shape the nature of such a course as reflected in the objectives and content topics reported on the National Survey on First-Year Seminars 2003 and 2006.

Coon (1970) suggests that students at the post- secondary level are in a constant state of change; therefore, are continually in some state of developmental crisis. How these developmental crises, involving changing relationships with parents and friends, developing a value system and choosing a career path, are positively or negatively resolved is directly related to what students experience at the college level academically, socially and personally.

Additionally, the theory of Maslow (1943) implies that students must progress hierarchically through satisfying needs ranging from being physiologically satisfied and feeling safe to feeling a sense of belonging and being cared for to the development of self esteem and actualization. Theoretically, according to Maslow, individual student growth will be arrested if lower level hierarchical needs such as belonging and connection are not met.

The work of Perry (1970) also speaks to student growth addressing the cognitive maturation of students and following the development of cognition related to knowledge, truth, values, responsibility and life. Dualism, where students struggle with right and wrong, is the first of three schemes in this theory. Relativism, where students learn to make judgments within context leads to Commitment, the third scheme, where active affirmation of self and identity are established.

Similarly, the Seven Vectors of Psychosocial Development, as outlined by Chickering and Reisser (1993), encompass development of competence, emotion management, autonomy/interdependence, interpersonal relationships and identity as well as developing purpose and integrity. Chickering and Reisser purport that students must

progress through the first vectors involving acquisition of knowledge, development of critical thinking and communication skills, systematic problem solving and increased tolerance and acceptance of differences to get to the last vectors involving establishing identity, defining directions and goals and acknowledging the relationship between beliefs and behavior. Progression through vectors, according to Chickering and Reisser, should initiate with arrival at the post secondary institution and culminate with graduation.

Astin (1996) takes this a step farther by linking student development with student involvement in the form of academic involvement, involvement with faculty and involvement with other students. Astin's work indicates focus should be placed on the first years of undergraduate work in efforts to integrate students into the culture of the college and promote engagement. In support of this work, Milem and Berger (1997) indicate that students failing to become connected with the institution during the first six to seven weeks of the college career are inclined to remain unconnected.

The theory of student development offered by Tinto (1975, 1987, 1993), however, speaks specifically to freshman development and serves to connect student development theory and the issue of student retention. Tinto outlines stages of freshman adjustment and relates these stages to reasons for student retention based on principles of commitment. His original theory focused on how student attributes such as skills, abilities and value orientations interfaced with academic and social structures at the university level (Tinto, 1975); however, this theory was later revised to include a developmental

component (Tinto, 1987). In 1993, Tinto expanded his theory of development and retention to incorporate factors explaining student departure.

Tinto's stages of freshman development include separation, where students distance themselves from previous communities such as family and school, often causing students to question what they know and accept; transition, serving as a bridge between the past and current or the old and new, where students search for connections to their new environment in effort to set new goals and form commitments; and incorporation, involving academic and social integration of the first year student into campus culture where students establish connections with peers and faculty members as well as organizations (Tinto, 1982). According to Tinto (1990), promotion of community "ensures the integration of all individuals as equal and competent members of the institution" (p. 36) and all stages ultimately impact student decisions to remain or depart from the institution (Tinto, 1993).

Tinto's theory has been extensively tested and has been utilized by institutions of higher education since originally being published in 1975 (Halpin, 1990; Pascarella & Chapman, 1983; Siedman, 1996; Terenzini & Pascarella, 1980). As a result, extensive research has been conducted addressing the relationship between student involvement or connection/transition and vehicles that facilitate this with student retention. Such research suggests that the more students interact with peers and faculty members, thus becoming academically and socially acclimated at the institution, the greater the likelihood of student persistence (Astin, 1984; Mallette & Cabrera, 1991; Pascarella & Terenzini, 1980; Terenzini & Pascarella, 1977). Additionally, research also suggests that the more

students believe themselves an integral component of the culture of the university, the greater the likelihood of student success and persistence (Rendon, 1984).

Importance of Freshman Programming

Developmental theoretical research underscores the need for student assistance with transition and it is during the freshman year that such transformational learning is at its peak; therefore, interventions and initiatives instituted at this juncture can have the greatest impact on subsequent student perseverance and growth (Tinto & Goodsell, 1993). As a result, colleges and universities have developed and implemented a variety of intervention programs based on student development theory and designed to integrate first year students into the social and academic fabric of institutions (Siedman, 1996). Emphasis has been placed on providing students the support needed for success and transition in efforts to meet the academic, social and personal needs of students (Habley & McClanahan, 2004a).

Even so, student attrition, especially between the first and second year, continues to be a university focus (Porter & Swing, 2006); thus, institutions are recurrently examining components of initiatives that positively impact student success and persistence (Cabrera, Amaury & Castaneda, 1993). The question remains: How can post secondary institutions improve existing successful initiatives for retention such as the freshman seminar to yield even more productive results for students?

Factors Impacting Retention

Carey (2005), reporting on behalf of the Education Trust, refers to the question of what makes large colleges and universities successful in retaining students as difficult to

answer, citing their size and complex organization as factors. Nevertheless, studies have been conducted for years to determine the factors that positively impact student retention with each resulting in similar outcomes.

The first *What Works in Student Retention* study, conducted by Beal and Noel (1980), was a joint effort between ACT and the National Center for Higher Education Management Systems (NCHEMS). Surveys requesting information related to student and institutional characteristics contributing to student attrition and retention as well as action programs implemented to improve retention were sent to 2,459 post secondary institutions with a response rate of 40.2%. Results suggested that initiatives providing academic challenge and support that help students set and achieve goals and promote student interaction and participation on campuses were the most effective tools for student retention.

In 1987, a subsequent *What Works in Student Retention* study was conducted as a collaborative effort between ACT and the American Association of State Colleges and Universities (AASCU). This survey, a content replication of the previous survey, was sent to the 370 members of the AASCU and was returned with a 51.7% rate of response. Results continued to indicate that initiatives addressing academic and social development of students were still the most effective in the retention of students; however, results from this survey were less general and more detailed. Improved academic advising (72.1%), orientation programs (72.1%), early warning for attrition systems (65.6%) and curricular innovations (61.7%) were the specific efforts associated with improved student retention reported by over 50% of the responding institutions.

In 2004, Habley and McClanahan, in conjunction with ACT, conducted the most recent *What Works in Student Retention* survey, sent to 2,995 participating colleges and universities with a response rate of 42.5%. This survey was initially intended to replicate the surveys done in 1980 and 1987; however, due to studies such as the policy analysis conducted by Lotkowski, Robbins and Noeth (2004) addressing the role of academic and non-academic factors on college retention, much more was known about student and institutional characteristics contributing to retention than was known prior to this study. Such studies highlighted recommendations for successful retention practices on four year college and university campuses, including determining student characteristics and needs, developing programs to create socially inclusive academic challenges that address the social, emotional and academic needs of the students, implementing early alert assessment and monitoring systems and conducting cost-benefit analyses to determine the economic impact of retention programs on campuses. As a result, the *What Works in Student Retention 2004* study was expanded to include a more up to date inventory of student and institutional characteristics as well as programs contributing to retention.

Findings from this study indicated that four year public institutions attribute student attrition to student characteristics much more frequently than to institutional characteristics. However, retention practices indicated as having the greatest positive impact on student retention still involved supporting students both academically and socially. These initiatives included the expansion of academic advising to include a developmental approach involving career and life planning, first-year programs including a freshman seminar or learning community and learning support in the form of tutoring

programs and supplemental instruction. More specifically, when asked to identify the initiatives that had the greatest impact on retention, respondents from four year schools noted learning communities, advising interventions and the freshman seminar as having the most significant impact on student persistence and retention. This study also suggests that institutions should assess these existing interventions to see if minor modifications would enhance outcomes.

Effective Initiatives

Scholarly research has consistently identified initiatives that promote student satisfaction, connection and retention (Beal & Noel, 1980; Habley & McClanahan, 2004a; Lotkowski et al., 2004). Additionally, some institutions have been identified by both AASCU in the AASCU Report, (2005) and Carey in an Educational Trust report (2005) as being more successful at retaining students than others. A variety of effective initiatives have been implemented at these recognized institutions addressing the developmental needs of first year students.

Successful initiatives include programs such as the advising program established by Florida State University in 1995 to enhance engagement. This program requires advisors to engage every freshman at least three times per semester, by phone, email or face-to-face to make sure that they have the information that they need to avoid pitfalls, resulting in higher graduation rates for all students, minority and majority alike (Carey, 2005). Louisiana Tech University (LTU) and Clemson University also place a strong emphasis on advising. Evaluation of student advisement is included as a component of each faculty member's annual review at LTU and reviews of faculty advising are taken

into consideration when promotion and tenure decisions are made at Clemson. Such emphasis highlights the importance of student faculty interaction resulting in connection to the university (AASCU Report, 2005).

Reorganization of services serving freshmen and sophomores is another noted initiative. At Alcorn State University, services addressing social and academic support were pulled together under the new title of College for Excellence in efforts to provide the assistance that freshman and sophomore students need to succeed. Currently, Alcorn State retains 75% of freshman through the sophomore year and the graduation rate is 10% higher than peer institutions (Carey, 2005). Similar programs also exist at California State University, University of Northern Iowa and Louisiana Tech University, all reflecting the same benefits to students (AASCU Report, 2005).

Carey (2005) also notes the impact of curricular innovations involving alternative pedagogical approaches to enhance student success as found in the collaborative approach to gateway courses, such as chemistry, at the University of Notre Dame. Students with lower math SAT or ACT scores were allowed to take redesigned versions of chemistry, completing the same level of problems/work as students in traditionally taught sections but working in teams to capitalize on student strengths. Students in the redesigned courses were 50% more likely to complete two years of chemistry and pursue majors in the science or health professions than those with lower math SAT or ACT scores in traditional classes. Similar initiatives have also been used with comparable results, especially for minority students, in given sections of calculus at the University of Texas.

Syracuse University also places great emphasis on curricular and pedagogical innovations, requiring faculty teaching at all levels to distinguish themselves both in research and teaching resulting in higher graduation rates. Support and suggestions are given to professors struggling to make connections with students and failure to improve impacts the opportunity for tenure (Carey 2005). Similarly, Clemson University structured a reward system for faculty members addressing student success through various contributions such as student engagement outside of class and utilizing interactive teaching strategies. (AASCU Report, 2005).

Learning communities such as the one instituted at Tennessee State University are also noted as successful initiatives (Carey, 2005). The “Emerging Scholars” program arranges for students to take multiple courses together to facilitate active cooperation and learning. Similarly, the “Summit” program at California State University links courses together longitudinally to provide opportunities for learning communities to develop and thrive over the course of more than one semester (AASCU Report, 2005).

The University of Connecticut, in efforts to promote student achievement, utilizes an early warning system to notify students if they are failing or falling behind mid semester so that they can seek help and support from classmates or instructors. The University of Connecticut has a graduation rate higher than most of its peers with an unusually small gap for minority students (Carey 2005). Comparable early warning systems providing the same type of feedback for students and instructors are also in place at Clemson, Northwest Missouri State and University of Wisconsin-La Crosse, all with notably higher graduation rates (AASCU Report, 2005).

The Freshman Seminar

All initiatives previously cited have connections to student development theory and have demonstrated positive connections to student success, satisfaction and retention; however, the freshman seminar is reportedly the most successful omnipresent initiative used nationally (Barefoot & Gardner, 1993; Carey, 2005; AASCU Report, 2005; NSFYS, 2003). The seminar, customarily designed to assist students with connecting to the social and academic framework of an institution, has been consistently associated with improved student satisfaction and retention (Barefoot & Gardner, 1993; Dooris & Nugent, 2001; Ewell, 2001; Fidler, 1991; Gordon, 1989; Porter & Swing, 2006; Tobolowsky, 2005). Such reported success has perpetuated the widespread utilization of this initiative as well as focus for study.

The effectiveness of the freshman seminar as a component of the orientation process and how it impacts the issues of retention and graduation has garnered significant institutional attention and interest (Goodman & Pascarella 2006). This interest can be attributed to a variety of vantage points including financial exigency, improvement of school reputation, perceived increased institutional quality and school mission accomplishment (Porter & Swing, 2006).

Format and Outcomes of the Freshman Seminar

The first six weeks of the freshman year play a critical role in determining the prospect of graduation (Erickson & Strommer, 1991; Gardner, 1986; Letitz & Noel, 1989; Shanley & Witten, 1990). Thus, research has been generated to investigate the connection between freshman seminars and improved retention rates as

well as a plethora of additional positive outcomes regarding the post secondary experience (Barefoot & Gardner, 1993; Dooris & Nugent, 2001; Ewell, 2001; Fidler, 1991; Gordon, 1989; Tobolowsky, 2005). This research has sought to address two core questions posed by Peter Ewell (2001) regarding the assessment of first year experience programs: “What happened?” and “What mattered?” Within the seminars themselves, having differences in content as well as format, what happened to assist students with successful transition to post secondary study? In addition, what mattered to generate a positive correlation between the freshman seminar and the retention of students?

Answers to these questions begin with the organization of the seminar. Research indicates that freshman seminar courses are typically organized schematically around five formats as originally outlined by Barefoot and Fidler (1992). Those five formats include extended orientation seminars, primarily directed at all facets of assisting students with making successful transition to college life; academic seminars with generally uniform content as well as those with variable content, both designed as interdisciplinary themed courses focusing on academic skills including critical thinking and expository writing; pre-professional or discipline oriented seminars designed to jump start students into specific majors/ professions and basic study skills groups with a focus on academic skills such as note taking, grammar and effectively reading texts.

More than 60% of the four year institutions ($N=176$) responding to the 2003 National Survey on First- Year Seminars (NSFYS) reported offering a freshman seminar in the extended orientation format. Academic seminars with generally uniform content across sections were reported by 31% of the institutions, whereas academic seminars with

variable content were reported by 30%. Pre-professional or discipline oriented seminars were reported by 16% of four year institutions responding to the 2003 survey and basic study skills groups were reported by 14% of the respondents. The remainder of four year schools responding to the NSFYS reported having hybrids or combinations of the above types of seminars.

This trend was also reflected in summary results from the NSFYS conducted in November 2006. Results from this survey indicated that 58% of accredited colleges and universities responding ($N = 475$) to the survey offered the freshman seminar in extended orientation format. Additionally, 28.1% reported offering seminars with generally uniform content, 14.9% offered pre-professional seminars, 21.6% offered study skills seminars and 20.3% reported offering hybrids or combinations of formats. As the vast majority of post secondary institutions offer freshman seminar courses as an extension of orientation, the bulk of research available for review involves the extended orientation format.

There are several avenues of delivery for the freshman seminar at post secondary four year institutions. Approximately 90% of the institutions responding to the 2003 NSFYS reported that freshman seminar courses were typically taught by faculty members as part of their regular teaching load; however, 76.2% reported that the seminar was taught by academic advisors and student development personnel interested in assisting students with the transition to post secondary study. In cases where teaching the seminar was an extra duty, 74.6% of respondents reported paying stipends and only 9% reported providing faculty release time for the assignment. Instructor training also varied

according to the NSFYS. Most institutions offered instructor training prior to assigning instructors to courses (72.4%) and 68.8% of these institutions required such training.

Results from the 2006 NSFYS reflect similar tendencies, with 90% of responding institutions indicating that seminars were taught by faculty members and 45.2% indicating that seminars were taught by student affairs professionals. Additionally, 26.8% of colleges and universities responding to the survey indicated that seminars were also taught by other campus professionals. Institutions continued to offer training for first year seminar instructors (76.8%) while 52.3% of the respondents required training.

Class enrollment or class size was relatively a constant, according to the 2003 and 2006 NSFYS results. On average, four year institutions limited class size to 25 or fewer. This pattern was also noted in research conducted at Penn State (Dooris & Nugent, 2001), University of South Carolina (Research and References, 2005), Appalachian State University (*Welcome to Freshman Seminar*, 2005), East Carolina University (McCann, 2004) and Indiana University-Purdue University Indianapolis (Jackson, Williams, & Hansen, 2005).

Research from the NSFYS, as well as a variety of four year institutions similar in size, suggests that there are consistent beneficial performance outcomes of student participation in freshman seminar. Improved academic performance or GPA (grade point average) is one aspect reportedly enhanced by participation as indicated in multiple studies conducted at the University of South Carolina (USC), a four-year institution with a population of more than 27,000. This institution has conducted research on the impact of its freshman seminar course, University 101, since 1974 with these findings (*Research*

on *University 101*, 2005). University 101 is an elective course for most enrollees but required for majors in Business Administration and Engineering. Approximately 80% of the freshman class registers for this course during fall semester each year. Paul Fidler, former Director of Research, Grants and Planning at USC, conducted intensive research on the impact of USC's freshman seminar course in 1991 and found that GPAs were higher for students enrolled in the 101 course than those not enrolled (Fidler, 1991).

According to Friedman (2005), quantitative research conducted in 2000 at Appalachian State University (ASU), a four-year institution with a student population of more than 15,000, revealed similar results. Significant differences in GPA ($p \leq .05$) were found between students participating ($N = 914$) and those not participating ($N = 1,639$) in the freshman seminar (*Welcome to Freshman Seminar*, 2005).

Additionally, students participating in the freshman seminar at ASU were reported as being retained at a significantly higher rate ($p \leq .05$) to the sophomore year. Of the students in the freshman class in 2005, 86.9% of freshman seminar participants were retained as compared to 81.1% of non-participants (Friedman, 2005).

Blowers and Elling (2005) report that the University of North Carolina at Charlotte (UNCC), a four-year institution with an enrollment of over 19,000, conducts research on a yearly basis regarding first year students and has used a longitudinal multiple source data collection model since 1997. All new first year students, approximately 2,500 yearly, and their demographic data are enrolled as a cohort in this data system. At the culmination of each semester, academic performance information is added and quantitatively analyzed. Data from the 2000 cohort indicated higher GPAs for

students participating in the freshman seminar ($p \leq .05$), both commuting and residential, with GPA averages of 2.79 for participating commuters as compared to 2.42 for non-participants and 2.75 for participating residential students as compared to 2.38 for non-participants.

Blowers and Elling (2005) also report increased retention rates of first year students participating in the freshman seminar at UNCC ($p \leq .05$). Students residing on the campus of the institution and participating in the seminar were retained for their second year at a rate of 84% whereas those not participating in the seminar were retained at a rate of 79%.

Jackson et al. (2005) denote that quantitative multivariate analysis of data in 2001 from Indiana University-Purdue University Indianapolis (IUPUI), a four-year institution with a population of almost 30,000, also indicated that participants in the freshman seminar course were retained at a significantly higher rate than non-participants ($p \leq .01$). In a freshman class of 1,722, non-participants numbered 493 with seminar participants numbering 1,229. Sixty nine percent of the students enrolled in the freshman seminar course were retained between the freshman and sophomore year as opposed to 58% of those not enrolled.

Similar results were found by McCann (2004) at East Carolina University (ECU), a four year institution with a population of more than 23,000, where qualitative institutional research conducted in fall 2004 indicated that students participating in Counseling and Adult Education (COAD) 1000, the freshman seminar course, were retained at a significantly higher rate ($p \leq .05$) than those not participating in the course.

With a total enrollment of 3,456 freshmen, 706 were enrolled in the COAD 1000 course. Seventy five percent of students not enrolled in the course were retained for their sophomore year, whereas 82% of students enrolled in COAD 1000 were retained.

A longitudinal study conducted at the University of South Carolina between the years of 1973-1988 also revealed higher freshman to sophomore retention rates for 11 of the 16 years studied. These results were found to be independent of student race, ability, sex, course load or motivation (Fidler, 1991).

Williford et al. (2001) found similar results in a longitudinal study at Ohio University (OU) at Athens between the years of 1986 and 1995, which focused on the extended orientation freshman seminar known at OU as the University Experience course (UC 115). Ohio University at Athens is a four-year institution with an enrollment of over 19,000. Enrollment in the class was voluntary and self-selected and each year, approximately 13% of the freshman class, with an enrollment of approximately 3,000, elected to take the course. An ANOVA was conducted yearly to compare first year students participating in the course and those that were not in the areas of academic performance and persistence to the sophomore year. Findings indicate the retention rate of UC participants was higher than those that did not participate in seven of the ten years. Interestingly enough, the retention rate of participants was actually lower than non-participants during the years 1986, 1988 and 1990. The average retention of participants in UC 115 over non-participants over the ten year study was approximately 1% higher, representing the retention of 30 students per year and 300 students over the course of the study through the sophomore year.

Williford et al. (2001) also controlled for differences in aptitude by dividing participants into two groups using composite ACT scores. Findings indicate the mean GPA for first year students with higher ACT scores participating in UC was higher than those not participating in 6 of the 10 years (1987, 1988, 1991, 1992, 1993, and 1995). Additionally, the findings indicate the mean GPA for first year students with lower ACT scores participating in UC was higher than those not participating in five of the ten years (1987, 1989, 1991, 1992, and 1995). Collectively, the mean year-end GPA of first participants in the UC class ranged from .03-.12 above the freshmen not participating with an average difference of .08 during the ten years.

Schnell and Doetkott (2002) found comparable results in their longitudinal study across the academic years of 1991, 1992, 1993 and 1994 at North Dakota State University, a mid-sized Midwestern public university. This study considered the long term impact of participation in the freshman seminar. Each of the 927 participants in the seminar was matched with a non-participant based on pre- enrollment characteristics such as ACT scores, high school rank, size of graduating class and classification of study. Retention for this study was defined as continuous enrollment and results were analyzed using chi square. Results indicated that retention rates were significantly greater ($p \leq .001$) for participating students than for non-participating students. These results were observed for not only the first year, but for all four years of the study.

Results from the 2003 NSFYS confirm these studies related to student participation in the freshman seminar. Of four year respondents ($N = 176$), 58.7% reported

academic gains and persistence to the sophomore as a result of participating in freshman seminars.

Dooris and Nugent, 2001 reported academic gains aside from GPA and retention as benefits of participation in the freshman seminar. Results were established through qualitative institutional research done through faculty/student focus groups and questionnaires in the freshman seminar at Penn State, a four-year institution with a student population of more than 36,000. Adjustment to post secondary workload and connectivity between freshman accomplishments and returning subsequent years, i.e. student retention, were reported as gains by almost 50% of 500 respondents. Additionally, the research conducted by Dooris and Nugent (2001) showed that almost half of the respondents to the Penn State questionnaire felt their affiliation with the freshman seminar resulted in better orientation to the climate of learning.

Other benefits connected to student retention were also noted in research cited in this review. Student transition, connection to the university and satisfaction with the university experience were also reportedly improved by the freshman seminar experience. Qualitative data from open-ended questions on the questionnaires and in-depth focus groups conducted in 2001 at IUPUI indicated increased student satisfaction with student life (Jackson et al., 2005).

Students enrolled in the freshman seminar at ASU during fall 2002, comprising 52% of the total enrollment of 1,465, completed the Student Developmental Task and Lifestyle Assessment (SDTLA) (Winston, Miller & Cooper, 1999) at the beginning of the fall 2002 and spring 2003 semesters. Gender, minority status and SDTLA pre-test scores

were used as control variables. Comparative research using a MANCOVA showed significant differences ($p \leq .05$) in the subtask and scale scores of students in the areas of career planning, lifestyle planning and autonomy with the seminar participants showing higher gains, attributed to enrollment in the freshman seminar (Friedman, 2005).

Results of the NSFSY also support these studies as 58.4% of responding four year institutions reported improved student connection with peers. Improvement in student use of campus services and student satisfaction with the institution were also reported by over half of the respondents, with 51.2% and 50.6% reporting respectively due to participation in the seminar.

Fidler (1991) reports making connections with faculty members as a primary gain from participation in the freshman seminar. A significant process variable, measured through survey at USC, indicated that participants in the 101 course were more likely than non-participants to seek and maintain strong relationships with faculty which in turn, perpetuated student involvement, retention and graduation. Additionally, Dooris and Nugent (2001), indicated that 35% of students surveyed at Penn State reported strong relationship formed with instructors of the seminars, which contributed to their satisfaction with the university.

Through these opportunities to build relationships with faculty members, students were allowed to see for themselves how faculty members and other professionals processed information and problem solved. In turn, faculty members served as role models, mentors and examples of the benefit of lifelong learning (National Survey of Student Engagement: The College Student Report [NSSE], 2001).

Content and Outcomes of the Freshman Seminar

Early research on student development at the college level done by Sanford at Stanford University in 1969 suggested that colleges fail to meet the needs of students when they treat them as less than whole, only addressing intelligence and not the total personality (Sanford, 1969). In *The American College*, Sanford suggested the need for the concepts of *challenge* and *support* in the classroom for students to efficiently learn and grow through post secondary education, theoretically reflecting student development theory. He argued that student retention is dependent on student success and that student success is influenced by challenge, provided through classroom experiences fostering academic and personal growth as well as support, provided through a nurturing campus climate, all of which are customarily incorporated into the design of the freshman seminar. He noted that too much or too little of either of these factors disturbs the balance that students need in order to succeed (Sanford, 1962).

First year student response to the 2003 National Survey of Student Engagement (NSSE) indicated varied results regarding the balance Sanford referred to. This survey, conducted by Indiana University Center for Postsecondary Research in cooperation with the Indiana University Center for Survey Research, is supported by the Pew Charitable Trust, grants from the Lumina Foundation for Education and the Center for Inquiry in the Liberal Arts at Wabash College (National Survey of Student Engagement, 2007). Ninety percent of the first year students responding to this survey reported an increase in general knowledge, whereas 70% reported an increase in skills related to analytical and critical thinking as well as problem solving. Eighty two percent reported interacting with a

faculty member outside of class for support or guidance; however, 50% reported studying only 10 hours or fewer a week and 40 % reportedly never used the library (Ishler, 2003).

Results from subsequent years of this survey revealed continued areas of strength and weakness. The 2006 results indicated that 46% of freshmen reportedly studied 10 hours or fewer a week, 27% spent more than 5 hours a week participating in co-curricular activities; however, 74% reported substantial support from institutions for academic success (NSSE, 2006).

Through his research, Boyer (1990) affirmed that successful first year experiences for students must convince them that they are part of an academic, vital and nurturing community. Tinto's work (1987), underscores this need for students to be acclimated to all aspects of college life. Based on this research in student development, the content of most freshman seminars regardless of the format for delivery reveals many similarities and has for a number of years.

In the first NSFYS in 1991, 612 institutions responded to the survey. Freshman seminars across American campuses reportedly focused on academic skills, knowledge of the institution/higher education, and skills for living during the college years and beyond as major objectives for the freshman seminar (Barefoot & Fidler, 1992). Topics of class discussion included basic study skills, reported with the most frequency ($N = 388$) with time management following

($N = 246$). Other academic skills such as critical thinking and writing and goal setting were reported less frequently ($N = 78$ and $N = 71$). Orientation to campus facilities and resources ($N = 166$), knowledge of campus rules and regulations ($N = 110$), cultural diversity ($N = 88$), using the library ($N = 62$), components of liberal arts and general education ($N = 56$) and purposes of higher education ($N = 55$) were also reported by responding institutions. Wellness of self was the most frequently reported objective in the development of self domain ($N = 131$) with relationship issues ($N = 116$), self knowledge ($N = 113$) and values clarification ($N = 53$) following respectively.

Seminars, as reported by the 620 institutions responding to the 2003 NSFYS, continued to have the same objectives. Development of academic skills (63.5%), orientation to campus resources (59.6%) and encouragement of the development of self (39.8%) were the most frequently reported objectives across institutions in 2003. Study skills (71.9%), orientation to campus resources (69.3%), time management skills (69.9%), career exploration/preparation (44.1%), writing skills (24.5%) and relationship issues (21.6%) were reported at $p \leq .01$ significance on the survey. Academic advising and planning (62.4%) were reported at $p \leq .05$.

Preliminary summary results from the NSFYS conducted in November 2006 mirror similar results from earlier surveys. Development of academic skills (64.2%), orientation to campus resources and services (52.9%) and personal development (36.9%) were reported as the most important course objectives by the 968 institutions responding to the survey. More specifically, the topics of seminars in the aforementioned areas

indicated as significant with the most frequency were study skills (40.8%), critical thinking (40.6%), knowledge of campus resources (38.1%), advising/academic planning (36.7%) and time management (28.6%).

Even more recently, a study conducted by Porter and Swing (2006) investigating the relationship between course content of the freshman seminar and early intent to persist is related to these findings and indicated a positive correlation between the two. A survey was utilized with 45 self-selecting institutions offering a freshman seminar in extended orientation (transitional) format with a 53% return rate. No identifier, such as name, was used to encourage honesty in response. Controlling for academic preparation, financial circumstances and differences in demographic makeup, as indicated by student self report, statistically significant positive coefficients were seen between intent to persist and the areas of study skills, campus policies, campus engagement, peer connection and health information ($p \leq .01$) at the student level. Through aggregation of individual perceptions, school level measures of effectiveness were also established. At the school level, study skills and academic engagement as well as health education were significantly statistically positively correlated with intent to persist ($p \leq .05$). Although limited by measuring intent to persist as opposed to longitudinal persistence outcomes, as well as relying on student self report for background data, the study suggests that content of the freshman seminar can contribute to the overall goals of the course i.e. persistence and retention.

Populating Courses at the University

Institutions of higher education operate with given admissions standards, where students are admitted en masse to the institution and generally populated or grouped into courses using admissions requirements and course prerequisites (Baer, 2003). Jones and Harris (1990) noted that universities have traditionally unreservedly assumed that students in given courses are the same, as they have all met given standards, giving the illusion of homogeneity; however, this premise is somewhat distorted as students in any given section vary in a variety of ways such as knowledge, experience, motivation, learning style, interest and attitude, race and gender.

In looking at homogeneity, involving groups with uniform qualities, and heterogeneity, involving groups with diverse qualities, Schullery and Schullery (2006) suggest that group composition could be tailored to benefit students with particular needs or to emphasize specific outcomes. Baer (2003) also suggests that how students are grouped could significantly impact student learning in terms of process and style. Most previously reviewed research does not address group composition in terms of how freshman or first year seminars are initially populated. Given Tinto's (1982) theory of student development including the stages of separation, transition and incorporation as well as a bounty of research indicating that students thrive and persist when they are socially and academically acclimated to the university (Astin, 1984; Mallette & Cabrera, 1991; Pascarella & Terenzini, 1980; Rendon, 1984; Terenzini & Pascarella, 1977), how freshman seminars are populated could be an integral piece of information impacting student satisfaction and retention.

Challenges

The research in this chapter supports the continued provision of freshman seminars, addressing social, emotional and academic issues as outlined in student development theory, to guide and support first year students through the transition to post secondary life. The research additionally supports the utilization of the freshman seminar as an effective retention tool. However, several research challenges appear to exist in the compilation of data.

Time, funds and staff appear to be significant impediments for most universities in relation to in depth research, as well as controlling for differences in factors such as student background and student ability (Pascarella, 2001). Out of class experiences are also factors that are difficult, if not impossible, to control for (Penn State, 2001).

Furthermore, most surveys, such as the NSFYS, are completed by universities and colleges that have had positive experiences with freshman seminars as opposed to those that have not. This discrepancy could skew the data.

In addition, analysis of first year seminar data is frequently conducted by stakeholders with a vested interest in the outcome. To eliminate the charge of evaluator bias, the most effective means of analysis would be for universities to involve an external party to design a study of the components of first year programs, such as the extended orientation seminar (Cuseo, 2000). As this type of study is not feasible for a many institutions based on the factors previously stated, Cueso reports that faculty members as well as graduate students from a variety of disciplines involved in institutional research could provide a legitimate substitution.

Finding instructors, both student affairs personnel and faculty members, to teach freshman seminars can present tribulation. Faculty teaching the seminar as an overload to their teaching assignments or student affairs personnel teaching freshman seminars as an additional responsibility could impact the instructor's ability to be dedicated to the cause (Tobolowsky, 2005). Pedagogical skills of various instructors as well as training of instructors to reach students in such a setting could impact efficacy of the freshman seminar. Instructors of seminars designed to assist freshmen with transition to college life should not be coerced into teaching; instead, instructors for such courses should show great interest in working with first year students (Barefoot & Gardner, 1993).

Student dedication and motivation are also factors to be considered when evaluating the impact of the freshman seminar on retention and student success. Sidle and McReynolds (1999) suggest that students who elect to enroll in a freshman seminar could be more highly motivated to achieve and accomplish than those that do not, as opposed to the work of Fidler (1991) where motivation was controlled for and failed to have significant impact on the outcome.

Pascarella (2001) suggests that focus at universities be placed on practices and processes, such as development of academic and critical thinking skills, an appreciation for diversity, and student knowledge of support services, known to be linked directly to cognitive and developmental growth. He asserts that an outstanding college education is most likely to happen at institutions that make best use of best practices, a term referring to a technique or method that has proven to reliably lead to a desired result based on

research and experience. The Education Commission of the States (1995), also suggested use of best practice.

The first years of undergraduate study-particularly the freshman year- are critical to student success. Yet the pattern of resource allocation at most colleges and universities strongly favors upper division work. Comprehensive efforts to integrate first year students into the mainstream of collegiate experience often are treated as auxiliary experiences, just the reverse of what a growing body of research indicates as best practice (p. 6).

Barefoot (2000) underscores this observation as she sees the freshman seminar as well as other freshman initiatives in constant battle for status at universities across the nation, never becoming an institutional priority, thus operating on a minimal budget. She also notes that freshman year experiences tend to be championed by small groups rather than by broad based institutional groups.

The Impact of Leadership on Retention

Often, long established institutional practices and structures are highly resistant to change as they are underscored by years of tradition (Parsons, 1997). However, the AASCU Report (2005) notes that leaders of colleges and universities successful in retaining and graduating students, stimulate change to create a campus culture that embraces high mutual expectations for student success at all levels, setting goals that are attainable and providing support and pattern to achieve them. The mission of these

universities and colleges is viewed more as a sense of shared purpose and code of conduct than a written statement to be adhered to. Leaders at these institutions establish a clear sense of direction and demand accountability for results from initiatives without being negative and judgmental. Skilled leaders use power and influence to cause positive feelings of accomplishment and pride (Pfeffer, 1992) in students, faculty and staff thus building connectivity and community to enhance retention efforts (AASCU Report, 2005).

Summary

As indicated by scholarly research, programming for first year students is essential for institutions committed to assisting students with transition, success and satisfaction, all impacting retention. Institutions across the nation with leadership committed to student success earnestly seek to provide these experiences for students through effectual initiatives with documented success. The most documented and utilized initiative is the freshman seminar.

Typically delivered in extended orientation format, consistently coinciding with student development theory and even more closely with Tinto's theory, seminars are taught by a variety of instructors, have 25 or fewer in class enrollment, and provide opportunities for students to develop skills in academic, social and emotional arenas as well as connection to the university, faculty and peers. Performance outcomes consistently noted in cited research include higher academic performance, increased knowledge of campus and resources, ease of adjustment to post secondary life, increased connections to faculty, peers and institutions and higher retention rates.

In support of the freshman seminar, Barefoot and Gardner (1993) suggest that offering a freshman seminar is a strong indication that an institution, by design, plans for assisting students with successful transition to post secondary education and accepts a role in the responsibility for new student development and success. In addition, they note that such courses, supported by student development theory and intentionally designed to address variables impacting the quality of the first year experience, are proactive efforts to assure that students are equipped to benefit from all that the institution has to offer. However, such benefits are not consistently seen in terms of student satisfaction and improved retention rates and the reasons are not clear.

There appears to be a lack of data regarding how attributes of the freshman seminar, such as how they are populated, impact outcomes. Would sections for students with the same intended majors or field of study or same advisor theoretically provide a more effective network of relationships and connectivity and offer greater opportunities for developmental strides, as outlined in Tinto's theory, than sections populated by students from random areas of interest or advisor? Would results differ based on race or gender?

Although challenges exist, quality research that can be used to assist universities with maximizing known benefits of effective initiatives such as the freshman seminar, leading to the provision of resources and funding for the most advantageous experiences obtainable for first year students would be beneficial. This, in turn, could lead to greater student satisfaction and lower student attrition.

CHAPTER 3: METHODOLOGY

Introduction

The freshman seminar has been identified as an effective retention initiative as well as the initiative most regularly used by colleges and universities today (Barefoot & Gardner, 1993; Dooris & Nugent, 2001; Ewell, 2001; Fidler, 1991; Gordon, 1989; Pascarella & Terenzini, 2005; Porter & Swing, 2006; Tobolowsky, 2005). However, there is little or no research examining the impact of how seminars in extended orientation format are populated; that is, how students are assigned to given sections of the course, which could provide avenues of connection for students, improving transition to the post secondary educational experience leading to persistence and retention.

Grounded in student development theory, this study examined the relationship between how the freshman seminar course in extended orientation format is populated and its impact on student perception of course content, student satisfaction with the course, opportunities for building connections with peers, faculty members and institution and retention. This chapter will focus on the methodology employed in this quantitative study; specifically, the research questions, null hypotheses, overview of the design, site, population sample, procedures and analysis of data.

Research Questions

This study was conducted to determine if significant differences exist across different methods of populating the freshman seminar. Sections of the freshman seminar at the institution studied are populated by restricting enrollment in one of the following ways: (1) students with the same intended major/area of study (2) students with the same

advisor (3) students in the same intended major/area of study and the same advisor or (4) generically including students from random majors and advisors. The following research questions were considered:

1. Would students in the freshman seminar populated various ways reflect different levels of student satisfaction with the course?
2. Would students in the freshman seminar populated various ways build connective relationships with peers, faculty members and the institution differently?
3. Would students in the freshman seminar populated various ways be retained at different rates?
4. Would students in the freshman seminar populated various ways perceive the relevance of course content differently?
5. Would race or gender have an impact on these findings?

Null Hypotheses

Using these questions, the following hypotheses emerged to determine if differences existed in these areas based on how the freshman seminar was populated.

The hypotheses are stated in the null and were rejected at an alpha level of $\leq .05$.

H₀₁ There is no significant difference across methods of populating freshman seminars and/or gender regarding overall student satisfaction with the freshman seminar.

H₀₂ There is no significant difference across methods of

populating freshman seminars and/or gender regarding opportunities for student connections with peers.

H₀₃ There is no significant difference across methods of populating freshman seminars and/or gender regarding opportunities for student connections with faculty members.

H₀₄ There is no significant difference across methods of populating freshman seminars and/or gender regarding opportunities for student connections with the university.

H₀₅ There is no significant difference across methods of populating freshman seminars and/or gender regarding the retention of students participating in the freshman seminar.

H₀₆ There is no significant difference across methods of populating freshman seminars and/or race regarding overall student satisfaction with the freshman seminar.

H₀₇ There is no significant difference across methods of populating freshman seminars and/or race regarding opportunities for student connections with peers.

H₀₈ There is no significant difference across methods of populating freshman seminars and/or race regarding opportunities for student connections with faculty members.

H₀₉ There is no significant difference across methods of populating freshman seminars and/or race regarding

opportunities for student connections with the university.

H₀10 There is no significant difference across methods of populating freshman seminars and/or race regarding the retention of students participating in the freshman seminar.

H₀11 There is no significant difference across methods of populating freshman seminars regarding overall student satisfaction with the freshman seminar.

H₀12 There is no significant difference across methods of populating freshman seminars regarding opportunities for student connections with peers.

H₀13 There is no significant difference across methods of populating freshman seminars regarding opportunities for student connections with faculty members.

H₀14 There is no significant difference across methods of populating freshman seminars regarding opportunities for student connections with the university.

H₀15 There is no significant difference across methods of populating freshman seminars regarding the retention of students participating in the freshman seminar.

Design of the Study

The design of this study involved survey research, cross sectional in nature, in an endeavor to determine how freshman seminar courses could most successfully be

populated in order to accomplish the University objectives of student acclimation, satisfaction, connection and ultimately, retention. As cross sectional design involves comparisons of different cohorts on the same measure at one point in time (Pascarella & Terenzini, 1991), this method was used to provide the data required for the analysis of variables in this study. Additionally, cross sectional design was used as an alternative to longitudinal pretest-posttest panel designs without a control group as the data collection period was short and sample attrition was not a concern (Gall, Borge, & Gall, 1996).

Studies involving the impact of the freshman seminar are particularly relevant at large research institutions where community is sometimes more difficult to build due to sheer size (Boyer, 1990) and there are more opportunities for students to experience courses taught by graduate assistants or adjunct faculty members, impacting contact with full faculty members (Fidler & Moore, 1996; Graham & Diamond, 1997). However, involving multiple institutions in a study such as this is not often a viable option as universities tend to tailor seminars and combine them with other customized first year experience initiatives creating considerable variation across institutions (Barefoot et al., 1998).

Site

The site of this study was East Carolina University (ECU), a large four year institution in the University of North Carolina System, with an enrollment of over 25,000. The institution has a Carnegie classification of Doctoral Research Intensive and confers degrees from the bachelor's to the doctoral level, offering 106 undergraduate programs and 92 graduate programs (East Carolina University Fact Book 2006-2007, n.d.).

In response to research indicating the need for programming to support first year students as well as directives from the University of North Carolina General Administration (UNC-GA), ECU offers a variety of opportunities to assist with acclimation to campus and transition to post secondary study. The freshman seminar is such an opportunity (D. Joyner, personal communication, August, 2007). East Carolina University was selected as the site of this study based on how freshman seminar courses are uniquely populated at ECU. Sections of the freshman seminar are populated by students (1) with the same intended major/area of study (2) with the same advisor (3) in the same intended major/area of study with the same advisor or (4) generically including students from a variety of majors and advisors. Sections of the seminar were also populated by select groups such as student athletes, scholars, first generation students, accelerated degree programs and transfer students; however, they were not included in the study due to the specific focus of these groups.

Participants

Known as COAD 1000 at ECU, the freshman seminar is offered as an elective course. Students were informed of the course and the option of enrolling in the course at freshman orientation during the summer of 2007. In the fall of 2007, 1,360 of the 4,000 students admitted to the University elected to participate in the freshman seminar and 1,023 were enrolled in sections previously outlined.

Students whose intended majors/areas of study were education, computer science and technology, athletic training, pre-health, psychology, communications and biology enrolled in sections of the freshman seminar designated specifically for their intended

majors/areas of study ($N = 269$). Students in the arts and sciences or allied health fields or who were undecided enrolled in sections of the freshman seminar designated for their specific advisors ($N = 242$). Students with the intended major of business were enrolled in sections of the freshman seminar designated specifically for their major but also by their specific advisors ($N = 137$). There were also 377 students enrolled in sections of the freshman seminar that were open to enrollment by any student, regardless of intended major or advisor.

Sections were generally a blend of race and gender, and all sections were taught in the extended orientation format using the same text and syllabus. All COAD 1000 instructors were required to submit vitas as well as experience training prior to teaching the class to provide consistency and to insure that the goals and objectives of the class were understood (A. Smith, personal communication, August, 2007).

Data Collection Procedures

During spring 2008, students enrolled in sections of COAD 1000 populated by advisor, major/area of study, advisor and major/area of study or generically during the fall of 2007 were invited to complete a self-administered online survey. The survey was conducted the semester following participation in the course in an effort to provide students the opportunity to complete the course prior to being asked to reflect upon the benefits from participation.

The survey, developed by the researcher, was conducted using Perseus online survey software, which provided an invitation to participate in the survey as well as reminders at four different intervals to students invited to participate but who had not

responded. Participant names and email addresses by section were accessed using ECU BIC SQ3 Server Reporting Services, available to faculty members and advisors at ECU. Identification of how sections were populated was based on information provided by Dr. Al Smith, Director of the First Year Center at ECU.

The survey items paralleled consistently conducted national surveys regarding the freshman seminar and freshman year experience. Items addressing course content were adapted from the results of the National Survey on First Year Seminars (NSFYS), conducted nationally every three years since 1988 by the National Resource Center for the Freshman Year Experience with published results. The top reported course topics, utilized in the survey for this study, have reflected consistency across each of the last four survey administrations of the NSFYS (Tobolowsky, 2005) suggesting implied reliability.

Additionally, items regarding connectivity student satisfaction and student recommendation were adapted from the First Year Initiative Survey (FYI), a joint effort between the Policy Center on the First Year of College and Educational Benchmarking (EBI). Pilot studied in 2001, the FYI survey has undergone subsequent focus groups to insure face, convergent and divergent validity of items (Policy Center on the First Year of College, 2002). EBI also used Chronbach's Alpha to determine reliability. The FYI assessment items, from which items for this study were adapted, produced Chronbach's alpha factors > 0.80.

A pilot study of the survey was conducted in the fall of 2006, based on research interests as well as an outgrowth of working with the course, in efforts to establish validity, as well as internal consistency for the survey to be used in the spring 2008. All

sections of COAD 1000 taught in the fall of 2006 were invited to participate. Voluntary participation was determined primarily by instructor in terms of section participation and secondarily by students, as participation was not mandatory as part of the course requirements. IRB approval was obtained through the exemption process as no indicator, other than section number, was used in data analysis. Respondents were given a 3 point Likert scale for answering the questions with responses ranging from 1 (not helpful) to 3 (most helpful) with 0 indicating that the topic was not addressed in the course.

Additional questions addressing opportunities to build connections with other classmates and faculty members through course participation as well as recommendation of the course to future freshmen were also included, requiring responses of yes or no.

Surveys were analyzed, indicating the need to change the response options for the Likert scale in an effort to allow for more accurate student response. Additionally, test items addressing opportunities for making connections and student recommendation of the course were determined to be included as Likert Scale items. An additional item related to student satisfaction, patterned from the FYI Survey was also added.

An online version of the survey was developed to facilitate more student participation due to availability, providing greater depth to findings. Therefore, an additional pilot test was conducted spring 2008 to insure that the technological platform for the survey worked consistently and effectively as well as to underscore reliability.

Content validity for the 2008 survey was established using a panel of three experts in the field. These experts offered professional expertise regarding the importance and relevance of the items included on the survey as they related to the purpose of the

survey. Dr. Lynne Davis, Assessment Coordinator for the College of Education at East Carolina University, Dr. Jayne Geissler, Director of Advising and Academic Support at East Carolina University and Dr. Al Smith, Director of the First Year Center at East Carolina University served as experts for this purpose.

Respondents to the spring 2008 survey for this study were given a 5 point Likert scale for answering the questions with responses ranging from 1 (not at all) to 5 (significantly). Students were also given the opportunity to share their perceived strengths and weaknesses of the class providing qualitative input used to provide depth to the quantitative analysis.

Students were invited but not required to participate in the online survey. Student participation in the survey was encouraged by offering the opportunity for a \$100.00 gift certificate at the student store on campus. Descriptive data of gender and race was requested of students. Retention data, based on student reenrollment for fall 2008, was requested from the Office of the Registrar at East Carolina University. Data was requested prior to the beginning of fall semester 2008.

Data Analysis

The Statistical Package for the Social Sciences (SPSS) 15.0 was used to analyze the data. A two-way ANOVA, involving collective tests of the main and interaction effects (Green & Salkind, 2005), was used to determine if significant differences existed regarding the dependent variables of student satisfaction with the course, student opportunities for making connections with peers, faculty members and the institution, student retention and student perception of course content based on the independent

variables of method of populating/gender or method of populating/race. Tukey's Honestly Significant Difference (HSD) was used as the post-hoc follow up test for multiple comparisons when indicated. It was assumed that an alpha level of $\leq .05$ indicated the results were not found by chance but due to the differences in population method factoring in gender or race.

University data obtained from the Office of the Registrar was also utilized to examine differences in retention across methods of populating. Retention for the methods of populating was based on student re-enrollment for the subsequent semester, fall 2008.

Qualitative student input from the open ended questions was collected, clustered and analyzed by method of populating using the qualitative method of written response (Creswell, 2007). This was done to determine consistency as well as to identify themes and patterns of student perception of the course.

Summary

According to research based in student development theory, specifically, Tinto's theory of freshman development, students need structured opportunities for individual growth to successfully transition to post secondary study in an environment where they feel connected to institution, peers and faculty. The freshman seminar course, most frequently delivered in the extended orientation format, is the vehicle used most frequently at universities across the nation to address these needs. Such is the case at East Carolina University. As freshman seminar courses are ultimately structured to provide such prospects, it was not expected that many significant differences would be seen

across different methods of populating the freshman seminar. This prediction was confirmed through the proposed analyses.

CHAPTER 4: RESULTS

Introduction

The purpose of this study was to examine the relationship between how the freshman seminar course in extended orientation format is populated at a large research institution and its impact on student perception of content, student satisfaction with the course as a vehicle for successful transition to the institution and building relationships with peers/ faculty/institution, as well as, student retention. The study, based on survey research, addressed five research questions and fifteen null hypotheses, three rejected and twelve retained. The purpose of this chapter is to report the findings from this research. Results are reported in the following sections.

Participants

In the fall of 2007, 1,360 of the 4,000 students admitted to the University elected to participate in the freshman seminar at East Carolina University. Students whose intended majors/areas of study were education, computer science and technology, athletic training, pre-health, psychology, communications and biology enrolled in sections of the freshman seminar designated specifically for their intended majors/areas of study ($N = 269$), referred to as the Major group for this study. Students in arts and sciences or allied health fields or who were undecided enrolled in sections of the freshman seminar designated for their specific advisors ($N = 242$), referred to as the Advisor group for this study. Students with the intended major of business were enrolled in sections of the freshman seminar designated specifically for their major as well as their specific advisors ($N = 137$), referred to as the Advisor/Major group for this study. There were also 377

students enrolled in sections of the freshman seminar that were open to enrollment by any student, regardless of intended major or advisor, referred to as the Generic group for this study. Thus, 1,025 students were enrolled in sections as previously outlined and invited to participate in this study via survey. Sections were generally a blend of race and gender, and all sections were taught in the extended orientation format using the same text and syllabus.

Conducted online, using Perseus online survey software, the survey consisted of sixteen items that were based on consistently conducted national surveys. These items addressed course content, student satisfaction with the course, student opportunities to build relationships with peers, faculty members and the university as well as student intention for returning to the university the subsequent year. Students were given a 5 point Likert scale for answering these questions with responses ranging from 1 (not at all) to 3 (somewhat) to 5 (significantly). The survey also included 4 additional open ended items soliciting student input regarding perceived strengths and weaknesses of the seminar.

Of the 242 students surveyed from the Advisor group, 80 responded generating a response rate of 33%; whereas, 35 of the 137 students surveyed from the Advisor/Major group responded, providing a response rate of 25%. From the Major group, 87 of the 269 students surveyed responded with a response rate of 32% and 116 of the 377 students surveyed from the Generic group responded with a response rate of 30%. Overall, 318 of the 1,025 students invited to participate in the survey responded, generating a response rate of 31%. Survey participant data by population method can be located in Table 1.

Table 1

Participants by Freshman Seminar Population Group

	N	%
Advisor	80	25.1
Major	87	27.3
Advisor/Major	35	11.3
Generic	116	36.4
Total	318	100

Survey participants were asked to provide demographic information of race and gender. Of the 318 respondents, 223 (70%) self reported as female and 95 (30%) as male. Additionally, 48 (15%) self reported as African American, 4 (1.3%) as Asian American, 252 (79%) as Caucasian, 5 (1.6%) as Hispanic American and 9 (2.8%) as Multiracial. Demographic information can be found in Table 2.

Due to a smaller number of participating Hispanic, Asian, Native American and Multiracial students, responses from these students were consolidated into a new category recoded as Other. Therefore, for data analysis, race was indicated as African American, Caucasian or Other.

Differences in retention across methods of populating were also addressed using university data obtained from the Office of the Registrar. Retention for the methods of populating was based on student re-enrollment for the subsequent semester, fall 2008.

Qualitative student input from the open ended questions was analyzed by method of populating for consistency. This was done in an effort to identify student perceptions of strengths and weaknesses of the seminar.

Analysis of Data

The Statistical Package for the Social Sciences (SPSS) 15.0 was used to analyze the data. A two-way ANOVA, involving collective tests of the interaction and main effects (Green & Salkind, 2005), was used to analyze data to determine if significant differences existed regarding the dependent variables of student satisfaction with the course, student opportunities for making connections with peers, faculty members and the institution, student retention and student perception of course content based on the

Table 2

Race and Gender of Participants

	N	%
Gender		
Female	223	70
Male	95	30
Race		
African American	48	15
Asian American	4	1.3
Caucasian	252	79
Hispanic American	5	1.6
Multiracial	9	2.8
Total	318	100

independent variables of method of populating/gender or method of populating/ race.

Tukey HSD was used as the post-hoc follow up test for multiple comparisons when indicated. It was assumed that an alpha level of $\leq .05$ indicated the results were not found by chance but due to the differences in population method factoring in gender or race.

Null Hypothesis One

There is no significant difference across methods of populating freshman seminars and/or gender regarding overall student satisfaction with the freshman seminar. For this hypothesis, survey respondents were asked to indicate satisfaction with the course by signifying to what degree they would recommend the freshman seminar to other first year students. Means from each population method appeared similar:

Advisor/Major ($M = 4.18, SD = .999$), Advisor ($M = 4.31, SD = .949$), Generic ($M = 3.94, SD = 1.08$), and Major ($M = 4.07, SD = 1.13$) as did the means for females ($M = 4.03, SD = 1.11$) and males ($M = 4.26, SD = .920$).

A two-way between groups ANOVA was conducted to explore the impact of population method and gender on student satisfaction with the seminar. The interaction effect for population method and gender was not statistically significant $F(3, 306) = 2.29$ $p = .078$, partial $\eta^2 = .022$. Additionally, there was no statistically significant main effect for population method $F(3, 306) = .675, p = .568$, partial $\eta^2 = .007$ or gender $F(1, 306) = 2.10, p = .149$, partial $\eta^2 = .007$. As no statistically significant differences were found with either the interaction or main effect measures for population method or gender as related to student satisfaction with the freshman seminar, H_01 was retained.

Null Hypothesis Two

There is no significant difference across methods of populating freshman seminars and/or gender regarding opportunities for student connections with peers. This hypothesis required survey respondents to indicate to what degree the seminar helped them build such connections. The mean for the Advisor population method group ($M = 3.10$, $SD = 1.09$) appeared to be somewhat lower than the means for the other methods, Advisor/Major ($M = 3.43$, $SD = 1.22$), Generic ($M = 3.35$, $SD = 1.01$) and Major ($M = 3.56$, $SD = 1.13$). Little variation was noted between females ($M = 3.36$, $SD = 1.11$) and males ($M = 3.33$, $SD = 1.07$).

A two-way between groups ANOVA was conducted to investigate the impact of population method and gender on opportunities for students participating in the seminar to make connections with peers. The interaction effect for gender and population method was not statistically significant $F(3, 309) = 1.36$, $p = .255$, partial $\eta^2 = .013$. Nor was the main effect for gender $F(1, 309) = .085$, $p = .770$, partial $\eta^2 = .000$. However, a statistically significant main effect was found for population method $F(3, 309) = 3.85$, $p = .010$, partial $\eta^2 = .036$. Results are presented in Table 3.

Post hoc multiple comparisons using Tukey HSD indicated that the mean for the Major population method group ($M = 3.56$, $SD = 1.13$) was significantly different from the mean for the Advisor population method group ($M = 3.10$, $SD = 1.09$). The mean for the Major population method group was higher, indicating that the Major population method provided more opportunities for students to make connections with peers than the Advisor population method. Significant differences were not indicated with either of the

Table 3

Population Method x Gender Factorial ANOVA for Peer Connections

Source	<i>df</i>		<i>F</i>	η^2	<i>p</i>
Population Method (P)	3	Between subjects	3.85	.036	.010*
Gender (G)	1		.085	.000	.770
P x G	3		1.36	.013	.255
Error	309	(1.18)			

Note. Values enclosed in parentheses represent mean square errors. * = $p \leq .05$.

other population method groups, Advisor/Major ($M = 3.43$, $SD = 1.22$ and Generic ($M = 3.35$, $SD = 1.01$). Multiple comparison results are presented in Table 4. As main effect indicated a significant difference in means regarding opportunities for students to make connections with peers across population methods, H_02 was rejected.

Null Hypothesis Three

There is no significant difference across methods of populating freshman seminars and/or gender regarding opportunities for student connections with faculty members. For this hypothesis, survey respondents were asked to indicate to what degree the seminar helped them with building connections with faculty. The mean for the Generic method ($M = 3.02$, $SD = 1.06$) was lower than the Advisor/Major method ($M = 3.56$, $SD = 1.02$), the Advisor method ($M = 3.29$, $SD = .983$) and the Major method ($M = 3.44$, $SD = 1.17$); however, there appeared to be little variation between females ($M = 3.24$, $SD = 1.12$) and males ($M = 3.29$, $SD = .988$).

A two-way between-groups ANOVA was conducted to investigate the impact of population method and gender on opportunities for students participating in the seminar to make connections with faculty members. The interaction effect for gender and population method was not statistically significant $F(3,308) = 2.02$, $p = .111$, partial $\eta^2 = .019$. Additionally, there was no statistically significant main effect for gender $F(1, 308) = .013$, $p = .908$, partial $\eta^2 = .000$; however, again, there was a statistically significant main effect for population method, $F(3, 308) = 4.08$ $p = .007$, partial $\eta^2 = .038$. Results are presented in Table 5.

Table 4

*Multiple Comparisons for Population Method Main Effect from Population x Gender-
Peer Connections*

Source	<i>M</i>	<i>SD</i>	<i>p</i>
Advisor/Major	3.43	1.22	NS
Advisor	3.10	1.09	*
Major	3.56	1.13	*
Generic	3.35	1.01	NS

Note. NS = non-significant differences between means. * = significance using Tukey

HSD with alpha of $\leq .05$.

Table 5

Population Method x Gender Factorial ANOVA for Faculty Connections

Source	<i>df</i>		<i>F</i>	η^2	<i>p</i>
Population Method (P)	3	Between subjects	4.08	.038	.007*
Gender (G)	1		.013	.000	.908
P x G	3		2.02	.019	.111
Error	308	(1.13)			

Note. Values enclosed in parentheses represent mean square errors. * = $p \leq .05$.

Post hoc multiple comparisons using Tukey HSD indicated that the mean for the Generic population method group ($M = 3.02$, $SD = 1.06$) was statistically different from the means for the Advisor/Major population method group ($M = 3.56$, $SD = 1.02$) and the Major population method group ($M = 3.44$, $SD = 1.17$), with the means from the Advisor/Major and Major population method groups being higher than the mean of the Generic population method group. There was no statistically significant difference indicated with the mean for the Advisor population method group ($M = 3.29$, $SD = .983$). Multiple comparison results can be found in Table 6. As main effect indicated a significant difference in means related to opportunities for students to make connections with faculty members across population methods, H_03 was rejected.

Null Hypothesis Four

There is no significant difference across methods of populating freshman seminars and/or gender regarding opportunities for student connections with the university. This hypothesis required respondents to the survey to indicate to what degree the seminar helped them build such connections.

A two-way between-groups ANOVA was conducted to explore the impact of population method and gender on opportunities for students participating in the seminar to make connections with the university. Although the population method means reflected some variation: Advisor/Major ($M = 3.63$, $SD = 1.19$), Advisor ($M = 3.64$, $SD = .945$), Generic ($M = 3.47$, $SD = .949$) and Major ($M = 3.57$, $SD = .977$) as did the means for gender: female ($M = 3.52$, $SD = .980$) and male ($M = 3.65$, $SD = .987$), the interaction effect for gender and population method was not statistically significant $F(3, 308) = .559$,

Table 6

*Multiple Comparisons for Population Method Main Effect from Population x Gender-
Faculty Connections*

Source	<i>M</i>	<i>SD</i>	<i>p</i>
Advisor/Major	3.56	1.02	*
Advisor	3.29	.983	NS
Major	3.44	1.17	*
Generic	3.02	1.06	*

Note. NS = non-significant differences between mean. * = significance using Tukey

HSD with alpha of $\leq .05$.

$p = .642$, partial $\eta^2 = .005$. Nor were the main effects for gender and population method, measuring $F(1, 308) = 1.92$, $p = .167$, partial $\eta^2 = .006$ and $F(3, 308) = .835$, $p = .475$, partial $\eta^2 = .008$, respectively. As there were no statistically significant differences in means, using interaction and main effect for population method and gender as related to opportunities for students to make connections with the university, H_{04} was retained.

Null Hypothesis Five

There is no significant difference across methods of populating freshman seminars and/or gender regarding the retention of students participating in the freshman seminar. For this hypothesis, respondents to the survey were asked to indicate to what degree they planned to return to the university the following year. Population method means were Advisor/Major ($M = 4.66$, $SD = .802$), Advisor ($M = 4.61$, $SD = .987$), Generic ($M = 4.46$, $SD = 1.14$) and Major ($M = 4.46$, $SD = 1.18$). Means for gender were females ($M = 4.57$, $SD = 1.01$) and males ($M = 4.40$, $SD = 1.23$).

A two-way between groups ANOVA was conducted to investigate the impact of population method and gender on student retention. No statistically significant differences were indicated with the interaction effect $F(3, 308) = .534$, $p = .660$, partial $\eta^2 = .005$ or the main effects of gender $F(1, 308) = .886$, $p = .347$, partial $\eta^2 = .003$ or population method $F(3, 308) = .670$, $p = .571$, partial $\eta^2 = .006$. As no statistically significant differences were found with interaction or main effect for population method or gender as related to student retention, H_{05} was retained.

Null Hypothesis Six

There is no significant difference across methods of populating freshman seminars and/or race regarding overall student satisfaction with the freshman seminar.

This hypothesis required survey respondents to indicate satisfaction with the seminar by signifying to what degree they would recommend the freshman seminar to other first year students. Means across population methods reflected some variation with measures of Advisor/Major ($M = 4.18$, $SD = .999$), Advisor ($M = 4.31$, $SD = .949$), Generic ($M = 3.94$, $SD = 1.08$) and Major ($M = 4.07$, $SD = 1.13$). Means across race appeared to be somewhat similar: African American ($M = 4.04$, $SD = 1.10$), Other ($M = 4.28$, $SD = .752$) and Caucasian ($M = 4.09$, $SD = 1.07$).

A two-way between groups ANOVA was conducted to explore the impact of population method and race on student satisfaction with the seminar. The interaction effect for population method and race was not statistically significant $F(6, 302) = .595$ $p = .735$, partial $\eta^2 = .012$. Additionally, there was no statistically significant main effect for population method $F(3, 302) = .838$, $p = .474$, partial $\eta^2 = .008$ or race $F(2, 302) = .117$, $p = .890$, partial $\eta^2 = .001$. As no statistically significant differences were found with either the interaction or main effect for population method or race as related to student satisfaction with the seminar, H_06 was retained.

Null Hypothesis Seven

There is no significant difference across methods of populating freshman seminars and/or race regarding opportunities for student connections with peers. For this hypothesis, respondents to the survey were asked to indicate to what degree the seminar

helped them with building connections with peers. Means across population method groups appeared to be somewhat comparable for Advisor/Major ($M = 3.43$, $SD = 1.22$) and Major ($M = 3.56$, $SD = 1.13$), with the mean for Generic ($M = 3.35$, $SD = 1.01$) and Advisor ($M = 3.10$, $SD = 1.09$) methods appearing lower. Means for African Americans ($M = 3.32$, $SD = 1.09$), Other ($M = 3.11$, $SD = 1.28$) and Caucasians ($M = 3.38$, $SD = 1.08$) were somewhat similar.

A two-way between groups ANOVA was conducted to explore the impact of population method and race on opportunities for students participating in the seminar to make connections with peers. The interaction effect for race and population method was not statistically significant $F(6, 305) = .933$, $p = .471$, partial $\eta^2 = .018$. Additionally, there was no statistically significant main effect for race $F(2, 305) = .380$, $p = .684$, partial $\eta^2 = .002$ or population method, $F(3, 305) = 1.76$, $p = .155$, partial $\eta^2 = .017$. As interaction and main effect for population method and race as related to student opportunities to make connections with peers were not statistically significant, H_07 was retained.

Null Hypothesis Eight

There is no significant difference across methods of populating freshman seminars and/or race regarding opportunities for student connections with faculty members. This hypothesis required survey respondents to indicate to what degree the seminar helped them build such connections. Means across population method groups reflected some differences: Advisor/Major ($M = 3.56$, $SD = 1.02$), Advisor ($M = 3.29$, $SD = .983$), Generic ($M = 3.02$, $SD = 1.06$) and Major ($M = 3.44$, $SD = 1.17$). Means across

race were somewhat analogous: African American ($M = 3.09$, $SD = 1.18$), Other ($M = 3.44$, $SD = .784$), Caucasian ($M = 3.28$, $SD = 1.08$).

A two-way between groups ANOVA was conducted to investigate the impact of population method and race on opportunities for students participating in the seminar to make connections with faculty members. The interaction effect for race and population method was not statistically significant $F(6, 304) = 1.34$, $p = .240$, partial $\eta^2 = .026$. Nor were the main effects for race or population method, computed as $F(2, 304) = .026$ $p = .975$, partial $\eta^2 = .000$ and $F(3, 304) = 2.03$, $p = .110$, partial $\eta^2 = .020$ respectively. As interaction and main effect were not statistically significant for population method and race as related to opportunities for students to make connections with faculty members, H_08 was retained.

Null Hypothesis Nine

There is no significant difference across methods of populating freshman seminars and/or race regarding opportunities for student connections with the university. For this hypothesis, respondents to the survey were asked to indicate to what degree the seminar helped them build such connections. Means across population method were Advisor/Major ($M = 3.63$, $SD = 1.19$), Advisor ($M = 3.64$, $SD = .945$), Generic ($M = 3.47$, $SD = .949$) and Major ($M = 3.57$, $SD = .977$). Additionally, means for race reflected some variation, African American ($M = 3.59$, $SD = 1.00$), Other ($M = 3.50$, $SD = .857$) and Caucasian ($M = 3.56$, $SD = .990$).

A two-way between-groups ANOVA was conducted to investigate the impact of population method and race on opportunities for students participating in the seminar to

make connections with the university. The interaction effect for race and population method was not statistically significant $F(6, 304) = .782, p = .585$ partial $\eta^2 = .015$. Additionally, there was no statistically significant main effect for race $F(2, 304) = .652, p = .522$, partial $\eta^2 = .004$ or population method, $F(3, 304) = 1.21, p = .306$, partial $\eta^2 = .012$. As no statistically significant differences were indicated using interaction or main effect for population method and race as related to student opportunities to make connections with the university, H_09 was retained.

Null Hypothesis Ten

There is no significant difference across methods of populating freshman seminars and/or race regarding the retention of students participating in the freshman seminar. This hypothesis required respondents to the survey to indicate to what degree they planned to return to the university the subsequent year. Population method means reflected little variation: Advisor/Major ($M = 4.66, SD = .802$), Advisor ($M = 4.61, SD = .987$), Generic ($M = 4.46, SD = 1.14$) and Major ($M = 4.46, SD = 1.18$). Means for race included African Americans ($M = 4.60, SD = .742$), Other ($M = 4.72, SD = .669$) and Caucasian ($M = 4.49, SD = 1.15$).

A two-way between groups ANOVA was conducted to explore the impact of population method and race on student retention. No statistically significant differences were found in the interaction effect $F(6, 304) = .215, p = .972$ partial $\eta^2 = .004$, nor the main effects for population method $F(3, 304) = .062, p = .980$, partial $\eta^2 = .001$ or race $F(2, 304) = .486, p = .615$ partial $\eta^2 = .003$. Based on finding no statistically significant

differences with interaction or main effect for population method and race as related to student retention, H_{010} was retained.

Null Hypothesis Eleven

There is no significant difference across methods of populating freshman seminars regarding overall student satisfaction with the freshman seminar. For this hypothesis, survey respondents were asked to indicate satisfaction with the course by signifying to what degree they would recommend the freshman seminar to other first year students. Retention or rejection of this hypothesis was determined using main effect results for population method from the two-way ANOVAs conducted for H_{01} and H_{06} .

As reported previously in analysis of data, no statistically significant main effects for population method were noted in either of these analyses $F(3, 306) = .675, p = .568$, partial $\eta^2 = .007$ and $F(3, 302) = .838, p = .474$, partial $\eta^2 = .008$. As no statistically significant differences in means were indicated using main effect for student satisfaction with the seminar across population methods, H_{011} was retained.

Null Hypothesis Twelve

There is no significant difference across methods of populating freshman seminars regarding opportunities for student connections with peers. This hypothesis required survey respondents to indicate to what degree the seminar helped them build such connections. Retention or rejection of this hypothesis was determined using main effect results for population method from the two-way ANOVAs conducted for H_{02} and H_{07} .

As previously reported, a significant difference in means across population methods was indicated using main effect from H_{02} , $F(3, 309) = 3.85$, $p = .010$, partial $\eta^2 = .036$ where population method and gender were used as independent variables. Post hoc multiple comparisons using Tukey HSD indicated that the mean for the Major population method group ($M = 3.56$, $SD = 1.13$) was significantly different from and higher than the mean for the Advisor population method group ($M = 3.10$, $SD = 1.09$). However, there was no statistically significant difference in means across population methods using main effect from the two-way ANOVA conducted for H_{07} , $F(3, 305) = 1.76$, $p = .155$, partial $\eta^2 = .017$, where population method and race were used as independent variables.

To follow up on this statistical discrepancy, a one-way ANOVA using only population method as the independent variable and opportunities for students to make connections with peers as the dependent variable was conducted. Using an alpha level of $\leq .05$, no significant difference in means across population methods was indicated $F(3, 313) = 2.60$, $p = .053$. Based on collective main effect measures indicating no statistically significant difference in means for student opportunities to make connections with peers across population methods, H_{012} was retained.

Null Hypothesis Thirteen

There is no significant difference across methods of populating freshman seminars regarding opportunities for student connections with faculty members. For this hypothesis, survey respondents were asked to indicate to what degree the seminar helped them build such connections. Retention or rejection of this hypothesis was determined

using main effect for population method from the two-way ANOVAs conducted for H₀₃ and H₀₈.

As previously reported in analysis, a significant difference in means was indicated using main effect for population method from H₀₃ $F(3, 309) = 4.08$ $p = .007$, partial $\eta^2 = .038$, where population method and gender were used as independent variables. Post hoc multiple comparisons using Tukey HSD indicated that the mean for the Generic population method group ($M = 3.02$, $SD = 1.06$) was statistically different from and lower than the means for the Advisor/Major population method group ($M = 3.56$, $SD = 1.02$) and the Major population method group ($M = 3.44$, $SD = 1.17$). However, there was no statistically significant difference in means across population methods indicated using the main effect from the two-way ANOVA conducted for H₀₈ $F(3, 305) = 2.03$, $p = .110$, partial $\eta^2 = .020$, where population method and race were used as independent variables.

To follow up on this statistical discrepancy, a one-way ANOVA using only population method as the independent variable and opportunities for students to make connections with faculty members as the dependent variable was conducted. Using an alpha level of $\leq .05$, significant differences in means were indicated $F(3,312) = 3.68$, $p = .013$. Results are presented in Table 7.

Tukey HSD was used for post-hoc comparisons, which indicated that the mean score for the Advisor/Major population method group ($M = 3.56$, $SD = 1.02$) as well the Major population method group ($M = 3.44$, $SD = 1.168$) were significantly different than the Generic population method group ($M = 3.02$, $SD = 1.06$), with both being higher. No

Table 7

Population Method Factorial ANOVA for Faculty Connections

Source	<i>df</i>		<i>F</i>	<i>p</i>
Population Method (P)	3	Between subjects	3.68	.013*
Error	312	(1.14)		

Note. Values enclosed in parentheses represent mean square errors. * = $p \leq .05$.

statistically significant differences were noted with the Advisor population method group ($M = 3.29$, $SD = .983$). Multiple comparison results can be found in Table 8. As statistically significant differences in means for student opportunities to make connections with faculty members across population methods were found, H_{013} was rejected.

Null Hypothesis Fourteen

There is no significant difference across methods of populating freshman seminars regarding opportunities for student connections with the university. This hypothesis required survey respondents to indicate satisfaction with the course by signifying to what degree the seminar helped them to build such connections. Retention or rejection of this hypothesis was determined using main effect for population method from the two-way ANOVAs conducted for H_{04} and H_{09} .

As reported previously in analysis of data, no statistically significant main effects for population method were noted in either of these analyses $F(3, 308) = .835$, $p = .475$, partial $\eta^2 = .008$ and $F(3,304) = 1.21$, $p = .306$, partial $\eta^2 = .012$. Finding no statistically significant differences in means for opportunities for students to build relationships with the university across population methods, H_{014} was retained.

Null Hypothesis Fifteen

There is no significant difference across methods of populating freshman seminars regarding the retention of students participating in the freshman seminar. For this hypothesis, survey respondents were asked to indicate to what degree they planned to return to the university the subsequent year. Retention or rejection of this hypothesis was

Table 8

Multiple Comparisons for Population Method- Faculty Connections

Source	<i>M</i>	<i>SD</i>	<i>p</i>
Advisor/Major	3.56	1.02	*
Advisor	3.29	.983	NS
Major	3.44	1.17	*
Generic	3.02	1.06	*

Note. NS = non-significant differences between means. * = significance using Tukey

HSD with alpha of $\leq .05$.

determined using main effect for population method from the two-way ANOVAs conducted for H₀₅ and H₀₁₀.

As reported previously in analysis of data, no statistically significant differences in means using main effect were indicated for population method in either of these analyses $F(3, 308) = .670, p = .571, \text{partial } \eta^2 = .006$ and $F(3, 304) = .062, p = .980, \text{partial } \eta^2 = .001$. Finding no statistically significant differences in means for student retention across population methods, H₀₁₅ was retained.

Topics of the Seminar

The only research question not addressed through hypothesis spoke to differences regarding student perception of content of the freshman seminar. Topics included study skills, time management, location of campus facilities and resources, knowledge of academic policies and procedures, development of writing skills, major/career information or exploration, development of critical thinking skills, goal-setting and academic planning, knowledge and appreciation of cultural diversity, personal wellness and becoming part of the culture of campus. Respondents were asked to indicate to what degree these topics helped them to transition to college. Descriptive data indicated that knowledge of academic policies and procedures, location of campus facilities and resources, major/career information or exploration, goal setting/ academic planning and becoming part of the culture of campus were reported with the highest means. Descriptive data for topics by population method is provided in Table 9.

Table 9

Descriptive Statistics for Seminar Topics by Population Method

Topics		<i>M</i>	<i>SD</i>
A. Study Skills			
	Advisor/Major	3.77	1.003
	Advisor	3.54	1.043
	Generic	3.59	.976
	Major	3.71	1.02
B. Time Management			
	Advisor/Major	3.89	.867
	Advisor	3.89	.994
	Generic	3.80	.988
	Major	3.85	1.023
C. Location of Campus Facilities and Resources			
	Advisor/Major	4.34	.873
	Advisor	4.47	.845
	Generic	4.31	.964
	Major	4.35	1.015

Table 9

Descriptive Statistics for Seminar Topics by Population Method (continued)

Topics	<i>M</i>	<i>SD</i>
D. Knowledge of Academic Policies and Procedures		
Advisor/Major	4.51	.818
Advisor	4.29	.834
Generic	3.90	1.017
Major	4.16	1.012
E. Writing Skills		
Advisor/Major	2.91	1.308
Advisor	2.58	1.172
Generic	2.65	1.194
Major	2.63	1.207
F. Major/Career Exploration		
Advisor/Major	4.17	1.124
Advisor	4.08	1.003
Generic	3.69	1.106
Major	4.19	.919

Table 9

Descriptive Statistics for Seminar Topics by Population Method (continued)

Topics	<i>M</i>	<i>SD</i>
G. Critical Thinking Skills		
Advisor/Major	3.83	1.200
Advisor	3.43	1.058
Generic	3.41	1.072
Major	3.54	1.092
H. Goal Setting/Planning		
Advisor/Major	4.18	.936
Advisor	4.11	.891
Generic	3.93	.953
Major	4.15	.829
I. Cultural Diversity		
Advisor/Major	3.60	1.090
Advisor	3.25	1.092
Generic	3.38	1.238
Major	3.19	1.239

Table 9

Descriptive Statistics for Seminar Topics by Population Method (continued)

Topics	<i>M</i>	<i>SD</i>
J. Personal Wellness		
Advisor/Major	3.74	.963
Advisor	3.68	1.167
Generic	3.63	1.076
Major	3.41	1.187
K. Campus Culture		
Advisor/Major	3.94	.998
Advisor	3.90	.976
Generic	3.89	.989
Major	3.96	.981

Additionally, two-way ANOVAs were conducted to evaluate the relationship between the means for the dependent variable of student response regarding these topics and the independent variables of population method and gender as well as population method and race. An alpha level of $\leq .05$ was used to indicate statistically significant differences in means for analysis.

Findings for the two way ANOVA using topics of the seminar as the dependent variable and population method and gender as the independent variables suggested no statistically significant interaction effects for any of the topics. There were, however, two statistically significant differences in means for the topics based on the main effect of gender. The main effect for study skills $F(1, 309) = 9.82, p = .002, \text{partial } \eta^2 = .031$ indicated statistically significant differences in means for females ($M = 3.73, SD = 1.02$) and males ($M = 3.38, SD = .952$). Additionally, the main effect for goal setting and academic planning $F(1, 304) = 4.39, p = .037, \text{partial } \eta^2 = .014$ indicated statistically significant statistical differences for females ($M = 4.15, SD = .912$) and males ($M = 3.87, SD = .863$).

There were two statistically significant differences in means for the topics based on the main effect of population method, as well. The main effect for knowledge of academic policies and procedures $F(3, 303) = 3.70, p = .012, \text{partial } \eta^2 = .035$ indicated post hoc testing, which was conducted using Tukey HSD. Multiple comparisons indicated statistically significant differences between the means of the Generic population method group ($M = 3.90, SD = 1.02$) and the Advisor/Major population method group ($M = 4.50, SD = .818$) as well as the Advisor population method group

($M = 4.29$, $SD = .834$). No significant difference was indicated with the Major population method group ($M = 4.16$, $SD = 1.01$).

Additionally, the main effect for major/career information and exploration $F(3, 306) = 4.94$, $p = .002$, partial $\eta^2 = .046$ suggested post hoc testing. Using Tukey HSD, multiple comparisons indicated statistically significant differences between the means of the Generic population method group ($M = 3.69$, $SD = 1.11$) and the Major population method group ($M = 4.19$, $SD = .919$). No significant differences were noted between the Advisor/Major population method group ($M = 4.17$, $SD = 1.12$) or the Advisor population method group ($M = 4.08$, $SD = 1.00$) with any of the population method groups.

Findings for the two way ANOVA using topics of the seminar as the dependent variable and population method and race as the independent variables suggested no statistically significant interaction effects for any of the topics. There was, however, a statistically significant difference in means for the topics based on the main effect for race. The main effect for race as related to time management $F(2, 303) = 4.13$, $p = .017$, partial $\eta^2 = .027$ indicated post hoc analysis, which was conducted using Tukey HSD. Multiple comparisons indicated statistically significant differences in means for African Americans ($M = 4.17$, $SD = .996$) and Caucasians ($M = 3.78$, $SD = .978$), with neither being significantly different from the Other group ($M = 3.94$, $SD = .873$).

There was a statistically significant difference in means based on the main effect for population method as well regarding knowledge of academic policies and procedures $F(3, 299) = 4.74$, $p = .003$, partial $\eta^2 = .045$. Using Tukey HSD for post hoc analysis, multiple comparisons indicated that the mean for the Generic population method group

($M = 3.90$, $SD = 1.02$) was significantly different from the means of the Advisor/Major population method group ($M = 4.51$, $SD = .818$) and the Advisor population method group ($M = 4.29$, $SD = .834$). No significant difference was indicated with the Major population method group ($M = 4.16$, $SD = 1.01$). These results mirror the outcome from the 2 way ANOVA using population method and gender as independent variables.

Open Ended Response Data

Survey respondents were also provided the opportunity via open ended questions to note strengths of the existing freshman seminar that were not addressed in the survey, suggestions of what to modify in the existing seminar to strengthen it as well as what components to add to the seminar to strengthen it.

Qualitative student response was collected and examined by population method, using the phenomenological methodology of written response (Creswell, 2007). Student responses were reviewed several times and were clustered into groups according to population method and analyzed for strengths and recommendations for improving the seminar through modifications or additions. The clusters were analyzed for themes and patterns illustrating the essence of student perception of the course.

Students reported that instructors, guest speakers, presentations from offices across campus and campus tours as very beneficial in helping them determine how to navigate campus and the university, although not addressed specifically in the survey. Additionally, personality typing and navigation of the online registration tool, Onestop/BANNER were frequently noted strengths in this area as well.

Respondents across population methods had few suggestions for how to strengthen the course. Adding upper classmen as guest speakers was most frequently noted as a recommendation as was touring the library as opposed to simply knowing the location. The most frequent response was that the course/seminar was good as is with the suggestion of more time and attention to given topics as well as more hours of credit for the course.

Enrollment Status of COAD 1000 Students for Subsequent Year

Enrollment data, as of September 1, 2008 or the end of the schedule change period, from the Office of the Registrar at East Carolina University was provided upon request to contribute to the analysis of student retention based on population method. This data indicated the enrollment status of students for fall 2008, enrolled in COAD 1000, the freshman seminar at ECU, during the fall of 2007.

According to this data, the vast majority of students enrolled in the freshman seminar populated by Advisor, Major, Advisor/Major or Generically during the fall of 2007 were reenrolled for fall 2008. Of the total number of students from the Advisor population method group ($N = 242$), 83% (202) were enrolled for fall 2008. Accordingly, 80% (216) of the total number of students from the Major population method group ($N = 269$) were enrolled for fall 2008 as were 78% (108) of the total number of students from the Advisor/Major population method group ($N = 137$). Of the total number of students in the Generic population method group ($N = 377$), 76% (287) were enrolled for fall 2008.

Summary

The purpose of this study was to examine the relationship between how the freshman seminar course in extended orientation format is populated at a large research institution and its impact on student perception of content, student satisfaction with the course as a vehicle for successful transition to the institution and building relationships with peers, faculty members and the institution, as well as, student retention. The impact of race and gender was also considered. Five research questions and fifteen null hypotheses based on the questions were explored.

Using two-way ANOVAs for analysis of interaction and main effect and post hoc testing where indicated allowed for retention of hypotheses addressing the impact of population method, gender or race on student satisfaction with the seminar, opportunities for students participating in the seminar to make connections with the university, and student retention.

Main effect for population method from the two-way ANOVA and post hoc analysis for population method and gender allowed for rejection of hypotheses addressing opportunities for students participating in the seminar to make connections with peers as well as opportunities for students participating in the seminar to make connections with faculty members. However, interaction and main effect from the two-way ANOVA for population method and race allowed for retention of hypotheses addressing the same topics- student opportunities for making connections with peers as well as faculty.

Due to this inconsistency, a one-way ANOVA for population method was conducted, allowing for the retention of the hypothesis solely addressing opportunities for

students participating in the seminar to make connections with peers, although statistical significance was almost recognized, and rejection of the hypothesis solely addressing opportunities for students participating in the seminar to make connections with faculty members.

Additionally, differences in means for student response to the topics of the seminar were noted. The two way ANOVA involving topics of the seminar as the dependent variable and population method and gender as the independent variables indicated differences in means for the topics of knowledge of academic policies and procedures and major and career information/exploration when using the main effect for population method. Using the same two-way ANOVA, differences in means for the topics of study skills and goal setting/academic planning were noted using main effect for gender.

The two-way ANOVA using topics of the seminar as the dependent variable and population method and race as the independent variables indicated differences in means when using main effect data for population method for the topic of knowledge of academic policies and procedures. Differences in means from main effect data for race from the same two-way ANOVA were noted for the topic of time management.

Few suggestions were made for improving the seminar and much consistency regarding strengths of the seminar across population methods was indicated. Students across methods also found instructors, guest speakers, campus tours as well as personality typing and navigation of the online registration tool to be great strengths of the seminar.

Although the two-way ANOVAs indicated no statistically significant differences in means for student retention based on population method, race and gender, some

differences were noted using data addressing student reenrollment for the subsequent fall from the Office of the Registrar. Students participating in sections of the seminar populated by Advisor were retained at the highest rate followed by those from the Major, Advisor/Major and Generic population method groups, respectively.

The subsequent chapter will provide an analysis of findings, conclusions and recommendations for practitioners. Additionally, suggestions for future research will be included.

CHAPTER 5: DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

Introduction

Chapter 1 of this study provided an introduction to the issue of student retention and attrition as well as the history of the freshman seminar and how it is regularly used as a retention tool; whereas, chapter 2 offered a cumulative review of current literature and research related to these topics. Chapters 3 and 4 provided a description of the research of the study as well as the statistical outcomes of the research conducted. Chapter 5 offers a discussion of the major findings of the study, implications for practitioners and recommendations for future research.

This study, based on Tinto's (1975, 1987, 1993) theory of student development specifically addressing freshman development as related to educational interventions and the issue of student retention, sought to address five research questions and fifteen null hypotheses related to the aforementioned topics.

Outcomes from this study may provide valuable insight for educational leaders, faculty and staff at universities dedicated to increasing student retention by addressing student attrition, as they contribute to the understanding of how the freshman seminar might be used most effectively as a retention initiative. How freshman seminars are populated to productively facilitate student success and persistence could be an integral piece of information for educational leaders, as well as faculty and staff members, as they program for freshmen in effort to enhance student transition, satisfaction and retention.

Participant Demographics

The participants in the study consisted of students enrolled in the sections of the freshman seminar specifically populated by Advisor, Major, Advisor/Major or Generically at a large research institution during fall semester 2007. These students were surveyed during spring 2008. Of the possible 1,025 students enrolled in sections previously outlined and surveyed, approximately one third responded to the survey. More responses were received from the Advisor and Major groups than the Generic group and the fewest responses came from students enrolled in the Advisor/Major group. Demographically, the vast majority of the respondents were female and Caucasian; however, males and students from other ethnicities such as African American, Asian, Hispanic American and Multiracial and were also represented.

Major Findings of the Study

The independent and dependent variables involved in this study suggest some specific benefits as well as some indistinctness of benefits from intentionally populating the seminar by specific criteria such as major and/or advisor. However, gender and race appear to have no statistically significant impact on outcomes and minimal impact on student perception of content.

Results indicate that intentionally populating sections of the freshman seminar by major could lead to greater opportunities for building connections with peers. These findings are perhaps the result of the common interest factor, as sections populated by major could allow for peer connection on a more meaningful level due to collective common interests and goals of students; whereas, sections populated generically might

not necessarily provide as widespread an opportunity to connect with peers interested in the same future endeavors.

Findings also indicate that intentionally populating sections of the freshman seminar by advisor/major or major could lead to enhancement of opportunities for students to make connections with faculty members. This finding is most likely due to the direct connection of sections of the seminar populated by major to given programs and departments affiliated with the major. Faculty involvement in the form of instruction or presentation is more easily facilitated in sections affiliated with majors due to implied ownership of such sections by given departments or programs.

Although the results indicate that the seminar does appear to provide transitional and adjustment returns for participants as indicated by the overwhelmingly positive student responses on the survey, lack of statistically significant differences in means suggests that there are no benefits to be gained by intentionally populating seminars by major and/or advisor as opposed to generically in efforts to increase student satisfaction with the course, student connection with the university or student retention. Data from the Office of the Registrar, however, does indicate higher retention rates for students from sections populated by Advisor, Major, and Advisor/Major than those in sections populated generically, suggesting possible retention benefits from intentional population of seminar sections by major and or advisor.

There was little variation in student response in this study to topics of the seminar. Sections of the seminar intentionally populated by Advisor and Advisor/Major reported knowledge of academic policies and procedures as a more beneficial topic of the seminar

than students in generically populated sections. This is perhaps a direct outgrowth of the sense of responsibility advisors feel related to making students aware of such policy and procedure.

Additionally, sections of the seminar intentionally populated by Major reported major/career information and exploration as a more beneficial topic of the seminar than students in generically populated sections. This finding is almost predictable as, due to common interests and goals, seminar discussions in sections of the seminar populated by major could be tailored to include major specific examples to underscore the relevance of the content, whereas examples in the generically populated sections would need to be varied in an effort to illustrate relevance across a variety of potential majors.

Although a few differences were noted, gender and race did not appear to significantly alter perceptions of students regarding the benefits of topics of the seminar. Females appeared to find study skills and goal setting/academic planning more beneficial than did males and African Americans appeared to find time management more beneficial than did Caucasian students. No differences were noted with any of the other topics, suggesting no overt perceptual differences regarding topics of the seminar based on race or gender.

Students across population methods qualitatively reported knowing academic rules and regulations, how to set goals and plan for academic endeavors and how to navigate campus and become part of the culture as the most beneficial components of the seminar. These findings are not surprising as they principally correspond with NSFYS survey results from 1991, 2003, and 2006 where students reported development of

academic skills, orientation to campus resources and services and personal development as the most important objectives of the seminar, including the aforementioned topics.

Study skills, however, were not noted as frequently as being significantly helpful in this study, as indicated on the NSFYS surveys conducted in 1991, 2003 and 2006. As more Advanced Placement (AP) course opportunities are included in high schools each year, perhaps students matriculating to four year institutions at this time have taken advantage of the opportunity to explore and develop more extensive study habits than those required for success in traditional secondary leveled courses previously.

Theoretical Framework

Tinto's (1975, 1987, 1993) theory underscores the conception that student connection to peers, faculty and the institution are directly related to student retention or persistence, suggesting that students will decide to remain at an institution if they are integrated into the fabric of the institution. Tinto's (1975, 1987, 1993) theory also denotes the importance of academic and social integration of the first year student through provision of opportunities for establishing connections with peers, faculty members and organizations on campus. Ensuing research suggests that the more students interact with peers and faculty members, thus becoming academically and socially acclimated, the greater the likelihood of student persistence (Astin, 1984; Mallette & Cabrera, 1991; Pascarella & Terenzini, 1980; Terenzini & Pascarella, 1977).

This study supports Tinto's theory as well as subsequent research as it implies that populating the freshman seminar by major or advisor/major enhances opportunities for students to establish connections with peers as well as faculty members, thus

perpetuating the sense of belonging and connection. This sense of belonging and connection, in turn, frequently augments student retention. This is indicated by data from the registrar's office at the institution, denoting that students in sections of the seminar populated by advisor, major and advisor/major were retained at higher rates than those in generically populated sections.

Implications for Educational Leaders

The following implications for educational leaders as well as faculty and staff involved in freshman programming are based on the outcomes of this study:

1. Populating sections of the seminar by major could have significant impact on student opportunities for making connections with peers. Moreover, populating sections of the seminar by major and/or advisor could significantly impact student opportunities for making connections with faculty members. Increases in student persistence through provision of opportunities for the development of faculty and peer connections may be realized by intentionally populating sections of the freshman seminar accordingly, by integrating students into the social and academic arenas of the institution.
2. Student retention, a universal institutional goal, may be increased by populating freshman seminars by major and/or advisor. Even though no statistically significant differences were noted from the survey regarding population method, data from the Office of the Registrar indicated higher student retention in sections of the seminar populated by advisor, major, and advisor/major than in sections populated generically. Populating seminars

accordingly provides an avenue for connection to peers and/or advisors, which appears to offer more support for transitioning students, resulting in decreased attrition and increased retention.

3. Populating freshman seminars by major and/or advisor would not significantly impact student satisfaction with the seminar, student perception of the content of the seminar or student connections with the university. The freshman seminar, as is, regardless of race, gender or population method, appears to adequately appeal to students and provide support for their connection to the university.
4. Diminutive differences in perception of the content of the seminar based on gender, race or population method were noted; however, results overwhelmingly support the inclusion of traditional topics of content including knowledge of academic policies and procedures, knowledge of campus resources and facilities, major and career information, goal setting and academic planning and integration into campus culture.
5. Broadening currently used practices in the freshman seminar such as guest speakers and exploration of campus and facilities to include presentations from upper classmen as well as a tour of the library would be beneficial in helping students transition and be successful, both academically and socially.
6. Use of an interest inventory regarding topics of the seminar to determine common interests of students as well as what topics to emphasize in attempt to

meet the academic and social needs of the students in given sections of the freshman seminar would be beneficial.

7. Gender and race are not significant factors in the outcomes of the seminar; therefore, populating sections of the seminar based on these demographic factors would yield no significant benefits.

Findings suggest that educational leaders may continue to utilize the freshman seminar as a successful retention initiative. However, intentional population of the seminar by major or advisor could improve retention efforts by increasing opportunities for students to connect to peers and faculty. Traditional topics of the seminar also appear to appeal to and meet the needs of students transitioning to post secondary study; however, broadening these topics to provide more depth would be beneficial as well.

Recommendations for Future Research

Following are recommendations for areas of additional research as indicated from the outcomes and findings of this study:

1. Continue research regarding the impact of intentionally populating the seminar by major and/or advisor on student retention, based on discrepancies in this study.
2. Replicate this study during fall semester when students are participating in the freshman seminar as this may increase response rates, possibly varying outcomes.
3. Conduct replicated research on multiple campuses to determine consistency in outcomes across campuses.

4. Conduct a longitudinal study to explore the impact of population method of the freshman seminar on graduation rates. This may subsequently bolster administrative as well as financial support for the seminar.

Limitations of the Study

Although including multiple institutions in this study was not feasible due to differences in freshman programming across institutions, the study was conducted at only one institution; therefore, the results are only generalizable to peer institutions with similar population methods for the freshman seminar. Additionally, student response rates tended to be lower, possibly due to the timing of the study, which was conducted the semester following student participation in the freshman seminar as opposed to the semester students were actively participating in the seminar. The study was also cross sectional in design; therefore did not address a multiyear time span.

Summary and Conclusion

The purpose of this study was to examine the relationship between how the freshman seminar course in extended orientation format was populated at a large research institution and its impact on student perception of content, student satisfaction with the course, student opportunities for building relationships with peers, faculty and the university and student retention. Race and gender were considered as well. The outcomes of this study can be used by educational leaders at universities as they plan programs and initiatives which provide opportunities for academic and social acclimation of first year students to post secondary study.

The outcomes suggest that population method does have a significant impact on student opportunities to make connections with peers as well as faculty members; however, does not significantly impact student satisfaction with the seminar or opportunities to connect to the university. Results regarding impact of population method on student retention were varied. Race and gender were not significant variables as differences were indicated infrequently and only regarding student perception of content of the seminar.

The AASCU Report (2005) notes that leaders of colleges and universities successful in retaining and graduating students, are constantly seeking successful ways to program for student success at all levels, including the first year. Schullery and Schullery (2006) suggest that intentionally populating courses by common attribute could benefit students by emphasizing specific outcomes. Future research regarding the impact of population method of the freshman seminar on student retention as well as graduation rates is indicated. Future research is also needed to determine if the results of this study are supported.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL



University and Medical Center Institutional Review Board
East Carolina University
Ed Warren Life Sciences Building • 600 Moye Boulevard • LSB 104 • Greenville, NC 27834
Office 252-744-2914 • Fax 252-744-2284 • www.ecu.edu/irb
Chair and Director of Biomedical IRB: L. Wiley Nifong, MD
Chair and Director of Behavioral and Social Science IRB: Susan L. McCammon, PhD

TO: C. Lisa Rogerson, MA Ed, Dept of Curriculum & Instruction, 204 Speight Building, ECU

FROM: UMCIRB *LR*

DATE: March 18, 2008

RE: Exempt Category Research Study

TITLE: "The Impact of Method of Populating the Freshman Seminar on Retention and Student Perception of Content, Student Satisfaction/Connection to the Institution"

UMCIRB # 08-0228

This research study has undergone expedited review on 3.17.08. This research study meets the criteria for an exempt status because it is a research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects and any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation. Dr. S. McCammon deemed this **unfunded** study **no more than minimal risk**. This research study does not require any additional interaction with the UMCIRB unless there are changes in this study because the changes may impact the level of review required.

The following items were reviewed:

- Internal Processing Form (dated 3.14.08)
- Online Survey
- Dissertation Proposal
- Samples of communication with students

Dr. S. McCammon does not have a potential for conflict of interest on this study.

The UMCIRB applies 45 CFR 46, Subparts A-D, to all research reviewed by the UMCIRB regardless of the funding source. 21 CFR 50 and 21 CFR 56 are applied to all research studies under the Food and Drug Administration regulation. The UMCIRB follows applicable International Conference on Harmonisation Good Clinical Practice guidelines.

APPENDIX B: SURVEY

Benefits of COAD 1000

Please record one response per question by clicking on the appropriate answer.

Response key for questions 1- 11:

- 1- Not at all
- 2
- 3- Somewhat
- 4
- 5- Significantly
- NA- Not applicable

To what degree did these topics of COAD 1000 (freshman seminar) help you to transition to college?

	1	2	3	4	5	NA
1. Study Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Time Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Location of campus facilities and resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Knowledge of academic policies and procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Development of writing skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Major/career information or exploration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Developing critical thinking skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Goal-setting and academic planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Knowledge and appreciation of cultural diversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Personal wellness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Becoming part of the culture/campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please record one response per question by clicking on the appropriate answer.

Response key for questions 12-16:

- 1- Not at all
2
3- Somewhat
4
5- Significantly

	1	2	3	4	5
12. To what degree did COAD 1000 (freshman seminar) help you to build connections with peers?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. To what degree did COAD 1000 (freshman seminar) help you to build connections with faculty members?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. To what degree did COAD 1000 (freshman seminar) help you to build connections with the university?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. To what degree would you recommend the freshman seminar to other 1st year students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. To what degree do you plan to return to this university next year?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What components of COAD 1000 (freshman seminar) were particularly helpful but not addressed in this survey?

What components of COAD 1000 (freshman seminar) would you like to see modified to strengthen the course?

What components would you add to COAD 1000 (freshman seminar) to strengthen the course?

Demographics: Please click on the appropriate categories below :

Gender

- Female
- Male

Race

- African American
- Asian American
- Caucasian
- Hispanic American
- Multiracial
- Native American

Submit Survey

APPENDIX C: LETTER OF EXPERT VALIDATION



Academic Advising & Support Center
East Carolina University
2500 Old Cafeteria
Greenville, NC 27858-4353
252-328-6001 office • 252-737-1697 fax

Ms. Lisa Rogerson
204 Speight
East Carolina University
Greenville, NC 27858

March 24, 2008

Dear Ms. Rogerson:

I have reviewed your survey for COAD 1000 students and have also examined Chapter 3 of your proposal on Methodology. I believe that your survey accurately reflects the goals of your research. In addition, the survey items reflect national surveys on freshmen seminar and first year experience. You have addressed appropriate COAD 1000 topics, COAD populations (open enrollment, advisor/advisee, and major only sections), and demographic information.

The 5 point Likert scale will provide more meaningful information than the 3 point Likert scale used for your pilot test. I have recommended an added category to your response options to include "not covered/not applicable." With the inclusion of the not covered/not applicable option, I believe that the questionnaire will provide the necessary option categories. In my professional opinion, the items in the questionnaire are valid measures for your research needs.

As a past administrator of COAD 1000 and Coordinator of the Advising Collaborative, I am very interested in learning the results of your research. The results will assist us in the development and maturing of COAD 1000 as we plan for future semesters.

Please let me know if I can be of any assistance as you venture into the next phase of your research.

Best wishes,

A handwritten signature in purple ink that reads "Jayne Geissler".

Jayne Geissler, PhD
Coordinator of the Advising Collaborative
Director, Academic Advising and Support



College of Education
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252-328-4260 office • 252-328-4219 fax
www.ecu.edu

March 24, 2008

Lisa Rogerson, Director
COE Advising Center
205 Speight Building
East Carolina University
Greenville, NC 27858

Dear Lisa,

Thank you for the opportunity to review the survey you plan to administer for your dissertation research. I enjoy learning of new/proposed research being conducted at the university.

I have carefully reviewed the items on the COAD 1000 survey and found them to be clear, concise, and appropriate for the purposes you define in your research proposal. The items are valid measures of the topics covered in the freshman seminar and the purposes of the seminars. In addition, they are grounded in student development theory as evidenced by their alignment with topics and issues defined in national surveys presented in the literature. Your pilot study of the survey also serves to strengthen the reliability of the instrument and should ensure more detailed analysis of the student responses.

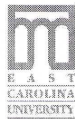
Having recently used Perseus for my own survey research, I found it a very efficient way to encourage student participation and maintain accurate records of respondents. In addition, the tools within Perseus provide multiple resources for data analysis which should facilitate your research.

I wish you the best as you continue with your project. Please don't hesitate to contact me if I can be of assistance in any way.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Mary Lynne Davis'.

Mary Lynne Davis, Ph.D.
Assessment Coordinator
College of Education

**First Year Center**

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Dear Lisa

I have carefully reviewed the items on the Student Survey that you designed for your study. I find the items to be valid measures of the curriculum taught to students in an extended orientation format of a Freshman Seminar. The items reflect a variety of course aspects considered important for student success and are organized into categories that represent major themes covered in the course. These categories should facilitate your data analysis and provide a structure for others to conceptualize the implications of your study.

Please don't hesitate to contact me if I can be of assistance as you continue your research.

Best wishes,

A handwritten signature in black ink, appearing to read 'Al Smith'.

Al Smith, PhD
Director, First Year Center
Course Director, Freshman Seminar