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COMMUNITY COLLEGE STUDENT PERSISTENCE:

A FOCUS ON OCCUPATIONAL AND ACADEMIC CLUBS

by

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ABSTRACT

COMMUNITY COLLEGE STUDENT PERSISTENCE:
A FOCUS ON OCCUPATIONAL AND ACADEMIC CLUBS

Catherine J. Songer
Old Dominion University, 2011
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Community colleges have increased demands for data to substantiate their institutional effectiveness in financially challenging times to stakeholders and accrediting agencies. Tied to performance funding, North Carolina community colleges are focusing attention on policies and programs that encourage student persistence. The Community College Survey of Student Engagement indicated a strong relationship between student engagement and student success. The purpose of this cross-sectional study was to investigate student persistence as measured by student intent to persist as it related to participation in community college-sponsored occupational and academic clubs, to investigate the student-perceived level of participation as it related to student intent to persist, and to discover impediments to club participation.

An electronic survey instrument was developed, validated, and distributed to 4,614 club- eligible students at a rural North Carolina community college. The evaluation of the gathered electronic data used chi-square tests of independence, a binary logistic regression, and descriptive statistics.

Club participation was significantly related to student intent to persist. The varied student-perceived levels participation in club activities and events were measured using a Level of Participation Score (LPS) developed for the study. A list of 17 impediments

revealed during a student focus group discussion and a free response box were used by study participants to indicate impediments to club participation.

The study suggests manners in which academic and occupational community college clubs could provide informal faculty-student interactions for at-risk student populations such as remedial students, minority students, and low-income mothers. The study further suggests that for some students, club participation will require overcoming individual fears. Club activities can be geared toward special populations and interests such as STEM-related clubs; however, the study indicated those students enrolled in only online courses do not participate in clubs.

Practitioners are advised to develop strategies to overcome impediments to participation in clubs. Academic leaders are urged to view community college-sponsored clubs as important opportunities to engage students outside of the classroom and to promote informal faculty-student interactions that facilitate student persistence.

This dissertation is dedicated to
my father, Leonard E. Gropp.

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Finally, thank you to my family members for their steadfast assistance, patience, and understanding during this process. In particular, thanks to my brother, Bob, who never let me down. Their efforts made it possible for me to devote the time and energy necessary to complete this project.

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CHAPTER I

INTRODUCTION

Community colleges must promote an environment in which the students'

experiences are intentionally designed to make "engagement enticing and inescapable"

(McClenney & Greene, 2005, p. 5). The Community College Survey of Student

Engagement (CCSSE) was established in 2001 (http://www.ccsse.org/). The CCSSE's

survey asks students about their community college experiences. Questions pertain to

how the students spent their time; what gains they perceive as a result of their classes;

how they view their relationships and interactions with the faculty, staff, and students;

what types of work they were challenged to complete; how the college supports their

learning; and other similar questions. The findings of the CCSSE clearly indicate the

more actively engaged students are with faculty, staff, and other students, the more likely

they are to persist. In 2008, the CCSSE was administered at a rural North Carolina

community college. CCSSE institutional data for that year indicated that 74% of the

respondents never worked with faculty on activities other than course work; 40% did

very little to contribute to the welfare of the community; 41% indicated no importance at

all regarding student organizations, and only 7% indicated they were very satisfied with

student organizations ("Community College," 2008). Survey respondents were given

five choices of causes for withdrawal from classes of the college. Transfer to a 4-year

college or university was selected by 36% of the respondents as a very likely reason for

withdrawal followed by 29% noting lack of finances, 22% indicating working full-time,

14% reporting caring for dependents, and only 8% selecting being academically under-

prepared ("Community College").

A Community College Focus

Student Engagement

Barr and Tagg (1995) noted the shift in American higher education to a Learning Paradigm. In the Learning Paradigm a community college must take responsibility for learning at two levels. First, at the organizational level, the college is responsible for the collective student learning and success outcomes. Second, the college must take responsibility for each individual student's learning. The Learning Paradigm, however, stresses that students are responsible for constructing their own knowledge. McClenney and Peterson (2006) referred to community colleges as "teaching institutions." Yet, it is unclear how much dedication to student success translates into learning, especially when community colleges serve such a diverse and often unprepared student population.

For over two decades, researchers have stressed the importance of active and collaborative learning (Chickering & Gamson, 1987; Smith, Sheppard, Johnson & Johnson, 2005; Umbach & Wawrzynski, 2005). Research by Chickering and Gamson (1987) yielded the "Seven Principles of Good Practice" which noted encouraging student-faculty contact was the most important principle in motivating students. Faculty concern can transition students through the tough times and enhance the students' commitment to intellectual development and evaluation of their values and future plans (Kuh & Hu, 2001). Research indicates that student learning and student retention are correlated with student engagement (Astin, 1999; Elsner, 2002; Hu & Kuh, 2002; Tinto, 1999); however, first-generation students are less likely to develop relationships with faculty members (Pike & Kuh, 2005b). An understanding of how students and community college characteristics promote or discourage student engagement in

academically related activities is needed if community colleges are to improve the overall quality of undergraduate education (Hu & Kuh).

Administrators of both two- and four-year institutions of higher education must engage students in the campus community regardless of the students' academic discipline. The positive outcomes of engagement through informal student-faculty interaction are beneficial at the beginning of students' education in science and mathematics (Medkeff, 1998; Thompson, 2001). In particular, informal science education programs play a role in increasing the participation of women and minorities in science, technology, engineering, and mathematics (Fadigan & Hammrich, 2004). Experiential learning can also improve retention, problem solving, and decision-making skills (Millenbah & Millspaugh, 2003; Ryan & Campa, 2000). Furthermore, the number of hours of student engagement with faculty outside of class is an established predictor of college retention and success (Kuh, 2003; Schuetz, 2008).

Student Persistence

The two most widely investigated models of persistence are by Tinto (1975) and by Bean and Metzner (1985). According to Webb (1989), the differences between two- and four-year colleges, such as the larger proportion of non-traditional students in two-year colleges, make the Tinto model inappropriate for two-year institutions. Bean and Metzner's model collects data after students have formed valid opinions about their satisfaction with the institution and their levels of stress. At the point of data collection a portion of students would have withdrawn and would not have been included in the data. Rather than focusing on student withdrawal rates, this study focused on student persistence. Astin (1999) stated that student involvement pertains to the amount of

physical and psychological energy students invest into the academic experience. Involvement theory proposes not only the investment of physical and psychological energy, but the investment of different amounts of energy by students. Involvement has both quantitative and qualitative characteristics, benefits related to the quality and quantity of student efforts, and effectiveness as a result of policy and practices that encourage students' participation in activities (Astin; Tinto, 1999).

Student Clubs

The term *extracurricular activities* encompasses many areas on a college campus; researchers should be more focused on specific types of activities and the level of student involvement in those activities (Derby, 2006; Gellin, 2003). Hernandez, Hogan, Hathaway and Lovell (1999) noted research regarding involvement in student organizations indicated positive effects on student development and learning. Kuh (1995) investigated out-of-class experiences associated with student learning and personal development, but failed to investigate the level of the students' involvement. Additional research is needed on student participation in clubs because there is much that still needs to be investigated (Cooper, Healy, & Simpson, 1994; Derby, 2006).

Assuming a leadership role within a club has been shown to be associated with increased levels of formulating purpose, academic involvement, life management, and participation in cultural events (Cooper, Healy, & Simpson, 1994). Leadership responsibilities foster growth in planning, organizing, managing, and decision-making in students (Kuh, 1995). Various out-of-class experiences are likely to contribute to the valued outcomes of college, especially those experiences that required sustained efforts and interactions with different groups, such as faculty, administrators, and employers

(Kuh). Institutional policies must be tuned along with faculty and staff attitudes to view out-of-class experiences as essential to the attainment of institutional and student goals (Kuh).

Purpose

The purpose of this study was fourfold: (a) to investigate the relationship of participation in community college clubs on student intent to persist, (b) to investigate the relationship between the type of community college club and student intent to persist, (c) to examine the relationship between the student-perceived level of participation, as measured by the Level of Participation Score (LPS), and student intent to persist, and (d) to discover the impediments to participation in clubs. Data provided insights into the characteristics and variety of successful clubs as related to student intent to persist. These insights may act as a catalyst for club improvements or formation of clubs in rural North Carolina community colleges.

Research Questions

Retention involves interplay between academics and non-academic factors. To ensure student persistence, both factors need to be addressed (Lotkowski, Robbins, & Noeth, 2004). The importance of informal student-faculty interactions has been documented for decades (Lamport, 1993; Medkeff, 1998; Pascarella & Terenzini, 1976; Theophilides & Terenzini, 1981; Thompson, 2001). Students who form interpersonal associations with faculty members are more likely to exhibit a higher level of academic skills development (Thompson). Student clubs are a means of forming these interpersonal relationships.

Research Question 1

How will community college-sponsored club participation be related to student intent to persist?

Research Question 2

How will the type of club participation (occupational or academic) be related to student intent to persist?

Students enter colleges with various background traits that affect how they will become integrated in the academic and social systems of the institutions. Understanding these traits may facilitate a reduction in attrition at the institution by influencing students' level of participation in campus activities and social activities (Chapman & Pascarella, 1983). Chapman and Pascarella noted community college students were less academically and socially integrated compared to students at other types of institutions; this integration occurs mostly through formal and informal campus activities.

Research Question 3

How will student-perceived level of club participation predict student intent to persist?

Jones and Hill (2003) focused on the commitment of students involved in service learning in high school and their level of commitment to service learning as the students transitioned to college. Those students noted the magnitude of the transition from high school to college was much greater than they anticipated. Failure to continue participation in service learning at the college-level was attributed to the following: (a) learning time management skills, (b) establishing priorities, (c) managing increased academic rigor, (d) learning to navigate systems at the institution, (e) decreasing levels of peer group involvement, (f) perceiving a lack of benefits with involvement, and (g)

increasing amounts of student apathy and laziness. While Jones and Hill noted changes in student involvement and commitment when students had an earlier commitment, this does not address community college barriers to club participation, especially in the case where it may be the students' initial involvement in an occupational or academic club.

Research Question 4

What impediments to community college-sponsored club participation do students encounter?

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Research Significance

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There has been an expansion in community college research driven by state legislatures requiring justifications for appropriations and by accreditation agencies and other organizations focused on student access and success. Community colleges have increasing demands for data to substantiate their institutional effectiveness (Cohen & Brawer, 2008). Program accountability, outcomes assessment, transfer rates, employer satisfaction, graduation rates, and evaluation criteria are just a few of the types of information an institution could collect. The Lumina Foundation, a private, independent foundation, is a leader is these efforts (Cohen & Brawer). Through research grants, the Lumina Foundation tackles issues that affect access and educational attainment among all students (http://www.luminafoundation.org/about_us/); however, at community colleges the amount of staff to do research is very limited, one or two people who usually have other assigned duties. Despite increasing demands, Institutional Research (IR) offices have lagged in increasing the number of available man-hours to complete the gathering and analysis of data.

Since 1989, the Southern Association of Colleges and Schools (SACS) has focused on institutional effectiveness but does not prescribe a set of procedures to be implemented for planning and evaluating programs and policies (Ewell, 1992; Skolits & Graybeal, 2007; Todd & Baker, 1998). SACS does require each institution to develop a comprehensive plan for evaluating goal achievement and for using the evaluation to improve institutional effectiveness (Todd & Baker). The practice of institutional effectiveness is rooted within the local context and environment of each campus (Skolits & Graybeal). Institutional effectiveness efforts are expected to be conducted campus-wide and involve both faculty and staff. Administrative leaders view the process as a commitment to accountability and a means of demonstrating accountability to external stakeholders (Skolits & Graybeal). Institutions might gather data on student persistence or retention because these may be tied to performance funding.

Tied to performance funding, North Carolina institutions - along with institutions from several other states - are focusing attention on policies and programs that promote student persistence (McMurtrie, 2000). In addition, post-secondary educational achievement provides economic benefits (Laughlin, 2006). North Carolina community college students have a return of 18.6% annually in higher earnings for every dollar they invest in their community college education and recover all college expenses (including unearned wages while attending North Carolina's community colleges) in 7.3 years. Average annual earnings of a student with a one-year certificate is $26,961, or 81.5% higher than someone without a high school diploma or GED, and 15.5% more than a student with a high school diploma. The average earnings of someone with an associate's degree is $31,544, or 112.3% higher than someone without a high school

diploma or GED and 35.1% more than a student with a high school diploma or GED

(North Carolina Community College System, 2004).

Overview of Methodology

Survey Development

This cross-sectional study employed a non-experimental quantitative design

(Wiersma & Jurs, 2009). The purpose of the design was to discover differences among

groups and subgroups (Fitzpatrick, Sanders, & Worthen, 2004). It is important to collect

information from multiple sources when trying to describe the clubs and student

persistence. Five sources informed a student electronic survey: (a) the professional

literature, (b) a documents review, (c) faculty club advisor interviews, (d) Student

Services Activities Coordinator interview, and (e) a community college student focus

group. These were all unobtrusive methods and had no direct impact on the clubs. A

panel of subject-matter experts established the content validity as the survey was

developed. The experts have in-depth knowledge and rated each survey item regarding

its clarity, importance, and application to the research questions. The experts used a

Likert-type scale of omit, revise, or retain for each item on the survey to indicate his or

her level of agreement if an item should be included on the survey. For each item the

experts also indicated either yes or no whether the item pertained to one of the research

questions and if the item was clearly written (Sue & Ritter, 2007). Suggestions from the

experts were used to modify the survey prior to the pilot testing of the survey.

The piloting of the survey used a group of 20 students at a rural North Carolina

community college. Each of the students received an e-mail invitation to participate,

along with instructions on how to access the survey. Two weeks after completing the

survey, the same 20 students received a second e-mail requesting the completion of the survey again. In this test-retest format, the individual responses for each of the 20 students were compared to determine a reliability coefficient. Items on the survey with a reliability coefficient of less than 0.7 were evaluated to determine if revisions were necessary or if the item needed to be eliminated.

Data Collection and Analysis

Information from the documents review, the faculty club advisor and Student Services Activities Coordinator interviews, and the student focus group facilitated the construction of an electronic survey using Survey Monkey software. Piloting the survey determined the survey's reliability. Prior to the administration of the survey, an advertising campaign at the community college raised awareness. Advertising consisted of posted flyers, announcements on Blackboard and Campus Cruiser, faculty announcements in classes, and invitations and reminders to participate sent via Campus Cruiser, the college's e-mail system. The Campus Cruiser system permits grouping student e-mail accounts based on particular criteria, such as all curriculum students. Student surveys are usually less expensive and easier to design than student knowledge and proficiencies tests. Student surveys can provide information and insights about students that other sources of information cannot provide (Kuh, 2001, 2003). Using an electronic survey provided a means to capture information in many locations that physically would be difficult to survey in person.

Data collection commenced in the semester starting at the beginning of the 12th week of classes and continuing through the 14th week of the semester. Scaled and multiple choice responses were exported from Survey Monkey as Excel spreadsheets and

analyzed using the statistical package for Social Sciences (SPSS Graduate Pack 16.0 Windows). Chi-square (χ^2) tests determined if there were significant differences in students' self-reported intent to persist between groups. The students indicated on a Likert-type scale their level of involvement or lack of involvement in club activities. A binary logistic regression was employed to assess the relationship between the student-perceived level of club participation and their self-reported intent to persist. A binary logistic regression can include both categorical and continuous variables (Keith, 2006). SPSS descriptive statistics summarized the types and frequencies of impediments or barriers to student club participation (Atack & Rankin, 2002).

Delimitations and Limitations

This study confined itself to interviewing faculty club advisors and the Student Services Activities Coordinator at a single rural North Carolina community college. A student focus group and students who participated in the pilot study were formed from enrolled curriculum students at the same community college. The electronic survey was available only for curriculum students at the community college and did not include the pilot study group of students. Student impediments and level of participation were limited to only those that pertain to club participation. There were limitations in the methods proposed for data collection. The student electronic survey may have a low response rate. The rate was enhanced with a variety of measures, such as multiple mailings and personal contact. Using an electronic survey favored those in a population with easy access to the Internet and who were comfortable using the Internet. E-mails could be ignored because of the unfamiliar e-mail address or if the e-mail was sent to an address no longer checked by the intended recipient. Increasing amounts of SPAM e-

mail added to the likelihood that e-mailed surveys were quarantined (Van Horn, Green, & Martinussen, 2009). The data collected from the survey responses were self-reported and were subject to reporting bias (Halsne & Gatta, 2002). Internal validity may be affected by students' not responding candidly and self-reporting their intention to persist (Laughlin, 2006). External validity is the extent to which the results can be generalized (Wiersma & Jurs, 2009) and may be limited to one rural North Carolina community college because other factors at other community colleges may impact levels of student persistence.

Definition of Terms

The following are definitions of key terms used throughout this study:

Academic Club: Membership is open to all curriculum students regardless of their academic concentration. Participation is voluntary.

BCSSE: An acronym for Beginning College Survey of Student Engagement

CCCC: An acronym for Coastal Carolina Community College

CCSSE: An acronym for Community College Survey of Student Engagement.

CCFSSE: An acronym for Community College Faculty Survey of Student Engagement.

FSSE: An acronym for Faculty Survey of Student Engagement.

GED: An acronym for General Education Diploma, General Equivalency Diploma, or Graduate Equivalency Degree.

Intent to Persist: Students' self-reported intention to enroll in classes within the next 12 months at the same college, another institution of higher learning, or a statement of no plan to return.

FYE: An acronym for First-Year Experience

LEAD: An acronym for Leading, Educating, Achieving, and Developing

Program. LEAD is a program that is helping to engage students in clubs or other

co-curricular, out-of-class learning experiences.

LPS: An acronym for Level of Participation Score

LSSSE: An acronym for Law School Survey of Student Engagement.

Occupational Club: Membership is open to curriculum students who are enrolled

in specified curricula and programs. Participation is voluntary.

NSSE: An acronym for National Survey of Student Engagement.

Persistence: Enrollment from semester-to-semester.

SACS: An acronym for Southern Association of Colleges and Schools.

SPSS: An acronym for Statistical Package for the Social Sciences.

STEM: An acronym for Science, Technology, Engineering, and Math.

TAP: An acronym for Tapping America's Potential. TAP is a coalition of business

organizations focused on renewing attention on America's competitiveness and

innovative capacity.

URM: An acronym for Underrepresented Minorities

CHAPTER II

REVIEW OF LITERATURE

Undoubtedly, community colleges are an American form of higher education that is committed to accessibility, community development, and social justice (Mellow & Heelan, 2008). Yet, compared to four-year institutions of higher education, community colleges educate a larger proportion of at-risk students (Mellow & Heelan). For most community college students, the decision to attend is not whether they will enroll in a four-year institution or the community college, rather the choice is whether the students will attend a community college or not attend college at all (Cohen & Brawer, 2008). In a global economy opportunity is a function of education (Friedman, 2007). Providing access to post-secondary education programs and services is the mission of community colleges (Cohen & Brawer; Vaughan, 2006). Retaining those students in college, especially a community college, is a challenge.

This review of the literature provides information in four focus areas: (a) an introduction to the community college mission and students, (b) an overview of the national assessments pertaining to student engagement at both two- and four-year institutions followed by student engagement concerns at the institutional level, (c) an overview of theories related to student departure and involvement, and (d) a focus on community college retention and persistence with an emphasis on student clubs.

Method of Reviewing the Literature

This review of the literature was developed through a broad review of scholarly studies found in databases available via Old Dominion University, the North Carolina Community College System, and the United States Marine Corps. Databases used

include but are not limited to Academic Search Complete, Education Full Text,

Education Research Complete, ERIC, Gale, JSTOR, ProQuest, and SAGE. Information

gathering was focused on topics addressing the mission of the community college,

national assessment of student engagement, involvement theory, community college

student retention and persistence, informal interactions with the community college

faculty, and the role and challenges of clubs at community colleges. Boolean searches

were conducted using key words–specifically engagement, persistence, retention,

community college, activities, clubs, and involvement–using appropriate operators.

The Community College Mission

According to Cohen and Brawer (2008) during the 1950s and 1960s the term

junior college included the lower-division branches of private universities and two-year

colleges that had church support or were independently organized; however, by the 1970s

the term *community college* became the more common inclusive term. Increasing from

19 public community colleges in 1915 to 1,061 in 2005 (Cohen & Brawer), they number

approximately 1,200 today (American Association of Community Colleges, 2008).

Attention should be focused on the local and regional economic impacts of community

colleges. They serve approximately 54% of all first-time, full-time students in American

colleges and universities, and the majority of all disabled students (Hankin, 2003).

Reports regarding lifelong learning suggest approximately 75% of adults believe they

need more education or workforce retraining to advance in their careers (Hankin).

Louisiana community and technical colleges, along with institutions from other states, are

focusing on policies and programs that promote student persistence, especially when data

such as retention and graduation rates are tied to Performance Funding (McMurtrie,

2000). For the student and the local community, post-secondary educational achievement produces economic benefits (Laughlin, 2006).

Community College Leadership

In the *Community College Story* (2006), Vaughan stated, "The successful evolution of community colleges depends on the development of a new generation of leaders" (p. 37). Unlike the kind of evolution that takes place with populations of organisms, community college leaders will not be able to exploit the luxury of time. The evolution of the community college is much more urgent. Friedman (2007) built a compelling argument in *The World is Flat*. He warned there has never been a situation where more people in more places have had the opportunity to combine low-cost labor and high-power technology. In the future, community colleges will need to respond to the needs of their communities as influenced by global changes (Northouse, 2007). In response there must also be accountability to these communities (Cohen & Brawer, 2008). There is a continuing need for diversified responses, and leaders must utilize resources effectively. The ability of leaders to change the community colleges over time will allow these community colleges to evolve successfully in order to meet the needs of their communities (Cohen &Brawer; Northouse; Vaughan).

Community Colleges and Remedial Education

Clearly, one of the important challenges is retraining the workforce to be competitive in a global market place; however, this is not the only challenge. Vaughan (2006) pointed to more challenges such as constraints on public funding, rising tuition, increasing enrollments, changes in technologies, and remediation for under-prepared

students. These problems are not static and exist in a world where natural disasters and terrorism can instantaneously change an educational environment.

Within two years after graduation, 75% of high school graduates enroll in some form of post-secondary education. These students arrive on campuses under-prepared. Remedial courses are taken by 53% of these students ("From the editor," 2003). This is especially the case at community colleges whose mission is to serve all students regardless of their prior educational background (Zeidenberg, Jenkins, & Calcagno, 2007). These under-prepared students require remedial courses and may also have poor study skills and undefined career goals. They cannot effectively evaluate themselves as learners or read and analyze course materials (Thompson & Geren, 2002).

At the University of Texas at El Paso (UTEP), remedial math is often a course that some can never pass. "If these students fail, we lose them," stated Denise Jujan, UTEP's director of developmental math (Redden, 2008). This failure becomes even more critical if one considers that only 30% - 40% of students referred to a remedial education sequence actually ever complete the sequence. Most abandon it early with almost half failing to complete the first course in a sequence. For many students who do not complete that first course, it is the end of their college education. This pattern is most prevalent among students who are black, male, older, and/or part-time (Jaschik, 2009).

Community College At-Risk Populations

In 2003-2004 approximately 59% of community college students were female, and when compared to 4-year colleges and universities, community colleges had higher proportions of older females from low-income families while lower proportions were White (Horn & Nevill, 2006). Community colleges offer these women flexible

scheduling and student services that allow for adult and non-traditional students to attend classes while meeting family responsibilities. A large portion of these women are single mothers and/or working mothers who must utilize the daycare provided by their institutions. These daycare services coupled with the promise of better future employment make a community college education appealing for these women (Adair, 2001; "Community colleges appeal to women," 2004).

Vaughan (2006) noted that increasing numbers of both men and women envision learning as a lifelong pursuit. Community college continuing education is one of the most responsive and flexible ways to meet the needs of the learners and the local community (Mellow & Heelan, 2008). Over the past decade and a half, enrollment in continuing education programs has increased and often constitutes the largest portion of a community college's enrolled population. An understanding of the reasons adult students persist or dropout of college is important to community college leaders if they are to meet successfully the learners' wide-range of educational demands that can range from enhancing job readiness, GED completion, or retraining for a new career (Mellow & Heelan).

By the end of the decade, 40% of the college-age population will be students of color (Zusman, 2005). Minorities have made gains in college enrollment, but when compared to the growth in the general population, their representation in higher education is decreasing (Chang, Altbach, & Lomotey, 2005; Tinto, 2006). African Americans, Native Americans, and Latinos have low enrollments in basic and applied scientific fields. Representation is further decreased by high dropout rates and low rates of enrollment in graduate and professional education. African Americans and Latinos

comprise one-quarter of high school graduates and one-third of the college-age population, but African Americans earn fewer than 9% of all bachelor's degrees while Latinos earn less with only 6% (Zusman). Native Americans struggle academically at institutions of higher education because the environment is foreign, so foreign that half of first-year Native American students who start college leave by the end of their first year. This may be partially due to the Native-American perception that learning is a lifelong commitment. Many will leave and return several times (Rodriguez, 1997).

Hispanic college students are more likely than other college students to enroll in community colleges and attend part-time. National studies show that students who attend school part-time and enroll in a community college are less likely than other students to graduate with a bachelor's degree or higher (Chen, 2007). The proportion of Hispanic workers in the American workforce is increasing; therefore, community colleges must seek new strategies for attracting and graduating Hispanic students (Franey, 2002). Greene, Marti, and McClenney (2007) stressed that engagement matters for all students, but it appears to matter more for students in higher risk groups.

Economic Concerns

Before one considers the implication of the decreased enrollments of minorities, it is important to address what will be needed to survive in the job market in the next decade. Friedman (2007) cautioned that many middle class jobs are under pressure due to a continued "flattening of the world" (p.282). Yet, there is not a clear realization of the competitive nature of the future job market. Without the understanding, Americans are not willing to make a serious investment in reskilling themselves; however, movement of

middle-class jobs overseas is reshaping the American economy to resemble a barbell with only a few jobs in the middle (Friedman).

Facing the prospects of a "barbell economy" (Friedman, 2007, p. 284), minorities can only move downward without education. The biggest barrier to education is poverty, yet without education many will be trapped in a lower income bracket or face unemployment. Whether minority students enroll in higher education or not, there will be large changes in some U.S. states. Sunbelt states such as Florida, California, and Texas will see substantial growth in high school graduates. Latino populations will grow in the Southwest, and Asian populations will expand in the West. Due to immigrant students, 16% of California high school students were not proficient in English, another barrier to a college education (Zusman, 2005).

Communities faced with possible increases in unemployment and welfare accompanied with decreases in tax revenues should promote strategies to increase community college graduates. One such effort is a public interest venture where Sullivan and Cromwell (2006) teamed with client The Goldman Sachs Group, Inc. and Harvard Law School to tackle the achievement gap between young African American males and their White contemporaries. The partnership, The Pipeline Crisis/ Winning Strategies Initiative, is trying to remove obstacles for poor urban African Americans. Until the initiative, Wall Street law firms and investment banks spent little time or resources on trying to address the causes of African American poverty.

Demographers forecast a significantly lower number of White males entering the workforce accompanied by a surge in the number of women, minorities, immigrants, and older employees (Abbasi & Hollman, 1991). Organizations will need to address the

needs and cultural backgrounds of their future employees. Education, training, and retraining will help bridge deficiencies. The composition of the workforce will dictate changes within the context of the company's needs, circumstances, and mission. If U.S. industry is to maintain its competitive position within a global market, new workers must be integrated with minimal disruption and loss of productivity. These workers may not have the basic literacy and mathematics skills necessary for these new jobs (Abbasi & Hollman).

Summary and Critique

Globalization will require community colleges to evolve to meet the educational demands of their students and communities (Friedman, 2007). This evolution will take place with constrained funding and a demand to provide remediation for increasing numbers of under-prepared students. There are greater numbers of ethnic and minority students enrolled in community colleges compared to four-year institutions. Engagement matters for all students but especially for these at-risk students (Greene, Marti, & McClenney, 2007). It is imperative that community colleges understand how best to engage their students if community colleges are to succeed in their missions.

Student Engagement Assessment

Bailey, Calcagno, Jenkins, Kienzl & Leinbach (2005) stated that community colleges have played a pivotal role in granting open access to higher education to a wide variety of students, but access alone is not enough (Cohen & Brawer, 2008; Mellow & Heelan, 2008; Vaughan, 2006). Community college leaders and stakeholders have increasingly focused their attention on student persistence and completion (Sorey & Duggan, 2008; Wild and Ebbers, 2002). In an effort to increase community college

student persistence, research has focused on the unique characteristics of community college students and the role these characteristics play in students' decision to stay in school or dropout (Bailey et al.; Fike & Fike, 2008). This section discusses several issues and topics related to student engagement and persistence at the community college.

The National Survey of Student Engagement (NSSE)

The National Survey of Student Engagement (NSSE) was established over 20 years ago and focuses on four-year colleges and universities (http://nsse.iub.edu/). More than 1,400 colleges and universities in the United States and Canada have participated in the survey. The NSSE reports consistent data about the correlation between student engagement and student success. Additionally, the widespread use of the NSSE has facilitated the development of other nationally-administered instruments such as the Beginning College Survey of Student Engagement (BCSSE), the Community College Survey of Student Engagement (CCSSE), the Faculty Survey of Student Engagement (FSSE), and the Law School Survey of Student Engagement (LSSSE).

There is a strong relationship between engagement and positive student outcomes, and effective educational policy should increase student engagement (Astin, 1999; Pike & Kuh, 2005a). Most NSSE questions require students to indicate the frequency of their activities; thus, a mean is derived. The higher the mean is the stronger the level of engagement (Williford & Schaller, 2005). The NSSE report (2006) noted that some engagement opportunities do not influence all students in the same way. Students reported higher levels of satisfaction when the opportunities helped them overcome disadvantages. Since the influence varies, Gerlach (2008) stated that investigating the types of engagement was an important focus of research. One of the challenges in

studying faculty-student interactions is considering the view point of both professor and student. Comparing the results of the NSSE with the FSSE provides a more complete picture of engagement and can point colleges and universities to areas where improvements are necessary (Luna de la Rosa, 2005; Kuh, 2001). The Community College Survey of Student Engagement (CCSSE) was established in 2001 (McClenney, 2007). While both the NSSE and the CCSSE are focused on student engagement, the two are dissimilar enough at this time to not allow comparisons between the databases (http://www.ccsse.org/).

The Community College Survey of Student Engagement (CCSSE)

The CCSSE was created with a focus geared toward producing new information specifically related to community college quality and performance. This information facilitates efforts to improve student engagement, learning, and retention and can provide community college administrators and stakeholders with the means to view the quality of undergraduate education (McClenney, 2007). In particular, the CCSSE's national and consortium benchmarks allow community colleges to compare their performance to that of other similar community colleges. These benchmarks are clusters of items that pertain to active and collaborative learning, the level of student effort, the degree of academic challenge, student-faculty interactions, and the support for learners (McClenney). Regional accrediting associations, including the Southern Association of Colleges and Schools (SACS), have raised awareness regarding the value of the CCSSE as a component of institutional self-study and quality improvement (http://ccsse.org/).

The CCSSE results inform community colleges regarding effective educational practices and aid institutions in using that information to promote improvements in

student learning and persistence. Clearly, the foundational focus of the CCSSE is student engagement ("Community College," 2008).

In 2008, CCSSE Cohort Frequencies data for a rural North Carolina community college indicated that 71% of the student respondents never worked with faculty on activities other than course work; 37% did very little to contribute to the welfare of the community; 41% indicated no importance at all regarding student organizations; and, only 9% indicated they were very satisfied with student organizations ("Community College," 2008). One year later, the 2009 CCSSE Cohort Frequencies data indicated no change in those frequencies ("Community College," 2009). In 2008, CCSSE survey respondents at a rural North Carolina community college were given five choices of causes for withdrawal from classes at the college. Institutional data indicated transfer to a four-year college or university was selected by 36% of the respondents as a very likely reason for withdrawal, followed by 29% noting lack of finances, 22% indicating working full-time, 14% reporting caring for dependents, and only 8% selecting being academically under-prepared. In 2009, there was a decrease from 36% to 32% of respondents indicating transfer to a four-year college or university as a very likely reason to withdraw from classes or the community college. Both caring for dependents (15%) and being under-prepared (9%) increased 1% from the previous year. The lack of finances (32%), and working full-time (25%) each increased 3% ("Community College," 2009).

According to Provasnik and Planty (2008), any analysis of community college students, including those that examine their persistence, is complex due to the diversity of the community college students. Students have an array of reasons for attending

community colleges and different levels of commitment. For example, comparing their enrollment status indicates that full-time community college students persist at higher rates than those enrolled only part-time; however, the community college students who alternated between full-time and part-time enrollment persisted at higher rates than either the exclusively full-time or part-time students (Provasnik & Planty; Tinto, 2006). Due to economic considerations, some students may attend full-time while others attend part-time and work. Understandably, students from low income families are less likely to attend full-time (Tinto, 2006).

Student Engagement

Barr and Tagg (1995) noted the shift in American higher education to a Learning Paradigm. In the Learning Paradigm a community college must take responsibility for learning at two levels. First, at the organizational level, the college is responsible for the collective student learning and success outcomes. Second, the college must take responsibility for each individual student's learning. The Learning Paradigm, however, stresses that students are responsible for constructing their own knowledge. McClenney and Peterson (2006) referred to community colleges as "teaching institutions" (p. 25); however, students spend little time outside of the classroom with faculty. Slightly more than half (54 %) of the surveyed faculty reported on the Community College Faculty Survey of Student Engagement (CCFSSE) spending only 1 to 4 hours during the week interacting with students outside of the classroom. Another third of the survey respondents reported no student interaction outside of the classroom. Engagement in the classroom, therefore, significantly contributes to student success. Community colleges must understand how the faculty utilizes classroom time and what strategies they employ.

Faculty strategies that promote student success and learning must be supported by the community college (McClenney & Peterson).

Fear, Doberneck, Robinson, Fear, Barr, Van Den Berg, Smith, and Petrulis (2003) noted that, during the 5th North American Conference on the Learning Paradigm held in San Diego in March 2001, 40 colleagues from the United States and Canada were challenged to provide a single important metaphor regarding the Learning Paradigm as it pertained to their respective campuses. The metaphors were a way of exploring the conferees' diverse interpretations. The collective consensus of the conferees indicated that administrators and faculty members work in various institutional settings, encounter a variety of organizational challenges, represent multiple views about higher education and its role in society, and emanate from differ philosophic and scholarly traditions. With such diversity, movement to the Learning Paradigm spawns multiple interpretations (Fear, et al., 2003).

Chickering and Gamson (1987) stressed the importance of active and collaborative learning (Smith, Sheppard, Johnson & Johnson, 2005; Umbach & Wawrzynski, 2005). Their research yielded the "Seven Principles of Good Practice" as follows:

1. Encourage student-faculty contact.

2. Develop reciprocity and cooperation among students.

3. Encourage active learning.

4. Give prompt feedback.

5. Emphasize time on task.

6. Communicate high expectations.

7. Respect diverse talents and ways of knowing.

Chickering and Gamson noted encouraging student-faculty contact was the most important principle in motivating students. Faculty concern can transition students through the tough times and enhance the students' commitment to intellectual development and evaluation of their values and future plans (Kuh & Hu, 2001). Research indicates that student learning and student retention are correlated with student engagement (Astin, 1999; Elsner, 2002; Hu & Kuh, 2002; Tinto, 1999); however, first-generation students are less likely to develop relationships with faculty members (Pike & Kuh, 2005b). Pascarella, Wolniak, Pierson, and Terenzini (2003) define a first-generation student as one whose parents have never attended college. These students are more likely to attend a community college and to enter academically under-prepared (Thayer, 2000.) An understanding of how students and community college characteristics promote or discourage student engagement in academically related activities is needed if community colleges are to improve the overall quality of undergraduate education (Gerlach, 2008; Hu & Kuh; Sorey & Duggan, 2008).

Summary and Critique

There are many components to student engagement that are intertwined with the remarkable diversity found in community college student populations. This combination provides numerous opportunities for further exploration. Much of the research on student engagement began with the NSSE at four-year institutions; however, the shift to the CCSSE has provided data and a focus directly related to community colleges. There remains a need to learn more specifically how various groups of students engage, how

they are impacted by the community college environment, and what strategies are needed to improve engagement, retention, and graduation rates.

Theoretical Models of Student Persistence

Tinto's (1993) theory of student departure is the most frequently cited theory for explaining student departure and has attained "near- paradigmatic status" in the field of higher education (Braxton, Milem & Sullivan, 2000). Webb (1989) noted the two most widely investigated models of persistence are Tinto (1975) and Bean and Metzner (1985). Bean and Metzner's model collects data after students have formed valid opinions about their satisfaction with the institution and their levels of stress. At the point of data collection a portion of students would have withdrawn and would not have been included in the data. Differences between two- and four-year colleges, such as the larger proportion of non-traditional students in two-year colleges, make the Tinto model unsuitable (Webb). Additionally, Guiffrida (2006) noted that researchers have gained substantial insights regarding relationships between cultural norms, motivational orientation, academic achievement, and persistence; however, these advances are not incorporated into Tinto's theory. Most of the empirical literature investigating Tinto's revised model of student departure focused on the perceptual aspects of academic and social integration but ignored measures of actual behaviors (Halpin, 1990; Pascarella & Terenzini, 1980). Pascarella, Smart, and Ethington (1986) focused specifically on the long-term persistence of two-year college students. Over a nine year period, 825 students who initially enrolled in 85 different two-year colleges were tracked. Data indicated that academic and social integration had the most consistent positive effects on student persistence. Additionally, Berger and Milem (1999) noted that attempts to elaborate

Tinto's initial model suggests the benefits of constructs from other theoretical

perspectives that could facilitate the explanatory power of the model and provide

information regarding sources of social and academic integration for undergraduate

students.

Motivated by the "confusion and perplexity" generated by reading student

development literature, Astin (1999) articulated the theory of student involvement for

four reasons. First, he wanted a simple, easy to understand theory; second, the theory

needed to explain most of the accumulated empirical knowledge; third, the theory must

encompass divergent sources; and fourth, the theory must be useful to researchers to

guide investigations and to college administrators to create successful learning

environments. Astin (1999) stated that student involvement pertains to the amount of

physical and psychological energy that students invest into the academic experience.

Involvement theory proposes not only the investment of physical and psychological

energy, but also the investment of different amounts of energy. For instance, a highly

involved student invests high amounts of energy in studying, is frequently found on

campus, has a high level of participation in student organizations, and interacts with

faculty and students on a regular basis. In comparison, an uninvolved student spends

little time studying, is rarely found on campus, does not participate in extracurricular

activities, and has little contact with the faculty or students. Furthermore, involvement

has both quantitative and qualitative characteristics, benefits related to the quality and

quantity of student efforts, and effectiveness as a result of policy and practices that

encourage students' participation in activities (Astin; Berger & Milem, 1999; Tinto,

1999). Astin stated, "The theory of student involvement argues that a particular

curriculum, to achieve the effects intended, must elicit sufficient student effort and

investment of energy to bring about the desired learning and development" (p.522).

Administrators and faculty members must realize that institutional policy and practice

and decisions pertaining to nonacademic issues directly influence the efforts and amounts

of time students invest in their academic pursuits (Astin). For many students the

classroom is the one place and perhaps the only place where they meet other students and

faculty. If involvement does not occur in the classroom, it is not likely to occur

somewhere else (Tinto, 2006).

Berger and Milem (1999) noted that involvement combined with students'

perceptions of integration is an important factor in college student persistence. Berger

and Milem's modified model (see Fig.1; Appendix A) contributes to an understanding of

the relationship between behavioral involvement and perceptual integration by testing

direct and indirect effects of these constructs on student persistence.

IC1 = Initial Institutional Commitment
IC2 = Subsequent Institutional Commitment
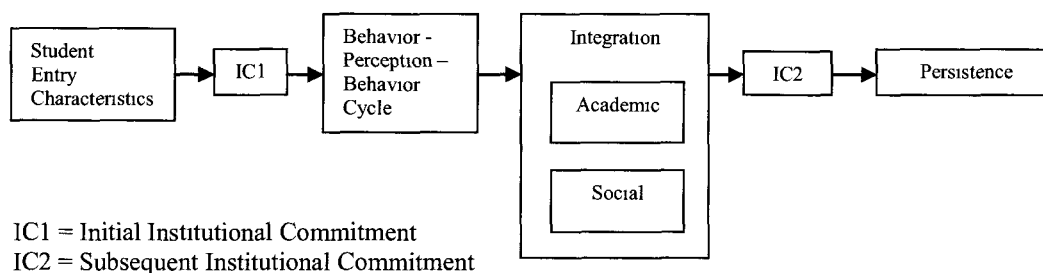
Figure 1. Berger and Milem's refined model for understanding student persistence.

Adapted from "The Role of Student Involvement and Perceptions of Integration in a

Causal Model of Student Persistence by J. B. Berger and J. F. Milem, 1999. *Research in*

Higher Education, 40, p. 645. Copyright 1999 by Springer. Reprinted with permission.

Berger and Milem (1999) found the results of the path analysis (Fig. 1) supported

Astin's theory of involvement as a contributing theory to better define Tinto's (1975,

1993) notion of the persistence process. Findings also suggested the inclusion of

behavioral components to facilitate a deeper understanding of college student persistence.

Summary and Critique

Theories pertaining to student departure, persistence, and retention will remain an

important focus of research at community colleges and at universities. For decades,

researchers have based additional investigations on Tinto's theory, but the accumulation

of data from those investigations suggests that multiple issues influence whether students

will persist or not. Combining theories yields a model that better explains how students

interact with the college environment as they become socially and academically

integrated at the college. There is a gap in the literature regarding how community

college clubs might facilitate both social and academic integration of students.

Community College Retention and Persistence

Focus Changes

Over 40 years ago, student retention or student attrition was viewed as the result

of students' individual attributes, skills, and motivation. Students who did not persist

were viewed as less able and less motivated. Failure to persist was the students' failure,

not the failure of the institution (Tinto, 2006). In the early 1970s, the view of retention

shifted to a broader view which included the role of the institutional environment (Tinto,

2006). *Leaving College* (Tinto, 1993) made clear connections between the environment

and student retention. Earlier work on student retention was followed with work by

Astin, Pascarella, and Terenzini. Their efforts shifted the focus to the importance of

student contact and involvement on various student outcomes including student retention (Tinto, 2006). When trying to describe retention, one must consider outputs, such as degrees earned and the number of graduates; inputs such as gender, age, and major; and the environment that encompasses multiple factors including courses, faculty, and peer groups (Fike & Fike, 2008).

Astin (2006) stated it makes no sense to compare institutional retention rates without also considering the academic preparedness of the institution's students. More than two-thirds of the variation in degree completion rates among colleges is due to differences in the students who enroll. Examining raw retention rates may unfairly penalize those institutions that admit under-prepared students and may reward undeserved credit to those institutions that are highly selective in their admission policies. Astin suggested assessment of entering students would provide a baseline to measure how much the students change as a result of their college experience. Brush (2006) during an interview quoted Derek Bok, president of Harvard University, as follows:

> The college that takes students with modest entering abilities and improves their abilities substantially contributes more than the school that takes very bright students and helps them develop only modestly. We really need to take the focus off entering scores and put it more on how much value is added. (p. 28)

The American Council on Education (2003) noted the confusion regarding issues of institutional retention, student persistence, and degree attainment. Graduation rates and measures of retention do not reflect the overall student experience. Many students who enroll in a community college enter with goals other than earning a degree, and nearly 60% attend half-time or less. Reports that focus solely on institutional retention or

graduation measures may unfairly portray institutions. The American Council on Education stressed that persistence measures should reflect personal, academic, and economic constraints encountered by the students and by the institutions in which they enroll. Schuetz (2008) stated due to multifaceted individual and institutional variables affecting student engagement and outcomes, a systematic way of ordering data collection, analysis, and interpretation is warranted.

Faculty Interactions

Involvement matters most during the first year of college, and for many students that involvement may take place only in the classroom (Tinto, 2006). The actions, then, of the faculty are critical to enhancing student retention. Interactions with the faculty help students develop academic strategies which can be used in the future (Bean & Eaton, 2002). Though retention is everyone's business, the faculty plays a particularly strong role; however, faculty involvement is still limited and, therefore, the full potential of the faculty influence on student retention may not be realized (Tinto). Student retention is now used by some states as a means of institutional accountability. Tinto questioned the impact of faculty and staff development programs on student retention, considering the pivotal role faculty plays in student retention.

Student Fears

According to Bean and Eaton (2002), if retention programs are going to be successful, they must facilitate involvement for each student in a program. Factors that influence retention are ultimately individual. Examining psychological dispositions helps to determine types of students that are more likely to leave college, but this approach does not yield an explanation of processes leading to academic and/or social integration

and finally retention. Rather to be academically and socially integrated into a school, students need the following attributes: (a) a belief in their effectiveness in social environments, (b) a belief in their academic effectiveness, (c) a belief they control their own outcomes, (d) a development of their coping skills, and (e) a motivation to embrace academic and social challenges (Bean & Eaton).

Cox (2009) noted the students' fear of failure had a greater influence on their approaches to coursework completion than did their academic preparation. Faculty who understood this issue addressed student fears, which ultimately helped them to persist. For some students the strategies that abated their fears also proved to be detrimental to completing college coursework. Students who avoided assessment also avoided opportunities to demonstrate their academic merit (Cox). Beverly Low, dean of first-year students at Colgate University in Hamilton, New York, noted first-year students are responsible for their own choices as they transition from an environment with a high level of structure to one with very little structure (Shanley & Johnston, 2008). Though students will need to face their fears, college can provide a safe environment for students to experiment, make mistakes, and learn as they progress intellectually and socially (Shanley & Johnston).

Community College Retention

According to Wild and Ebbers (2002) the theories regarding retention are based on research rooted in universities with traditional-age students in residential settings (Astin, 2006). Though some theories may be valid for all college students, community college students have different characteristics compared to traditional four-year university students. These variable characteristics include (a) age, (b) ethnicity, (c)

developmental education, (d) course load, (e) financial aid, and (f) enrollment in online courses (Astin; Wild & Ebbers). Additionally, community college enrollment is a composite of students who may seek a two-year degree, a one-year certificate or diploma, retraining to enhance job competitiveness, or even a single course for personal interest. Students may value classes that are less crowded, convenient, and inexpensive (Wild & Ebbers).

Institutional Commitment

The U.S. Department of Education studied students who enrolled in a community college as their first institution from 2003-2004 to 2006 (Horn, 2009). A total of 49.4% were retained, 26.7% were still enrolled but had no degree after three years, 11.5% transferred to a 4-year college, 11.2% attained an A.A. or certificate, 8.1% transferred to a 2-year or less institution, and 42.5% did not obtain a degree and were no longer enrolled. The reasons for leaving for those who departed the first year included financial and family concerns. Those that departed later indicated scheduling difficulties or completion of desired courses (Horn, 2009). Braxton, Milem, and Sullivan (2000) noted that rates of departure are problematic for both scholars and practitioners. While researchers seek answers, administrators would like solutions to manage and reduce rates of departure (Astin, 2006; Wild & Ebbers, 2002). Unfortunately, as high as 20% of students who began their education at a community college will complete less than 10 credits. This amount is less than what a full-time student would earn in a single semester. These students do not earn a certificate, degree, or gain the opportunity to transfer to a four-year institution which is the means to greater economic opportunity for many students (Bailey, 2005).

Family characteristics such as socioeconomic status and parental education influence a student's initial level of commitment to an institution (Astin, 2006). This initial level of commitment affects the subsequent level of commitment. It is this subsequent level of commitment which is enhanced by the amount of students' integration with the social communities of the college (Braxton, et al., 2000). Tinto (1975) stated, "Given individual characteristics, prior experiences, and commitments… it is the individual's integration into the academic and social systems of the college that most directly relates to his continuance in that college" (p. 96). Social integration is composed of peer group interactions and out-of-class interactions with faculty (Pascarella & Terenzini, 1980). Alford (2000) noted inner city Black students who are focused on their studies are often ostracized by their peers. These students develop skills for success in the academic environment; however, these skills do not always support the social adjustment and integration of the students.

Occupational and Academic Students

Bailey, Leinbach, Scott, Alfonso, Kienzl and Kennedy (2004) compared students in occupational programs with students in academic programs. Occupational students were enrolled in vocational fields of study, for example computer and information science, while academic students reported majors in an academic field of study such as mathematics. Sixty percent of all students enrolled in post-secondary education are in enrolled in community colleges. Over half or 51% of community college students are occupational students with an additional 25% of community colleges students declaring academic majors (Bailey, Leinbach, Scott, Alfonso, Kienzl & Kennedy). Occupational students when compared with academic students are more likely to be male, from a

minority population, older, economically disadvantaged, and single with a dependent; however, there is little difference in their educational backgrounds. Further, occupational students were more likely to have non-traditional examples of enrollment with 53% postponing their initial post-secondary enrollment for at least one year (Bailey, Leinbach, Scott, Alfonso, Kienzl, & Kennedy).

Bailey, Kienzl, and Marcotte (2004) indicated that advocates for community college occupational education propose students can benefit financially from post-secondary education that does not lead to a bachelor's degree. Students with an associate degree are prepared for an increasing number of technical and technician-level jobs that in some instances are vital to local communities. These graduates do not earn more than bachelor's degree holders, but they do earn more than high school graduates. Some advocates argue that education goals that fall short of an associate degree are still beneficial for the student. Many certificate programs can be completed within one year. With rapid changes in technology in the workplace there will be continued pressure to prepare students for skill-based occupations (Bailey, Kienzl, & Marcotte).

Informal Interactions

Administrators of higher education must facilitate ways for two-year colleges to engage both male and female students regardless of the discipline. Hagedorn, Perrakis, and Maxwell (2006) noted ten "positive commandments" to help community colleges foster student success. The first of these commandments is to employ and reward instructors who facilitate faculty-student interactions. Engaging students in higher education is not a uniquely American concern. Fowler and Zimitat (2008) described the late 1980s infusion of more non-traditional students into the Australian system of higher

education. Many of these students were first-generation students and/or from low-socioeconomic backgrounds. Common Time (CT) was an academic strategy to develop students' academic and social integration into the institution by facilitating informal faculty-student interactions, providing opportunities to form student-peer relationships, and offering activities that would aid academic achievement. CT was held once a week in the evening for two hours. Participating students noted one of the major benefits of CT was the interaction with the faculty. These interactions enhanced the students' academic and social integration and promoted positive attitudes.

The positive outcomes support the importance of informal student-faculty interaction for community college students, especially in the beginning of their education in science and mathematics (Medkeff, 1998; Thompson, 2001). The number of hours of student engagement with faculty outside of class is an established predictor of college retention and success (Kuh, 2003; Schuetz, 2008). In particular, informal science education programs play a role in increasing the participation of women and minorities in science, technology, engineering, and mathematics (Fadigan & Hammrich, 2004).

STEM Emphasis

Fadigan and Hammrich (2004) noted that despite decades of efforts to increase the participation of women and minorities in science, technology, engineering, and math (STEM) careers, the percentages remain low. Multiple factors such as education, psychology, and society have been related to the low percentage; however, the decision is not caused by a single factor. The decision to select a STEM career for young women is most likely related to a combination of factors (Fadigan & Hammrich). This is not the case for older women who account for the largest proportion of growth in college

students over the age of 28 (Breese & O,Toole, 1995). One of the strongest

considerations in the selection of their academic major and their degree of involvement in

the institution's environment is not related to their role as a student, but, instead, focuses

on their past experiences and relationships (Breese & O'Toole).

George, Neale, Van Horne & Malcom (2001) stated that traditionally the STEM

workforce has been comprised of White, non-Hispanic men, and in 1997 White men

made-up almost 70% of the STEM workforce. In comparison, underrepresented

minorities (URM) in that same year only comprised slightly over 6% of the workforce.

URM accounted for 4.6% of the STEM workforce with doctoral degrees, compared to the

almost 80% for White men. Neale et al. (2001) indicated that many URM and students

with disabilities begin their academic pursuits at a community college. Research is

needed to gain insights into the community college transfer process and STEM-related

policies, practices, and courses that are required to transition successfully to Bachelor of

Science degree-granting institutions (Neale, et al.).

According to Anderson and Kim (2006), the percent of bachelor's degrees earned

in STEM disciplines by African Americans and Hispanics was about 13% of the degrees

awarded in 2000-2001. This percentage is less than the 31% of bachelor's degrees

earned in STEM disciplines by Asian Americans and the 16% earned by Whites.

Anderson and Kim suggest that it is an oversimplification to assume that the lower

numbers are the result of low numbers of African American and Hispanics entering

institutions with interests in STEM. African Americans and Hispanics enter with the

same interest level as their peers, but they fail to persist at the same rate. Though first

year courses in STEM disciplines are often designed to filter students, African-American

and Hispanic students majoring in STEM disciplines detour in their third year. Those that successfully complete the degree tended to have the following (Anderson & Kim):

- They were well-prepared with a rigorous high school curriculum.

- They started their pursuit of the degree and entered college under the age of 19.

- They had at least one parent with a bachelor's degree or higher.

- They came from families with parental income in the top third of the national average.

- They attended full-time.

- They were less likely to work and more likely to receive financial aid.

- They had high levels of social integration at their institutions.

Tapping America's Potential (TAP) set a goal to increase the number STEM graduates to 400,000 by 2015 (Tapping America's Potential [TAP], 2008). TAP is a coalition of business organizations focused on renewing attention on America's competiveness and innovative capacity. The coalition is frustrated by America's failure to increase investments in STEM education because STEM graduates are necessary to meet a future demand in the workforce and to keep the United States competitive in a global economy (TAP). Additionally, there is a serious need for STEM majors to teach in U.S. schools to fill shortages due to teachers leaving for higher-paying industry jobs, attrition, burn-out, and aging (Mervis, 2007; TAP).

Hawtrey (2007) advocated the advantages of experiential learning. As the missions of universities change, there is a trend toward experiential learning; however, the change is also the result of changing students' expectations. Hawtrey stated,

"Students today are rarely satisfied with a one-size-fits-all classroom experience, particularly if it consists solely of the droning lecturer, and are justifiably looking for an enhanced learning experience from the university" (p. 143). Experiential learning requires personal involvement and makes the student a stakeholder (Hawtrey). Experiential learning can improve retention, problem solving, and decision-making skills (Millenbah & Millspaugh, 2003; Ryan & Campa, 2000).

Student Clubs

Community colleges should realize that retention involves interplay between academics and non-academic factors. To ensure student persistence, both factors need to be addressed (Lotkowski, Robbins, & Noeth, 2004). The importance of informal student-faculty interactions has been documented for decades (Lamport, 1993; Medkeff, 1998; Pascarella & Terenzini, 1976; Theophilides & Terenzini, 1981; Thompson, 2001). Students who form interpersonal associations with faculty members are more likely to exhibit a higher level of academic skills development (Thompson). Student clubs are a means of forming these interpersonal relationships. Schmid and Abell (2003) noted students who participated in school clubs were more likely to complete their program of study at two- and four-year colleges. They suggested colleges raise student awareness of clubs to increase student involvement and to make clubs more attractive to students. Hernandez, Hogan, Hathaway, and Lovell (1999) noted research regarding involvement in student organizations indicated positive effects on student development and learning; however, the term *extracurricular activities* encompasses many areas on a college campus. Researchers should be more focused on specific types of activities and the level of student involvement in those activities (Gellin, 2003). For example, Kuh (1995)

investigated out-of-class experiences associated with student learning and personal development, but failed to investigate the level of the students' involvement. Assuming a leadership role within a club has been shown to be associated with increased levels of formulating purpose, academic involvement, life management, and participation in cultural events. Leadership responsibilities foster growth in planning, organizing, managing, and decision-making in students (Kuh). Additional research is needed on student participation in clubs because there is much that still needs to be investigated (Cooper, Healy, & Simpson, 1994).

African American affinity clubs. Gerlach (2008) studied the involvement of African American students in campus affinity organizations and noted three major conclusions. First, the study's respondents with the highest levels of integration into the campus were those who were involved in mainstream student organizations; in fact, this study indicated that mainstream organizations are not for the majority of students but for all students. Second, affinity organizations were established to facilitate the transition of African American students into the academic, social, and psychological aspects of an institution by developing communities where the individuals had shared identities; Gerlach's results indicate a departure from the notion that affinity organizations can help African Americans feel less isolated. Third, the respondents acknowledged the benefits of affinity organizations; however, African Americans were more likely to be involved in mainstream organizations. Overall the respondents indicated being involved generally was more important than a desire to benefit from fostering better connections to other African American students. Gerlach recommended that administrators should not be hasty in dismissing the value of involvement in affinity organization because of the

participation rates in this study since the respondents acknowledged the benefits of the affinity organizations.

Internet considerations. The Internet can prove to be a valuable tool for clubs to engage students because the Internet facilitates potential club members in locating each other. Some community colleges and universities provide Web space even when funding or space is not available for a club. Especially for technology-competent students, the Internet is a way to explore options and to link directly to sources of information. Armed with membership requirements and the location of meetings and events, potential members may only need to arrive at the next meeting to join the club (Margolis, 2004). Rauf (2004) noted the UCLA survey indicated 82% of first-year students regularly used the computer, but cautioned that computer use may rob students of valuable study time. The same survey reported a record low of only 18.7% of freshmen studied six or more hours per week.

Financial benefits. Though the Internet is helping to engage students in clubs, some universities feel added measures are needed to get students not only involved in clubs, but other co-curricular, out-of-class learning experiences. In particular, students at William Woods University in Missouri can participate in LEAD (Leading, Educating, Achieving, and Developing Program). LEAD has three goals: (a) to facilitate exploration of disciplines outside of students' major and minor, (b) to help engage new students with their peers and the campus, and (c) to facilitate interaction with faculty outside of the classroom ("University Rewards," 2004). Any, if not all students can participate in LEAD and, if they reside on campus, can earn $5000 toward their student expenses or $2500 if they commute. Students can renew in the program for four years. To receive the

awards, students must earn 45 points by the end of the year and can even keep track of their points online. Students can also check online to see what upcoming events are available and the number of points that can be earned. Students have their university IDs scanned when attending events, and the points are electronically entered into their program accounts ("University Rewards").

Challenges

Students enter colleges with various background traits that affect how they will become integrated in the academic and social systems of the institutions. Coley (2000) noted seven demographic factors that put college students at risk for not attaining a degree or completing program requirements. More common in community college students than students at four-year institutions, factors included (a) delayed entry, (b) part-time enrollment, (c) full-time employment, (d) financial independence, (e) dependents, (f) single parenthood, and (g) community college attendance without a high school diploma. Three-fourths of all community college students have at least one of these factors. Many community college students have multiple demographic factors (Coley).

Understanding these factors may facilitate a reduction in attrition at the institution by influencing students' level of participation in campus activities and social activities (Chapman & Pascarella, 1983). Chapman and Pascarella noted community college students were less academically and socially integrated compared to students at other types of institutions; this integration occurs mostly through formal and informal campus activities. Coley (2000) stated 49% of four-year public college students were involved in school clubs compared to only 18% in similar clubs at the community colleges. Jones

and Hill (2003) focused on the commitment of students involved in service learning in high school and their level of commitment to service learning as the students transitioned to college. Those students noted the magnitude of the transition from high school to college was much larger than they anticipated. Failure to continue participation in service learning at the college-level was attributed to the following: (a) learning time management skills, (b) establishing priorities, (c) managing increased academic rigor, (d) learning to navigate systems at the institution, (e) decreasing levels of peer group involvement, (f) perceiving a lack of benefits with involvement, and (g) increasing amounts of student apathy and laziness. While Jones and Hill noted changes in student involvement and commitment when students had an earlier commitment, this does not address community college barriers to club participation, especially if it may be students' initial involvement in an occupational or academic club.

First-year experience. Community colleges such as Paradise Valley Community College in Phoenix offer students a block of classes that meet Monday through Thursday and focus on a theme. In the Fall 2005 semester the theme was "Exploring Your Options in a Changing World" (Cornell & Mosley, 2006, p. 23). In addition to the thematic approach, one of the goals of the First-Year Experience (FYE) program is to construct relationships and community and foster students to engage in campus life. FYE co-curricular activities were integrated in a way that allowed students to apply classroom instruction and skills with experiences in the community. Cornell & Mosely stated, "The objectives are to raise cultural awareness, connect students to the larger community, teach them about other cultures in a 'real-world' setting, link diverse classes and assignments into one comprehensive project, and provide a cooperative learning experience" (p. 24).

The block programming and co-curricular activities helped students develop strong relationships with each other and with faculty that continued into the next semester and following year. Students who did not continue in the program still continued to visit faculty to seek advice and share accomplishments. Kuh, Cruce, Shoup, Kinzie, & Gonyea (2008) concluded that first-year students engaged in academically focused activities have a positive relationship to academic outcomes as represented by first-year student grades and by their persistence between the first and second year of college.

Part-time faculty and students. To meet the demands of increasing enrollment, community colleges must rely on adjunct faculty to meet instructional needs. According to Gonzalez (2009), 67% of community colleges' faculty teaches part-time; moreover, they cover over half and as much as two-thirds of the offered courses at community colleges. At Coastal Carolina Community College (CCCC), adjunct instructors are not required to have office hours and have minimal contact with students beyond the hours they are instructing. Some efforts are made to offer professional development for adjunct instructors at CCCC in the form of an Instructors' Academy. The Instructors' Academy is 27 hours of instruction for which the adjunct instructor is paid his or her hourly rate. Gonzales noted that the most important connections are made in the classroom (Tinto, 2006). Tinto further stresses that adjunct instructors are in many instances less experienced and less connected to the institution. The Instructors' Academy is a means for adjunct instructors to improve skills that will enhance the formation of classroom connections with students.

Adjunct Instructors are only a part of the problem. Community college students have a myriad of barriers that make part-time enrollment their only option to continue

their education. Gonzalez (2009) stated two-thirds of community college students attend

part- time, are less-engaged, and have a greater likelihood of failing to persist.

McClenney (2007) stated that community colleges should contemplate why part-time

students in even seated-classes appear to be less engaged than full-time students.

Considering the large number of part-time students, community colleges should seek

strategies to engage these students and boost the number of successful student outcomes

(McClenney). Community colleges must make support services available at times that

are convenient for part-time students. Coupling an adjunct instructor with a part-time

student further emphasizes the need to make every effort to engage the student within the

classroom.

First-generation students. According to Bailey (2005), community colleges

enroll half of all undergraduate students in the United States. These students tend to be

older, employed, and have dependents, and over 45% of them are first-generation

students. First-generation students are defined by CCSSE as students whose parents have

no college experience. Almost 15% of first-generation students speak a language other

than English at home. The responsibilities of a family and job mean most of these

students must attend college part-time and will take a longer time to graduate (Bailey).

Pike and Kuh (2005b) stated first-generation students differ from students who

even have one parent who graduated from college. First-generation students were shown

to be less engaged overall and less likely to become assimilated into diverse college

experiences. They may know less about the importance of engagement and how to

become engaged. Though supportive, parents may be unable to help because of a lack of

knowledge (Pike & Kuh). For many first-generation students, attending college was not

a part of their family's expectations and required breaking rather than continuing family traditions (Terenzini, Rendon, Upcraft, Millar, Allison, Greg, & Jalomo, 1994). McConnell (2000) asked what community colleges should do to aid first-generation students. Noteworthy was a suggestion to use campus employment as means to familiarize first-generation students with campus policies and procedures, to develop ties to the institution, and to foster relationship building on campus. There are concerns regarding this recommendation because many first-generation students work off-campus 35 or more hours per week to meet financial needs. Most campus work-study jobs are limited to 20 hours of work per week. Students desire to work on campus but cannot afford the decrease in salary to do so (McConnell).

Financial Gains

In particular, North Carolina institutions along with institutions from other states are focusing attention on policies and programs, such as student engagement, that promote student persistence (McClenney & Waiwaiole, 2005; McMurtrie, 2000). North Carolina community colleges have eight mandatory performance measures; one is student retention and graduation. Tied to funding, enhancing student engagement to promote retention and higher graduation rates yields higher levels of funding for North Carolina community colleges. In addition, post-secondary educational achievement provides economic benefits (Laughlin, 2006). North Carolina community college students have a return of 18.6% annually in higher earnings for every dollar they invest in their community college education and recover all college expenses (including unearned wages while attending North Carolina's community colleges) in 7.3 years. Average annual earnings of a student with a one-year certificate is $26,961, or 81.5% higher than

someone without a high school diploma or GED, and 15.5% more than a student with a high school diploma. The average earnings of someone with an associate degree is $31,544, or 112.3% higher than someone without a high school diploma or GED and 35.1% more than a student with a high school diploma or GED (North Carolina Community College System, 2004). Time invested in a community college translates into higher earnings (Bailey, 2005).

Summary and Critique

The rate of community college retention is one of the more frequently used measures to assess a community college (Mellow & Heelan, 2008). The American Council on Education (2003) cautions that using just retentions rates can be deceiving and not representative of an institution when the students may transfer to another institution or may have reached their educational goal without receiving a degree. Clearly, the focus should be turned to an evaluation of the methods used to engage the wide diversity of students that attend a community college. In particular, the faculty plays a pivotal role in engagement. Faculty engage students formally in the class room (Tinto, 2006), but studies support the importance of informal faculty student interactions in the beginning of their education especially in science and mathematics (Medkeff, 1998; Thompson, 2001). Campus activities are a way to academically and socially integrate community college students (Chapman & Pascarella, 1983). One of those activities could be a community-college sponsored club. Community college-sponsored clubs can be tailored to address the wide diversity in community college student populations and can facilitate the academic and social integration of students along with providing an opportunity for informal interactions with faculty outside of the classroom.

Conclusions

Globalization will require community colleges to evolve to meet changing educational needs. For students education translates into opportunities. The challenge for community colleges is to engage and retain these students. Retention and engagement matter for all students but especially for those students that would be considered at-risk. There are many components to student engagement and persistence that are intertwined with the wide diversity found in community college students. Institutions that facilitate higher levels of student persistence as a result of student engagement may increase levels of performance funding, while those students who persist experience proportionally higher salaries compared to students with less education. Clearly, student engagement that leads to higher levels of education benefits the student, the institution, and the community in which the students reside.

College student engagement is multifaceted and is being studied nationally at four-year institutions by NSSE and two-year institutions with the CCSSE. The CCSSE stresses five intentional engagement strategies: (a) active and collaborative learning, (b) student effort, (c) academic challenge, (d) student-faculty interaction, and (e) support for learners. Student-faculty interactions can be both formal and informal. Faculty engage students formally in the classroom, but studies support the importance of informal faculty-student interactions. Campus activities, specifically community college-sponsored clubs, are a way to academically and socially integrate community college students and still embrace the diversity in the community college student population.

This study focused on curriculum students who are eligible to be participants in community-sponsored clubs at a rural North Carolina community college. Specifically,

this study investigated the relationships between participation and non-participation on student intent to persist, participation in an occupational or academic club on student intent to persist, and the level of participation on student intent to persist. Further, this study attempted to discover the impediment to club participation both for non-participants and participants. Though student engagement is being studied at the national level and much has been written about community college students and their associated risk factors, there is little research regarding student engagement and community college clubs. This study helps to fill a gap in the research.

CHAPTER III

METHOD

This study provides a preliminary investigation into students' intent to persist as it relates to participation in college-sponsored clubs at a rural North Carolina community college. The information gathered in this study fills a void in the literature related to the role of clubs and student persistence. Many organizations–including the Southern Association of Colleges and Schools (SACS), state legislatures, local government boards, college trustees, and other stakeholders–have recently focused on community college institutional effectiveness. Institutional effectiveness can be operationally defined as a plan of assessment which considers the demands of the external stakeholders and the interests of the internal stakeholders (Townsend & Twombly, 2001). Institutional effectiveness is important to all stakeholders and is expected to be conducted campus-wide and involve faculty, staff, and students (Skolits & Graybeal, 2007). One facet of institutional effectiveness relates to student persistence (North Carolina Community College System, 2009).

In order to explore and better understand community college student intent to persist, the researcher utilized institutional data and an electronic survey instrument informed by a review of the professional literature plus data gathered through interviews with faculty members, staff members, and students. The survey gathered data exploring the student perspective regarding their intent to persist. This study searched for differences in intent to persist for students who participate in occupational and/or academic clubs. Additionally, the research investigated whether the student-perceived level of participation in a club affects student intent to persist. The survey gathered

information regarding involvement in occupational and/or academic clubs as well as the students' level of participation. Finally, this study collected descriptive data pertaining to the impediments and barriers encountered by students when attempting to join and participate in club activities.

This information furthers the understanding of student participation in clubs and provides institutions with insights about the nature of club participation and into the characteristics and variety of successful clubs as related to student intent to persist. These insights may act as a catalyst for club improvements or formation of clubs in rural community colleges. College-sponsored clubs are focused on enhancing student learning. Experiences gained as a result of club participation are beneficial to students in reaching their academic goals and after graduation when seeking employment. Employers value graduates with diverse interests and experiences.

This chapter discusses and explains the research design, the methodology and procedures utilized, and the data analysis completed in order to answer the research questions. Specifically, this chapter provides a detailed explanation of the participants and processes used in the development and administration of the survey instrument that gathered the data to answer the research questions. Furthermore, there is detailed information regarding the procedures for data collection and data analysis. The chapter closes with a discussion of the study's limitations and ethical concerns.

Research Design

This cross-sectional study used a non-experimental quantitative design (Wiersma & Jurs, 2009). The purpose of the design was to capture a "snapshot in time" in which to discover the differences among groups and subgroups (Fitzpatrick, Sanders, & Worthen,

2004). The study emphasized collecting data from multiple sources when examining the effect of club participation on student persistence. The study developed in five phases: design of the instrument, assessment of the instrument by experts, piloting of the instrument, administration of the survey instrument, and data analysis. An online electronic survey offered a flexible means to collect data to describe the population, relate the variables, and when compared to a mailed survey, collected responses faster and at a lower cost while still maintaining confidentiality and effective management of data (Van Horn, Green, & Martinussen, 2009). Data were collected in a single time period, and the study was a stand-alone study.

The purpose of this study was fourfold: (a) to investigate the relationship of participation in community college clubs on student intent to persist, (b) to investigate the relationship between the type of community college club and student intent to persist, (c) to examine the relationship between the student-perceived level of participation, as measured by the Level of Participation Score (LPS), and student intent to persist, and (d) to discover the impediments to participation in clubs.

Research Questions

This study focused on the following research questions:

1. How will community college-sponsored club participation be related to student intent to persist?

2. How will the type of club participation (occupational or academic) be related to student intent to persist?

3. How will student-perceived level of club participation predict student intent to persist?

4. What impediments to community college-sponsored club participation do students encounter?

Participants

This study attempted to collect data from every member of the population. Factors such as expense, timeliness, a large population, and inaccessibility that make saturation sampling impossible are negated in this study by collecting data at only one institution and by the use of an electronic survey (Sue & Ritter, 2007). Saturation sampling is often used in settings such as universities, and the use of this technique eliminates coverage error because every member in the population is invited to participate in the survey. The population included all admitted community college students who are were at least 18 years old, enrolled in at least one curriculum course, and eligible to be a member of an occupational and/or academic club at the community college. Club-Eligible Student Demographic Charts (Appendix B) illustrate gender, ethnicity, and age information pertaining to the population.

Measurement of Research Variables

Intent to Persist

Braxton, Milem, and Sullivan (2000) operationalized student departure decisions as students' intent to return. Additionally, the use of intent to return is well-documented in research that indicates a strong relationship between students' intentions and actual persistence (Bean, 1980; Cabrera, Casteñeda, Nora, & Hengstler, 1992; Pascarella, Duby, & Iverson, 1983; and Voorhees, 1987). This study used intent to persist to operationalized student departure decisions. The use and value of intent to persist as a measure appears in a wide range of studies (Adamo, 2008; Burks & Barrett, 2009; Crisp,

2010; DaDeppo, 2009; Eimers & Pike, 1997; Porter & Swing, 2006; and Shin, 2003). In the current study, intent to persist was defined as the students' self-reported intention to enroll in classes within the next 12 months at the same college, another institution of higher learning, or a statement of no plan to return. On the survey instrument respondents indicated "yes" if they intended to enroll within the next 12 months at their current community college or any other institution of higher learning. The respondents indicated "no" if they planned not to return or if they planned to graduate. Respondents were categorized as those that intend to persist and those that do not intend to persist. Students who indicated "no" because they were graduating at the end of the semester were included with those who intended to persist.

The survey was launched in the last third of the semester. At that point, students may have already made the decision not to persist and withdrawn from all courses at the institution. In order to capture those students who failed to persist, institutional data listing all students who were eligible to be a member of a club and who also withdrew from all classes during the semester were utilized. Club advisors reviewed the list and indicated any student who was previously a member of a club.

Club Participation

Survey respondents were provided a list of all existing clubs at the rural community college. Participants were asked to select every club in which they were currently a member or had been a member in the past from the comprehensive list of clubs. Any single club selection by respondents categorized them as a club participant. The respondents who indicated they were not currently or in the past been in a college-sponsored club were categorized as non-participants. Responses to this survey item

categorized respondents as club participants or non-participants and facilitated comparisons between the two groups.

Type of Club Participation

The comprehensive list of clubs was subdivided into those clubs which are occupational clubs and those which are academic clubs. Academic clubs have open-membership. Any curriculum student who is enrolled in at least one curriculum class can select to become a member of this type of club. Academic Club Purposes (Appendix C) provides a complete list of the five academic clubs in this study along with the purpose of each club.

Occupational clubs have restricted memberships. Students who are eligible to become members of an occupational club are enrolled in specific programs or pre-majors at the institution. Occupational Club Purposes and Program Criteria (Appendix D) list the six occupational clubs in this study and selection criteria necessary to enter a particular program or pre-major. The criteria restrict or limit the pool of eligible club members by requiring a student to be enrolled in a particular curriculum. In many instances, the criteria raise academic requirements that eliminate students who are enrolled in developmental courses. Once the criteria for the program are satisfied, it is still a voluntary student decision to become an occupational club member.

The responses to this survey item subdivided club participants into three groups as follows: (a) participants who are or have been members of only academic clubs, (b) participants who are or have been members of only occupational clubs, and (c) participants who are or have been members of both types of clubs. These groups

permitted comparisons between students who are or have been members of an academic club, occupational club, or members of both types of clubs.

Student-Perceived Level of Club Participation

The students responded to Likert-type items to indicate their student-perceived level of involvement in club activities. The questions pertained to their experiences and roles in their clubs. Club participants used scales similar to the following Likert-scale to indicate their perceived-level of participation for club involvement items on the survey instrument:

- No involvement/I do not attend or participate.

- I attend events/activities.

- I actively participate in events/activities.

- I have a leadership position in these events/activities.

Scales for participation survey items varied due to the type and variety of participation events and activities. For example, the students' responses were scored by awarding a score of 1 if they indicated no involvement, a score of 2 if they indicated they attend events, a score of 3 if they actively participated in events, and a score of 4 if they had a leadership position in at least one club. The scores on all survey club involvement items, as shown in LPS Values by Question (Appendix E), were summed for all respondents to determine their Level of Participation Score (LPS). A LPS could not be determined for those club members who withdrew from all classes during the semester. Respondents who were non-participants were assigned a LPS of zero.

Impediments to Club Participation

A student focus group informed the list of impediments provided on the survey instrument. Respondents were asked to select all impediments that were applicable to their participation in either an occupational club or an academic club. Respondents also had the choice of contributing additional impediments as open-ended written responses. The frequency of each indicated impediment was tabulated for those who were club participants and for those who were non-participants. Open-ended responses were listed.

Instrument Development

The survey instrument was designed to gain insights regarding clubs and students' intent to persist. There were no existing instruments to assess these factors; therefore, the initial instrument was based on a review of the professional literature; a documents review; conversations with faculty, staff, and students; and included Likert-type and multiple-choice survey items (Sue & Ritter, 2007). These documents were obtained from the Student Services Activities Coordinator, the club advisors, and from the institution's website homepage. After a review of the documents and the completion of the Release Form for Student Services Activities Coordinator Interview (Appendix F), an interview with the Student Services Activities Coordinator using the Student Services Activities Coordinator Protocol (Appendix G) provided additional insights about how clubs function at the institution. One club advisor from each of the Fall 2010 semester clubs completed the Release Form for Club Advisors Interview (Appendix H) prior to the interview using the Club Advisor Interview Protocol (Appendix I). In some instances, additional documents were submitted at the time of the interview and were reviewed.

A student focus group also informed the construction of the survey. The student focus group consisted of 20 student volunteers from the Foundations in Education course and from campus clubs. Three of the students were members of a club, and the other 17 were non-club members. Student focus group participants were invited to participate via e-mail using the Student Focus Group Invitation (Appendix J) and received a $10 Wal-Mart gift card for their participation. Student focus group participants completed the Release Form for Focus Group Participants (Appendix K) prior to the focus group session which followed Focus Group Protocol (Appendix L). Focus group participants received via e-mail a follow-up Student Focus Group Thank You (Appendix M).

Using information from the professional literature, documents review, interviews, and the student focus group, an electronic survey was designed to categorize students into four groups related to club participation and club type. These groups were non-participants, occupational club participants, academic club participants, and participants in both types of clubs. The survey utilized a series of Likert-scale items pertaining to the respondent's level of participation in club activities. The responses were converted to a numerical LPS for each of the respondents by converting Likert-scale item responses to numerical values and summing the values for each respondent. The gathered information informed the list of impediment choices to be incorporated into the survey.

The Community College Club Survey (Appendix N) utilized Survey Monkey software to assess students' participation or lack of participation in clubs at the community college and their intent to persist. The draft instrument included Likert-type items and multiple-choice questions, and it incorporated the suggestions of Sue and Ritter (2007):

- The introduction of the instrument with a welcome

- The exclusion of uninvited participants with access control

- The selection of colors associated with factors such as navigational aids and appearance enhancements

- The consideration of technological issues related to the visual appearance of the survey due to different browsers and operating systems

- The inclusion of clear survey instructions

- The need for answers not to be required on a voluntary survey

- The inclusion of navigation guides to aid participants with varied computer skills

The multiple-choice questions had an "other" option that allowed participants to write a response when the list of available choices did not include their answer. The "other" choice is particularly useful in learning unexpected information, but it should be used sparingly because respondents tend to skip open-ended items (Sue & Ritter).

Eligible student participants received an e-mail Community College Club Survey Announcement (Appendix O) followed by a Community College Club Survey Invitation which provided the link to the survey (Appendix P). All survey respondents were eligible to win one of three $50 Wal-Mart gift cards, if they entered their name and phone number. The survey was available for a three-week period. At the end of each week, there was a drawing, and one gift card was awarded. A Community College Club Survey Reminder e-mail (Appendix Q) served to remind students to complete the survey and announce the winner of the weekly gift card. Sue and Ritter (2007) stressed careful consideration is needed when selecting an incentive and the use of incentives increase the chance respondents will complete surveys. Bosnjak and Tuten (2003), when comparing

prepaid incentives and postpaid incentives with Web surveys, concluded there was no advantage in completion rates; however, a prize drawing did increase completion rates when compared to studies with no incentives. There are also ethical concerns associated with incentives. Cobanoglu and Cobanoglu (2003) noted ethical considerations such as (a) the prompt distribution of promised incentives, (b) the creation of an environment where every respondent has an equal chance to win the prize in a drawing, (c) the clear communication of the conditions of the incentives, (d) the selection of an incentive that will not affect the responses in any way, and (e) the value of the incentive cannot be so high that the respondents complete the survey just to have a chance of winning the prize.

The drawing for the gift cards took place on April 6th, April 13th, and at midnight on April 20th, the last day of the survey. A random number generator was used to select one number out of the total number of survey participants who submitted their names and telephone numbers. Survey Monkey software was used to generate a numbered list. The first number from random number generator was matched to the identical number on the Survey Monkey list. At 9:00 am winners were contacted by phone, given instructions on how to retrieve the gift card, and asked if their names could be included in an e-mail that would go to the survey participation group. A Final Community College Survey E-mail (Appendix R) announced the last winner and the unavailability of the survey.

Instrument Validation

Content Validity

A panel of subject-matter experts established the content validity as the survey was developed. The panel of experts who have extensive experience at community colleges and with student clubs included the following:

- Dr. Hara Charlier has served as interim Vice President for Instruction and Student Services at Blue Ridge Community College in Weyers Cave, Virginia. She has served on various boards and committees for the Virginia Community College System and Blue Ridge Community College, and she has authored several articles on the community college and has presented at national conferences.

- Dr. Kevin Pennington, associate professor in the community college leadership program at Western Carolina University, has 11 years of experience at the community college level as well as 14 years as a faculty member in a community college doctoral program. His research has focused on community college student persistence at rural community colleges.

- Ms. Nicole Kiger leads the Office of Student Activities and Leadership at Old Dominion University. This Office is responsible for student involvement in campus organizations, and it works with over 200 student clubs and organizations. Ms. Kiger earned a master's degree in Higher Education from Old Dominion University and a B.A. in Communication Studies from Virginia Tech. She has also served as Coordinator for Activities and Programs as well as Assistant Director and Associate Director in the Office of Student Activities and Leadership at Old Dominion University.

An e-mail Panel of Experts Invitation (Appendix S) with the attached Purpose and Research Questions for Subject-Matter Experts (Appendix T) and the Evaluation Instrument for Subject-Matter Experts (Appendix U) was sent to panel members to facilitate timely correspondence and communication including a thank you for their participation, an explanation of their role in this study, and an explanation of the purpose

of the study. Contained in the e-mail was the proposed survey instrument with questions

pertaining to the content validity of the survey items. Panel members rated each survey

item regarding its importance, clarity, and relevance in addressing the research questions.

The panel experts used the following Likert-type scale: 1=omit, 2=revise, 3=retain to

indicate their assessment of each item with regard to whether the item should be included

in the survey. Panel experts indicated "yes" or "no" when asked if the item pertained to

the research questions and if the survey item was clearly written. If two of the three

panel members rated an item as a 1, the item would be removed; if one expert rated an

item a 1, the item would be reviewed and/or reworded. Finally, the members of the panel

indicated if there were items omitted from the survey instrument that should be included

in order to answer the research questions. The panel experts were asked to return all

comments electronically within one week.

The feedback from the experts was positive with no survey item receiving a 1 to

omit. As suggested by the experts, three items had an additional answer choice included

in the choices of responses. One question was reworded for clarity and two responses

had some words added for clarity. Table 1 summarizes the modifications to the

instrument as a result of the panel experts' comments and suggestions.

Table 1

Summary of Survey Modifications

Question	Revision	Modification
#2	Additional Choice	I am not aware of the clubs that are available at this community college.
#3	Additional Choice	Facebook
#4	Question Revised	Are you currently, or have in the past been, a member of one for the following Coastal Carolina Community College sponsored clubs?
#8	Choices Revised	I attend these events/activities on behalf of my club. I actively participate in events/activities on behalf of my club.
#12	Additional Choice	Didn't know campus clubs were offered.

The revised instrument was piloted with a group of 20 students, including club participants and non-club participants from a rural community college to further establish the validity of the instrument. Pilot participants were contacted via e-mail inviting them to participate in the study using the Invitation to Participate in Pilot Group (Appendix V) that explained not only the purpose of the study, but the role of the pilot group. A second e-mail, E-mail Correspondence to Pilot Group (Appendix W), was sent. This e-mail

provided a link to the survey instrument with four additional questions for the pilot participants as follows:

1. Are the instructions provided on the survey instrument clear and unambiguous?

2. Was any item or question on the survey instrument confusing?

3. Was there any item on the survey instrument which could be considered offensive to anyone?

4. How long did it take you to complete the survey instrument?

As shown in Table 2, the majority of the pilot study participant responses indicated the questions were clearly written, unambiguous, and contained no content that could be considered offensive to survey participants. Open-ended response boxes were provided to the respondents to record their answers. Four students wrote comments. Two comments were related to the exclusion of Phi Theta Kappa from the occupational and academic club list. One comment explained a student's changing role within a club, and one participant expressed some confusion regarding the choice of spouse and children not being included as a response for being less involved in clubs. Pilot participants noted a wide-range of times to complete the survey that ranged from two minutes to as long as ten minutes. Branching within the survey would require club members to answer more questions pertaining to their club activities compared to non-club members. This is, in part, responsible for the differences in survey completion times. Eight of the 20 pilot participants offered ranges of time with five indicating that it took less than 5 minutes. Two weeks after the first administration of the instrument, another e-mail, E-mail Correspondence to Pilot Group for Retest (Appendix X), requested that the pilot group complete the survey a second time.

Table 2

Pilot Study Participant Responses to Validity Items (N = 20)

Item	Yes	No	Comment
Are the instructions provided on the survey instrument clear and unambiguous?	19	0	1
Was any item or question on the survey instrument confusing?	0	17	3
Was there any item on the survey which could be considered offensive to anyone?	0	20	0

Instrument Reliability

A test-retest procedure is a common method for establishing the reliability of a newly formed instrument. Reliability is the consistency of the instrument in measuring, whatever it measures (Wiersma & Jurs, 2009). The initial completion of the electronic survey by the pilot study group was followed two weeks later with a second administration of the survey instrument. The instrument reliability is the correlation of scores for each survey item between the test and retest responses. The internal reliability by survey question scores is shown in Table 3.

Table 3

Test-Retest Reliability by Survey Question (N= 20)

Reliability	Question
1	Are you at least 18 years old?
.95	Do you plan to enroll in classes within the next 12 months at this community college or another institution of higher learning?
.65*	How do the number of campus clubs available at Coastal Carolina Community College compare to your expectations of how many should be available on campus?
.60*	What is the most common way you learn about campus clubs? Select one.
1	Are you currently, or have in the past been, a member of one of the following Coastal Carolina Community College sponsored clubs?
1	On the previous question you indicated that you are currently a member of a college-sponsored club or have been a member of a college-sponsored club in the past at Coastal Carolina Community College. From the choices below please select all the clubs in which you have been a member.
.67**	How involved are you in campus club activities? If you are a member of more than one club, consider the club in which you are the most active.

Table 3 Continued

Reliability	Question
.67**	Every club is required to have at least one representative at every SGA meeting. Please define your role related to the student government representation.
.33**	The Student Government Association (SGA) conducts events throughout the year such as Fall Festival and Spring Fling. Clubs often participate in these and other SGA events. Please define your role in these events.
1	Do you hold an elected or appointed leadership position within your club?
1	Campus clubs have an on-campus project. How involved are you with your particular club's on-campus project? If you are a member of more than one club, please consider the club in which you are the most active.
1	Campus clubs may have events that take place within the local community or at the state or national level. How would you characterize your involvement in off-campus activities or events? If you are a member of more than one club, please consider the club in which you are the most active.

Table 3 Continued

Reliability	Question
.67*	How involved would you like to be in campus club activities? Which of the following factors contribute to your being less involved in campus club activities than you want to be? Check all that apply.
.85	Not enough time/too busy
.85	Not interested
.90	Didn't know campus clubs were offered
.75	Commitments to off-campus activities
.90	Inconvenience of commuting and returning to campus
.80	Interferes with academic obligations (studying, group work)
.90	Interferes with social commitments (going out with friends)
1	Spiritual/religious principles prevent or hinder participation
.90	Times/days of activities are not convenient
.95	Family commitments
.85	Spouse and children are not included
.85	Unsure of how to get involved
.95	Do not want to participate alone
.95	Too shy

Table 3 Continued

Reliability	Question
.95	Do not feel accepted
.90	No interesting club activity in which to participate
.80	Work
	Other (please specify)***
	I don't want to deal with parking any more than I have to. The parking situation at coastal is unbelievable.
	There's not many clubs to choose from and i would like to see different types of clubs that i might be interested in.
	parking on campus is ridiculous

* During the pilot study, the survey instrument was administered once before and after club rush. Club rush included flyers posted on campus, announcements on Campus Cruiser the school's e-mail system, and tables in the cafeteria manned with club advisors and club members. Students could ask questions and in some instances become members of particular clubs.

**A large portion of the student population is military related. One of the three club participants was elected president of a club because the former president was moving as the result of military orders. The election took place after the first administration of the pilot survey.

*** Other responses are included as submitted on the survey and contain grammar and spelling errors.

Data Collection

Prior to the start of data collection, there was an advertising campaign to raise awareness about the survey. Faculty were contacted with a Faculty Awareness E-Mail (Appendix Y) and encouraged to raise awareness regarding the survey by making announcements in their classes and postings in online classes. A Survey Advertisement Flyer (Appendix Z) was posted in all curriculum class buildings and the school cafeteria. Flyers were printed on bright green paper and cut to resemble the symbol for an U. S. dollar. An E-Mail Request for Blackboard and Campus Cruiser Announcements (Appendix AA) was sent to the computer technology staff. The announcements informed students and prompted them to check their Campus Cruiser e-mail accounts. All students who were eligible to become a member of any club at the institution became a member of a group within the institution's e-mail system. Members of this e-mail group received an electronic invitation explaining the purpose of the study, announcing the opportunity to participate, and stressing the significance of their participation. This e-mail was followed with a second e-mail with the link necessary to complete the electronic survey on Survey Monkey. Data collection occurred for a three week period during the last third of the 16-week semester. At the end of the first week, the drawing for the gift card took place, and the winner granted permission for her name to be announced to the entire e-mail group. This e-mail also served as a reminder to those who had not already completed the survey. This process was repeated at the end of the second week of data collection. At the end of the third week, a final e-mail announced the last winner and thanked the participants. At that time, the link to the survey became unavailable. Survey responses were exported

from Survey Monkey as Excel spreadsheets and analyzed using the statistical package for Social Sciences (SPSS Graduate Pack 16.0 Windows).

Sue and Ritter (2007) noted achieving high response rates in an online survey can be challenging. The construction of the survey invitation, the follow-up contacts with non-respondents, and incentives all have an impact. All communication was sent electronically; however, participants did have the opportunity to speak with the researcher if there were concerns or questions.

Data Analysis

In this study three of the research questions explored the effect of the independent variable, club participation, on the dependent variable, student intent to persist. The first research question explored the independent variable of club participation comparing those students who participated in clubs with those who do not participate. Students who did participate in clubs were further delineated in the second research question which examined club type (occupational or academic) as the independent variable. Continuing to focus on club participants, the third research question investigated the independent variable of student-perceived level club participation as measured by the LPS. In addition to the independent and dependent variables associated with each research question, the fourth research question investigated impediments to participation in clubs. A Research Questions and Survey Questions Chart (Appendix BB) illustrates the relationship between the survey questions and the research questions.

All data were exported from Survey Monkey using Excel spreadsheets and statistical analyses were performed using SPSS Graduate Pack 16.0 for Windows. Chi-square (χ^2) is a non-parametric statistical test (Cronk, 2008; Hinkle, Wiersma, & Jurs,

2003; Triola, 2006). Nonparametric tests are useful when the corresponding parametric procedure is not suitable. Parametric tests require a normal distribution. There is no assumption about the shape of the distribution when using a chi-square (χ^2) test (Cronk). A chi-square (χ^2) test of independence determined if there were any statistically significant relationships between categorical research variables in research question 1 and the research question 2 (Triola). The chi-square (χ^2) test of independence tests whether or not two categorical variables are independent of each other (Cronk; Triola). A two-way frequency table or contingency table was constructed using one variable to categorize the rows and the other variable to categorize the columns. The null hypothesis stated there is no association between the row variable and the column variable in the contingency table. Contingency tables are often used in the analysis of survey results (Triola). Triola further noted that the word *contingency* refers only to statistical dependence and cannot be used to formulate a direct causal link between the two variables. A significant chi-square (χ^2) test indicates that the two variables are not independent. A value that is not significant will indicate that the variables do not vary significantly from independence (Cronk). The test statistic measures the amount of disagreement between what is observed and what is theoretically expected when the two variables are independent (Triola).

According to Keith (2006), a common way to analyze categorical variables is a logistic regression. Logistic regression can include both categorical and continuous predictor variables (Agresti, 2007). Gotelli and Ellison (2004) stated that logistic regression is a special type of regression in which the criterion variable is categorical rather than continuous (Peng & So, 2002). In the case of a dichotomous criterion

variable the researcher might attempt to force a regression line through the data, but the relationship is not linear. Rather, the best fitting curve is S-shaped (Agresti). A transformation of the criterion variable called the logit transformation converts the S-shaped logistics curve to a straight line (Peng, Lee, & Ingersoll, 2002). The transformation is linear for the X variable, but it cannot be applied directly to the data because the data will consist of 0's and 1's corresponding to the yes and no responses of the participants (Agresti; Gotelli & Ellison). In a binary logistic regression, the Wald test can be used to determine if an effect exists or not. The Wald test evaluates whether the student perceived level of participation as measured by the LPS and the student intent to persist have a statistically significant relationship. Research question 3 used a binary logistic regression with the continuous variable of student-perceived level of club participation as the predictor variable and the intent to persist as the criterion variable to assess the relationship between them.

Descriptive statistics described and summarized data pertaining to impediments. The kinds of impediments indicated by the students and how frequently each was selected by the students was summarized by listing each indicated impediment and calculating a percentage of the number of times a particular impediment was selected divided by the total number of selected impediments.

Limitations

This study attempted to conduct a population census by e-mailing the survey link to the entire population; however, the study was limited by the level of the response rate. The researcher used advertisements, announcements, and follow-up e-mails to encourage participation; however, there was the possibility of a low response rate and an increase in

the non-response error. This study used an electronic survey which may require the restriction of design capabilities to favor the reduction of the non-response error (Dillman, 2007). There is a lag from when cutting-edge computer technology is available to when it can be expected to be readily available in homes and schools.

Using an electronic survey favors those in a population with easy access to the Internet and who are comfortable using the Internet. The data collected from the survey responses are self-reported and are subject to reporting bias (Halsne & Gatta, 2002). Internal validity may be affected by students not responding candidly and self-reporting their intention to persist (Laughlin, 2006). Additionally, there will be no way to determine if the invited respondent was actually the person who completed the survey. External validity is the extent to which the results can be generalized (Wiersma & Jurs, 2009) and may be limited to one rural North Carolina community college because other factors at other community colleges may impact levels of student persistence.

Ethical Consideration of Participants

This study involved people as respondents to surveys; therefore, ethical and legal issues are a concern. A federal regulation requires that an institutional review board evaluate this research proposal and certify that the proposed research protects the human subjects and was conducted within the law (Wiersma & Jurs, 2009). Any correspondence throughout the study emphasized that participation in the study was voluntary and any information collected would be held in the strictest confidence. The requirement of informed consent could be waved in the case of a survey. Survey respondents have the option to not return the survey; however, if they return the completed survey, they have agreed to participate with implied consent (Wiersma & Jurs). Findings are reported in

the aggregate to avoid the possibility of identifying any particular individual.

Confidentiality was maintained by storing all the results in a password and fingerprint

protected computer to which only the researcher has access; printed materials were stored

in a secured file cabinet throughout the study.

CHAPTER IV

RESULTS

As community colleges continue to experience financially challenging times, their

stakeholders demand more accountability (Cohen & Brawer, 2008; Townsend &

Twombly, 2001). One means to demonstrate accountability is student graduation and

persistence rates (McMurtie, 2000; North Carolina Community College System, 2009).

This study was conducted at a rural North Carolina community college. The purpose of

this study was fourfold: (a) to investigate the relationship of participation in community

college clubs on student intent to persist, (b) to investigate the relationship between the

type of community college club and student intent to persist, (c) to examine the

relationship between the student-perceived level of participation, as measured by the

Level of Participation Score (LPS), and student intent to persist, and (d) to discover the

impediments to participation in clubs.

An electronic survey was administered to students who were eligible to be

members of an occupational and/or academic club at the community college. Students

were categorized either as club members or non-club members using multiple choice

survey items. Likert-type items were used to assess the level of participation of those

survey respondents who were club members. Impediments for both non-club members

and club members were selected from a list or entered as "other" responses. These data

will add to the knowledge on club participation as it relates to student intent to persist.

The study was guided by the following research questions:

1. How will community college-sponsored club participation be related to student

intent to persist?

2. How will the type of club participation (occupational or academic) be related to student intent to persist?

3. How will student-perceived level of club participation predict student intent to persist?

4. What impediments to community college-sponsored club participation do students encounter?

Participants

Survey Participants

To be eligible to participate in the survey, a student at the community college was defined as a regular student who was enrolled in at least one curriculum course during the Spring 2011 semester. Dual enrolled students were not eligible. Dual enrolled students were enrolled in curriculum courses; however, they were not permitted to become members of college occupational or academic clubs. The expectation was the dual enrolled students would participate in club activities at their respective high schools. The college's technology staff, with the assistance of personnel from the registrar's office, was able to form an e-mail group within the institution's established e-mail system referred to as Campus Cruiser. Of the 4,614 potential participants who received the invitation and follow-up emails via Campus Cruiser, 864 completed the survey for an overall response rate of 18.7%.

Student Withdrawals

During the semester the survey was administered, 242 students who were eligible to be a member of an occupational and/ or academic club withdrew from all classes at the institution. These students were enrolled in courses that were offered during the first

eight weeks of the semester, the second eight weeks of the semester, the first 12 weeks of

the semester, and as semester long courses lasting 16 weeks. Table 4 shows the last day

to withdraw from curriculum courses in the Spring 2011 semester based on class session.

Table 4

Spring 2011 Withdrawal Dates by Session

Session	Last Day to Withdraw
Spring Session I (1st 8-weeks)	February 11, 2011
Spring Session II (2nd 8-Weeks)	April 12, 2011
Spring 12-Week Session	March 30, 2011
Spring 16-Week Session	March 17, 2011

Though there are exceptions, there are increased numbers of withdrawals on or

just before the withdrawal date. Students who withdraw on or before the date receive a

"W" grade and the class does not affect their grade point average. Withdrawal from all

courses also removes the student from the institution's e-mail system. The survey was

launched during the last third of the Spring 2011semester and was first available on

March 30th. The first session and 16-week session dates to withdraw had already passed

before the survey was available, and the day the survey was launched coincided with the

last day to withdraw from 12-week session classes. Students who withdrew from all

courses on or before the last day to withdraw for the first session and the 16-week session

never received the invitation and follow-up e-mails because they withdrew from the institution before the survey was available.

Institutional Data

Institutional data facilitated the compilation of a list of students who failed to persist. These students withdrew from all courses and from the institution. The list of students who failed to persist was compared with those students who completed the survey by using student identification numbers. No student who completely withdrew from classes completed the survey and indicated he/she did not intend to persist. Two students completed the survey initially indicating they intended to persist and subsequently withdrew. The responses of these two students were removed from the data before any analyses were completed. Club advisors of both occupational and academic clubs reviewed the list of students who failed to persist and indicated any student who was previously a member of a club. Table 5 presents the data by club membership category for those students who failed to persist.

Table 5

Students Who Failed to Persist and Club Membership Category (n= 242)

Club Membership Category	N
Non-Club Members	231
Occupational Club Members	6
Academic Club Members	5
Members of Both Club Categories	0

Using the survey data, Table 6 displays the percent of students who were non-club members or club members during the Spring 2011 semester based on survey completion. Table 7 displays the percent of students who were non-club members or club member based on the institutional data pertaining to students who were eligible to be a member of a college-sponsored club but failed to persist during the Spring 2011 semester. Tables 6 and 7 provide a comparison between the two sources of the data which indicate almost three times as many as survey respondents were club members compared to those who failed to persist and the percent of non-club members was 8% higher for those who failed to persist compared to those who were survey respondents.

Table 6

Club Membership Category by Survey Respondents

Club Membership Category	Survey Respondents	
	N	Percent
Club Members	108	12.5
Non-Club Members	756	87.5

Table 7

Club Membership Category by Failure to Persist Data

Club Membership Category	Failure to Persist	
	N	Percent
Club Members	11	4.5
Non-Club Members	231	95.5

Research Question 1: Intent to Persist Related to Club Participation

The first research question addressed whether there was a statistically significant relationship between club participation and student intent to persist. Institutional data was combined with survey data to yield a total of 1097 responses. Table 8 presents the data on students who intended to persist or intended not to persist and failed to persist based on club participation.

Table 8

Club Participation and Student Intent to Persist (N= 1097)

	Non-Club Members (n = 987)		Club Members (n = 110)	
	n	Percent	*n*	Percent
Intend to Persist	749	75.9	98	89.1
Intend Not or Failed to Persist	238	24.1	12	10.9
Total	987	100	110	100

A chi-square (χ^2) test of independence was used to assess the relationship. The relationship investigated in this chi-square (χ^2) test of independence was the variables of club participation and student intent to persist are independent and unrelated. A chi-

square (χ^2) test of independence requires that the sample be large enough that each cell frequency be 5 or greater (Hinkle, Wiersma, & Jurs, 2003; Triola, 2006). No cells had expected counts less than 5, and the minimum expected count was 25.07. A .05 level of significance ($\alpha = .05$) was suitable for this study. Table 9 summarizes the data for the chi-square (χ^2) test of independence for research question 1.

Table 9

Chi-Square (χ^2) Test of Independence: Club Participation and Intent to Persist (N= 1097)

Chi-Square (χ^2)	*df*	*p*
9.807	1	.002

Note. $\alpha = .05$

The data in Table 9 indicate there is a statistically significant relationship between club participation and student intent to persist. The test statistic falls within the .05 rejection region and therefore, club participation and student intent to persist are related. The chi-square (χ^2) test of independence only indicates there is a relationship, but no assumption of causation can be implied. Club participants comprised 10% of the data group with 89.1% of the club participants indicating they intended to persist and 10.1% either intending not to persist or failing to persist. The non-club members in comparison comprised 90% of the data group but had a lower proportion with 75.9% indicating they intended to persist and a higher proportion at 24.1 % that failed to persist.

Research Question 2: Intent to Persist Related to Club Type

The second research question examined those who were currently or had been members of occupational or academic clubs to determine whether there was a statistically significant relationship between club type and student intent to persist. Institutional data were combined with survey data to yield a total of 110 responses. These responses were divided into three categories: (a) occupational club members, (b) academic club members, and (c) members of both types of clubs. The eight responses from individuals who were members of both types of clubs were removed from the chi-square analysis. The elimination of these data did not change the overall outcome of the chi-square analysis. The amended group total yielded 102 responses which are presented in Table 10.

Table 10

Club Type and Student Intent to Persist (N= 102)

	Occupational Club Members		Academic Club Members	
	n	Percent	*n*	Percent
Intend to Persist	47	46.1	43	42.2
Intend Not/ Failed to Persist	7	6.9	5	4.9

A chi-square (χ^2) test of independence was used to assess the relationship between the type of club membership and student intent to persist. No cells had expected counts less than 5 and the minimum expected count was 5.65. A .05 level of significance (α = .05) was employed. Table 11 summarizes the data for the chi-square (χ^2) test of independence for research question 2.

Table 11

Chi-Square (χ^2) Test of Independence: Club Type and Intent to Persist (N= 102)

Chi-Square (χ^2)	*df*	*p*
0.159	1	.690

Note. α = .05

The data in Table 11 indicate there is no statistically significant relationship between the type of club and student intent to persist. The test statistic does not fall within the .05 rejection region and therefore, the types of club membership and student intent to persist are independent. Occupational club participants comprised 52.9% of the data group with 87.1% of the occupational club participants indicating they intended to persist and 12.9% either intending not to persist or failing to persist. The academic club members comprised 47.1% of the data group and were similar to the occupational club members with 89.6% intending to persist and 10.4% that failed to persist.

Research Question 3: Intent to Persist Related to Level of Participation

This study utilized a binary logistic regression to determine if there was a relationship between a student-perceived level of participation, as measured by the LPS, and student intent to persist. Institutional data were combined with survey responses. Participants who were not currently or had never been in a club were assigned a LPS of zero and were not considered in any calculations.

There were only eight survey respondents who indicated they did not intend to persist. Of those eight, only one was a club member with a LPS of 11. Institutional data indicated an additional 11 club members who failed to persist. These club members did not participate in the survey, and no LPS score could be determined. Table 12 summarizes the results of the binary logistic regression.

Table 12

Binary Logistic Regression Results (N=99)

Predictor	β	S.E.	Wald's χ^2	df	p	e^{β}
Constant	2.978	3.695	.650	1	.420	19.648
LPS	.136	.323	.178	1	.673	1.146

Note. $\alpha = .05$

A binary logistic regression is appropriate to describe the relationship between the categorical outcome variable of student intent to persist with the Level of Participation

Score as the continuous predictor variable (Peng, Lee, & Ingersoll, 2002). In this analysis, the binary logistic regression equation predicts the probability of the outcome better than the mean of the dependent variable Y. The data in Table 12 indicate there is no statistically significant relationship between the LPS and student intent to persist. The test statistic does not fall within the .05 rejection region.

Research Question 4: Impediments to Participation

It is important to design and promote engagement at community colleges so it is inevitable; the more actively the students are engaged with faculty, staff, and students, the more likely they are to persist ("CCSSE," 2010; McClenney & Greene, 2005). Research question 4 investigated those barriers or impediments students encounter when trying to join or participate in club events or activities. Survey respondents were separated into those who were or had been a member of a club and those who had never been a member of a club. Both groups on the survey responded to identical lists which contained 17 different impediments and an open response box to note any additional impediments. Table 13 displays the impediment frequencies for club members and non-club members.

Table 13

Club Member and Non-Member Impediments to Participation Responses

Impediment	Club		Non-Club	
	f	Percent	f	Percent
Not enough time/too busy	72	22.6	540	21.3
Not interested	5	1.6	140	5.5

Table 13 continued

Club Member and Non-Member Impediments to Participation Responses

	Club		Non-Club	
Impediment	*f*	Percent	*f*	Percent
Didn't know campus clubs were offered	2	0.6	112	4.4
Commitments to off-campus activities	27	8.5	178	7.0
Inconvenience of commuting	23	7.2	155	6.1
Interferes with academic obligations	46	14.4	159	6.3
Interferes with social commitments	2	0.6	39	1.5
Religious principles hinder participation	1	0.3	5	0.2
Times of activities are not convenient	40	12.5	142	5.6
Family commitments	38	11.9	268	10.6
Spouse and children not included	11	3.4	111	4.4
Unsure of how to get involved	8	2.5	155	6.1
Do not want to participate alone	4	1.3	70	2.8
Too shy	6	1.9	86	3.4
Do not feel accepted	1	0.3	29	1.1
No interesting club activity	3	0.9	81	3.2
Work	30	9.4	260	10.3

Appendix CC contains the club member responses to the open-ended question requesting the respondents submit any other impediments to club participation they may encounter. Appendix DD contains the responses of non-club members to the same open-ended question. Sixty-eight non-club members opted to submit other impediments. Of those non-club member submissions, 12 or 17.6% of responses indicated the respondent was a distance student or taking only online courses as a reason not to participate in a club. An Impediments Bar Graph (Appendix EE) visually ranks the selected impediments from the least to the most frequently selected as indicated by the combined group of survey respondents. A complete list of the frequencies and percents of combined responses can be found in Appendix FF.

Chapter Summary

A chi-square (χ^2) test of independence explored the relationship between club participation and student intent to persist. The chi-square (χ^2) test of independence indicated there was a statistically significant relationship between the two variables, but the cause of that relationship cannot be determined with the chi-square (χ^2) test of independence. A second chi-square (χ^2) test of independence investigated the relationship between the type of club participation (occupational and academic) and student intent to persist. The chi-square (χ^2) test of independence did not indicate a statistically significant relationship between the variables.

Withdrawal dates preceding the implementation of the survey limited the number of survey respondents who were club members and not intending to persist to only one participant. Institutional data identified those who failed to persist during the Spring 2011 semester; however, to calculate a LPS, responses to seven Likert-scale questions

were required. The binary logistic regression did not indicate a significant relationship between student intent to persist and the LPS.

Club members and non-club members were presented identical lists of impediments and asked to select all that applied. If a choice was missing from the list, the respondent was asked to list the impediment in a free-response box on the survey. Using the list of 17 impediments, the 108 club member survey respondents selected 319 impediments for an average of 2.95 impediments per club member respondent. The 756 non-club members selected 2530 impediments for an average of 3.35 impediments per non-club survey respondent. Additionally, the non-club participants submitted 68 open-ended responses of which 17.6% pertained to being a distance student and taking only online classes as a reason not to participate in clubs.

CHAPTER V

RECOMMENDATIONS AND CONCLUSIONS

Community colleges are an American form of higher education that is committed to accessibility, community development, and social justice (Mellow & Heelan, 2008). For most community college students, the decision to attend is not whether they will enroll in a four-year institution or the community college, the choice is whether the students will attend a community college or not attend college at all (Cohen & Brawer, 2008). Community colleges must use every resource available to promote student persistence for those students who make the decision to enroll. Student persistence is especially important when considering today's global economy. Economic opportunity is a function of education (Friedman, 2007). Consequently, it is imperative to determine ways to increase student persistence and to retain those students in college, especially a community college.

There are increasing demands on community colleges for data to substantiate their institutional effectiveness (Cohen & Brawer, 2008). Program accountability, outcomes assessment, transfer rates, employer satisfaction, persistence and graduation rates, and evaluation criteria are just a few of the types of information an institution can collect. Administrative leaders view the process as a means of demonstrating accountability to external stakeholders and to accrediting agencies (Skolits & Graybeal, 2007). There are ongoing efforts by community colleges to conduct research to satisfy public officials, accreditation agencies, and other stakeholders; however, community colleges must make purposeful use of the research, especially as it relates to retention and student persistence.

Tied to performance funding, North Carolina institutions – along with institutions from several other states – are focusing attention on policies and programs that promote student persistence (McMurtire, 2000). According to Laughlin (2006), post-secondary educational achievement provides economic benefits for individuals, communities, and society in general. North Carolina community college students have a yield of 18.6% annually in higher earnings for every dollar they invest in their community college education and recoup all college expenses (including unearned wages while attending North Carolina's community colleges) in 7.3 years (North Carolina Community College System, 2004).

Nationally, the Community College Survey of Student Engagement (CCSSE) is focused toward producing new information specifically related to community college quality and performance. This information facilitates efforts to improve student engagement, learning, and retention and can provide community college administrators and stakeholders with the means to evaluate the quality of undergraduate education (McClenney, 2007). CCSSE consortium benchmarks facilitate the comparison of similar community colleges. Clearly, the foundational focus of the CCSSE is student engagement ("Community College," 2008).

Any analysis of community college students, including studies that examine student persistence, is complex due to the diversity of the community college students (Provasnik & Planty, 2008). Theories pertaining to student departure, persistence, and retention will remain an important focus of research at community colleges and at universities. Many investigations have been based on Tinto's theory, but the accumulation of data from those investigations suggests multiple issues influence

whether students will persist or not. As suggested by Berger and Milem (1999), involvement combined with the students' perceptions of integration is an important factor in college student persistence. Berger and Milem noted that Astin's theory of involvement enhanced the definition of Tinto's (1975, 1993) notion of the persistence process by including the level of physical and psychological energy invested by the student. Combining theories yields a model that better explains how students interact with the college environment as they become socially and academically integrated at the college. Chapman and Pascarella (1983) concluded that community college students compared to students at other types of institutions are lower in both social and academic integration. Bers and Smith (1991), however, noted that social and academic integration of students at the community college level and student intent to persist is less understood compared to the research that has been completed at four-year institutions. Furthermore, students who participate in school clubs are more likely to complete their programs of study and compared to nonpersisters are more integrated into the college (Schmid & Abell, 2003). Though community college clubs may facilitate the social and academic integration of students, there is a gap in the research regarding how community college clubs are related to student intent to persist and how student intent to persist is related to the student-perceived level of club participation.

Purpose and Research Questions

The purpose of this study was fourfold: (a) to investigate the relationship of participation in community college clubs on student intent to persist, (b) to investigate the relationship between the type of community college club and student intent to persist, (c) to examine the relationship between the student-perceived level of participation, as

measured by the Level of Participation Score (LPS), and student intent to persist, and (d) to discover the impediments to participation in clubs. Data provided insights into the characteristics and variety of successful clubs as related to student intent to persist.

This study focused on the following research questions:

1. How will community college-sponsored club participation be related to student intent to persist?

2. How will the type of club participation (occupational or academic) be related to student intent to persist?

3. How will student-perceived level of club participation predict student intent to persist?

4. What impediments to community college-sponsored club participation do students encounter?

Summary of Methodology

This cross-sectional study used a non-experimental quantitative design to discover the differences among groups and subgroups. The study utilized multiple sources of data when examining the effect of club participation on student intent to persist. Five sources informed the development of a student electronic survey: (a) the professional literature, (b) a documents review, (c) faculty club advisor interviews, (d) Student Services Activities Coordinator interview, and (e) a community college student focus group. The survey was designed to gain an understanding of how club participation and the student-perceived level of club participation were related to student intent to persist. Additionally, the survey was designed to discover those impediments or barriers students encountered when trying to participate in college-sponsored clubs.

The study developed in five phases: (a) design of the survey instrument, (b) assessment of the survey instrument by experts, (c) piloting of the survey instrument, (d) administration of the survey instrument, and (e) analysis of the data. The subject-matter experts established the content validity after the survey was initially developed. The subject-matter experts rated each survey item regarding its clarity, importance, and application to the research questions. Suggestions from the subject-matter experts were used to modify the survey prior to the pilot testing of the survey.

The pilot testing of the survey instrument gathered data from 20 students at a rural North Carolina community college. Each pilot group participant received an invitation followed by an e-mail with instructions and the link to the electronic survey. Two weeks after completing the survey, the same group of students received an additional e-mail requesting the completion of the survey a second time. This test-retest method facilitated the determination of a reliability coefficient for each of the survey items.

Prior to the beginning of the data collection, an advertising campaign at the community college was employed to raise awareness of the opportunity to participate in the study. The chance to enter three drawings to win one of three $50 gift cards was used as an incentive to encourage survey completion. The final survey instrument was electronically distributed to 4,614 community college club-eligible students. The online electronic survey offered a flexible means to collect data at an institution with computers that were readily available for the study participants. Data were collected in a three-week time period.

Likert-type scaled and multiple choice responses to survey items were exported from Survey Monkey as Excel spreadsheets and analyzed using the Statistical Package

for Social Sciences (SPSS Graduate Pack 16.0 Windows). Chi-square (χ^2) tests of

independence determined if there were significant differences in students' self-reported

intent to persist between groups. Institutional data were used to capture those students

who failed to persist during the semester. A binary logistic regression assessed the

relationship between the student-perceived level of club participation as measured by the

Level of Participation Scores (LPS) and their self-reported intent to persist. Descriptive

statistics summarized the types and frequencies of impediments to student club

participation.

Summary of Findings

Within this study's community college, there were 4,614 students who were

eligible to be members of an occupational and/or academic club. These students were e-

mailed using the institutional e-mail system and invited to participate in the study by

completing an electronic survey. The survey divided the respondents into those who

were currently or had been club members and those who had never been a member of a

community college-sponsored club. The survey data were combined with institutional

data to yield a total of 1,097 students. Considering only non-club members, 75.9%

indicated they intended to persist. Twenty-four percent either indicated they intended not

to persist or they completely withdrew from the institution and, therefore, failed to

persist. Of those students who were members of an occupational and/or academic

community college-sponsored club, 89.1% indicated they intended to persist and 10.9%

indicated they intended not to persist or failed to persist. The percent of club members

who intended to persist was 13.2% higher compared to non-club members. The percent

of club members who intended not to persist or failed to persist was 10.9%, which is less

than half of the 24.1% of the non-club members who intended not persist or failed to persist. A chi-square (χ^2) test of independence assessed the relationship between club participation and student intent to persist. The chi-square results, $\chi^2(1, N = 1097) = 9.807$, $p = .002$ indicated there was a statistically significant relationship between club participation and student intent to persist.

Club members indicated on the survey all the clubs in which they had been or were currently a member. The participants' responses further divided the club members into three categories: (a) occupational club members, (b) academic club members, and (c) members of both types of clubs. Only eight students indicated they were or had been members of both types of clubs. These students were removed from the chi-square (χ^2) test of independence analysis. The elimination of these data did not change the overall outcome of the chi-square analysis.

Survey and institutional data were combined for a total of 102 club members. Occupational club members comprised 52.9% of the total group with the remaining 47.1% being academic club members. Of the occupational club member respondents, 87.0% indicated they intended to persist compared to 89.6% of academic club respondents. Academic club participants who intended not to persist or failed to persist comprised 10.4% of the entire academic club group compared to the slightly higher 13.0% of occupational club member respondents. A chi-square (χ^2) test of independence assessed the relationship between the type of club (occupational or academic) participation and student intent to persist. The chi-square results $\chi^2(1, N = 102) = 0.159$, $p = .69$ indicated there was no statistically significant relationship between the type of club participation and student intent to persist.

The survey utilized seven questions for those respondents who were or who had been a member of a college-sponsored club to assess their student perceived level of club participation. The responses to these questions were summed for each participant to determine individual Level of Participation Scores (LPS). Institutional data were combined with survey responses. Participants who were not currently or had never been in a club were assigned a LPS of zero and were not considered in any of the calculations.

Only eight survey respondents indicated they did not intend to persist. Of those eight, only one was an occupational club member with a LPS of 11. Institutional data indicated there were 11 additional club members who failed to persist. These club members did not complete the survey questions necessary to calculate the LPS. No LPS could be determined for these 11 club members. None of the 11 club members who failed to persist were members of both types of clubs; however, six had been occupational club members and the other five had been academic club members.

Of the respondents who completed the level of participation questions, 98 indicated they intended to persist and were currently or had been a club member. When considering the types of club, 47 of the club member respondents were associated with occupational clubs, 43 were associated with academic clubs, and eight club members were associated with both types of clubs. A single occupational club member indicated he/she did not intend to persist. A binary logistic regression used the continuous variable of student-perceived level of club participation as measured by the LPS as the predictor variable and the intent to persist as the criterion variable to assess the relationship between them. The data indicated there was no statistically significant relationship between the LPS and student intent to persist.

Descriptive statistics described and summarized data pertaining to 17 impediments or barriers to club participation. Free responses were listed as submitted by participants. Club member and non-club member impediment data were collected separately using identical survey lists. A combined total of 2,849 impediments were selected by both club members and non-club members. Out of the 2,849 selected impediments, respondents noted 612 times (21.5%) they were too busy to participate in club activities. Approximately half as frequent, the combined respondents selected family commitments 306 times (10.7%) and work 290 times (10.1%). The respondents' commitments to off-campus activities and interference with academic obligations were both selected 205 times or 7.2%. There were similar combined frequencies pertaining to the inconvenient times and days of activities (6.4%) and the inconvenience of commuting and returning to campus (6.2%). Falling below 6% of the total number of selected impediments, club members and non-club members indicated the following:

- Unsure of how to get involved (5.7%)

- Not interest (5.1%)

- Spouse and children not included (4.3%)

- Didn't know that campus clubs were offered (4.0%)

- Too shy (3.2%)

- No interesting club activity (2.9%)

- Do not want to participate alone (2.6%)

- Interferes with social commitments (1.4%)

- Do not feel accepted (1.1%)

- Spiritual/religious principles prevent or hinder participation (0.2%)

Of the 2,849 selected impediments, only 319 or 11.2% were selected by club members. A comparison of the five most frequently selected responses for club members compared to non-club members has both groups indicating they did not have enough time or were too busy as the primary reason not to participate. The second and third reasons for not participating for club members are the activities interfere with academic obligations and the times of the activities are not convenient. These responses were followed with family commitments as the fourth reason, and finally work as the fifth most selected reason not to participate. Compared to club members, family commitments were second followed by work as the third most selected impediment for non-club members. The fourth and fifth most frequently selected impediment for non-club members included commitments to off-campus activities and interference with academic obligations. A single club member indicated not feeling accepted (0.3%) and religious principles hinder participation (.03%) as a reason not to participate. These were also the two least selected responses for the non-club members; however, not feeling accepted was selected by 29 respondents or 1.1%, and five respondents selected religious principles hinder participation (0.2%). All participants were afforded the opportunity to submit any additional impediments in a free response box. Twelve respondents indicated they were taking only online classes or were enrolled in online classes and living at great distance from the campus as reason for not participating.

Findings Related to the Professional Literature

Persistence

Community colleges serve a diverse student population that includes multiple at-risk groups. Approximately 54% of all first-time, full-time students in American colleges

and universities are enrolled in community colleges (Hankin, 2003). Hankin stated these students include the majority of all disabled students. Students of color make up 26% of the community college student population; however, Hankin predicted Latino students will increase and outnumber African-American students. Community colleges will need to address this underserved Hispanic group (Hankin, 2003; Vaughan, 2006). The majority of community college students are from the local area surrounding the community college and furthermore, many of those students will not have ventured beyond their local area (Hankin).

Community colleges must focus on policies and programs that promote student persistence, especially when data such as retention and graduation rates are tied to Performance Funding (McMurtrie, 2000). Persistence produces post-secondary educational achievement that leads to economic benefits for the student (Laughlin, 2006). It is not sufficient to provide access, unless access is coupled with mechanisms to facilitate student persistence and student attainment of educational goals (Vaughan, 2006). In addition to the student benefiting from academic success, the community in which the graduate resides also benefits.

Almost one-half of students entering two-year colleges fail to persist at the end of their first year (Tinto, 1993). Cohen and Brawer (2008) noted retention is improved if steps are taken early to integrate students with the college. In some instances, steps to integrate students prior to the start of the semester have proven successful (Cohen & Brawer). Kangas (1991) noted from interviews of students who withdrew from college that the decision to depart was made in the first four weeks of the semester; the students did not become involved in the college, most studied alone, and most worked 40 or more

hours per week. Tinto (1975, 1993) proposed the degree to which students become socially and academically integrated had a direct impact on their institutional and goal commitment and, subsequently, their persistence. DaDeppo (2009), focusing on students with learning disabilities, stressed the importance of social integration and the need to prepare students to interact with faculty within and outside the classroom. DaDeppo further noted that social integration more than academic integration influences student intent to persist.

The current study is consistent with the earlier research and provides additional insights into student persistence as it relates to student intent to persist and club participation. The findings of this study indicated there was a statistically significant relationship between club participation and student intent to persist; however, there was no statistically significant relationship between the type of club and student intent to persist. This study investigated only occupational and academic types of clubs; however, these two types of clubs encompass 11 different clubs at the institution. These 11 clubs provide a variety of options in which the students can participate. The variety and types of club activities can be tailored to meet the needs of the student population and to enhance the opportunity for both social and academic integration into the institution. Club participation also provides an opportunity for students to have informal student-faculty contact that may extend throughout the students' time at the institution. As students progress from semester to semester, the courses in which they enroll vary along with the faculty who teach those courses; however, the faculty-student interactions that occur with club-related events and activities may remain consistent from semester to semester.

This study identified specific impediments to club participation. Furthermore, this study encountered difficulties in data collection due to the early departure of students. As a result of this study, specific strategies to address impediments to participation could be put into practice. The inability to collect data from students who withdrew from the institution further suggests the need to engage students through club activities as early as possible. This study suggests that club participation is a factor in overall student persistence, but it does not provide specific insights into how and why club participation may contribute to student persistence.

Theoretical Models of Student Persistence

Astin (1999) stated that student involvement pertains to the amount of physical and psychological energy that students invest into the academic experience. Involvement has both quantitative and qualitative characteristics, benefits related to the quality and quantity of student efforts, and effectiveness as a result of policy and practices that encourage students' participation in activities (Astin; Berger & Milem, 1999; Tinto, 1999). This study attempted to relate the student-perceived level of participation as measured by the Level of Participation Score to student intent to persist. There were only 11 club members at the institution that failed to persist and a single club member that intended not to persist. Those club members who failed to persist departed from the institution prior to the implementation of the survey. Only a single LPS for a student who intended not to persist was obtained. This study developed a means to measure the student-perceived level of participation and successfully gathered participation data for those who intended to persist.

Consistent with Astin's Theory of Involvement, the current study survey respondents indicated varied levels of club participation. Additional LPS data pertaining to those who failed to persist would have provided other insights and facilitated comparisons between those who intended to persist and those who did not intend to persist or failed to persist. This study investigated LPS data in relationship to student intent to persist; however, LPS data also need consideration at the individual club level. Investigating student participation levels within individual clubs may provide insights about successful club practices that could facilitate improvements in overall club participation at an institution.

Student Engagement

The findings of this study are consistent with research by Chickering and Gamson (1978) who noted encouraging student-faculty contact was the most important principle in motivating students. Faculty concern can transition students through the tough times (Kuh & Hu, 2001). Student engagement is correlated with student learning and student retention (Astin, 1999; Elsner, 2002; Hu & Kuh, 2002; Tinto, 1999); however, first-generation students are less likely to develop relationships with faculty members (Pike & Kuh, 2005b). Cohen and Brawer (2008) noted students' participation in community college student activities is difficult because students work and reside off campus. Yet, community colleges must promote environments in which the students' experiences are intentionally designed to make "engagement enticing and inescapable" (McClenney & Greene, 2005, p. 5).

The current study was conducted at a rural North Carolina community college with occupational and academic clubs. Memberships in occupational clubs were

restricted; however, membership and participation in academic clubs was open to all students who were regularly enrolled in at least one curriculum class during the semester. Whether an occupational and/or academic club, college-sponsored clubs provide opportunities to interact with faculty outside of the classroom setting. In 2008, CCSSE institutional data for this North Carolina community college indicated 74% of students never worked with faculty on activities other than course work and only 7% were very satisfied with student organizations ("Community College," 2008). Clearly, the findings of this study indicate that participation in clubs is an effective way to engage students, but there are impediments that may prevent student participation. Efforts at this community college to raise awareness of college-sponsored clubs, to ensure suitable types of club offerings, and to find creative solutions to impediments to participation have the potential to increase student participation in clubs, student satisfaction with student organizations, and student time spent with faculty outside of the classroom.

Unexpected Findings

Promotion of the Survey

This study used ever means available at the community college to raise student awareness regarding the survey. The method that generated unsolicited comments from faculty, staff, and students were the posted flyers. Sue and Ritter (2007) offered many suggestions for survey construction to enhance survey completion. Bosnjak and Tuten (2003), Dillman (2007), and Sue and Ritter (2007) noted the value of using incentives to enhance survey completion rates; however, Cobanoglu and Cobanoglu (2003) noted ethical concerns with the use of incentives. The structure of an electronic survey and the incentives associated with survey participation become factors to consider after the

student is aware of the survey. This study used multiple methods to inform students about the survey availability that included:

- Electronic announcement banners on Blackboard and Campus Cruiser the institution's e-mail system

- Announcements by the faculty in classrooms and at club meetings

- E-mail invitations sent to survey eligible students

- Posted flyers

This community college permits the use of posted flyers on doors, classroom and hallway bulletin boards, and in common areas such as the library and cafeteria. Students are greeted daily with an array of colorful posted flyers. The flyer in this study was shaped like a dollar ($) sign which clearly set it apart from other flyers that were printed on standard copy paper. Further investigation would be necessary to determine if the flyer shape influenced the return rate of the electronic survey.

Lack of Military Comments

The absence of data in this current study regarding active duty military obligations, the uncertainty of deployment schedules, and the increase in family responsibilities when a military family member is deployed was startling. The community college in this study is located only a few miles from an active military base. Over half of the students at the institution are military-related. They are active duty, reserve, and retired military members as well as spouses and children of military members. On-going deployments increase the levels of stress for students who have a military family member deployed, in many instances, for a year or more in a combat zone. The absence of the military member translates into additional responsibilities for

the family members remaining at home; however, it can also translate into additional free time to participate in clubs. In the free responses, only one respondent indicated that active duty would be a barrier or impediment to club participation.

One of the impediments to participation identified in this study is the failure of clubs to include family members in club activities. Military-related family members will often get involved in activities to occupy time that would normally be devoted to the deployed family member. Upon the return of the military member, the family must make a decision to incorporate the military member into the current activities or jettison the activities. Clubs that include family members facilitate the inclusion of military members and the continued participation of the club member.

There are increasing numbers of students arriving at this community college with combat-related injuries such as post-traumatic stress syndrome, traumatic brain injuries, and other concerns that require special accommodations. Yet, only one respondent indicated physical disability as a barrier to participation in a club. Though active duty military students can present with unique military-related disabilities, other students with disabilities face similar challenges to club participation.

Online Students

A focus group used to inform this study's survey instrument was conducted within a seated-classroom setting. Though focus group students might have been enrolled in online courses, there were no focus group students who were enrolled exclusively in online courses. Those survey participants who were enrolled only in online classes commented they resided in locations at considerable distances from the campus which prevented their participation in club activities or the reason they enrolled

in online classes was because work or family obligations prevented them from coming to the campus. These students did not participate in occupational or academic clubs.

The research indicates that interaction with faculty outside of the classroom is important when it encourages students to devote increased effort toward academic endeavors (Kuh, 2003), but online students are only connected via the Internet or by telephone. The occupational and academic clubs at this institution do utilize the institution's e-mail system which permits posting announcements and contacting club members via e-mail. Every faculty member and student has an account in the system, but that does not necessarily translate into student utilization of the account. Most online courses deliver the majority of the course content using Blackboard. With the current popularity of Facebook, Twitter, texting, and smart phones, there may be components of clubs that could be offered online or the development virtual clubs which may enhance the engagement of online students who are otherwise unable to participate in college-sponsored clubs.

Club Types

Hankin (2003) noted that two-thirds of community college students attend part-time and questioned what types of extracurricular programs interest them compared to full-time students. Clearly, there are student concerns and considerations that prevent full-time enrollment at the community college. Additionally, the current study identified multiple barriers to club participation; however, community colleges need to evaluate the types and kinds of club that are offered to determine if the clubs reflect the interests of the students. Regardless, if the students attend part-time or full-time, the benefits of

student-faculty interactions cannot be realized if the students are not interested in the club offerings and activities.

The community college in this study offers only two types of college-sponsored clubs that include 11 different kinds of clubs. Yet, students suggested interest in other club types such as sports clubs, social clubs, and religious clubs. Within the institution, there does not appear to be a well-defined path for students to initiate the formation of student interest clubs. For students to reap the benefits of club memberships and informal student-faculty interactions, community colleges must actively seek ways to raise awareness of clubs and club activities. Students' comments should be solicited to determine the need for new kinds of clubs and ways to improve current clubs to meet student expectations.

Rapid Student Departures

According to Cohen and Brawer (2008), community colleges should be considered untraditional because they depart from the more traditional patterns in higher education. Community colleges frequently evolve as they strive to meet the needs of their diverse populations. Despite efforts to meet the needs of the students, most of the reasons for departing are beyond the scope of the institutions to amend. Community colleges have strived to make access to education easy; however, these efforts have also facilitated the ease at which the students can exit and reenter community colleges (Cohen & Brawer).

In the current study, the electronic survey was made available the last third of the semester. Initiating the survey at this time permitted the collection of data prior to finals when the student focus would be on academic success, not completing a survey. Later in

the semester also permitted students to become invested in their classes and subsequently make a commitment to course work in future semesters.

The speed at which students departed the institution was unexpected. Once the students decided not to persist, they quickly departed from the institution. Initiating the survey during the last one-third of the semester meant students who intended not to persist departed and were unable to participate in the survey. These non-persisters were documented as students who failed to persist. Since these dropouts had no opportunity to complete the survey, there was no way to determine their perceived level of participation in clubs.

The binary logistic regression results indicate there is no significant relationship between the LPS and student intent to persist. Implementing the survey late in the semester captured those students who intended to persist but failed to capture student input from those who did not persist. Capturing that data would provide a much more comprehensive picture of the LPS as it relates to student intent to persist.

Alternative data collection means such as a "leaver survey" might facilitate the gathering of these data. At this North Carolina community college, students who withdraw from all courses at the institution are asked to complete an Early Leaver Survey. The survey attempts to collect data pertaining to student goal accomplishment and student satisfaction with community college services such as accounting services, computer services, and food services. The survey does ask the respondents to rate campus activities; however, the students are only asked to assess their overall satisfaction with student activities. The return rate of the Early Leaver Survey is low.

Since the calculation of the LPS requires responses to only seven questions, students who have departed may be more receptive to providing responses via telephone. Certainly, collecting information pertaining to level of club participation through the use of a leaver survey or a telephone survey would provide valuable insights for clubs; however, collecting these data could provide community colleges with additional insights about students who failed to persist. It is important that community colleges understand the characteristics of the students who fail to persist. The LPS for students who failed to persist may provide insights that help better characterize those students. Understanding these students who failed to persist may yield possible solutions to continuing their academic progress and success at the community college.

Faculty Interaction Time

Academic clubs have an open membership and the faculty advisors associated with these types of clubs may have varied amounts of interaction with the club members. For example, a faculty member may or may not have a club member as a class student. Occupational clubs have a restricted membership and are often associated with students who are enrolled in block programs. The faculty advisors associated with these clubs are also the program instructors. Occupational club members associate with the club advisors on a routine basis, often daily. Despite the potential for increased amounts of time and the physical proximity of the club advisors and members of the occupational clubs, this study discovered no statistically significant difference between occupational club members' intent to persist and the intent to persist of academic club members. This study used intent to persist to operationalize student departure decisions; however, the use of intent to return is also found in research that indicates a strong relationship

between students' intentions and actual persistence (Bean, 1980; Braxton, Milem, & Sullivan, 2000; Cabrera, Castañeda, Nora, & Hengstler, 1992; Pascarella, Duby, & Iverson, 1983; and Voorhees, 1987). The number of hours of student engagement with faculty outside of class is an established predictor of college retention and success (Kuh, 2003; Schuetz, 2008). Furthermore, the value of informal student-faculty interactions is well-documented (Lamport, 1993; Medkeff, 1998; Pascarella & Terenzini, 1976; Theophilides & Terenzini, 1981; Thompson, 2001; and Tinto, 1975, 1993). Further studies are needed to better characterize the time spent in informal student-faculty engagement during club related activities.

Conclusions

Implications for Practitioners

Community colleges have been instrumental is granting open access to higher education to a wide variety of students, but access alone is not enough (Bailey, Calcagno, Jenkins, Kienzl & Leinbach, 2005; Cohen & Brawer, 2008; Mellow & Heelan, 2008; Vaughan, 2006). Community college leaders must face accreditation organizations, state legislatures, local government boards, college trustees, and other stakeholders. In fiscally challenging times, community college leaders must be clearly focused on institutional effectiveness. The expectation is institutional effectiveness efforts will be conducted campus-wide and involve both faculty and staff.

Since 1989, the Southern Association of Colleges and Schools (SACS) has focused on institutional effectiveness; however, SACS does not provide proscribed procedures for implementing, planning, and evaluating programs and policies (Ewell, 1992; Skolits & Graybeal, 2007; Todd & Baker, 1998). SACS does require the

development of a comprehensive plan for evaluating goal achievement and for using the evaluation to improve institutional effectiveness (Todd & Baker).

One aspect of institutional effectiveness relates to student persistence (North Carolina Community College System, 2009). Community college leaders and stakeholders have increasingly focused their attention on student persistence and completion (McMurtrie, 2000; Wild & Ebbers, 2002). Administrators, faculty, and counselors, have an obligation to create a collegiate experience that facilitates student persistence (Sorey & Duggan, 2008). Student persistence is particularly challenging when one considers the characteristics and diversity of the students who attend community colleges. Furthermore, national studies indicate students who attend school part-time and enroll in a community college are less likely to graduate with a bachelor degree or higher (Chen, 2007).

CCSSE and CCFSSE. The CCSSE was created with a focus geared toward producing new information specifically related to community college quality and performance. The CCSSE results inform community colleges regarding effective educational practices and aid institution in using that information to promote improvements in student learning and persistence (McClenney, 2007). The CCSSE gathers information from a community college's students and when combined with the Community College Faculty Survey of Student Engagement (CCFSSE), which gathers information from the community college's faculty, yields a much broader and comprehensive view of student learning and persistence at the institution. Though retention is everyone's business, the faculty plays a particularly strong role; however,

faculty involvement is still limited and, therefore, the full potential of the faculty

influence on student retention may not be realized (Tinto, 2006).

The CCSSE and CCFSSE data for 2008 – 2010 for the community college in this

study reported an average of 5.67% of the faculty indicating that students worked "very

often" with faculty on activities other than course work outside of the classroom;

however, for that same period, only 2% of the students indicated they worked "very

often" with faculty outside classroom on activities other than coursework ("Community

College," 2008, 2009, 2010). An average of these same reports indicated 68% of the

faculty thought full- and part-time students spent one to five hours in a typical 7-day

week participating in college-sponsored activities (organizations, campus publications,

student government, intercollegiate or intramural sports, etc.). When students were asked

how much time they actually spent, only 10.7% indicated one to five hours per week with

87% indicating no time or none.

This study was conducted at a community college that has no intramural or

intercollegiate sports and no student campus publications. The overall perceptions of the

faculty indicated over six times higher levels of student engagement and participation in

college-sponsored activities compared to the actual levels of participation by students. At

this community college, those activities would be clubs, student government, and a few

organizations. The faculty members who are involved directly with the club members as

advisors or who participate in club activities are a small percentage of the entire faculty;

however, during club rush, the faculty see the clubs manning tables in the cafeteria,

encounter posted flyers, and are asked to make announcements regarding the opportunity

to join clubs to their students. The college website posts club events and the staff-

prepared school newsletter often highlights club activities. The faculty may be aware of the clubs and the club activities but not have a clear understanding about how much time students are actually involved in the club events and activities. The difference between faculty perceived time and actual student time spent in activities may be further enhanced by observations by faculty at two festival events. Clubs often participate in the festivals by sponsoring a table and providing some activity or offering. The clubs' presence at the event, again, demonstrates to the faculty there are students participating in the various clubs offered at the institution. Furthermore, the social nature of these one-day events encourages participation by large numbers of faculty members and students.

Any member of the faculty can request the results of the CCSSE and CCFSSE, but these results are not widely disseminated throughout the faculty. A focused approach to raise the awareness of faculty regarding the actual number of student engagement hours outside of the classroom as indicated by students and the results of this study showing a significant relationship between club participation and student intent to persist may serve to boost the efforts of the faculty to strongly encourage student club participation and to renew their efforts outside of the classroom to interact with students.

This study focused directly on student perceptions and attempted to quantify the level of engagement in club-related activities with the development of a Level of Participation Score (LPS). Cooper, Healy, and Simpson (1994) stressed additional research was needed on student participation in clubs because there is still much to be investigated; however, Gellin (2003) indicated the research should be focused on specific types of activities and the level of student involvement in those activities. This study gathered data from individual students who self-evaluated their level of participation

based on their activities in a specific club. Students using Likert-type scales indicated (a) how involved they were in their club, (b) if they had a role in student government, (c) if they had a role in the festival events of the college, (d) if they had a leadership role in their club, (e) if they were involved in their club's on campus project, (f) if they were involved in a club activity in the community, and (g) and if they were satisfied with their level of involvement. These questions and scales were appropriate for all occupational and academic clubs at the college. This study summed the specific data as it related to student involvement in occupational and/or academic club activities. Only one LPS score was calculated for a student who intended not to persist. The LPS for students who failed to persist could not be gathered, which suggests additional research is necessary.

Gerlach (2008) noted that investigating various types of engagement was an important focus of research. The current study indicates there is no significant relationship between student intent to persist and whether the student participates in an occupational or academic club. Clubs offer a means for faculty to engage students outside of the classroom. The frequency and duration of interactions outside of the classroom could improve at this institution through increased participation in clubs. Yet, this study also suggests multiple barriers and impediments to that participation may be difficult for students to overcome despite the advantages of the engagement opportunities.

It is essential that community colleges use every means available to increase student persistence. McClenney and Greene (2005) stressed the importance of designing an environment where the students cannot escape engaging experiences. There are positive outcomes of engagement through informal student-faculty interaction (Medkeff,

1998, Thompson, 2001). Student engagement is correlated with student learning and student retention (Astin, 1999; Elsner, 2002; Hu & Kuh, 2002; Tinto, 1999). The number of hours of student engagement with faculty outside of the classroom is a recognized predictor of college retention and success (Kuh, 2003; Schuetz, 2008). Certainly, one way faculty can engage students outside of the classroom is through faculty involvement in clubs and club-related activities and events.

Community college at-risk populations. Kim(2002) stated a common definition of nontraditional students includes students beyond their early-twenties, ethnic minorities, women with dependent children, under-prepared students. Mellow and Heelan (2008) noted that what Kim describes as a nontraditional student in a community college has become the norm for most community colleges. Community colleges strive to serve these learners and help them achieve their goals (Mellow & Heelan). Community colleges face a unique challenge when trying to ensure student success with such diverse groups and must utilize use every available resource to address student impediments to success.

Remedial education. Vaughan (2006) pointed to community college challenges such as constraints on public funding, rising tuition, increasing enrollments, changes in technologies and remediation for underprepared students. Within two years after graduation, 75% of high school graduates go on to some form of post-secondary education. These high school students arrive on college campuses underprepared. Remedial courses will be taken by 53% of these students ("From the editor," 2003). Vaughan (2006) noted there may be any number of reasons students are not academically prepared to do college-level work; however, the community colleges' role in remedial

education is important. A well-educated population is essential for the nation's economic, political, and social well-being (Vaughan).

Underprepared students may have multiple semesters of remedial coursework before they begin college-level courses. It is imperative that community colleges use every means and opportunity to engage this diverse group of students. Community college-sponsored clubs offer a variety of activities that could help socially and academically integrate these underprepared students into the culture of the institution, provide opportunities to interact with the faculty outside of the classroom, and enhance student persistence.

Students who benefit from remedial instruction contribute to the public good (Merisotis & Phipps, 2000). For many students who do not complete their first remedial course, it is the end of their college education. This pattern is most prevalent among students who are black, male, and/or part-time (Jaschik, 2009). Yet, education provides a means of social mobility, and college graduation is associated with increased earnings and consistent patterns of employment (Townsend & Twombly, 2001). Roueche and Roueche (1999) recommended community colleges make a commitment to remedial education and implement successful practices.

Minority students. By the end of the decade, 40% of the college-age population will be students of color (Zusman, 2005). Minorities have made gains in college enrollment, but when compared to the growth in the general population, their representation in higher education is decreasing (Chang, Altbach, & Lomotey, 2005; Tinto, 2006). Representation is further decreased by high dropout rates. African Americans and Latinos comprise one-quarter of high school graduates and one-third of

the college-age population; however, they earn less than 9% of all bachelor degrees (Zusman).

Franey (2002) stated the proportion of Hispanic workers in the American workforce is increasing; therefore, community colleges must seek strategies for attracting, retaining, and graduating Hispanic students. National studies indicate that students who attend school part-time and enroll in a community college are less likely than other students to graduate with a bachelor degree or higher (Chen, 2007). This is particularly important for Hispanic students who are more likely than other college students to attend community colleges as part-time students.

Hurtado, Carter, and Spuler (1996) indicated that one of the most important factors contributing to a Latino student's adjustment to college was maintaining family relationships. Saunders and Serna (2004) stated that even when Latino students attend a local college it represents a separation from family. Furthermore, Suanders and Serna, noted Latino students had a clear understanding their parents and/or other family members could not provide the types of assistance necessary to help them persist at the college; however, maintaining family relationships were critical to their academic pursuits. Latino students who remain close to home must balance the pressure of family obligations with the requirements for being an academically successful student (Saunders & Serna). Community college-sponsored clubs may offer a way to bridge between the need for family relationships and the social and academic integration of the student into the college. Clubs that can include family members in events or activities offer Latino students the opportunity to raise family awareness about the college environment while still permitting the Latino student the opportunity to participate in club activities that lead

to integration into the institution and foster the faculty-student interactions that enhance student persistence.

Greene, Marti, and McClenney (2007) stressed that engagement matters for all students, but it appears to matter more for students in high-risk groups. The results of this study suggest that participation in a college-sponsored club may be an effective way to engage students. Yet the diversity and complexity of community college students, especially those students who are at-risk, suggest there will not be a one-size-fits-all solution to engagement and student retention. Club advisors must actively seek and evaluate the ways in which their club members are involved and question why other students at the institution are not participating. Answers to that question could provide the impetus for club improvements and increased student participation.

Low-income mothers. Approximately 59% of community college students were female in 2003-2005, and when compared to 4-year institutions, community colleges had a higher proportion of older females from low-income families. A large portion of these women are single mothers and/or working mothers who require daycare services. Commitments to their workplace, to their families, and to their education leave little time to become engaged in community college-sponsored clubs; however, successful attainment of a community college education offers a route to better future employment (Adair, 2001; "Community colleges appeal to women," 2004). The biggest barrier to education is poverty, yet without education many are trapped in a lower-income bracket or face unemployment (Friedman, 2007).

The barriers or impediments to club participation discovered in this study are consistent with barriers that at-risk groups would encounter when trying to attend a

community college. The three most selected impediments included (a) not enough

time/too busy, (b) family commitments, and (c) work. Aware of the challenges to

participation, community college-sponsored clubs could encourage club participation by

single mothers and/or working mothers by including family members in events, providing

activities at non-traditional and varied times, and encouraging club participation even if

that participation is intermittent.

Student fears. Bean and Eaton (2002) noted if retention programs are going to

be effective, they must encourage and facilitate involvement for each student in a

program. Hankin (2003) stated in many instances, community college students are the

first member of their family to attend college. These students are uncertain about what

will be involved in their college experience. They have poorer grades and less self-

confidence about their abilities. Many do well, but they are less confident when they

begin (Hankin). Factors that influence retention are ultimately individual.

The current study contributed to a deeper understanding of barriers and

impediments that hindered student participation in clubs. Seventy-four students indicated

they did not want to participate alone, 92 indicated they felt they were too shy, and 30

students indicated they did not feel accepted. Shanley and Johnston (2008) noted

students will need to face their fears, but college can provide a safe environment for

students to experiment, make mistakes, and learn as they advance intellectually and

socially. College offers students challenges that pose obstacles, provide opportunities,

and introduce changes (Clark, 2005). Clark suggested research investigating student's

perceptions, potential challenges, and strategies associated with seizing an opportunity,

such as participating in club activities, would yield a richer understating of student involvement.

The findings of this study suggest that for some, club participation will require overcoming individual fears. For the students in this study who indicated they did not want to participate alone, were too shy, or did not feel accepted, the initial fear of becoming involved may be overcome by assigning a person in the club as a partner for the first club meeting; however, this does not address the problem of the students who never even attempt to participate. Those students will be more difficult to identify. Also, participation could be increased if the club members extend personal invitations to non-participating students to attend a club event with an added offer to accompany the student at the event.

STEM emphasis. Mekeff (1998) and Thompson (2001) stressed the importance of informal student-faculty interaction for community college students, especially in the beginning of their education in science and mathematics. The number of hours of student engagement with faculty outside of class is an established predictor of college retention and success (Kuh, 2003; Schuetz, 2008). In particular, informal science education programs play a role in increasing the participation of women and minorities in science, technology, engineering, and mathematics (Fadigan & Hammrich, 2004). Hawtry (2007) also advocated the importance of experiential learning because it requires the student to become personally involved. Experiential learning can improve retention, problem solving, and decision-making skills (Millenbah & Millspaugh, 2003; Ryan & Campa, 2000). This study investigated academic and occupational clubs; however, at this North Carolina community college, one of the academic clubs is an experiential science club.

Gellin (2003) suggested that researchers should focus on specific types of activities and the level of student involvement in those activities. Additionally, Gellin's findings suggested involvement in club activities had a positive effect on students' critical thinking abilities. Students should be encouraged to participate in clubs that will help them master specific college courses and enhance their critical thinking skills (Gellin). Critical thinking skills are particularly beneficial in STEM courses.

Internet considerations. The Internet can prove to be a valuable tool for clubs to engage students. One club at this southeastern community college conducted all club business meetings using the Internet. Margolis (2004) suggested using the Internet to inform potential club members of membership requirements and the location of meetings. This study indicated that students were unaware that clubs were offered and were unsure of how to get involved. The Internet may be valuable to inform these students, especially if these students cannot participate in the more traditional ways to learn about or join clubs.

This study also indicated there is a population of students who cannot participate in clubs due to their physical location and/or choice to attend the institution solely as an online student. Currently, at this community college, there are no clubs available for online students who cannot physically arrive on the campus. For technology-competent students, the Internet is a way to explore options and connect directly to sources of information.

Recommendations for Future Research

There is value in completing this study on multiple campuses or system- wide to determine if the results discovered in this investigation have wider applications. With the

encouraging preliminary findings of the current study, there is value in completing this study to determine if there are differences and to discover the nature of those differences. With the intention of understanding the value of student engagement through participation in community college clubs and its influence on student intent to persist, additional studies will provide insights that yield a deeper understanding of the relationship.

This quantitative study investigated club participation and club types as related to student intent to persist and established the use of a level of participation score to quantify student's perceived level of participation in college-sponsored occupational and academic clubs. Additionally, this study identified impediments to student participation in occupational and academic clubs. Though student engagement is being studied at the national level and much has been written about community college students and their associated risk factors, there is little research regarding student engagement and community college-sponsored clubs. This is the first time a study of this type has been completed. The findings of this study support the continued investigation of college-sponsored clubs and lay an initial quantitative foundation on which other studies can build.

Research studies can utilize multiple methods including qualitative methods such as in-depth interviews, direct observations, and written documents. Conducting this study using qualitative methods would incorporate students' experiences, opinions, feelings, and knowledge and add insights that cannot be obtained with quantitative methods (Patton, 2002). Qualitative methods would be especially useful in

understanding the impediments students encounter when attempting to participate in club activities and events.

This study's findings support the continued exploration in several areas. It was conducted at a single North Carolina community college during the Spring 2011 semester. Though not in a remote area, this institution is classified as a rural community college. This study did not investigate whether there would be differences in student club participation and student intent to persist, or if the student-perceived level of participation varied in community colleges that would be classified as suburban and urban. There may be more choices for students to explore when determining how to allocate free time for activities in areas that are more urban. These activities may compete with club-sponsored activities and commitments.

This study was conducted at a community college which has only occupational and academic college-sponsored clubs. This study's findings indicated there was a significant relationship between club participation and student intent to persist. To further understand clubs as related to student intent to persist, investigations of other types of clubs at other institutions should be investigated. The current study should be repeated using social clubs, sports clubs, religious clubs, and student-generated clubs and their affect on student intent to persist. Without further research, the ability to generalize the results of this study will be limited.

Careful consideration should be employed when determining the time to collect data using an electronic survey. Results may vary between the Fall and Spring semesters. New students to the campus in the Fall semester may not be as socially and academically integrated as students who have already completed one or more semesters at the

institution. Other students in the Fall semester may have already mentally made a commitment to persist for the academic year. Student levels of intent to persist may be elevated because the student expectation is to complete an academic year.

In this study, the timing of the data collection corresponded with the last third of the Spring 2011 semester. This allowed students to proceed through their coursework just prior to registration for the summer semester and before their attention would need to be focused on end of semester assignments and final examinations. The timing of the electronic survey did not permit the students who failed to persist an opportunity to complete the survey. Once a decision was made not to persist, the data indicated the students departed based on the best day to withdraw without consequences to the students' academic records.

To obtain a broader and more in-depth understanding of student-perceived level of participation scores, administrators must implement ways to investigate and to capture information pertaining to club participation from those students who withdraw completely from the community college. Astin (1999) stressed the amount of physical and psychological energy is important in involvement. This study attempted to gather the student perceived level of participation data on students who failed to persist. Further study is warranted to determine if the level of participation of students who fail to persist is statistically different from those students who intend to persist. Possible solutions could include providing club participation questions with the paperwork that must be completed to withdraw from the institution, conducting telephone interviews, or consider using a paper mailed surveys.

This study concluded there were no statistically significant differences between those students who participated in occupational clubs and those students who participated in academic clubs concerning student intent to persist. Despite the opportunity for occupational club members to engage more frequently with faculty club advisors, studies are needed to determine if the amount of time the occupational club students are engaging with the faculty on club-related matters is significantly different from the amount of time academic club members engage with faculty. In addition to the amount of time, an investigation is needed to characterize how the time is used and if all club members have opportunities to engage with the faculty. Comparisons are needed between the LPS of academic club members compared to the scores of occupational club members. Investigations are needed to determine how the student- perceived level of participation compared to the amount of time students interact with faculty on club-related matters is related to student intent to persist.

Further research is necessary regarding online students who are geographically isolated from the institution or who have enrolled only in online courses and rarely travel to the campus. These students do not have the benefit of faculty interactions outside of the classroom as club participants. Compared to seated classroom settings, online classes may have lower success rates (Borcoman, 2004). Facebook and Twitter have become ingrained in many students' daily lives. Online students by the very nature of their enrollment and participation in online instruction should possess computer and technology skills that would permit their participation in virtual club activities. Investigations should include evaluation of the benefits of virtual clubs for online students or the value of Internet-based club activities with already established campus

clubs. For online students who are geographically located close enough to come to the campus, web-based advertisements should provide information for traditional campus-based activities and events.

Community colleges have a diverse group of students and should have a diverse selection of clubs from which the student can opt to be involved; however, even with varied options students will encounter barriers or impediments to participation. Further research is needed to determine strategies to employ to lessen the effects of or to remove these barriers to club participation. Simple strategies such as a video on the web page to introduce students to the various clubs could increase club awareness and circumvent difficulties students encounter when try to join clubs during club rush.

Though removing impediments to participation is worthwhile, additional studies are also needed to describe the characteristics of those students who are engaged and invested in the institution through club participation. The bigger challenge is to locate and investigate those students who encounter barriers that prevent participation of any kind in community-college sponsored clubs. Community colleges have unique populations that warrant a closer examination. This North Carolina community college is influenced daily by activities related to a military base. Many of the military-related family members arrive on campus with a patchwork of courses taken at multiple institutions due to permanent change of station orders and deployments. These students may register for courses with a clear understanding they will not physically be located in the area long enough to complete their degrees before it is time to relocate again. These students must be purposefully engaged from the moment they arrive on the campus.

Investigations are needed to determine if college-sponsored clubs effectively engage these military students.

Concluding Remarks

Community colleges must promote environments in which the students' experiences are intentionally designed to make "engagement enticing and inescapable" (McClenney & Greene, 2005, p. 5). Student engagement is important and directly related to student persistence. Understanding how community college-sponsored clubs promote or discourage student engagement would benefit efforts to improve the overall quality of the community college experience for more students.

Community colleges must be proactive in their evaluation of engagement strategies. This process must be data driven with the outcomes used to purposefully develop and improve engagement experiences and opportunities. Community college leaders are tasked with making difficult financial decisions as budgets are slashed and enrollment swells. A large portion of that enrollment will be at-risk students who will significantly benefit from sound engagement strategies.

Community college clubs must be viewed by the administration, faculty, staff and students as important opportunities to engage students outside of the classroom and to promote informal faculty-student interactions. This engagement facilitates the social and academic integration of the student with the community college. Students who make the effort to overcome impediments to their participation in activities rate the same level psychological and physical energy invested by the club advisors and other faculty associated with club activities. Overcoming impediments to participation is not solely the responsibility of the student. Institutions need to continually evaluate their diverse

populations, seek solutions to barriers to club participation, and be receptive to making changes that will facilitate both social and academic integration through club participation.

In an instant, global events can change a community college environment. In responding to these changes, community colleges must have a clear understanding of what resources are available to meet their missions. Different types of clubs and their related activities have the ability to evolve quickly in response to different engagement requirements. It is imperative that we understand the impact community college clubs have on student engagement and persistence. Finally, institutional policies must clearly reflect the role clubs and club activities play in the attainment of institutional objectives and student goals.

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APPENDIX A

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APPENDIX B

CLUB-ELIGIBLE STUDENT DEMOGRAHICS

Gender

- Female
- Male

35.5%

Ethnicity

American Indian/Alaska Native	1.3%
Other/Unknown/Multiple	2.2%
Asian or Pacific Islander	2.5%
Hispanic	9.8%
Black, Non-Hispanic	18.6%
White, Non-Hispanic	65.6%

- Ethnicity

0% 10% 20% 30% 40% 50% 60% 70%

Age
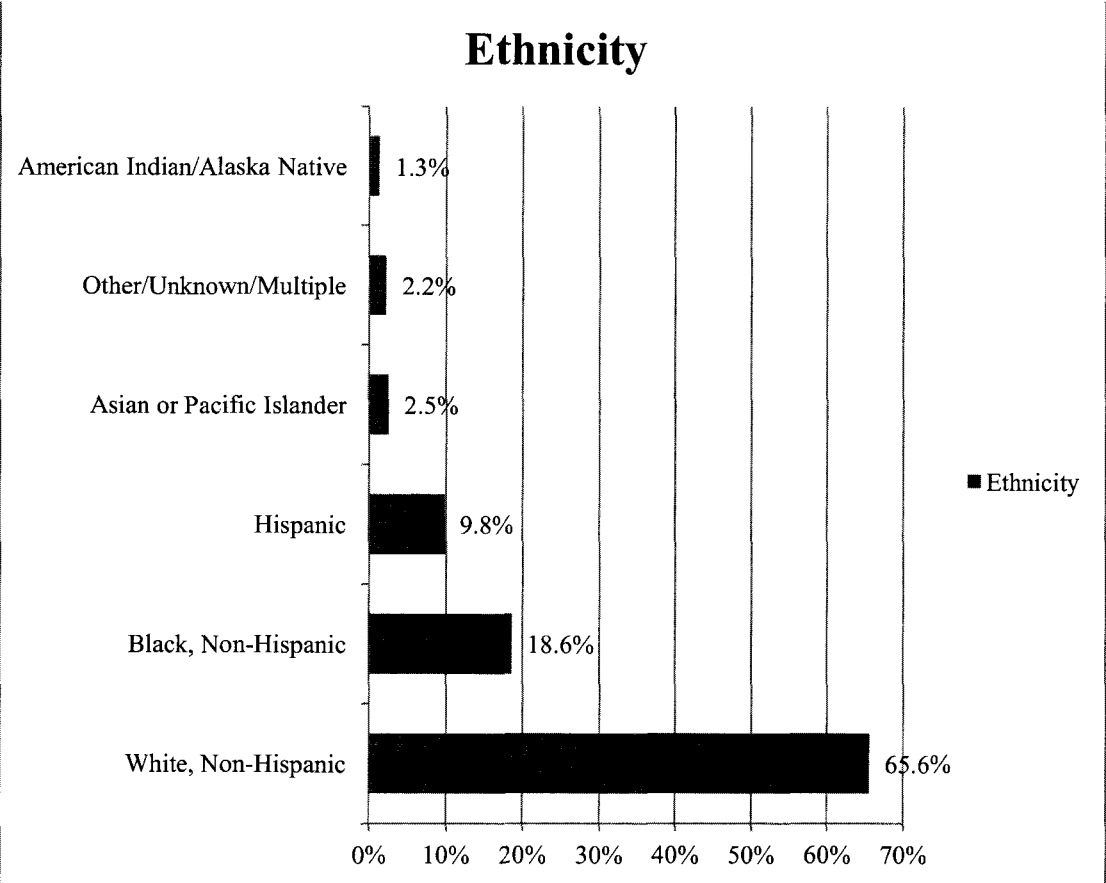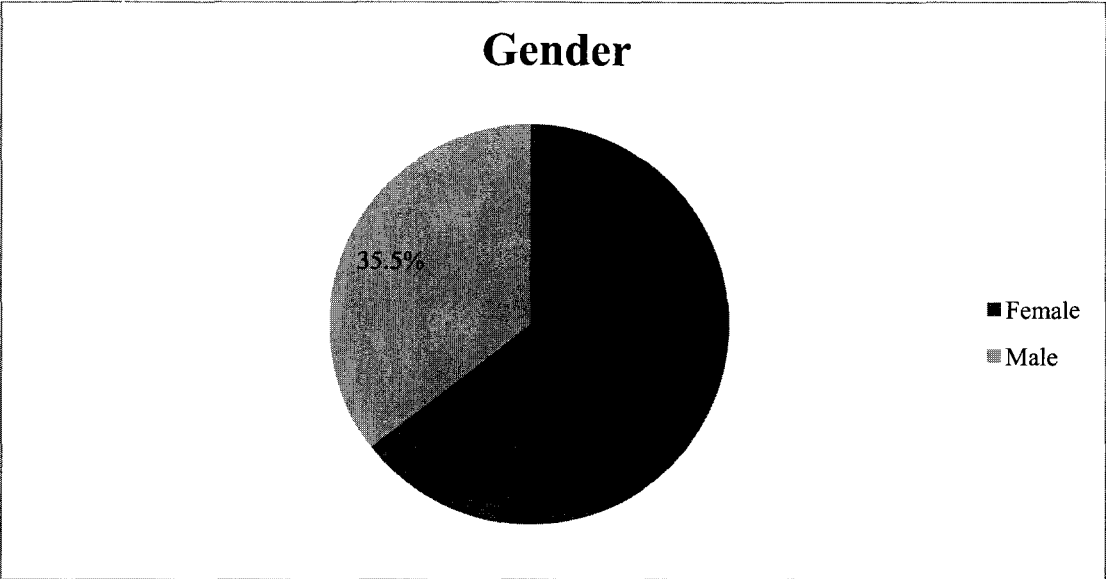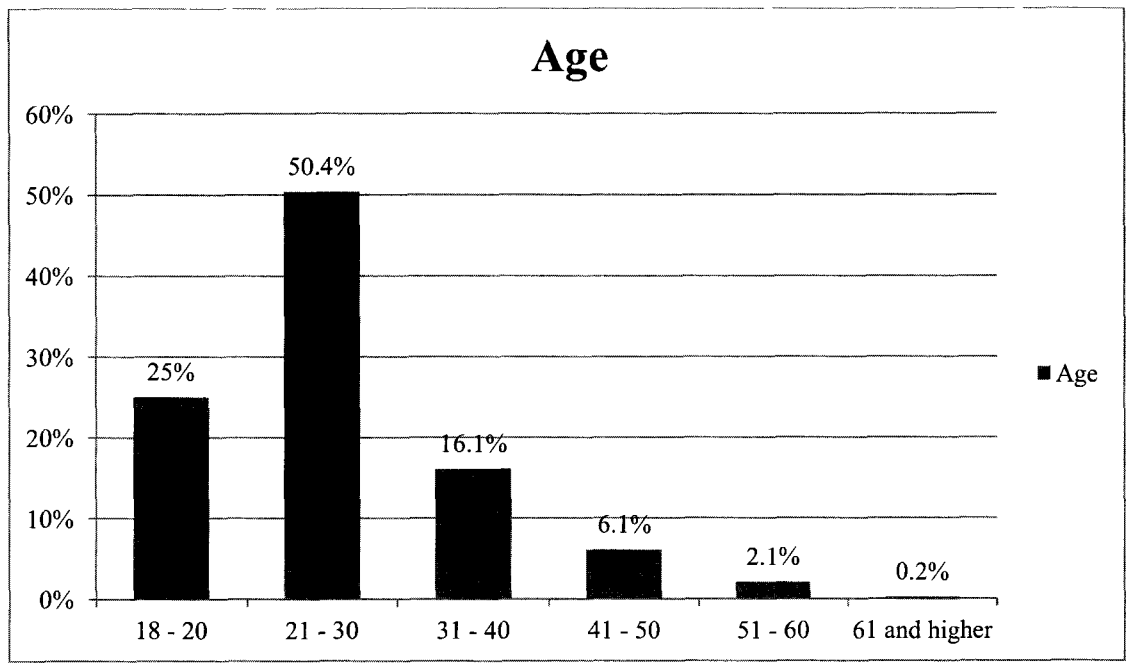
APPENDIX C

ACADEMIC CLUB PURPOSES

Café Con Leche

Using music, food, and activities, the goal of this club is to provide a support

system and network for those who have a mutual desire to learn about cultures in Spanish

speaking countries.

eXtreme science club

The purpose of this club is to promote and support experiential science activities

designed to relate to career choices within the sciences and to explore science resources

within the local community.

Fine Arts Society

This club promotes education and public interest in the visual arts, while

interacting with art enthusiasts and encouraging emerging artists at the community

college.

Philosophy Club

Club members focus on the social sciences and philosophy with activities that

include voter registration and Habitat for Humanity along with participation in Fall

Festival and Spring Fling.

Social Sciences Club

This club's purpose is to look beyond the often neglected and taken-for-granted

aspects of our social environment and examine them in a fresh and creative way utilizing

sociological imagination and perspective; to provide additional opportunities to develop

sociological skills for all future occupations; and to promote a sense of civic, campus, and

personal responsibility through voluntary membership/research.

APPENDIX D

OCCUPATIONAL CLUB PURPOSES AND PROGRAM CRITERIA

Association of Nursing Students

The purpose of this club is to support the welfare of all individuals without regard for race, sex, origin, social, or economic status by sharing in all phases of social living, upholding professional and educational standards, and adhering to a code of ethics that encourages the highest traditions of the nursing profession.

Club membership requires admission to the Associate Degree in Nursing (ADN) program. Admission into the ADN program requires:

- NA 1Certification and a listing on the Nurse's Aide I Registry.

- Completion in high school of Algebra II or MAT 70 with a "C" (77% - 84%) or higher

- Completion of Chemistry in high school or a transferable Chemistry from any College or University with a "C" (77% - 84%) or higher or CHM 090 at a North Carolina Community College

- Minimum SAT Scores of 520 or higher in Writing and Reading and 540 in Math or equivalent scores on COMPASS, ASSET, ACT, or ACCUPLACER/CPT

Dental Professions Club

The purpose of this club is to provide Dental Hygiene and Dental Assisting students a support system that includes faculty and peers in a network of connections by which they may obtain additional resources.

Club membership requires admission to the Dental Assisting (DA) or Dental Hygiene (DH) programs. Admission into the DA program requires:

- Minimum SAT Scores of 520 or higher in Writing and Reading or equivalent scores on COMPASS, ASSET, ACT, or ACCUPLACER/CPT

Admission into the DH program requires:

- Completion in high school of Algebra II or MAT 70 with a "C" (77% - 84%) or higher

- Completion of Chemistry in high school or a transferable Chemistry from any College or University with a "C" (77% - 84%) or higher or CHM 090 at a North Carolina Community College

- Minimum SAT Scores of 520 or higher in Writing and Reading and 540 in Math or equivalent scores on COMPASS, ASSET, ACT, or ACCUPLACER/CPT

Paralegal Society

The purpose of the Paralegal Society, as the student affiliate of the National Association of Legal Assistants, is to further paralegal education and to encourage a high degree of ethical and professional attainment.

Club membership requires enrollment in the Paralegal Technology curriculum.

Practical Nursing Education Club

The focus of this club is to prepare practical nursing students for membership and participation in professional practical nursing organizations with emphasis on professional growth and development through group activities and field trips.

Club membership requires admission to the Practical Nursing (PN) program. Admission into the PN program requires:

- Minimum SAT Scores of 520 or higher in Writing and Reading and 540 in Math or equivalent scores on COMPASS, ASSET, ACT, or ACCUPLACER/CPT

Star of Life

The purpose of this club is to ensure the continuation of the Star of Life endowed scholarship program while providing fellowship and support to students in the Emergency Medical Science field.

Membership is open to those who are currently or plan to enroll in the Emergency Medical Science (EMS) curriculum. Enrollment into the EMS program requires:

- Minimum SAT Scores of 520 or higher in Writing and Reading and 540 in Math or equivalent scores on COMPASS, ASSET, ACT, or ACCUPLACER/CPT

The Scrub Club

The purpose of The Scrub Club is to contribute to the surgical technology education of its members while demonstrating the importance of the surgical technology field.

Club membership requires admission to the Surgical Technology program. Admission into the Surgical Technology program requires:

- Minimum SAT Scores of 520 or higher in Writing and Reading and 540 in Math or equivalent scores on COMPASS, ASSET, ACT, or ACCUPLACER/CPT

APPENDIX E

LPS VALUES BY QUESTION

1. How involved are you in campus club activities? If you are a member of more than one club, consider the club in which you are the most active.

Score

1 I am a member, but I do not attend or participate.

2 I attend events, activities, or meetings.

3 I actively participate in events, activities, or meetings.

4 I hold a leadership position in the events, activities, or meetings.

2. Every club is required to have at least one representative at every SGA meeting. Please define your role related to student government representation.

Score

1 No involvement/ I do not attend or participate in SGA.

2 I attend SGA meetings

3 I actively participate in SGA meetings.

4 I represent a college-sponsored club at the SGA meetings.

3. The Student Government Association (SGA) conducts events throughout the year such as Fall Festival and Spring Fling. Clubs often participate in these and other SGS events. Please define your role in these events.

Score

1   No involvement/ I do not attend or participate.

2   I attend these events/ activities on behalf of my club.

3   I actively participate in events/ activities on behalf of my club.

4   I have a leadership position in these events.

4. Do you hold an elected or appointed leadership position within your club?

Score

2   Yes

1   No

5. Campus clubs have an on-campus project. How involved are you with your particular club's on-campus project? If you are a member of more than one club, please consider the club in which you are the most active.

Score

1   I am not aware of any on-campus project.

2   I am aware of the on-campus project but not involved.

3   I actively participate in the on-campus project.

4   I have a leadership role associated with the on-campus project

6. Campus clubs may have events that take place within the local community or at the state or national level. How would you characterize your involvement in off-campus activities or events? If you are a member of more than one club, please consider the club in which you are the most active.

Score

1   I am not aware of any off-campus activities or events.

2   I am aware of off-campus activities or events but not involved.

3   I actively participate in off-campus activities or events.

4   I have a leadership role associated with the off-campus activities or events

7. How involved would you like to be in campus club activities?

Score

3   I would like to be involved in more campus club activities.

2   I am content with my level of involvement in campus clubs.

1   I would like to be involved in fewer campus club activities.

APPENDIX F

RELEASE FORM FOR STUDENT SERVICES ACTIVITIES COORDINATOR INTERVIEW

Hello! You have been selected to complete an interview because you are the Student Services Activities Coordinator at Coastal Carolina Community College during the Fall 2010 Semester. This interview will help evaluate the clubs at Coastal Carolina Community College. We appreciate your feedback and will take all responses in consideration when developing an electronic survey to gather information pertaining to students' intent to persist and club participation. The responses will be shared with faculty and administrators for improvement reasons only.

Protection of Confidentiality

All information will be held in the strictest confidence. At no point will data resulting from the interview be indentified with you personally. Neither raw data nor your identity will be shared with any other parties. Your identity will not be revealed in any discussion or publication that might result from this study. In order to ensure confidentiality and data security, electronic data will be stored on a password-secured personal computer to which the researcher has exclusive access.

In rare cases, a research study will be evaluated by an oversight agency, such as the Old Dominion University Human Subjects Research Committee that may require that we share the information we collect from you. In this situation, the information would only be used to determine if we conducted this study properly and adequately protected your rights as a participant.

Voluntary Participation

Your participation in this research study is voluntary and will not impact your relationship with Coastal Carolina Community College in any way. You may choose not to participate, and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not participate or to withdraw from this study.

Consent

_____ Please sign here that you have read this consent form and have been given the opportunity to ask questions. I give my consent to participate in the interview.

APPENDIX G

STUDENT SERVICES ACTIVITIES COORDINATOR INTERVIEW

PROTOCOL

Hello, I know you are aware that I am a member of the faculty at Coastal Carolina

Community College, but you may not be aware that I am also a doctoral student at

Old Dominion University. I am conducting this interview to better understand how

clubs function at Coastal Carolina Community College. For the first question I will

need to turn on the tape recorder; however, you will be given an opportunity to do

the interview without the tape recorder if that is your preference, and I will take

written notes. Do you have any questions? Let's begin.

1. **Do you have any objection to this interview being recorded?**

2. **How long have you been the Student Activities Coordinator at this institution?**

3. **Have you had that role at another institution?**

   Are there differences between the institutions? What are those differences?

4. **Please estimate how much of your work schedule is related to clubs at this institution.**

5. **What activities or tasks do you do the most in the time you devote to clubs?**

6. **How many active clubs are there at this institution during the Fall 2010 semester?**

7. **Are you aware of any unofficial or unrecognized student clubs?**

   Could please tell me what you know about these unofficial and unrecognized clubs?

8. **Could you categorize the active clubs as occupational or academic clubs?**

   Please give your criteria for your categorizations.

9. **How frequently and what types of interaction do you have with the club advisors?**

10. **During the semester how often do you have inquiries about student clubs?**

What are the most common questions?

11. **Could you please describe all the ways you are aware of that students learn about clubs?**

In your opinion, which is the most effective way to inform students about clubs?

12. **In your opinion, what do you think makes a successful club at this institution?**

13. **Could you please describe the ways and means clubs are supported at this institution?**

14. **What impediments are you aware of that prevent students from participating in the clubs?**

Can you give specific examples?

15. **Is there anything you wish to clarify or add to what we have discussed?**

Thank you for your participation.

APPENDIX H

RELEASE FORM FOR CLUB ADVISORS INTERVIEW

Hello! You have been selected to complete an interview because you are a Club Advisor at Coastal Carolina Community College during the Fall 2010 Semester. This interview will help evaluate the clubs at Coastal Carolina Community College. We appreciate your feedback and will take all responses in consideration when developing an electronic survey to gather information pertaining to students' intent to persist and club participation. The responses will be shared with faculty and administrators for improvement reasons only.

Protection of Confidentiality

All information will be held in the strictest confidence. At no point will data resulting from the interview be indentified with you personally. Neither raw data nor your identity will be shared with any other parties. Your identity will not be revealed in any discussion or publication that might result from this study. In order to ensure confidentiality and data security, electronic data will be stored on a password-secured personal computer to which the researcher has exclusive access.

In rare cases, a research study will be evaluated by an oversight agency, such as the Old Dominion University Human Subjects Research Committee that may require that we share the information we collect from you. In this situation, the information would only be used to determine if we conducted this study properly and adequately protected your rights as a participant.

Voluntary Participation

Your participation in this research study is voluntary and will not impact your relationship with Coastal Carolina Community College in any way. You may choose not to participate, and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not participate or to withdraw from this study.

Consent

_____ Please sign here that you have read this consent form and have been given the opportunity to ask questions. I give my consent to participate in the interview.

APPENDIX I

CLUB ADVISOR INTERVIEW PROTOCOL

Hello, I know you are aware that I am a member of the faculty at Coastal Carolina Community College, but you may not be aware that I am also a doctoral student at Old Dominion University. I am conducting this interview to better understand how clubs function at Coastal Carolina Community College. For the first question I will need to turn on the tape recorder; however, you will be given an opportunity to do the interview without the tape recorder if that is your preference, and I will take written notes. Do you have any questions? Let's begin.

1. Do you have any objection to this interview being recorded?

2. How long have you been the club advisor for _____ (club name) at this institution?

3. Have you had this role at another institution?

   Are there differences between the institutions?

4. Have you been an advisor of more than one club at this institution?

   Which clubs? How long were you an advisor for each?

5. Please estimate how much of your time is related to clubs at this institution.

6. What activities or tasks do you do the most during the time you devote to clubs?

7. How frequently and what types of interaction do you have with the club members?

8. Do you primarily interact with the club officers or do you interact with the entire membership?

9. Are there other advisors or faculty members that interact with the membership?

Could you please describe their roles and the frequency and types of interactions they have with the club members?

10. **During the semester how often do you have inquiries about your club?**

What are the most common questions?

11. **Could you please describe all the ways you are aware of that students learn about clubs?**

In your opinion, which is the most effective way to inform students about clubs?

12. **In your opinion, what do you think makes a successful club at this institution?**

13. **Could you please describe the ways and means your club is supported at this institution?**

14. **Could you please describe the purpose of your club?**

15. **What impediments are you aware of that prevent students from participating in the club?**

Can you give specific examples?

16. **What problems do you encounter as a club advisor pertaining to student participation in club activities?**

17. **Is there anything you wish to clarify or add to what we have discussed?**

Thank you for your participation.

APPENDIX J

STUDENT FOCUS GROUP INVITATION

From: Cathy Songer < songerc@cc.coastalcarolina.edu
To: EDU 216 Foundations in Education and student club volunteers
Date: January 11, 2011
Re: CCCC Club Student Focus Group

Dear Focus Group Participant:
Let me introduce myself. At Coastal Carolina Community College, I am the Division Chair of Natural Science, a BIO 110-Principles of Biology instructor, and one of the club advisors for the eXtreme science club. Like you, I am also a student. I am a doctoral student at Old Dominion University in the Community College Leadership program.

Whether you are a member of a club or not at Coastal Carolina Community College, I am interested in your thoughts and opinions regarding clubs at your community college.

In rare cases, a research study will be evaluated by an oversight agency, such as the Old Dominion University Human Subjects Research Committee that may require that we share the information we collect from you. In this situation, the information would only be used to determine if we conducted this study properly and adequately protected your rights as a participant.

Your participation in the research study is voluntary and will not impact your relationship with the College in any way. You may choose not to participate, and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

The focus group will meet on January 18, 2011 at 9:00 in MS 107. Please confirm whether you will or will not attend by replying to this e-mail. If you have additional questions or concerns, please contact Cathy Songer at 910-938-6807 or songerc@coastalcarolina.edu.

Each focus group participant will receive a $10 Wal-Mart gift card.

Thank you,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair for Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

APPENDIX K

RELEASE FORM FOR FOCUS GROUP PARTICIPANTS

Dear Focus Group Participant:

You have been asked to participant in a focus group that will investigate your club-related experiences at Coastal Carolina Community College. This focus group will facilitate the construction of a survey instrument that will be used to collect data pertaining to community college clubs. The information that will be collected during the focus group will be complied and reported only as group information. No individual names will be used. Information from this focus group may be reviewed by the administration of Coastal Carolina Community College and a staff member from Old Dominion University, the oversight agency for this research. Your participation in the focus group is strictly voluntary and will be used to help us better understand community college clubs from the student perspective.

If you have any questions regarding this focus group, please contact Cathy Songer at songerc@coastalcarolina.edu or at 910-938-6807. Thank you for consideration.
Sincerely,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair for Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

I, _____, herby agree to voluntarily participate in a focus group of students who are eligible to be members of a community college club. I understand that all information will be held confidential and that I will be expected to keep the responses of the group confidential. I also understand that I can withdraw from participation at any time and with no penalty.

Signature: _____ Date:_____

APPENDIX L

FOCUS GROUP PROTOCOL

Hello, my name is Cathy Songer. I want to begin by thanking each of you for participating in this focus group. I am conducting this focus group to better understand your perspectives regarding community college clubs. I hope the information you provide will help us improve community college clubs and your experiences involving community college clubs.

I am going to ask a series of prepared questions. I will be recording the group responses in order to assure that I do not miss anything. I will also be taking notes on what you say, but I will not be noting who says what. You will not be identified in any part of the evaluation. Your responses will be kept completely confidential. As we begin the focus group, please remember to speak one at a time and to be respectful when someone else is talking. There is no particular order to when you should respond. For some questions, I may call on an individual to respond, or I may begin a round robin around the room. You are not required to answer and may opt not to respond by simply saying pass. You are encouraged to freely share your honest opinions, ideas, or experiences regarding participation in a community college club.

Do you have any questions? Let's begin.

1. Let's start with a round robin. Please introduce yourself by stating your name, your major area of study, and if you have or have not been a member of a community college club.

Prompts may be used to remind each participant of the three parts.

2. How do the number of campus clubs available compare to your expectations of how many clubs should be on campus?

3. What is the most common way you learn about clubs and club events?

Campus newspaper?

Campus e-mail?

Flyers/posters/banners/chalking on campus?

Web page?

Classroom instructors?

Other students?

4. Generally, how involved are you in campus activities and in particular campus clubs?

5. Are you as involved in campus activities as you would like to be?

6. What are some of the reasons you are not more involved with campus clubs?

Not enough time/ too busy?

Not interested?

Commitments to off-campus activities?

Inconvenience of commuting to and from campus?

Conflicts with academic obligations?

Conflicts with social obligations?

Conflicts with spiritual/religious principles?

Times/Days are not convenient?

Family commitments?

Exclusion of spouse and children?

Unsure of how to get involved?

Do not want to participate alone?

Shy?

Unwelcoming events?

Interests are not addressed?

Work?

7. Please describe the ways you feel you have been able to connect with other

students and faculty as a result of participating in campus clubs?

Does the faculty seem more approachable?

8. Please describe how your academic achievement may have been influenced by

participation in a community college club.

Improved?

Stayed the same?

Deteriorated?

Experience in major?

Study skills improvement?

9. Please describe the ways, if any, that you are more knowledgeable about the

campus community as a result of your participation in a club.

10. Could you state ways that your participation in a club may or may not have

influenced your commitment to complete your degree at this institution?

11. What other things could you tell me about your involvement with clubs that we

have not discussed? Is there anything you would like to add to our discussion?

12. Is there anything that you mentioned that you would like to clarify or change?

Please remember that all of the things we discussed in this room are to remain confidential.

Thank you very much for your time and willingness to participate in this focus group.

APPENDIX M

STUDENT FOCUS GROUP THANK YOU

From: Cathy Songer < songerc@cc.coastalcarolina.edu
To: EDU 216 Foundations in Education and student club volunteers
Date: January 19, 2011
Re: CCCC Club Student Focus Group Thank You

Dear Focus Group Participant:

You were selected to participate in a student focus group on January 18, 2011 at 9:00 in MS 107. Thank you for your participation by providing your opinions regarding Coastal Carolina Community College's policies and your experiences concerning the clubs at Coastal. Your participation in the focus group in this research was very important because you represented the views of many of your classmates. Your responses are confidential and will be used to improve the clubs at community colleges.

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

APPENDIX N

COMMUNITY COLLEGE CLUB SURVEY

Community College Club Survey
Thank you for taking the time to participate in this short survey which explores community college clubs from a student's perspective.

As a student who is eligible to participate in a community college club, you are in a unique position to help us understand some important issues regarding you and clubs.

All information will be held in strictest confidence. At no point will data resulting from the survey be identified with you personally. Neither raw data nor your identity will be shared with any other parties. Your identity will not be revealed in any discussion or publication that might result from this study. In order to ensure confidentiality and data security, electronic data will be stored on a password-secured computer to which the researcher has exclusive access.

Instructions:
Please read all the answer choices for each question. Your efforts to provide answers to all questions are appreciated. At the end of the survey you will be given the opportunity to enter a gift card drawing. Thank you for your participation!

1. Please enter your 7-digit Coastal Carolina Community College Student Identification Number. This number can be found on your Coastal Carolina Community College Student Identification Card.

CCCC ID [   ]

2. Are you at least 18 years old?

- o Yes
- o No*

   * Student will be directed to a Thank You page. Participants must be at least 18 years old.

3. Do you plan to enroll in classes within the next 12 months at this community college or another institution of higher learning?

- o Yes
- o No, I will graduate this semester.
- o No, I have decided not to continue at this time.

4. How do the number of campus clubs available at Coastal Carolina Community College compare to your expectations of how many should be available on campus?

- o I expect many more clubs.
- o The number of clubs matches my expectations.
- o I expect many fewer clubs.
- o I am not aware of the clubs that are available at this community college.

5. What is the most common way you learn about campus clubs? Select one.

- o Campus Cruiser E-mail
- o Flyers/Posters/Banners
- o Word of Mouth
- o Web Page
- o Facebook
- o Club Rush
- o Class Announcements
- o I never seem to hear about Campus Clubs
- o Other (please specify) [   ]

6. Are you currently, or have in the past been, a member of one of the following Coastal Carolina Community College sponsored clubs?

Association of Nursing Students
Dental Professions Club
Paralegal Society
Practical Nursing Education Club
Star of Life
The Scrub Club
Café Con Leche (Spanish Club)
eXtreme Science Club
Fine Arts Society
Philosophy Club
Social Sciences Club

- o Yes
- o No*

* Students are directed to a question regarding factors that may be impediments to student participation in clubs.

7. On the previous question you indicated that you are currently a member of a college-sponsored club or have been a member of a college-sponsored club in the past at Coastal Carolina Community College. From the choices below please select all the clubs in which you have been a member.

- o Association of Nursing Students
- o Dental Professions Club
- o Paralegal Society
- o Practical Nursing Education Club
- o Star of Life
- o The Scrub Club
- o Café Con Leche (Spanish Club)
- o eXtreme Science Club
- o Fine Arts Society
- o Philosophy Club
- o Social Sciences Club
- o Other (please specify) [   ]

8. How involved are you in campus club activities? If you are a member of more than one club, consider the club in which you are the most active.

- o I am a member, but I do not attend or participate.
- o I attend events, activities, or meetings.
- o I actively participate in events, activities, or meetings.
- o I hold a leadership position in the events, activities, or meetings.

9. Every club is required to have at least one representative at every SGA meeting. Please define your role related to student government representation.

- o No involvement/I do not attend or participate in SGA.
- o I attend SGA meetings.
- o I actively participate in SGA Meetings.
- o I represent a college-sponsored club at the SGA meetings.

10. The Student Government Association (SGA) conducts events throughout the year such as Fall Festival and Spring Fling. Clubs often participate in these and other SGA events. Please define your role in these events.

- o No involvement/I do not attend or participate.
- o I attend these events/activities on behalf of my club.
- o I actively participate in events/activities on behalf of my club.
- o I have a leadership position in these events.

11. Do you hold an elected or appointed leadership position with your club?

- o Yes
- o No

12. Campus clubs have an on-campus project. How involved are you with your particular club's on-campus project? If you are a member of more than one club, please consider the club in which you are the most active.

- o I am not aware of any on-campus project.
- o I am aware of the on-campus project but not involved.
- o I actively participate in the on-campus project.
- o I have a leadership role associated with the on-campus project.

13. Campus clubs may have events that take place within the local community or at the state or national levels. How would you characterize your involvement in off-campus activities or events? If you are a member of more than one club, please consider the club in which you are the most active.

- o I am not aware of any off-campus activities or events.
- o I am aware of off-campus activities or events but not involved.
- o I actively participate in off-campus activities or events.
- o I have a leadership role associated with the off-campus activities or events.

14. How involved would you like to be in campus club activities?

- o I would like to be involved in more campus club activities.
- o I am content with my level of involvement in campus clubs.
- o I would like to be involved in fewer campus club activities.

15. Which of the following factors contribute to your being less involved in campus club activities than you want to be? Check all that apply. *

- o Not enough time/too busy
- o Not interested
- o Didn't know campus clubs were offered.
- o Commitments to off-campus activities
- o Inconvenience of commuting and returning to campus
- o Interferes with academic obligations (studying, group work)
- o Interferes with social commitments (going out with friends)
- o Spiritual/religious principles prevent or hinder participation
- o Time/days of activities are not convenient
- o Family commitments

o   Spouse and children not included
o   Unsure of how to get involved
o   Do not want to participate alone
o   Too shy
o   Do not feel accepted
o   No interesting club activity in which to participate
o   Work
o   Other (please specify) [＿＿＿＿＿＿]

*Club participants and non-club participants were directed to identical versions of this question on the survey, however, for data purposes their responses were collected separately.

16. If you would like to enter the drawings for one of the three $50 gift cards, please provide your full name and a phone number where you can be reached during the day. Good Luck and thank you for your participation.

Please type in your name and phone number.

[＿＿＿＿＿＿]

APPENDIX O

COMMUNITY COLLEGE CLUB SURVEY ANNOUNCEMENT

From: Cathy Songer < songerc@cc.coastalcarolina.edu
To: Survey Eligible Students
Date: March 20, 2011
Subject: Community College Club Survey

Dear Coastal Carolina Community College Student,

You have been selected to participate in a survey about the clubs at Coastal Carolina Community College that will **begin on March 30, 2011 and conclude on April 20, 2011.** Whether you are a current member of a club, have been a club member in the past, or have never been a member of a club, we are interested in your opinions and insights. Your participation in this research is very important.

The survey will take about 10 minutes and is completely voluntary and confidential. Your name will not be linked to your responses in anyway. You will be asked to provide your Coastal Carolina Community College ID number which is found on your Coastal Carolina Student ID, and you may chose to submit your name and contact information at the end of the survey to be eligible to enter three drawings that will take place at the end of each of the weeks. A drawing for one of three $50 Wal-Mart gift cards will take place on April 6th, April 13th, and April 20th. You must complete the survey to enter the drawings.

In 10 days, please check your Campus Cruiser e-mail for the link to the electronic survey.

If you have any questions or need help, please e-mail Cathy Songer at songerc@coastalcarolina.edu or call 910-938-6807.

Thank you,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

APPENDIX P

COMMUNITY COLLEGE CLUB SURVEY INVITATION

From: Cathy Songer < songerc@cc.coastalcarolina.edu
To: Survey Eligible Students
Date: March 30, 2011
Subject: Community College Club Survey

Dear Coastal Carolina Community College Student,
You have been selected to participate in a survey about the clubs at Coastal Carolina Community College. Whether you are a current member of a club, have been a club member in the past, or have never been a member of a club, we are interested in your opinions and insights. Your participation in this research is very important.

The survey takes about 10 minutes and is completely voluntary and confidential. Your name will not be linked to your responses in anyway. You will be asked to provide your Coastal Carolina Community College ID number which is found on your Coastal Carolina Student ID, and you may chose to submit your name and contact information at the end of the survey to be eligible to enter three drawings that will take place at the end of each of the weeks. A drawing for one of three $50 Wal-Mart gift cards will take place on April 6th, April 13th, and April 20th. You must complete the survey to enter the drawings.

To participate in the survey, please click on the following link or paste the link into your web browser:

http://www.surveymonkey.com/s/CCCCClubSurvey

If you have any questions or need help, please e-mail Cathy Songer at songerc@cc.coastalcarolina.edu

Thank you,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

APPENDIX Q

COMMUNITY COLLEGE CLUB SURVEY REMINDER

From: Cathy Songer < songerc@cc.coastalcarolina.edu
To: Survey Eligible Students
Date: April 6, 2011
Subject: Community College Club Survey Reminder

Dear Student,

This is a reminder that you have been selected to participate in a survey about the clubs at Coastal Carolina Community College. Whether you are a current member of a club, have been a club member in the past, or have never been a member of a club, we are interested in your opinions and insights. Your participation in this research is very important.

The survey takes about 10 minutes and is completely voluntary and confidential. Your name will not be linked to your responses in anyway. You will be asked to provide your Coastal Carolina Community College ID number and you may chose to submit your name and contact information at the end of the survey to be eligible to enter the drawings. A drawing for one of three $50 Wal-Mart gift cards will take place at the end of the next two weeks on April 13th and April 20th. You must complete the survey to enter the drawings. The first drawing has taken place and the winner was<<name>>. There is still time to complete the survey and to be entered in the two remaining drawings.

To participate in the survey, please click on the following link:

http://www.surveymonkey.com/s/CCCCClubSurvey

If you have any questions or need help, please e-mail Cathy Songer at songerc@coastalcarolina.edu

Thank you,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

APPENDIX R

FINAL COMMUNITY COLLEGE CLUB SURVEY E-MAIL

From: Cathy Songer < songerc@cc.coastalcarolina.edu
To: Survey Eligible Students
Date: April 21, 2011
Subject: Final Survey E-Mail and Winner

Dear Coastal Carolina Community College Student,
The survey is now closed and no longer available. The final gift card winner was
<<name>>. Thank you to all who participated.

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

APPENDIX S

PANEL OF EXPERTS INVITATION

From: Cathy Songer < csong003@odu.edu
To: <<name>>
Date: January 30, 2011
Re: Community College Club Survey Content Validity Assessment

Dear <<name>>:

Thank you for agreeing to serve as a subject-matter expert for my dissertation study, Community College Student Persistence: A Focus on Occupational and Academic Clubs. Dr. Mitchell R. Williams, Old Dominion University, is chairing my dissertation committee. Your input is extremely important, and I appreciate you taking time out of your busy schedule to participate.

The professional literature establishes the values of student engagement to enhance student success and persistence, including the value of informal interactions with faculty. There have been very few empirical studies which address club participation at community colleges, the impact of the type of community college club participation, the level of club participation, or the encountered barriers to participation as they relate to student intent to persist. This study will fill a significant gap in the literature.

To address these issues, this study will survey students at a rural North Carolina community college who are eligible to be a member of a club. An initial survey instrument was developed by the researcher through a review of the literature, interviews with faculty club advisors and the Student Activities Coordinator, and a focus group discussion with students. As a subject-matter expert, you play an important role in assessing the content validity of the proposed survey instrument.

To participate in the expert panel, please:
·   Review the attached study purpose and research questions.
·   Evaluate the attached proposed survey questions.
In order to ensure your input can be carefully considered, I would appreciate your completion of the assessment by February 7, 2011.

Once again, thank you for your participation and your contributions to the success of this study. If you have any questions or concerns, please do not hesitate to contact me at csong003@odu.edu or 910-938-6807.

Sincerely,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science

Coastal Carolina Community College
444 Western Blvd.
Jacksonville, NC 28546

APPENDIX T

PURPOSE AND RESEARCH QUESTIONS FOR SUBJECT-MATTER EXPERTS

Purpose

The purpose of this study is fourfold: (a) to investigate the relationship of participation in community college clubs and student intent to persist, (b) to investigate the relationship between the type of community college club and student intent to persist, (c) to examine the relationship between the student-perceived level of participation, as measured by the Level of Participation Score (LPS), and student intent to persist, and (d) to discover the impediments to participation in clubs. The LPS will be derived by summing numerical values assigned to a student's responses on club participation survey items.

The survey information will add to the knowledge about student participation in clubs and provide institutions with insights about the nature of club participation and into the characteristics and variety of successful clubs as related to student intent to persist. These insights may act as a catalyst for club improvements or formation of clubs in rural North Carolina community colleges.

Research Questions

This study will be guided by the following four research questions:

1. How will community college-sponsored club participation be related to student intent to persist?

2. How will the type of club participation (occupational or academic) be related to student intent to persist?

3. How will student-perceived level of club participation predict student intent to persist?

4. What impediments to community college-sponsored club participation do students encounter?

APPENDIX U

EVALUATION INSTRUMENT FOR SUBJECT-MATTER EXPERTS

Thank you for serving as a subject-matter expert. As you proceed through the questions, it is not necessary to complete answers to the items, although you are welcome to do so.

Please complete the "Evaluation" which appears after each proposed survey question.

Thank you for your valuable assessment.

COMMUNITY COLLEGE CLUB SURVEY PROPOSED QUESTIONS

1. Do you plan to enroll in classes within the next 12 months at this community college or another institution of higher learning?

  o   Yes
  o   No, I will graduate this semester.
  o   No, I have decided not to continue at this time.

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o
	Yes	**No**	
This item pertains to the research questions.	o	o	
	Yes	**No**	
This item is clearly written.	o	o	

2. How do the number of campus clubs available at Coastal Carolina Community College compare to your expectations of how many should be available on campus?

  o   I expect many more clubs.
  o   The number of clubs matches my expectations.
  o   I expect many fewer clubs.

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o
	Yes	**No**	
This item pertains to the research questions.	o	o	
	Yes	**No**	
This item is clearly written.	o	o	

3. What is the most common way you learn about campus clubs? Select one.

- o Campus Cruiser E-mail
- o Flyers/Posters/Banners
- o Word of Mouth
- o Web Page
- o Club Rush
- o Class Announcements
- o I never seem to hear about campus clubs.
- o Other (please specify) [＿＿＿＿＿＿＿]

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o
	Yes	**No**	
This item pertains to the research questions.	o	o	
	Yes	**No**	
This item is clearly written.	o	o	

4. Do you currently or have you in the past been a member of a Coastal Carolina Community College sponsored club? Currently, there are 11 clubs as follows:

Association of Nursing Students
Dental Professions Club
Paralegal Society
Practical Nursing Education Club
Star of Life
The Scrub Club
Cafe'Con Leche (Spanish Club)
eXtreme science club
Fine Arts Society
Philosophy Club
Social Sciences Club

Please note that for this survey Phi Theta Kappa (PTK), the Student Government Association (SGA), and the Minority Male Mentoring Program are considered ORGANIZATIONS not clubs. If you are not currently a member of, or a past member of, one of the clubs listed above, you should respond NO to the question.

- o Yes
- o No

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o

	Yes	No
This item pertains to the research questions.	o	o

	Yes	No
This item is clearly written.	o	o

5. On the previous question you indicated you are currently a member of a college-sponsored club or have been a member of a college-sponsored club in the past at Coastal Carolina Community College. From the choices below please select all the clubs in which you have been a member.

- o Association of Nursing Students
- o Dental Professions Club
- o Paralegal Society
- o Practical Nursing Education Club
- o Star of Life
- o The Scrub Club
- o Cafe'Con Leche (Spanish Club)
- o eXtreme science club
- o Fine Arts Society
- o Philosophy Club
- o Social Science Club
- o Other (please specify)[   ]

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o

	Yes	No
This item pertains to the research questions.	o	o

	Yes	No
This item is clearly written.	o	o

6. How involved are you in campus club activities? If you are a member of more than one club, please consider the club in which you are the most active.

- o I am a member, but I do not attend or participate.
- o I attend events/activities.
- o I actively participate in/help to plan events/activities.
- o I hold a leadership position in these events/activities.

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o

	Yes	No
This item pertains to the research questions.	o	o

	Yes	No
This item is clearly written.	o	o

7. Every club is required to have at least one representative at every SGA meeting. Please define your role related to student government representation.

o   No involvement/I do not attend or participate.
o   I attend meetings.
o   I actively participate in meetings.
o   I represent a college-sponsored club at the SGA meeting.

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o

	Yes	No
This item pertains to the research questions.	o	o

	Yes	No
This item is clearly written.	o	o

8. The Student Government Association (SGA) conducts events throughout the year such as Fall Festival and Spring Fling. Clubs often participate in these and other SGA events. Please define your role in these events.

o   No involvement/I do not attend or participate.
o   I attend these events/activities.
o   I actively participate in events/activities.
o   I have a leadership position in these events.

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o

	Yes	No
This item pertains to the research questions.	o	o

	Yes	No
This item is clearly written.	o	o

9. Do you have a leadership role within your club? If you are a member of more than one club, please consider the club in which you have the most leadership responsibilities.

- o   I am a member of the club, but do not have any leadership responsibilities.
- o   I have some leadership responsibilities.
- o   I hold an elected or appointed position within the club such as president, treasurer, secretary, etc.

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o
	Yes	**No**	
This item pertains to the research questions.	o	o	
	Yes	**No**	
This item is clearly written.	o	o	

10. Campus clubs have an on-campus project. How involved are you with your particular club's on-campus project? If you are a member of more than one club, please consider the club in which you are the most active.

- o   I am not aware of any on-campus project.
- o   I am aware of the on-campus project but not involved.
- o   I actively participate in an on-campus project.
- o   I have a leadership role associated with the on-campus project.

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o
	Yes	**No**	
This item pertains to the research questions.	o	o	
	Yes	**No**	
This item is clearly written.	o	o	

11. How involved would you like to be in campus club activities?

- o   I would like to be involved more in campus club activities.
- o   I am content with my level of involvement in campus clubs.
- o   I would like to be involved in fewer campus club activities.

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o
	Yes	**No**	
This item pertains to the research questions.	o	o	
	Yes	**No**	
This item is clearly written.	o	o	

12. Which of the following factors contribute to you being less involved in campus club activities than you want to be? Please check all that apply.

- o Not enough time/too busy
- o Not interested
- o Commitments to off-campus activities
- o Inconvenience of commuting and returning to campus
- o Interferes with academic obligations (studying, group work)
- o Interferes with social commitments (going out with friends)
- o Spiritual/religious principles prevent or hinder participation
- o Times/days of activities are not convenient
- o Family commitments
- o Spouse or children not included
- o Unsure of how to get involved
- o Do not want to participate alone
- o Too shy
- o Do not feel accepted
- o No interesting club activity in which to participate
- o Work
- o Concerns related to military deployments or activities
- o Other (please specify) [_____]

Evaluation: Please indicate your level of agreement with each of the following statements.

	Omit	Revise	Retain
This item should be included in the survey.	o	o	o
	Yes	**No**	
This item pertains to the research questions.	o	o	
	Yes	**No**	
This item is clearly written.	o	o	

APPENDIX V

INVITATION TO PARTICIPATE IN PILOT GROUP

From: Cathy Songer < songerc@cc.coastalcarolina.edu
To: EDU 216 -02 and volunteer club members
Date: February 14, 2011
Subject: CCCC Pilot Group

Dear Participant:
Let me introduce myself. At Coastal Carolina Community College, I am the Division Chair of Natural Science, a BIO 110-Principles of Biology instructor, and one of the club advisors for the eXtreme science club. Like you, I am also a student. I am a doctoral student at Old Dominion University in the Community College Leadership program.

Whether you are a member of a club or not at Coastal Carolina Community College, I am interested in your thoughts and opinions regarding clubs at this community college.

In rare cases, a research study will be evaluated by an oversight agency, such as the Old Dominion University Human Subjects Research Committee that may require that we share the information we collect from you. In this situation, the information would only be used to determine if we conducted this study properly and adequately protected your rights as a participant.

Your participation in the research study is voluntary and will not impact your relationship with the College in any way. You may choose not to participate, and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

To investigate clubs, I intend to survey students at Coastal Carolina Community College. You are in a unique position to provide valuable input. I am writing to ask if you would be willing to participate in a brief pilot study to evaluate the validity and reliability of the survey instrument. In a few days, you will be asked to go to a computer lab to complete the survey.

Participation will involve two steps:
1. You will be asked to complete the brief online survey that will eventually be administered to the students, as well as, four additional questions used to evaluate the survey's content validity.
2. Approximately 2 weeks later, you will be asked to complete the online survey again. These data will be used to assess the survey's reliability.

Each participant who completes both surveys will receive a $10 Wal-Mart gift card. I know your schedule is busy, so I appreciate your efforts. If you have any questions or concerns, please do not hesitate to contact me at songerc@coastalcarolina.edu or 910-938-6807.

Thank you,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

APPENDIX W

E-MAIL CORRESPONDENCE TO PILOT GROUP

From: Cathy Songer < songerc@cc.coastalcarolina.edu
To: EDU 216-02 and volunteer club members
Date: February 21, 2011
Subject: CCCC Pilot Study

Dear Participant,

Thank you for considering participating in the pilot study for my dissertation entitled *Community College Student Persistence: A Focus on Occupational and Academic Clubs.*

The purpose of the study is to investigate the relationships between club participation and student persistence. You play an important role in assessing the content validity of the proposed survey instrument before it is administered to all the curriculum students at Coastal Carolina Community College.

To participate:
1. Please complete the survey by clicking on the survey link below on February 21, 2011.

2. At the conclusion of the survey you will be redirected to a four question assessment of the instrument to provide comments about the content and clarity.

3. Please note you will receive an e-mail in approximately two weeks, asking you to complete the survey again for the purpose of test-retest reliability.

Your input is extremely valuable and I appreciate your efforts to participate. If you have questions or concerns, please do not hesitate to contact me at songerc@coastalcarolina.edu or 910-938-6807.

Sincerely,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

Link to Survey: http://www.surveymonkey.com/s/clubresearch

APPENDIX X

EMAIL CORRESPONDENCE TO PILOT GROUP FOR RETEST

From: Cathy Songer < songerc@cc.coastalcarolina.edu
To: EDU 216-02 and volunteer club members
Date: March 7, 2011
Subject: Pilot Study

Dear Participant,

Thank you for agreeing to participate in the pilot study for my dissertation entitled *Community College Student Persistence: A Focus on Occupational and Academic Clubs.*

Two weeks ago, you provided valuable input to improve the survey instrument that will be administered to all the curriculum students at Coastal Carolina Community College.

It is critical to evaluate the reliability of the survey instrument. In order to accomplish this, I must ask you to complete the survey a second time by clicking on the link below.

I would appreciate your effort to complete the retest on March7, 2011.

Thank you for your invaluable input. Please do not hesitate to contact me if you have questions or concerns at songerc@coastalcarolina.edu or 910-938-6807.

Sincerely,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu

Link to Survey Retest: http://www.surveymonkey.com/s/pilottest2

APPENDIX Y

FACULTY AWARENESS E-MAIL

From: CCCC Host Admin < ccccadmin@cc.coastal carlina.edu>
    Campus Adjunct Faculty of Coastal Carolina Community College
    campus_adjunct_faculty_5163409@cc.coastalcarolina.edu, Campus Faculty of
    Coastal Carolina Community College
    Campus_faculty_5163409@cc.coastalcarolina.edu,
    songerc@coastalcarolina.edu
Date: Monday – March 21, 2011 9:03 AM

From: Cathy Songer

To: CCCC Faculty

Date: March 20, 2011

Subject: Survey Awareness

Dear CCCC Faculty,

It does not seem that long ago that I asked for your support during Faculty Assembly.
For those of you who were not present at the meeting, my request was to raise awareness
of a survey that I would use to collect data for my dissertation. I requested making
announcements in class or postings in online classes.

On March 20th, I sent the copied e-mail invitation below to over 4,000 eligible students at
Coastal. Students who are eligible to take the survey must be regularly enrolled in at
least one curriculum class. Dual enrolled students are not eligible.

The link to the survey will be made available in 10 days and you should also see some
bright green flyers in the shape of "$" appear on campus. I sincerely appreciate your
efforts to encourage students who have received the e-mail to compete the survey. It is to
their advantage to complete the survey before April 6th, because they will have the most
chances of winning a gift card. If you have any questions or concerns, please do not
hesitate to contact me. Thanks in advance for all your efforts.

Respectfully,
Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College
songerc@coastalcarolina.edu
910-938-6807

The following is the invitation e-mail the students received.

From: Cathy Songer

To: Survey Eligible Students

Date: March 20, 2011

Subject: Community College Club Survey

Dear Coastal Carolina Community College Student,

You have been selected to participate in a survey about the clubs at Coastal Carolina Community College that will **begin on March 30, 2011 and conclude on April 20, 2011.** Whether you are a current member of a club, have been a club member in the past, or have never been a member of a club, we are interested in your opinions and insights. Your participation in the research is very important.

The survey will take about 10 minutes and is completely voluntary and confidential. Your name will not be linked to your responses in any way. You will be asked to provide your Coastal Carolina Community College ID number which is found on your Coastal Carolina Student ID, and you may chose to submit your name and contact information at the end of the survey to be eligible to enter three drawings that will take place on April 6th, April 13th, and April 20th. You must complete the survey to enter the drawings.

In 10 days, please check your Campus Cruiser e-mail for the link to the electronic survey.

If you have any questions or need help, please e-mail Cathy Songer at songerc@coastalcarolina.edu

Thank you,

Cathy Songer
Doctoral Candidate, Old Dominion University
Division Chair of Natural Science, Coastal Carolina Community College

APPENDIX Z

SURVEY ADVERTISEMENT FLYER

1. Check your Campus Cruiser E-mail for survey invitation.
2. Complete short survey.
3. Submit survey for chance to win $50 gift card.
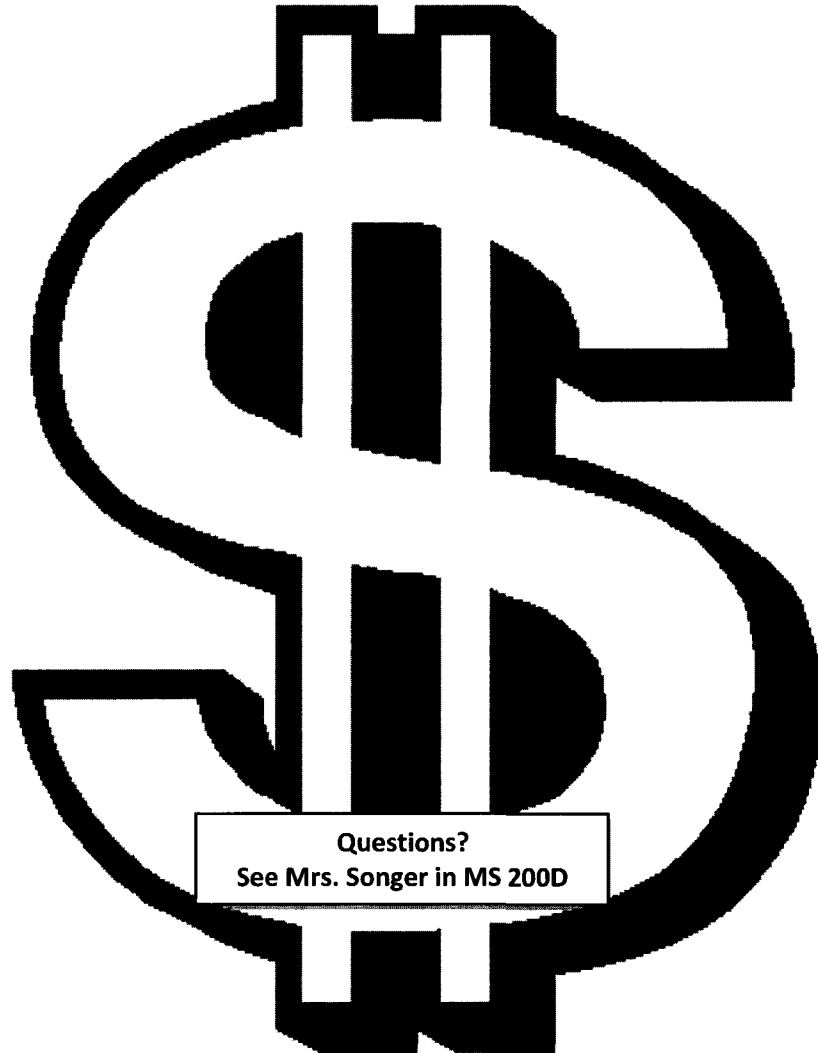
Questions?
See Mrs. Songer in MS 200D

APPENDIX AA

E-MAIL REQUEST FOR BLACKBOARD AND CAMPUS CRUISER

ANNOUNCEMENT

From: Cathy Songer
To: Mary Desrosier; Richard Downs
CC: Cathy Songer
Date: March 29, 2011 11:18 AM

Dear Mary and Richard,

I am requesting your help to raise awareness regarding the CCCC Club Survey by posting an announcement on Campus Cruiser and on Blackboard. I am hesitant to refer to it as a club survey, because it is not just for students who are in clubs. Data collection will begin tomorrow March 30th and finish on April 20th. About 10 days ago, the students were sent an invitation to the survey that announced they would be receiving the link in the next e-mail. Later tonight, I will be sending the link to the survey. I will also be posting flyers on campus.

I am open to suggestions on the wording for the announcement. The flyers are very straight forward. 1. Check your Campus Cruiser E-mail for survey invitation. 2. Complete short survey. 3. Submit survey for chance to win $50 gift card.

I am suggesting the following wording.
Please check your Campus Cruiser E-mail for an invitation to complete a short survey. Survey participants may enter a drawing for several $50 gift cards. The survey will be available from March 30th to April 20th. See invitation for complete details. If you have questions, contact Cathy Songer at songerc@coastalcarolina.edu.

Thanks in advance for any efforts on my behalf,
Cathy

APPENDIX BB

RESEARCH QUESTIONS AND SURVEY QUESTIONS CHART

Research Question	Survey Question
Background/ Demographics	Please enter your 7-digit Coastal Carolina Community College Student Identification Number. This number can be found on your Coastal Carolina Community College Student Identification Card.
Background/ Demographics	Are you at least 18 years old? Yes No
Research Questions 1,2,3	Do you plan to enroll in classes within the next 12 months at this community college or another institution of higher learning? Yes No, I will graduate this semester. No, I have decided not to continue at this time.
Background/ Research Question 4	How do the number of campus clubs available at Coastal Carolina Community College compare to your expectations? I expect many more clubs The number of clubs matches my expectations. I expect many fewer clubs. I am not aware of the clubs that are available at this community college.
Background/ Research Question 4	What is the most common way you learn about campus clubs? Campus Cruiser E-mail Flyers/Posters/Banners Word of Mouth Web Page Facebook Club Rush Class Announcements I never seem to hear about Campus Clubs. Other (please specify)

Research Question 1	Are you currently, or have in the past been, a member of one of the following Coastal Carolina Community College sponsored clubs? Association of Nursing Students Dental Professions Club Paralegal Society Practical Nursing Education Club Star of Life The Scrub Club Café Con Leche (Spanish Club) eXtreme Science Club Fine Arts Society Philosophy Club Social Sciences Club Yes No
Research Question 2	On the previous question you indicated that you are currently a member of a college-sponsored club or have been a member of a college-sponsored club in the past at Coastal Carolina Community College. From the choices below please select all the clubs in which you have been a member. Association of Nursing Students Dental Professions Club Paralegal Society Practical Nursing Education Club Star of Life The Scrub Club Café Con Leche (Spanish Club) eXtreme Science Club Fine Arts Society Philosophy Club Social Sciences Club Other (please specify)
Research Question 3	How involved are you in campus club activities? If you are a member of more than one club, consider the club in which you are the most active. I am a member, but I do not attend or participate. I attend events, activities, or meetings. I actively participate in events, activities, or meetings. I hold a leadership position in the events, activities, or meetings.

Research Question 3	Every club is required to have at last one representative at every SGA meeting. Please define your role related to student government representation. No involvement/ I do not attend or participate in SGA. I attend SGA meetings. I actively participate in SGA meetings. I represent a college-sponsored club at SGA meetings.
Research Question 3	The Student Government Association (SGA) conducts events throughout the year such as Fall Festival and Spring Fling. Clubs often participate in these events. Please define your role in these events. No involvement/ I do not attend or participate. I attend these events/ activities on behalf of my club. I actively participate in events/ activities on behalf of my club. I have a leadership position in these events.
Research Question 3	Do you hold an elected or appointed leadership position within your club? Yes No
Research Question 3	Campus clubs have an on-campus project. How involved are you with your particular club's on-campus project? If you are a member of more than one club, please consider the club in which you are the most active. I am not aware of any on-campus projects. I am aware of the on-campus project but not involved. I actively participate in the on-campus project. I have a leadership role associated with the on-campus project.
Research Question 3	Campus clubs may have events that take place within the local community or at the state or national level. How would you characterize your involvement in off-campus activities or events? If you are a member of more than one club, please consider the club in which you are the most active. I am not aware of any off-campus activities or events. I am aware of off-campus activities or events but not involved. I actively participate in off-campus activities or events. I have a leadership role associated with the off-campus activities or events.

Research Question 3	How involved would you like to be in campus club activities? I would like to be involved in more campus club activities. I am content with my level of involvement in campus clubs. I would like to be involved in fewer campus club activities.
Research Question 4	Which of the following factors contribute to your being less involved in campus club activities than you want to be? Check all that apply. Not enough time/ too busy Not interested Didn't know campus clubs were offered Commitments to off-campus activities Inconvenience of commuting and returning to campus Interferes with academic obligations (studying, group work) Interferes with social commitments (going out with friends) Spiritual/ religious principles prevent or hinder participation Times/ days of activities are not convenient Family commitments Spouse and children not included Unsure of how to get involved Do not want to participate alone Too shy Do not feel accepted No interesting club activity in which to participate Work Other(please specify)

APPENDIX CC

CLUB MEMBER RESPONSES* TO OPEN-ENDED QUESTION PERTAINING TO "OTHER" IMPEDIMENTS

- Activities are not worth pursing because staff does not support worthwhile activities

- N/A

- There are not any current clubs I am interested in

- Clubs are often run like high school rather than college level

- No options available.

* Other responses are included exactly as submitted on the survey and contain grammar and spelling errors.

APPENDIX DD

NON-CLUB MEMBER RESPONSES* TO OPEN-ENDED QUESTION PERTAINING TO "OTHER" IMPEDIMENTS

- USMC

- I'm taking 18 credits. Whenever the clubs meet that I'm interested in, I'm already in class.

- my child

- Though I'm unsure how, that's only because I haven't inquired further which is my own fault. I try to spend my free time with my family but outside activities is healthy for a hobby, this survey may have promted me to inquire further. Thank you!

- no sports clubs, like intramurals

- There are no clubs that involve my interests.

- Most clubs are not in my major

- I live in Wendell, NC – taking all online classes for Fire Technology

- No Club I am interested in.

- attend college as a continuing ed student

- First semester. Once I finish this semester I might be more involved.

- family life, kids, dog, sports, etc.

- not sure of all clubs as of yet and which might be interesting to me.

- not in those particular areas of study so I didn't feel I could join

- Dont know about them, I would like an early childhood club

- Membership in SGA and in PTK

- Volunteer work

- Im only here for the classes till I can go on to a higher institution

- online student

- fees involved financial

- Would love to have a club for christians seeing that we live in the bible belt

- I only take online classes

- Never got enough information about the clubs to know what they are about

- Spouse

- Online Student

- Online learning

- volunteer as a coach for boxing.

- Distance – I'm a online only student

- dont advertise enough

- Currently taking courses online so I don't have to go on campus, therefor, unaware of clubs

- Physics

- Do not know of any Saturday meetings I can attend

- I want to join but don't know how or what is available!

- expended out so to speak w/other community, church involvement

- I sent an email to join the FineArtsSociety but never heard from them.

- I live on the other end of the state

- online student

- live far away

- I am a distance student.

- Early Childhood clubs?

- I wasnt allowed to participate in spanish club

- Would like more sports or health-oriented clubs

- No fraternities like a real college

- I don't know how to contact people in clubs when I stop by the ptk office its always closed

- Dont know about many of the clubs offered

- Once you've expressed interested, you never receive feedback

- no clubs for my field of study

- physically not able to do some things.

- Dont feel I fit into any of them...

- I am only taking on-line classes from the Western part of the state

- Id like to be involved in one but the one I want to get involved in they never have meetings

- dont feel like they want to be open to new people

- If there was a club for MLT I would join.

- the clubs offered have nothing to do with my major or interests. not a wide enough range of clubs

- Would like an expanded area of clubs that are offered

- ive never even seen anything about the clubs offered at coastal

- wish there was a Religious Club

- parking on campus is ridiculous

- maybe a movie day and people can donate a dollar to get in and all the proceeds can be put towards the scholarship department or to award improved students.

- There is nothing that interest me.

- I attend classes on Camp Lejeune only

- Club rush is always during the times I am in class, so by the time I am finished with class everything is over

- When I signed the contact roster last Semester during Club Rush, I was never contacted as promised.

- Since I am an older student I feel I would not be accepted freely by others. Perhaps, a generation gap would be present.

- Didn't know I could be involved without an invite.

- must pay registration fee, dont have the money

- Concerned i will not live up to the club responsibilities

* Other responses are included exactly as submitted on the survey and contain grammar and spelling errors.

APPENDIX EE

IMPEDIMENTS BAR GRAPH
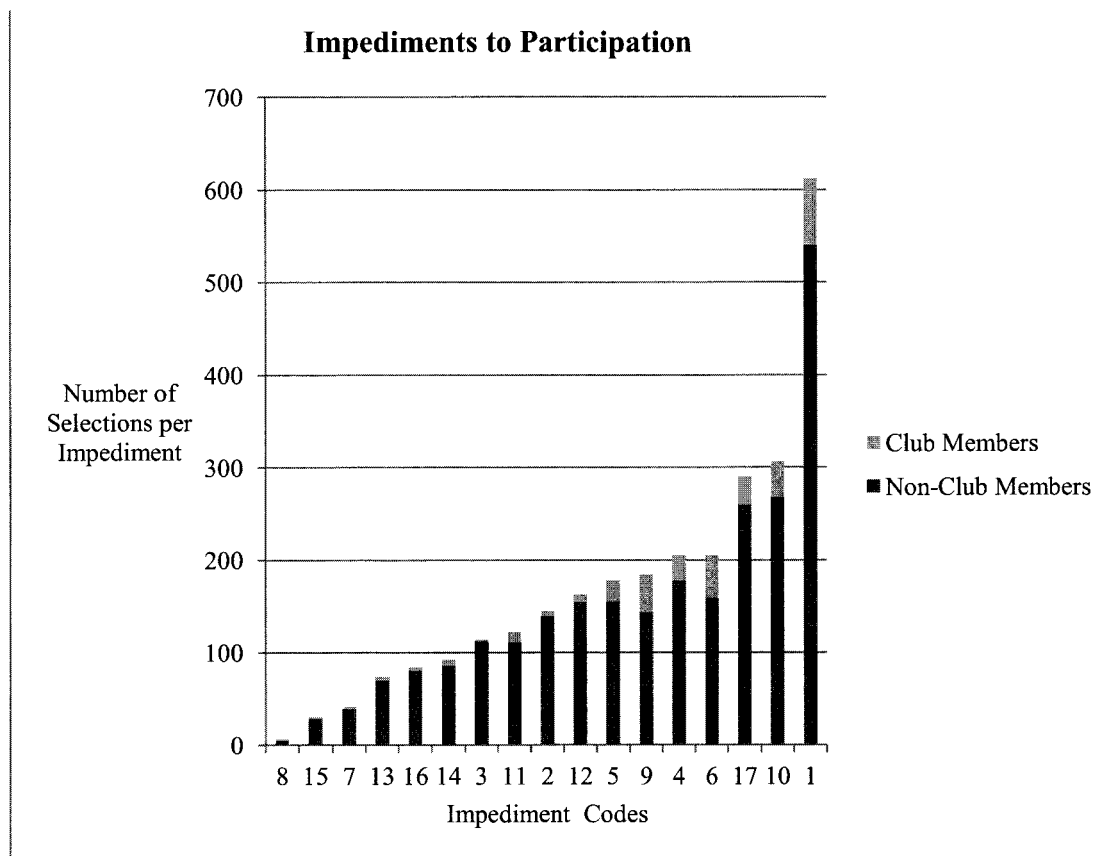
Impediment Codes

1 = Not enough time/ too busy

2 = Not interested

3 = Didn't know campus clubs were offered

4 = Commitments to off-campus activities

5 = Inconvenience of commuting and returning to campus

6 = Interferes with academic obligations (studying, group work)

7 = Interferes with social commitments (going out with friends)

8 = Spiritual/ religious principles prevent or hinder participation

9 = Times/days of activities are not convenient

10 = Family commitments

11 = Spouse and children not included

12= Unsure of how to get involved

13 = Do not want to participate alone

14 = Too shy

15 = Do not feel accepted

16 = No interesting club activity in which to participate

17 = Work

APPENDIX FF

COMBINED IMPEDIMENT RESPONSES

Impediment	f	Percent
Not enough time/ too busy	612	21.5
Not interested	145	5.1
Didn't know campus clubs were offered	114	4.0
Commitments to off-campus activities	205	7.2
Inconvenience of commuting and returning to campus	178	6.2
Interferes with academic obligations (studying, group work)	205	7.2
Interferes with social commitments (going out with friends)	41	1.4
Spiritual/ religious principles prevent or hinder participation	6	0.2
Times/days of activities are not convenient	182	6.4
Family commitments	306	10.7
Spouse and children not included	122	4.3
Unsure of how to get involved	163	5.7
Do not want to participate alone	74	2.6
Too shy	92	3.2
Do not feel accepted	30	1.1
No interesting club activity in which to participate	84	2.9
Work	290	10.2

VITA

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Ph.D., Community College Leadership, Old Dominion University, in progress
M.S., Biology, University of North Carolina at Wilmington, 1993
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EXPERIENCE

Coastal Carolina Community College, Jacksonville, NC
- Division Chair of Natural Science, 2005 to present
- Biology Instructor, 1984-1986, 1994-1996, 2000 to present

Kellogg Community College, Battle Creek, MI
- Biology Instructor, 1999- 2000

Kalamazoo Valley Community College, Kalamazoo, MI
- Biology Instructor, 1998-2000

PUBLICATIONS AND PRESENTATIONS

Songer, C. (2000, January). Improve Your Instruction Through Concept Mapping. Professional development workshop presented at Coastal Carolina Community College, Jacksonville, NC.

Songer, C., & Mintzes, J. (1994). Understanding cellular respiration: An analysis of conceptual change in college biology. *Journal of Research in Science Teaching, 31*(6), 621-637.

Songer, C., & Mintzes, J. (1993, August). Understanding cellular respiration: An analysis of conceptual change in college biology. Paper presented before the Third International Seminar, "Misconceptions and Educational Strategies in Science and Mathematics", Cornell University, Ithaca, NY.

Songer, C. (1992, December). Implications of Concept Mapping and Misconceptions Research for Science Teaching. National Science Teachers Association Convention, Charlotte, NC.

SERVICE

CCCC Faculty Evaluation Committee, 2011-present
CCCC Faculty Advisor Steering Committee, 2005 - present
CCCC Quality Enhancement Plan Committee, Student Skills Development Initiative Sub-Committee, 2005 – present
CCCC, ACA Student Success Development and Steering Committee, 2005 – present
CCCC Faculty Advisor, Extreme Science Club, 2002 – present