4-2012

First Year Student Development: Sophomore Students' Perceptions of Growth and Contributing Factors

Catherine B. Holbrook
University of Nebraska-Lincoln, cholbrook@bridgew.edu

Follow this and additional works at: http://digitalcommons.unl.edu/cehsedaddiss

Part of the Higher Education Administration Commons

FIRST YEAR STUDENT DEVELOPMENT: STUDENTS' PERCEPTIONS OF

GROWTH AND CONTRIBUTING FACTORS

by

Catherine B. Holbrook

A DISSERTATION

Presented to the Faculty of

The Graduate School at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Philosophy

Major: Educational Studies

(Educational Leadership & Higher Education)

Under the Supervision of Professor James P. O'Hanlon

Lincoln, Nebraska

April, 2012

FIRST YEAR STUDENT DEVELOPMENT: STUDENTS' PERCEPTIONS OF

GROWTH AND CONTRIBUTING FACTORS

Catherine B. Holbrook, Ph.D.

University of Nebraska, 2012

Adviser: James P. O'Hanlon

The first year of college is critically important to student success, often shaping the amount and nature of growth and learning over the entire collegiate career in complex and profound ways. For this reason, higher education experts have called for colleges and universities to establish integrated, intentional programs for new students with identified outcomes which are regularly assessed to evaluate effectiveness. The purpose of this concurrent nested study was to investigate how college sophomores perceived their personal development during the first year of college against 10 specific competencies and to understand what types of first year experiences contributed to any reported developmental gains.

Using quantitative data from a survey developed for this project, the study identified gains in these competencies through comparison of students' self-reports of current level (CL) skill with their retrospective self-reports of entry level (EL) skill in the same competencies using paired samples t tests. Further analysis was conducted using analysis of variance (ANOVA) to determine whether variables of gender; residency; racial or ethnic diversity; and participation in meaningful activities had any impact on reported gains. Additional ANOVA analysis was conducted to determine if there were any interactions between the three demographic variables and participation. Finally,

qualitative data provided insights into factors contributing to perceived student growth in the 10 competencies.

Participants reported significant gains in all 10 competencies. No differences in gains on the 10 competencies were found based on gender; racial or ethnic diversity; or participation in activities. Two significant differences in competency gains were found, with campus residents reporting higher gains in understanding of difference and writing skills than their commuting peers. Students of color reported significantly more involvement in meaningful activities than their white peers. A number of between group effects were found, providing valuable information to guide intentional practice.

Students were able to identify a wide range of curricular and co-curricular factors contributing to their growth in each competency in open-ended responses that were coding using emergent theme coding. Curricular factors predominated in the acquisition of writing and speaking skills, while co-curricular factors predominated in the acquisition of decision-making, self-knowledge, self-esteem/confidence, understanding of difference and community involvement. Problem solving and community involvement were affected equally by factors in both categories.

COPYRIGHT PAGE

ACKNOWLEDGEMENTS

Although the dissertation process is largely a solitary one, I feel very fortunate to have had so much support along the way that I never felt lonely in this endeavor. I am grateful for the vast network of people from literally across the country who have provide that support and want to acknowledge them. First of all, thank you to my advisor, Dr. James O'Hanlon, who has been an integral part of my efforts from 2004 when I took my first class with him. Dr. O'Hanlon offered to serve as my advisor. Along the way his patience, common sense, keen insight and gentle pushes have helped me along the way with this project. I will be forever grateful for his belief that I would get to this point, even when I doubted it myself. I also want to thank my other committee members, Dr. Rich Hoover and Dr. Jim Griesen, for their efforts in the classes I took with them and in shaping this project with their insights and questions. I also want to thank Dr Sue Sheridan for her assistance in ensuring I crafted my questions more carefully and developed my methodology thoroughly before beginning my research. It is not until the end that you fully realize how critical this pre-research attention is to a successful project.

I also want to thank my fellow UNL classmates along the way who were always open to discussing this project, particularly Dr. Jane Souza, Dr. Ron Chesbrough, and Dr. Kate Mueller. Kate in particular has been an invaluable friend, and an asset to this dissertation. When one of my coders had to step back, Kate did not hesitate to jump in and assist me by reading and coding the open responses in a few short weeks so I could stay on schedule. I also need to thank Dr. Marlene Clapp for her assistance as a qualitative coder too. Together with Kate, she made it possible for me test the

trustiworthiness of my qualitative data and helped me tighten up the themes and codes to create a more easily understood set of findings.

My thanks also go to Tim Gaskill and Houston Lester at the NEAR Center for their hours of assistance from project design to data analysis. Houston in particular was the essence of patience in first doing my data analysis and explaining it to me, and then answering questions as redid the analyses again and examined additional questions. He understood my need to "get there" on my own even when I needed SPSS refreshers!

The number of people to thank on my own campus is immense. I have had institutional support both for my studies and for this project since the very beginning and I cannot fully convey how grateful I am for this support and assistance. My president, Dr. Dana Mohler-Faria, and vice-president, Dr. David Ostroth, allowed me to adjust my schedule and take professional development time to complete my research, and without this flexibility and knowledge that they supported my educational goals and trusted in me to carry out my duties was essential to completing my PhD. while also working full-time. Dr. Cathy Turrentine provided advice, technical assistance and resources at every turn, providing a glimpse of phenomenal professor she must have been before arriving at BSU! Dr. Michael Young provided complete access to the necessary data I needed and support for including this project in the institutional research plan without which data gathering would have been very difficult.

And then there has been the tremendous help of members of the Student Affairs staff and my colleagues across the campus who aided in so many ways - from picking up the slack when I was working on this project to passing on readings to listening to my excitement and frustration to cheerleading when I hit milestones or just needed a boost.

The names are too many to include, but I would be remiss if I did not mention Cindy Kane, Beth Moriarty, Heather Smith, Darlene Costa-Brown, Andy Harris, Keri Powers, and Janet Gumbris. Thank you all. And thanks to my #sachat and #sadoc friends across the country, many of whom I have not yet met IRL, but who been supportive in so many ways for the past couple of years.

Finally, but by no means last nor least, is my family, who has been there for 8 long years as I pursued this journey. My husband Paul was back in school when I started, and finished, and has had to pick up the pieces around here while I read or wrote. My daughter, Kate, graduated from high school and college, and still I worked on. And my youngest daughter Beth completed high school and will graduate from college in 2012, as I am doing. I am grateful she isn't leaving me all alone at the end! They each have been disappointed in the things I couldn't do while working on this project, but never complained, just provided their love, patience and unique senses of humor when I needed. I owe them all a lot of "yeses" for while. I thank each of them and dedicate this dissertation to Paul, Katie and Beth, with all my love -they are the best family anyone could ever hope to have.

Table of Contents

List of Tables

List of Appendices

Chapter 1

Introduction

Colleges today are facing a serious challenge. Decades of research have provided valuable information about how college affects students, and this research has reported that a student's success is largely determined by first year experiences both in and out of the classroom (Pascarella & Terenzini, 2005). A time of intense learning, the first year of college provides students with the foundation for persistence, learning and personal development. During the first year successful students come to understand what is expected of them, develop strong habits of learning, and build connections with faculty, staff and peers that foster involvement and promote cognitive and personal development, as well as the foundation for future occupational success (Barefoot, 2000; Pascarella & Terenzini, 2005; Reason, Terenzini & Domingo, 2007; Upcraft, Gardner, Barefoot & Associates, 2005). Conversely, first year students who do not successfully do these things and build a strong foundation are more likely not to persist to graduation.

Based on this evidence, many colleges and universities today have developed programs and policies designed to facilitate first year student transition and successfully engage these students in ways that will promote their success. Yet despite these efforts, retention rates have remained flat over the last 30 years (Hossler, Ziskin & Gross, 2009), with approximately 25% of first year students failing to return for their second year and only 55% of students completing their degree within 6 years (Kuh, Kinzie, Cruce, Shoup, & Gonyea, 2007). The numbers for students from racially and ethnically diverse populations are even lower, which is a growing concern as higher education institutions (HEIs) continue to enroll increasingly diverse student populations.

Further, data from the National Survey of Student Engagement (NSSE) indicates that of those students who will go on to earn their college degree a significant number will fail to become engaged in the types of experiences that lead to full realization of the cognitive, personal and social gains research indicates a college education can provide (NSSE, 2008). Underprepared students, students of color, low income, and first generation college students are less engaged in meaningful educational experiences than their peers despite evidence that the impact of these engagements is of significantly greater benefit to these populations than to their counterparts (Kuh, 2008; NSSE, 2008).

Given the rising cost of a college education, it is not surprising that the lack of improvement in retention and graduation rates has increased the public calls for greater accountability in higher education and evidence of tangible outcomes as a result of earning a college degree. This discussion is echoing within the higher education community as well. There is a growing belief that if colleges and universities are to improve student success, they must engage in a renewed focus on the pivotal first year, looking within more broadly and systemically to understand how the whole of the first year experience affects the learning, development and persistence of new students, how this differs for varying segments of the population, and how HEIs can use this knowledge to more fully and intentionally design engaging first year experiences for all students (Alexander & Gardner, 2009; Hossler et al., 2009; Kuh, 2008; Kuh, Kinzie, Schuh, Whitt & Associates, 2005; NSSE, 2008; Pascarella, 2006; Reason, Terenzini, & Domingo, 2006, 2007; Terenzini & Reason, 2005; Upcraft et al., 2005).

Statement of the Problem

At the institutional level, there is a need for colleges and universities to broaden their view of the first year and improve understanding of its impacts on individual students and diverse segments of the population within their own institutions. In a summary of the 2008 NSSE results, Alexander McCormack (NSSE, 2008) points out that "student experiences and outcomes are more varied among students within institutions than among institutions" (p. 6). He notes that even at high performing institutions, there will be students who are not as successful as the "average" student upon whom the designation of "high performing" is based. This suggests the need to supplement national data with locally gathered data that identifies gaps within the institution.

Secondly, there is a need for institutions to consider more fully how students experience the whole of the college environment, because evidence suggests that a student's individual experiences within the institution have far greater impact on actual student outcomes than structural factors such as institutional size, mission and selectivity (Berger, 2002; Reason et al., 2006). These experiences affect students in holistic ways, creating changes that Pascarella and Terenzini (2005) explain "have their origins in multiple influences in both the academic and non-academic domains of students' lives" resulting in "in and out of class lives that are interconnected in complex ways" (p. 603).

Third, there is a need for colleges and universities to use the information they gain about the experiences of individual students to improve first year program design in more intentional ways based upon an understanding of how the elements of the program achieve the desired results. Hossler et al. (2009) asserts that institutions must focus

efforts more effectively by connecting "what they know about institutional retention practices with an empirically grounded sense of what works" on their own campus (p. 2).

Finally and more broadly, although there is significant evidence about how first year experiences impact students' cognitive development, much less is known about the impact of these experiences on psychosocial development (Reason et al., 2007; Upcraft et al., 2005). If colleges and universities are to design the kind of intentional experiences that promote student success and maximum personal growth for all their students, there is a need to understand how and when students acquire specific skills and experience growth in various areas of affective development as well as how various experiences contribute to this learning for individual segments of the population (Chickering & Reisser, 1993; Upcraft et al., 2005).

Background and Context of the Problem

The factors affecting first-year student development, learning and persistence are complex and inter-related, involving the effects of a broad array of academic and co-curricular experiences (Astin, 1996; Kuh et al., 2005; Pascarella & Terenzini, 2005; Reason et al., 2006, 2007; Terenzini & Reason, 2005). As students transition to the college environment and deal with pressure to re-socialize in a new culture, the diversity of people they meet and experiences they have challenge their beliefs, attitudes and ways of knowing (Chickering & Reisser, 1993; Pascarella & Terenzini, 2005; Upcraft et al., 2005). The way students deal with these challenges and embrace the opportunities available to them on campus can have profound effects on their entire college career (Astin, 1996; Kuh et al., 2005; Terenzini & Reason, 2005). Because "the kinds of experiences students have in their first year of college shape the amount and nature of

student change and learning," (Reason et al., 2007, p. 295) colleges and universities have the ability to shape student learning by creating intentionally educational experiences that combine growth-initiating challenge with available support for first year students.

Pascarella and Terenzini (2005) report that two-thirds or more of a student's cognitive development and acquisition of knowledge occurs during the first two years. Gains in cognitive development are directly proportionate to the student's level of engagement with faculty, staff and peers in both the formal and informal curricula (Kuh et al., 2005; Reason et al., 2006, 2007). In fact, Reason et al. (2006) (citing Pascarella, Bohr, Nora, & Terenzini, 1995) suggest that "course related gains in students' critical thinking skills may be matched by gains independently attributable to students' out-of-class experiences," a premise which underpins the movement within the academy to foster student engagement in a wide array of educationally purposeful activities that occur outside the classroom (p. 154).

However, while evidence supports the fact that engagement in both the curricular and co-curricular also creates opportunities for psychosocial development, much of the research to support these findings has been done on students across the class years and tends to reflect the cumulative effect of college rather than that of the first year. The effect of the first year on a student's psychosocial growth and changes in attitude is not as clear as its effect on cognitive development despite the breadth of studies done on first year experiences (Chickering & Reisser, 1993; Reason et al., 2007; Upcraft et al., 2005). Nonetheless, there is evidence that social and personal competence is shaped by the same broad array of student experiences shaping cognitive development, including coursework, interactions within the classroom and co-curricular engagement (Pascarella & Terenzini,

2005). The complexity of these impacts and the holistic way in which students develop suggest that further understanding of students' psychosocial development in the first year would aid practitioners hoping to establish first year environments and experiences that promote maximum growth and success.

In his seminal work, *Education and Identity* (and later with Linda Reisser in the second edition), Chickering (1969, 1993) outlines a model of college student development using seven "vectors" through which students move back and forth as their interactions within the college setting impact their development of identity. Moving through the vectors, students develop intellectual and interpersonal competence, which is an important first step towards achieving goals and future success. Chickering and Reisser (1993) suggest that a student's sense of competence is subjective in nature, coming from their assessment of accomplishments, the feedback they receive from others, their ability to solve problems, and overall capacity to deal with the ups and downs of their college experience. Ultimately, the confidence that feeling competent in the classroom and in one's social life creates "leads to increasing readiness to take risks, to try new things, and to take one's place among peers," enabling them to move through subsequent vectors on their path to self-identity (p. 82). The opposite is true if students' experiences do not lead to a sense of competence and confidence. These students may be less likely to take the educational and personal risks necessary to succeed, leading to less than maximum intellectual and personal growth at best and possible failure to persist at worst. Colleges and universities can help students build their competence and confidence if they understand who their students are, how first year experiences are likely to impact them, and what types of supports could optimize their ability to become successfully

engaged (Chickering & Reisser, 1993; Kuh, 2008; Kuh et al., 2005; NSSE, 2008; Upcraft et al., 2005).

To improve the potential for new students to be successful, education experts recommend that programs designed to serve this population be intentional, well-integrated, designed with specific outcomes in mind and assessed for effectiveness. Intentionally designed first year experiences provide unique opportunities for institutions to shape new students' attitudes and understanding of expectations (Barefoot, 2000). Kuh et al. (2005) agree, saying that truly effective institutions use new student programs to "intentionally acculturate first year and transfer students to institution values and academic expectations" (p. 242). Barefoot (2000) also recommends the development of "specific objectives for student achievement during the first college year," when designing new student experiences (p. 18). Astin (1996) urged institutions to resist their tendency "to seek refuge in cognitive outcomes" and also develop affective outcomes matching the values often espoused within the academy, such as leadership, good citizenship and interpersonal skills (p. 124).

Developing broad-based outcomes, addressing development of the whole student and involving input from those who educate in the classroom and those who do so outside the classroom, is consistent with evidence that students develop holistically. Collaboration across the institution in the design of first year experiences is necessary to create "seamless learning experiences that integrate, in a comprehensive and coherent fashion, activities that foster educational attainment for first year students" (Schroeder, 2005, p. 220).

However, despite evidence that an integrated, intentional plan for the first year is essential for a smooth transition and fostering increased involvement in the institution and learning process, research indicates that most programs are neither sufficiently integrated nor assessed against defined outcomes (Alexander & Gardner, 2009; Barefoot et al., 2005; Terenzini & Reason, 2005; Upcraft et al., 2005). Alexander and Gardner (2009) assert that many institutions create a variety of isolated initiatives operating "at the margins of the first year" and which "may have only limited impact on students" (p. 2). They recommend HEIs engage in a more systematic review of their first year efforts, evaluating them as a whole with an understanding that there are numerous interacting components at play within each institution and for individual students. Terenzini and Reason (2005) also argue for a broader approach, noting that the "highly segmented and often discrete fashion" in which student experiences are designed and examined doesn't consider the full range of influences or sets of experiences at work shaping student learning, change and persistence (p. 12).

There is a growing consensus, even among those who have created many of the national tools available, that a major key to building effective first year experiences lies in the ability of institutions to look broadly and deeply within at what works on their campuses for their students rather than making assumptions based on best practices or national data alone. Because students do not experience the institutional environment and its policies and practices the same way, the impacts are bound to be different for different students (Chickering & Reisser, 1993; Kuh et al., 2007; Pascarella, 2006). Barefoot et al. (2005) suggest colleges and universities can use research-based objectives to guide how they design the first year, but they must also test how their own day to day policies and

practices impact their students. Hossler et al. (2009) concur, saying colleges and universities must find ways to "connect what they know about institutional retention practices with an empirically grounded sense of what works" on their own campus (p. 2). Finally, Hayek and Kuh (2004) call for institutions to go beyond theory and consider what is appropriate for the wide range of first year students within the institution's own setting.

The concept of going beyond theory to consider what is effective for their own students becomes increasingly essential for colleges and universities as these student populations become more diverse, with varying levels of preparedness, economic resources and expectations. There is evidence that historically underserved students have very different experiences than their peers, with students of color and first generation students participating less in educationally purposeful activities than their peers at the same institution (Kuh, 2008; Pascarella, 2006). Engle and Tinto (2008) report that low income and first generation students are three times more likely to drop out of public, four-year colleges than their peers. Understanding how students from underserved and underperforming student populations experience the campus is a critical need for all institutions seeking to improve student success.

In addition to understanding how students' experiences are different, increased understanding of why they are different is also needed if a college or university wants to affect real change. Pascarella (2006), in an article identifying directions for future research in student development, calls for the use of more mixed-methods studies "in which quantitative and qualitative approaches are purposefully employed in coordinated and mutually informing ways" to explain why specific interventions are effective with

students (p. 516). He believes the absence of information that helps practitioners understand why specific interventions have the desired effects on students is a shortcoming in the current knowledge base. Pascarella (2006) suggests that HEIs might find the data derived from multiple longitudinal studies within their institution more internally valid than data derived from cross-sectional studies of multiple institutional institutions.

Research Site

Bridgewater State University is the largest of the universities in Massachusetts' nine institution state university system. Located in southeastern Massachusetts, Bridgewater serves a predominately regional student population of just under 11,000 students, with 95% of the undergraduate population from within Massachusetts. The college enrolls approximately 1500 first time, first year students annually, 98% of whom are full-time, 62% are women, and approximately 68% live on campus. The majority of entering first year students fall into one of the underserved population categories for which research indicates student engagement is both critical and sometimes more difficult to establish. In the fall 2009 first year student cohort, 53% of the students were the first in their family to go to college, while 14% were members of racial or ethnic minorities and 24% were Pell eligible and thus considered to be from low-income families (BSU Office of Institutional Research and Assessment, 2010).

For this reason, Bridgewater is actively engaged in a number of initiatives to promote effective new student transition and the types of engagements that lead to student success. The college uses the Cooperative Institutional Research Program (CIRP) Freshman Survey to assess characteristics about first year students in comparison to

national and peer norms, as well as the National Survey of Student Engagement (NSSE),

which is administered every three years to first year students and seniors. Bridgewater

has also participated in the Foundations of Excellence in the First Year project, a program

designed to engage colleges and universities in rethinking the way they view and

organize the first year to improve student success and first year student persistence. The

pilot for this project was developed out of this institutional effort which began in 1996.

A mandatory first year academic advising and support program for all new

students helps the college with early warning signs for students having academic

difficulty. Bridgewater's first to second year retention rate is above average for

institutions of its type and rising, standing at 82% in fall 2009 up from 75% in 2005

(BSU Office of Institutional Research, 2011). While no significant differences in first to

second year retention rates have been found for underserved populations, differences

begin to emerge in subsequent years. This has prompted the college to consider what first

year improvements might be needed to best meet the needs of its increasingly diverse

population before transitioning them into the various academic departments in the

sophomore year. This study of first year student experiences contributing to personal

development will directly aid in this effort.

The social and personal competencies to be measured are derived from a set of

intended learning outcomes developed by Bridgewater's division of student affairs as part

of its efforts to more fully define the division's role in fostering student learning and

success. Intended to complement the academic core curriculum of the college, the

outcomes to be measured have been identified as critical first year learning objectives.

The original 9 outcomes were expanded to 10 after consultation with faculty who wanted

interpersonal communication broken down further. The outcomes include: written

communication, spoken communication, problem solving skills, decision making skills,

knowledge of self, self-esteem/confidence, ability to work well in a team, understanding

of people who are different, self-responsibility and community involvement.

Purpose of the Study

The purpose of this mixed methods concurrent nested project was to study how

the first year experiences of college students at Bridgewater State College impacted their

personal and social development in 10 identified competency areas, as perceived by these

students upon completion of their first year, and to understand what types of first year

experiences contributed to any reported developmental gains. In a single collection phase,

the concurrent or nested design enabled the collection of quantitative data to address the

primary purpose of the project while simultaneously collecting qualitative data to

enhance understanding of the quantitative results (Creswell, 2008). The primary purpose

of this project was two-fold. First, through quantitative analysis of data from a survey

administered at the start of the sophomore year, the project sought to determine if

students' self-reports of current level (CL) skill in the 10 competencies indicate

statistically significant gains as compared with their retrospective self-reports of skill in

the same competencies upon entry to college, or entry-level (EL) skill. Secondly, the

project sought to learn what identifiable first year experiences contributed to any reported

gains in competency. This objective was achieved through quantitative analysis of survey

data about student participation in specifically identified involvements over the first year

of college and through qualitative analysis of responses to open-ended questions in which

participants identified the factors they believed contributed to their growth in each competency area.

Research Questions

The following research questions guided this study:

1) Do sophomore college students report differences in current level (CL) skill as compared to their entry level (EL) skill as first year college students in: (a) speaking skills, (b) writing skills, (c) problem-solving, (d) decision-making, (e) self-knowledge, (f) self-esteem/confidence, (g) ability to work in a team, (h) understanding of people who are different, (i) self-responsibility, and (j) community involvement?

2) Do any significant differences exist in reported skill level for any competency area based on gender? Residency? Race or Ethnicity?[1]

3) Does student participation in University-identified meaningful activities have any effect on reported gains in any of the competencies?

   a. Do students who report involvement in at least one meaningful activity during the first year report higher overall skill gains across the 10 competencies?

   b. Do students who report involvement in at least one meaningful activity during the first year report higher skill gains in any of the 10 competency areas?

---

[1] Race and ethnicity are complex, distinctly different construct. For the purposes of this project, students were divided into two categories, white and students of color (SOC), based on their self-identification as either white, or one of the following: Asian, Black, Cape Verdean, Hispanic, Native American, or other multi-racial designations. Because this list is used regularly at the university and includes both racial and ethnic identifications, the researcher has combined students who are not white into the single designation of SOC. The researcher recognizes that this is a limitation which discussed further in that section.

      c. Do students who report greater involvement, as measured by their number of meaningful activities, report higher overall skill gains across the 10 competencies?

      d. Do students who report greater involvement, as measured by their number of meaningful activities, report higher gains in any of the 10 competencies?

4) Do any significant differences exist in student participation in University-identified meaningful activities based on gender? Residency? Race or ethnicity?

5) For competency areas in which students' self-reports indicate gains in skill, what first year experiences do participants identify as contributing to these gains?

The first four questions were addressed using quantitative data analysis while the fifth question was addressed using qualitative analysis of open-ended response questions.

Significance of the Study

This mixed methods concurrent nested study will have direct significance to the institution serving as the research site by aiding its ongoing efforts to understand the experiences of its first year students and the impact these experiences have on the development of critical social and personal competencies. The findings have provided valuable information about first year learning and growth that will aid the institution in its design of intentional experiences that contribute to this personal growth and to manage these experiences over the college years in ways that foster continued growth in subsequent years.

By examining differences in the experiences of various segments of the student population, this project has provided valuable information to assist the college efforts to serve its largely underserved student population. The data may inform the efforts of offices and programs designed to serve diverse segments of the population, and possibly in turn establish stronger collaborations to more effectively meet the needs of all students.

Finally, this project has provided college professionals at the research site with specific information that can be conveyed to entering first-year students about how various first year collegiate experiences may impact their development in the 10 competency areas and guide them towards experiences likely to foster growth in competencies each student may wish to develop further.

More broadly, this project will contribute to the knowledge base about psychosocial development in the first year. The survey tool itself is low cost, easy to customize with an institution's unique programs, and easy to administer. Other colleges and universities may be able to use this tool on their own campuses to supplement national surveys and increase their understanding about the growth and experiences of their students.

Key Concepts and Definitions

The concepts defined in this section are discussed in greater detail in Chapter 2. However, because of the complexity and inter-connectedness of some concepts, the researcher felt it would be helpful to provide foundational definitions of the terms as they were used in this project and why they were relevant prior to discussing the literature and research that provides a foundation for this project.

Student development—Student development can mean different things depending upon the context in which it is used. For example, it can mean the growth that occurs in students, the philosophy or theory guiding student affairs professionals as they work with students, or the application of this theory through programs and practices designed to promote student growth. For the purposes of this project, the term "student development" refers to the process by which a student becomes a more complex individual through change and growth (McEwen, 2003), although change and growth in and of themselves are not development (Sanford, 1967). Sanford (1967) suggested change "may be positive or negative," while growth may be "healthy or unhealthy," with the manner in which it is viewed depending "heavily on the degree to which growth is accompanied by development" which he defined as "the organization of increasing complexity" (p. 47).

King (2009a) provides a comprehensive definition of student development as conceptualized for this project. Specifically, she says "Development is defined as the evolution of skills (defined broadly to include abilities, capacities, ways of understanding) over time, where early level skills are reorganized into higher-level skills" such that individuals develop "increasingly complex and adaptive ways of seeing, knowing and caring that change one's worldview and "habits of mind" (pp. 598-599).

Identity development—Identity development has been defined in terms similar to those that define student development. For example, McEwen (2003) says "Identity development is the process of becoming more complex in one's personal and social identities," suggesting the term identity may be used to mean "the core essence of self or particular dimensions of identity" (p. 205) . Dimensions of identity can refer to the

various social identities one relates to, such as race, gender, sexual orientation, or socio-economic class.

Torres, Jones, and Renn (2009) suggest that within student affairs "identity is commonly understood as one's personally held beliefs about the self in relation to social groups (e.g., race, ethnicity, religion, sexual orientation) and the ways one expresses that relationship" (p. 577). They argue that the concept of identity as a purely developmental (and linear) construct is evolving and that individuals "create and recreate identity through their actions" and that identity is "fluid, dynamic and performative" as the relationships in one's life shift and intersect (p. 578). The implications for students within a college setting are enormous.

Racial and ethnic identity—Racial identity is a social construction based on one's heritage and reflected in "white domination of other racial and ethnic groups" (Evans et al., 2010, p. 254), a definition these authors suggest must be re-examined in light of the wealth of new information available about the experiences of racially and ethnic diverse students on our campuses and in society. Ethnic identity focuses on what individuals learn from family and the community about their shared culture, which includes language, food, religion, geography, and cultural customs that may bind the group together in strong ways (Torres, 1999).

Several concepts come into play when considering how racial and ethnic identity is formed, including oppression and privilege. Two common elements are found in most definitions of oppression: inequality of power and the inability of oppressed individuals to develop (Chavez & Guido-Brito, 1999). The effects of oppression can affect the identity development of students from many under-represented groups including those

from racially/ethnically diverse backgrounds or those in lower socioeconomic brackets,

impeding student success and personal development (ASHE-ERIC, 2003). Privilege

refers to the often invisible power possessed by individuals from the dominant culture

which enables them to become oppressors (ASHE-ERIC, 2003). Often, those who are

privileged take advantage of it without even being aware of their privilege, and college

may provide students with their first exposure to this concept. People can experience

privilege based on their multiple group identities, including white privilege, social class

privilege, gender privilege, heterosexual privilege, ability privilege, and Christian

privilege (Evans et al., 2010).

In this study, race or identity as a variable refers to a combination of racial and

ethnic groups with which the study participants identified. It does not imply that these

students developed the same way simply because they are not white.

Student involvement—Alexander Astin defined student involvement as "the

amount of physical and psychological energy that the student devotes to the academic

experience" (1999, p. 518), distinguishing it as a behavior rather than a motivation and

characterizing "academic experience" in its broadest terms to include classes and both

formal and informal out-of-class experiences. According to Astin, involvement is both

quantitative and qualitative, with any given student's level of involvement falling on a

continuum of intensity on any given experience. Based on the research he conducted over

several decades to test his hypothesis that a student's level of involvement directly

correlates to that student's level of success in college, Astin (1984/1993/1999) developed

a theory of student involvement that will be discussed later in this chapter.

Although concerns have been raised about how involvement is sometimes measured (i.e., it is often considered in terms of number of memberships rather than the actual intensity of involvement), involvement is a critical concept because research has linked it to virtually every positive outcome of the college experience (Wolf-Wendel, Ward & Kinzie, 2009).

Student engagement—The concept of student engagement is probably most associated with the work of George Kuh and his colleagues, and the widely used National Survey of Student Engagement (NSSE). The meaning of student engagement and its application has developed over time and been influenced by Pace's work (1984) on quality of effort, Astin's (1984, 1999) theory of involvement, and Chickering & Gamson's (1987) work on "good practice" in undergraduate education (Kuh, 2009; Wolf-Wendel et al., 2009). As a result, the definition of student engagement is based on increased understanding of the relationship between what students do and what colleges do to foster time and effort on educational activity that leads to desired outcomes (Kuh, 2009; Wolf-Wendel et al., 2009). Specifically, Kuh (2009) states "Student engagement represents the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities" (p. 683).

The conditions that foster the strongest levels of student engagement and findings relevant to its importance, particularly for undeserved student populations, are discussed in Chapter 2. However, it is important to note the importance student engagement has to institutions of higher education. Specifically, proven strategies to promote greater student success through engagement have been established, as has a vehicle (NSSE) with which

to assess the impact of institutional practices and guide improvement towards increased engagement.

Integration—Integration is a concept underlying Vincent Tinto's (1993) work on student departure and by extension, student retention. However, the word itself has come under scrutiny as student populations have diversified. The full implications to students from racially and ethnically diverse backgrounds as well as non-traditional age students of promoting "integration" as an essential requirement for success and retention has been challenged (Wolf-Wendel et al., 2009). Tinto (1993) first defined integration as "the extent to which students come to share the attitudes and beliefs of their peers and faculty and the extent to which students adhere to the structural rules and requirements of the institution – the institutional culture" (Wolf-Wendel et al., 2009, p. 414). Tinto argued that a student's perception of their social and academic "integration" was directly tied to their decision to persist or leave an institution, and his work was the first to articulate the role the institution plays in this process rather than considering persistence as an entirely student driven responsibility. While the concept is essential to student retention, particularly first year students, it is also important to note that Tinto no longer uses the word, suggesting it was "meant to be the opposite of exclusion or segregation" and that "you had to be included in society" (Wolf-Wendel et al., 2009, p. 424). He agreed with Tierney's (2000) critique of the word, suggesting it no longer made sense in today's context and should be eliminated. The research site for this project prefers to call this concept inclusivity.

Student success—Student success is a challenging concept to define, and individual students may not define their own success in the same ways, or in the way

their institution might. Using Tintos's (1993) theory, success may be broadly defined as persistence beyond the first year, ideally to degree completion, as a student becomes integrated into the college environment. However, Bensimon (2004) suggests that commonly accepted ideas of student success may not be appropriate to guide practice with students at the margins and students from racially and ethnically diverse populations.

Kuh, Kinzie, Buckley, Bridges and Hayek (2006) conducted a review of the literature on student success for the National Center on Education Statistics (NCES) creating a broad definition of student success, suggesting it is "academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational objectives, and post-college performance" (p. 7).

Retention and persistence—According to Reason (2009), retention and persistence are often used interchangeably; however it is important to distinguish between them. Retention relates to organizational goals to retain the students who enroll within the institution. "Persistence, on the other hand, is an individual phenomenon – students persist to a goal" which may or may not be graduation (p. 660). This distinction is important when considering student success because if a student's goal is to achieve some level of progress and then transfer to another institution, they may persist successfully to their goal even though the institution has not retained them.

Self-esteem—Self-esteem is the term used to reflect "students' generalized judgments about their own worth or merit, evaluated not by their position relative to others but with reference to an internal, personal standard" (Pascarella & Terenzini, 2005,

p. 222). Self-esteem is an element of identity that is based on how one sees who one really is compared to one's "ideal" self, conveying an attitude of approval or disapproval, of success or worthiness (Chickering & Reisser, 1993). For this study, the researcher uses the terms self-esteem/confidence based on the belief from pilot study debriefings that they are interchangeable to the study participants.

First-year experience—Another term often ascribed multiple meanings is first-year experience. It is frequently used to describe "a particular intervention to improve first-year student success, the archetypal example being the first-year seminar" (John Gardner, April 6, 2010, First-Year Assessment Listserv communication). However, for the purposes of this project, first-year experience(s) refers to "the sum total of everything a student or students at a given institution may experience in their first year" (Gardner, April 6, 2010, personal communication).

Assumptions

Several assumptions underlie this study, pre-dominate of which is that student self-reports are a reliable and valid method of gathering data. Numerous national studies which have been validated over time rely on self-reports, including CIRP and NSSE (Kuh, 2008; Pike, 1996; Reason et al., 2007). Kuh (2008) cited a set of conditions under which self-reports have been shown to be reliable approximations of more objective measures. These conditions will be discussed in further detail in Chapter 3, but the researcher conducted the study under the assumption that these conditions apply to the circumstances of this project and used pilot studies to shape project design in ways designed to these assumptions reasonably accurate.

The researcher assumed that response rates would conform to typical first year response patterns at the research site, which average about 40%. In addition, experience with the population under study has indicated they are highly responsive to institutional efforts to learn about their experiences, particularly when this provides an opportunity to shape future student experiences. As a result, the researcher assumed students would be willing to take the time to honestly answer open-ended questions about their own unique experiences.

The researcher also assumed that the participants would be able to recall their first year experiences at the start of their sophomore year and link them to specific areas of growth. This assumption was derived from personal experience discussing first year experiences with students at the research site.

Another assumption is that the theories about student development, particularly in the first year, which underlie this project are accurate for the population of students who attend the research institution. Because the population is largely traditional-age American college students, the researcher was confident that well-documented patterns of development as the result of college would be applicable to the participants. In addition, given the intentional design of the educational experience at the institution, the researcher also assumed that the experiences of these participants would be consistent with the types of first year experiences upon which these theories are based.

The competency variables under study range from easily comprehensible concepts such as writing skills to more complex, subjective ones like self-esteem. Significant care was taken in the pilot studies to determine how diverse students interpreted the words used on the survey and how closely those interpretations aligned

with the researcher's intent. Adjustments were made to survey wording accordingly. The researcher assumed the FY2009 cohort would understand these variables in a manner consistent with students from the previous two cohorts.

Finally, there are limitations in using the demographic variable label "race or ethnicity" because race and ethnicity are two distinct constructs. Race is a social construct largely defined by how others view an individual's racial and ethnic heritage, while ethnicity is also a social construct, but centers on how the individual identifies with others (Chavez & Guido-Brito, 1999; Evans et al., 2010). This project does not address how the participants develop either their racial or ethnic identities, but rather examines how the experiences of students who identify as members of racially or ethnically diverse groups at this PWI research site differ from the experiences of students who identify as part of the white majority. Attaching ethnicity to the variable of race is important with this research population due to the large number of students who identify as Cape Verdean and see themselves as both racially and culturally diverse.

Delimitations

In order to narrow the scope of this project and ensure access to the required institutional data, the study was restricted to the researcher's own institution. This delimitation was also set because pilot studies had yielded response rates in excess of 40% from representative samples and the researcher was confident that this study would be also be representative of the overall student population at this institution.

Not all potential personal and social competencies were included in this study. Because existing research indicates that clear outcomes should guide the design of first year experiences, and this project was intended to provide valuable assessment data to the

institution and its staff, the researcher chose to delimit the competency variables in this study to these 10 specific competencies. They are all student learning outcomes which have previously been identified by the professional staff of the division of student affairs at the research site as important psychosocial student outcomes for the first year and beyond. A panel of senior student affairs and academic affairs administrators at three other institutions also confirmed these 10 outcomes are of the highest importance to student success in the first year of college.

This study was also delimited to include only students who (a) began their studies at the institution as first year, full-time matriculated students, and (b) successfully completed 24 credit hours in their first year to earn sophomore status. Part-time, non-matriculated students, transfer students, and those who continued at the institution in fall 2010 but did not achieve sophomore status were excluded. Given the tremendous diversity of experiences in students' lives in and out of college during the first year, this delimitation was intended to create a sample with a more limited and similar range of characteristics and experiences, including age and marital or family obligations. While understanding the barriers to successfully completing the first year, students who did not achieve sufficient academic success to advance to the second year were excluded because the researcher believed the effects of poor performance may have had differentiating effects on competencies such as self-esteem.

While existing research indicates that student development is not linear and occurs over the course of a student's college career (Chickering & Reisser, 1993; Pascarella & Terenzini, 1991, 2005), this project focused exclusively on student growth within the first year. The researcher placed significant value in the ability to assess

students early in their college career given the evidence in the literature suggesting the first year is crucial to overall collegiate success. While the results of this project allowed for the provision of immediate feedback about the effectiveness of first year efforts and provided critical data about the future needs of the students surveyed, this is a delimiting factor because personal growth will continue to occur for these students over the next three or four years they are in college.

The demographic variables under study were delimited to residency, gender, and race or ethnicity. A number of other variables which research has indicated have impacts on students and their development were not considered for this project, including a pre-collegiate academic characteristics, being first generation college students, and student employment patterns both on- and off-campus. As previously noted, the researcher recognizes that race and ethnicity have different effects on both identity formation and student experiences, but for the purposes of this study at these PWI felt that including all students not identifying as white with this variable label was appropriate.

One final delimitation was the decision to use only data that could be gathered concurrently in one collection process through a survey administered early in the second year. Other mixed or qualitative design methods using individual interviews or focus groups might have provided richer data to more fully understand how specific experiences impacted reported growth. However, these methods would have resulted in data collection from participants at different times during the sophomore year, making it difficult to determine or separate the possible effects of sophomore year experiences from first year experiences. The concurrent nested method enabled the researcher to gather

enough data to ensure a representative sample while minimizing potential recall and intervention bias.

Limitations

A number of limitations also impacted this research process. Conducting the research at this institution facilitated the researcher's ability to obtain access to the participants and cooperation with the project. However, because this project was a single institution study, the results cannot be generalized to students at other institutions. Similarly, this project was limited to one cohort of students and cannot be generalized to future first year cohorts until longitudinal data can be gathered through future administrations of the survey on additional first year cohorts.

Another limitation of the study was that it focused only on those students who successfully completed the first year and sought to identify experiences contributing to positive growth. It does not address the 18% of students who did not successfully complete the first year, nor does it focus on experiences that negatively impacted first year student development. This information would be valuable to the institution in terms of designing intentional programs to improve first year experiences for students who are currently struggling.

A number of nationally recognized instruments are available which measure first year college student characteristics, attitudes and skills and provide HEIs with institutional and comparative national data, including the Cooperative Institutional Research Program (CIRP) Freshman Survey, the Your First College Year (YFCY) survey, and the NSSE. All of these instruments have been proven effective and are widely used on the national level, providing a wealth of data about an institution's

students and how they compare to national peers. However, in order to be applicable across the nation's colleges and universities, these instruments cover a broad spectrum of topics and are therefore limited in how much they can be customized for each institution. The Sophomore Survey established for this study focused much more narrowly on a specific set of developmental outcomes and used college specific terms for specific experiences. Given the need for all institutions to engage in assessment about how their own institutional environment affects various segments of the student population, there is potential value to the development of a survey of this type. However, the structure of this instrument does not fully allow for reliability testing. Test-retest correlations discussed later do provide reasonable assurance or reliability, but the lack of multiple items that would enable testing to measure internal consistency is a limitation.

Another limitation of this study was one cited by Pascarella and Terenzini (2005) as common in much of the research on college students. Specifically, this study focused on average or typical change within the sample, and does not consider individual differences, which tend to be much more pronounced than average group differences. This study provides representative data about the population but its usefulness to the campus is limited to the macro level. Combined with the limitations of the demographic variables under study, additional research is needed to further understand and apply the findings to specific, but large student sub-populations at the institutions, including those who are first in their family to college and those who work more than part-time while in school.

Conclusion

The context and purpose of the project, as well as the nature of the problem under study, determined the scope of literature and research that was reviewed for Chapter Two. Specifically, the next chapter begins with a discussion of student development theories, both psychosocial and cognitive, with a focus on Chickering's vectors of development and Baxter Magolda's theory of self-authorship. It continues with discussions of involvement theory and student engagement, which is followed by a section on the application of these ideas to the first year of college and student development. The final sections of Chapter Two describe research findings relative to the dependent and independent variables under study in this project.

Chapter 2

Review of the Literature

This mixed methods project sought to add to the knowledge about first-year student development by exploring student perceptions of their first-year experiences at one college to understand how their experiences impacted personal and social development in 10 identified competency areas after completion of their first year. The purpose of the project was to determine if there were self-reported gains in the 10 competencies and to understand to what experiences students attributed any reported gains during the first year. Additionally, the project sought to understand any differences in gains between the various segments of the population.

In this chapter, literature and research relevant to the design and purpose of this project will be discussed. The chapter begins with a restatement of the problem, followed by an overview of the literature related to the problem. This is followed by a section defining the key concepts framing the project that cross multiple strands of the literature. An overview of student development theory and related research emphasizing the holistic approach to development is next. A discussion of psychosocial, cognitive and social identity theories most relevant to the variables under study in this project follows, after which a discussion of the role of the environment on development is described. An overview of theories associated with first-year persistence and retention follows next. The chapter concludes with a section discussing research relevant to student development and engagement in the first year of college; development in the competencies under study; and findings associated with the dependent variables of the project.

Restatement of the Problem

Decades of research tells us that a student's success is largely determined by first year experiences both in and out of the classroom (Pascarella & Terenzini, 2005). Based on this evidence, most colleges and universities have developed programs and policies designed to facilitate transition and successfully engage first year students in ways that will promote their success. Yet despite these efforts, 25% of first year students fail to return for their second year of college (Hossler et al., 2009), and NSSE data indicates many of those who do persist, particularly under-represented student populations, fail to engage in the educationally purposeful activities that lead to full realization of the cognitive, personal and social gains college offers (NSSE, 2008).

To improve the potential for all new students to be successful, education experts recommend that HEIs improve their understanding of how the *whole* of the first year experience affects the learning, development and persistence of their students; how experiences and subsequent impacts differ for varying segments of the population; and then use this knowledge to improve first year program design to more intentionally foster involvement in activities that achieve desired results (Alexander & Gardner, 2009; Hossler et al., 2009; Kuh, 2008; Kuh et al., 2005; Kuh et al. 2007; NSSE, 2008; Pascarella, 2006; Reason et al., 2006, 2007; Terenzini & Reason, 2005; Upcraft et al., 2005). In order to more fully understand first year impacts, there is a need for additional research about how first year experiences affect student's psychosocial growth and changes in attitude (Chickering & Reisser, 1993; Reason et al., 2007; Upcraft et al., 2005).

Overview of the Literature

The literature relevant to how college affects students is abundant, and growing at exponential rates according to Pascarella (2006), who suggests that a conservative estimate would place the number of studies about college impact somewhere between 6000 and 7000. While a complete review of this research would have been an overwhelming task, this researcher did conduct an extensive review of the literature on student development, first year students and the effect of student engagement from 2005 to 2010. From that review, the researcher found overwhelming evidence addressing the growth of students as a result of their experiences during the college years which is broadly applicable to all students. In addition, compelling findings were also found that this growth occurs differently for different students. However, despite the importance of the first year, the literature was more limited about the psychosocial development of students during their first college year. The concept for this project grew from a desire to add to the knowledge about development during this critical transition period that could be applied at the researcher's home institution.

The focus of this project was significantly influenced by the growing trend in recent literature exploring higher education's inability to use this wealth of data to improve student persistence and success. Central to this trend is the need to more effectively engage *all* students in meaningful educational experiences through what may first appear to be a paradox: approaching student development and learning more holistically, as a complex process of what the student brings to the experience, what the student does while in college and what the institution does to promote active involvement, all the while cognizant that students are rarely impacted by the same

experiences in the same ways, which requires the ability to adapt programs, services and approaches to diverse populations as appropriate (Baxter Magolda, 2009a; Kuh, 2008, Kuh et al., 2007; Pascarella, 2006; Reason, 2009; Reason et al., 2006, 2007; Terenzini & Reason, 2005).

Therefore to frame this project, the discussion of literature centers on several related threads of theory and research about college students, some of which has become intimately entwined as the empirical evidence confirmed number of inter-connections. It is essential to begin discussion of the literature with a discussion of holistic development and related findings about student development. From there three threads of literature and related findings will be discussed. The first is student development theory, most notably Arthur Chickering, and selected findings about how students develop in college, particularly in the first year. Student development theory guides the way practitioners work with students and this body of research influenced the variables of growth being measured in this study.

While student development theory helps explain the development that occurs in students, the second thread of literature discussed helps to illustrate how this development occurs through involvement of the student, and active student engagement on the part of the institution. Important in this thread is the impact engagement has as a mediating factor for students from under-represented and/or under-prepared student populations.

Finally, the literature and research about the first year of college, persistence and retention is discussed. This literature has expanded considerably in the last 25 years

based on the evidence that a student's first year establishes the foundation for success and persistence.

Student Development Theory

Student development theories attempt to explain how students develop and learn in college, and how their experiences shape this process. A number of theories have been developed to guide student affairs practice over the last half century. Because theory is a socially constructed concept, it is generally grounded in the research traditions, values and assumptions espoused by the theorist, and shaped by both research and shifting paradigms as the research findings are interpreted (McEwen, 2003). Student development theories have traditionally fallen into clusters or families of theories, each based on different assumptions about development and focusing on different aspects of the learning process (Baxter Magolda, 2009a, Evans, 2003; King & Howard-Hamilton, 2000), although new models and frameworks are emerging that defy the standard categorization approach (Evans et al., 2010).

For this reason, this section begins with an overview of the holistic framework of student development and discussion of key findings that support the concept of holistic student development. While the focus of this project is on competencies commonly considered "psychosocial," the body of evidence summarized by Pascarella and Terenzini (1991, 2005) makes it impossible to ignore the role cognitive development plays in growth associated with these variables. Therefore, in addition to a discussion of psychosocial theory as it relates to the variables under study, this section will also examine cognitive development theory relevant to this project. Finally, the project's

focus on diverse student populations requires a discussion of social identity theory as it applies to racially and ethnically diverse student populations.

The holistic framework of student development. The student affairs profession has emphasized the importance of developing the whole student for over 70 years, first outlining the concept in the *Student Personnel Point of View*, presented to the American Council on Education in 1937 and later updated in 1949 (Baxter Magolda, 2009a). Based on the empirical evidence about student development, the *Student Learning Imperative* (1994) called for student affairs professionals to focus on both personal development and learning in their work with students, urging practitioners to contribute to the academic mission of their institutions and develop working partnerships with academic affairs.

Learning Reconsidered (Keeling, 2004), a joint publication of the profession's leading associations, serves as the most recent attempt to link learning and student development for the practitioner. This exciting document suggests "Learning is a complex, holistic, multi-centric activity that occurs throughout and across the college experience" (p. 6). Further, it asserts that student development is a learning process and that "learning, development and identity formation can no longer be considered as separate from each other, but rather that they are interactive and shape each other as they evolve" (p. 10) .

Yet despite this commitment to a holistic, integrated approach to developing students, Baxter Magolda (2009a) asserts that "higher education in general and student affairs in particular lack a holistic, theoretical perspective to promote the learning and development of the whole student" (p. 621). Rather, the body of student development literature contains multiple theories and models addressing different aspects of

development. Because many early theories were generated by research conducted on traditional-age white men at largely residential campuses, research on more diverse student populations resulted in a separate body of theories and models addressing unique aspects of development for different populations (Baxter Magolda, 2009a; Evans et al., 2010). These theories have added rich information to the knowledge base about students, but have also created what could be viewed as "silos" of theory.

Evans et al. (2010), in framing their latest text to guide practice, suggest that while development theories tend to be studied separately or in clusters, development does not occur in discrete pieces within the individual, but rather "aspects such as the psychosocial and the cognitive interact within the person, leading us to a more holistic development process" (p. 38). Baxter Magolda (2009a) suggests the need to find intersections between the various existing theories that enable the use of multiple theoretical perspectives which consider students in their various and diverse contexts. For this reason, her expanding scholarship on self-authorship and meaning-making serves as a promising example of a more holistic approach to student development (Evans et al. 2010). Baxter Magolda's (2004) Learning Partnership Model (LPM), built upon her earlier Epistemological Reflection Model (ERM) (1992), describes a process of self-authorship involving both cognitive and psychosocial development as students move towards a state of contextual knowing based upon evidence and personal perspective. Baxter Magolda's theory of self-authorship provides a potential framework for examining differences found between the participants' self-assessment of their entry level skills retrospectively as compared to those reported upon entry to the college.

Related research. Pascarella and Terenzini (1991, 2005) provided a synthesis of the research on college students and the impact of college, which as previously noted is overwhelming. However, these authors confirmed a number of broad conclusions about the nature of student development which form a basic foundation for working with students today. Pascarella and Terenzini (2005) reported that research in the 1990's confirmed their earlier conclusions (1991) and those found in other syntheses (Feldman & Newcomb, 1969, and Bowen, 1977, as cited in Pascarella & Terenzini, 2005) that college students experience "consistent cognitive, attitudinal, value and psychosocial changes" as the result of college (p. 577).

Also, based on their review of the research, Pascarella and Terenzini (2005) found evidence to support previous findings by Astin (1993, 1999) on the importance of students' active involvement in academic experiences as the key to positive development. These authors concluded that the "the impact of college is largely determined by individual effort and involvement in the academic, interpersonal, and extracurricular offerings on campus" (p. 602). After reviewing numerous studies, Pascarella and Terenzini (2005) also concluded that despite many efforts to understand the impact of involvement in specific types of activities, there are actually multiple forces responsible for the changes that occur in students, and "the magnitude of change on any particular variable or set of variables during the undergraduate years may not be as important as the pronounced breadth of interconnected changes" (p. 578). Further, they noted that "students change in holistic ways and these changes have their origins in multiple influences in both the academic and nonacademic domains of students' lives," persuading

them that "students' in- and out-of-class lives are interconnected in complex ways" (p. 603).

Relative to change in first-year students, Pascarella and Terenzini (2005) reported that there is significant evidence about the cognitive development of first year students, with almost two-thirds of knowledge acquisition and cognitive skill development attributable to the first two years of college. Of particular importance is evidence they found that out-of-class experiences may contribute to these gains at rates equal to in-class experiences. On the other hand, relative to psychosocial development in the first year, Pascarella and Terenzini (2005) reported that evidence from the studies they reviewed did not lead them to make any confident conclusions about students' psychosocial development in the first year of college, leading them to work with Robert Reason to conduct additional research in this area.

In summary, the breadth of research available supports the concept that practitioners must look at the whole student and the whole of the student's experience in creating educational opportunities. Further, given the importance of the first year, the evidence supports the need to actively engage new students in all aspects of the college experience to maximize potential growth.

Psychosocial Development Theories

Psychosocial development theories focus on the "'what' of development" (King & Howard-Hamilton, 2000, p. 30), examining "the *content* of development, the important issues people face as their lives progress" including their identity, interpersonal relationships, and personal and career goals (Evans, Forney, & Guido-DiBrito, 1998, p. 32). Psychosocial theories are based on the concept that development occurs in age-

related, sequential stages throughout our lives with specific issues, or developmental

tasks, arising in each stage and creating a developmental crisis, the resolution of which

leads to the acquisition of new skills or attitudes and the next stage of development

(Evans, 2003). In addition, environmental factors play a critical role on development and

are a key component of most psychosocial development theories (Evans et al., 2010).

Erikson (1959/1980) did not focus on college student development specifically.

However, his theory which examined identity from childhood through old age, was the

first examining the development of identity to include a focus on development from

adolescence through adulthood, putting personal development in a social context by

describing the influences of people and social institutions on the individual over the

entire life span (Evans et al., 2010). An understanding of Erikson's identity development

theory is important to understanding the evolution of the stage-related theories addressing

college students which are based on the foundation Erikson laid.

Erikson's (1959) theory of psychosocial development. The development of ego

is at the heart of Erikson's theory. Like Freud, he believed identity, "the ability to

experience one's self as something that has continuity and sameness" is the expression of

ego. He also believed, as Freud did, that identity developed in stages, emerging "part by

part" as a linear process in which one must resolve each stage before moving on to the

next (ASHE-ERIC, 2003, pp. 9-10). However, unlike Freud, Erikson's theory focused on

the impact of social experiences and the development of competence across one' whole

lifetime, providing a foundational basis upon which later theories of identity development

applicable to college students were grounded. Erikson proposed eight stages of

development from birth to death, each characterized by two opposing attributes about

which an individual must make a decision when a crisis point is reached. These crisis points can be psychological or biological, but as one works through the crisis and moves toward the positive attribute, new skills and a greater sense of self-esteem is established, setting the stage for the individual to move on to the next stage (Evans, 2003).

Stages Five to Eight which deal with adolescent and adulthood development, were the stages which provided the foundation for the stage related student development theories of many other theorists, including Marcia (1966, 1980); Josselson (1987, 1996); Chickering (1969) and Chickering and Reisser (1993) (as cited in Evans, 2003). These student development theories that followed deviate from the linear concept espoused by Erikson, taking into account the complex environmental factors impacting the kinds of crises students face and the ways in which they view these crises and eventually change from them.

Chickering's (1969/1993) vectors of development. Using Erikson's work, Arthur Chickering was the first major theorist to focus specifically on the development of college students and his is perhaps the most recognized and enduring theory today. It influences a wide array of educational interventions both in and out of the classroom, in part due to its ease of use (Evans et al., 1998; Pascarella & Terenzini, 2005). First introduced in 1969 (and later revised with Linda Reisser in 1993), Chickering's theory is based on seven "vectors" of development, each of which represents a different dimension of identity, which Chickering saw as the central developmental issue college students face. Chickering did not believe movement along the vectors was necessarily sequential, suggesting that each vector has direction and magnitude, and that students may move

back and forth in the vectors, but as they move forward, they develop greater complexity, stability and integration of identity.

Chickering called his seven vectors "major highways for journeying toward individuation" which lead to the "discovery and refinement of one's unique way of being" as one moves towards unity with others and society (Chickering & Reisser, 1993, p. 35). Although called a psychosocial theory, it is broad and considers emotional, interpersonal, ethical and intellectual aspects of student development throughout the seven vectors. Chickering and Reisser(1993) suggested that the first three vectors are the most relevant to first and second year student development although later researchers, including Baxter Magolda, found that some students enter college further along the vectors (Evans et al., 2010). Because much of Chickering's theory was formulated on research conducted on traditional age, white males, it is likely too simplistic to believe that today's more diverse populations experience first year student development so narrowly.

Chickering and Reisser (1993) describe the vectors as follows:

1. Developing competence. Likened to a three-prong pitchfork, competence involves: intellectual competence, physical/manual skills, and interpersonal competence (Chickering & Reisser, 1993). Intellectual competence includes both content mastery and higher-order thinking skills such as reasoning and critical thinking, and "entails developing new frames of reference that integrate more points of view and serve as 'more adequate' structures for making sense out of our observations and experiences" (p. 45). This description is very similar to the concepts within the cognitive development theories described later in this chapter. *Interpersonal competence* includes a complex set of skills

including communication skills, ability to develop rapport, to give and take feedback, leadership, and the ability to express feelings which are "a pre-requisite for building successful friendships and intimate relationships" (p. 77).

According to Chickering and Reisser (1993), a sense of competence is subjective and students develop it as they learn to trust their abilities, see evidence of their skills and receive feedback from others, and integrate this sense of competence into their growing self-concept. In turn, as they gain competence they become more willing to take risks and try new things, leading to growing mastery and stronger self-concept. Intellectual competence is seen as the most critical competence to promote growth through subsequent vectors.

2. Managing emotion. This vector involves development of the ability to recognize, accept, express and control one's emotions, while also learning to act on feelings responsibly (Chickering & Reisser, 1993). Chickering and Reisser (1993) suggest that one of the challenges students face with emotions is that they often surface unexpectedly, such as the anxiety that may arise before a test. Development in this vector involves the ability to recognize emotions, to control impulses more effectively, and to respond appropriately to both positive and negative emotions. As development occurs in this vector, and students learn to manage emotions rather than be managed by them, integration occurs, allowing students to maintain flexible control over intense emotions.

3. Moving through autonomy towards interdependence. In this vector a student develops increased emotional independence and instrumental independence (Chickering & Reisser, 1993). The former is "freedom from continual and pressing needs for reassurance, affection, or approval" from others, while the latter involves "the ability to

organize activities and to solve problems in a self-directed way, and the ability to be mobile" (Chickering & Reisser, 1993, p. 47). As students progress through this vector, they develop greater self-direction and mastery over themselves and their own abilities.

The first step for students in developing emotional independence is often a redefinition of their relationships with parents, something particularly relevant with today's traditional age students and "helicopter parents." They learn to count on peers and other relationships for support and cognitively begin to see their own role and responsibility in learning and managing their lives.

Instrumental independence is linked to emotional independence as well as intellectual competence; it literally involves mobility in terms of the ability to get around and to leave a bad situation if needed (i.e., the decision to leave a party with underage drinking or an abusive relationship). As students develop instrumental independence, they find themselves more adept at not only at resisting peer pressure to engage in negative behaviors but also to speak out for themselves and in support of others.

As autonomy leads to coping behaviors suited to one's needs and the ability to see others as they are, students become more aware of their interconnectedness to others and "the recognition and acceptance of interdependence" which is the "capstone of autonomy" (p. 140). Interdependence involves recognizing the autonomy of others as well as one's own autonomy, being able to ask for and give help, and beginning to see one's responsibilities to a larger community and society.

4. Developing mature interpersonal relationships. In this vector the developmental tasks include tolerance (in both the interpersonal and intercultural sense) and appreciation of difference as well as developing the capacity for intimacy

(Chickering & Reisser, 1993). College provides opportunities for students to interact with a wide variety of people who are different than they are and ideally as they interact, students begin to appreciate people for who they are, find ways to bridge gaps and develop "an appreciation of cultural diversity and a comfort with people from all walks of life" (p. 146).

Interpersonal tolerance is critical to developing the capacity for deeper, healthier relationships with friends and partners, the mark of mastery in this vector. As students develop this ability their relationships become more reciprocal and interdependent. They are better able to strengthen positive friendships and be discriminating about the relationships they choose to have.

This vector has been the source of diverging thought and the impetus for alternative theories (i.e., Josselson, 1987) about women's development and the role that relationships play in that development. This divergence of thought may be relevant to the findings of this project for women in the population.

5. Establishing identity. This vector is a critical one, hinging upon progress in the previous vectors and essential to making progress in the remaining ones (Chickering & Reisser, 1993). Chickering and Reisser (1993) suggest it is like "assembling a jigsaw puzzle" and includes developing a comfort with one's body and appearance, gender, sexual orientation, cultural heritage, and social background, as well as developing a clear concept of self through roles and work. It also involves the ability to accept constructive feedback from significant others without loss of self-esteem or self-acceptance (p. 48). When a student progresses along this vector, they gain "a growing sense of self-worth" so that "a peaceful inner self can move toward stability and integration" (p. 200).

The college environment is ripe with opportunity for students to address the developmental tasks involved in this vector and significant research has been done to identify the role college experiences play in this. These findings will be discussed later in this chapter.

6. Developing purpose. This vector is a natural progression to establishing identity as students shift their thinking from who they are now to who they will or wish to become (Chickering & Reisser, 1993). As students develop purpose, they gain "an increasing ability to be intentional, to assess interests and options, to clarify goals, to make plans, and to persist despite obstacles" (p. 50). They begin to develop clearer career goals (seen as the purpose of college to many students). Students also begin to make greater commitments to personal interests and involvements, including friends and family, which includes the willingness to stick with decisions about one's purpose even in the face of opposition from family and significant others. This in turn reinforces newly minted identities as students see who they are through their own eyes instead of through the eyes of others.

7. Developing integrity. This final vector includes a sequential, overlapping progression through three stages as core values and beliefs guide this process (Chickering & Reisser, 1993). Humanizing values involves moving from rigid moral thinking to a stage in which the student balances her own interests with that of others (Chickering & Reisser, 1993). The research supports the idea that college has strong impacts on students' values and beliefs (Pascarella & Terenzini, 2005) and as they reassess, alter and realign what they believe and gain the ability to deal with ambiguity, they begin to develop integrity.

Personalizing values involves the establishment of a core system of values that the student affirms for herself, while respecting the values of others (Chickering & Reisser, 1993). In this stage they are building a framework for making decisions and evaluating the actions of others that will guide them even in times of crisis. Finally, in developing congruence the student is able to integrate values and actions into everyday life, balancing self-interest with social responsibility (Chickering & Reisser, 1993). This concept is very similar to moral reasoning discussed by other theorists.

Environmental influences on student development. Chickering (1969) believed that the educational environment had a major influence on student development. His research and the magnitude of research findings synthesized by Astin (1977, 1993) and Pascarella and Terenzini (1991, 2005) confirmed the importance of the educational environment on student development and persistence, factors that are discussed later in this chapter.

Summary. Psychosocial theories help student affairs professionals anticipate student issues and respond more appropriately with programs and services that focus on topics and issues relevant to the various stages of development. They also provide insight to shape the development of appropriate policies to guide student behavior and interaction within the campus community. While many theories of this type exist, it is important to note that Chickering's treatment of the environment, ongoing research to test his theory, and his influence on later thinking about student development serve to highlight the comprehensive and enduring nature of Chickering's theory and why it is relevant to this project.

Chickering's theory provides the foundation for the 10 competency areas measured on the survey and is applicable to this project because of the heavy focus he places on the early vectors for first year students and his emphasis on environmental factors.

Cognitive Developmental Theories

Focusing on how people think, rather than on what they think, cognitive development theories complement psychosocial theories. They focus on how people create the structures of mind that determine how they interpret (or make meaning) of their experiences (Evans et al., 1998; King, 2009a). The cognitive structures are generally described as "stages," each of which "typically refers to a set of interrelated assumptions (about knowledge, morality, self, etc.) that give individuals a foundation from which to interpret their experiences" (King, 2009a, p. 83).

The root of these theories can be traced to the early work of Piaget (1950) who posited that when an individual's experience doesn't match their assumptions, they encounter cognitive dissonance which forces them to revise their previous assumptions (Baxter Magolda, 2009a). According to King (2009a), three central principles provide a foundation for most cognitive development theories: (a) individuals actively construct and organize their interpretations of their experiences, (b) there are discernible, age-related patterns to cognitive development, and (c) development occurs in context, in interaction with the environment.

The earliest cognitive development theory was that of William Perry (1968), who developed a scheme of intellectual and ethical development. His work was extended and modified by Kegan (1982, 1994), Baxter Magolda (1992), King and Kitchener (1994)

and others, sometimes connecting intellectual and moral development, and sometimes focusing on one aspect in isolation with an emphasis on differences between women and men (Baxter Magolda, 2009a). A brief overview of several theories is important to understanding the evolution of cognitive developmental theory and Baxter Magolda's more holistic work on the ERM and self-authorship which incorporates cognitive and psychosocial aspects.

Perry's theory (scheme) of intellectual and ethical development. William Perry (1970) was the first theorist to focus exclusively on cognitive development in college students. Although Perry himself acknowledged the lack of rigor in his methods, in part due a sample comprised of all white men, he did "demonstrate the possibility of assessing, in developmental terms, abstract structural aspects of knowing and valuing in intelligent, late-adolescents" (p. 14). Years of studies with large numbers of college students and adults has confirmed the underlying soundness of Perry's central concepts (King, 2009b).

Perry's Scheme is based on positions rather than stages because (a) he felt a "position" was more consistent with the image of looking at the world from a point of view or a vantage point and (b) he made no assumption about duration in any position (Perry, 1970). Perry (1970) felt that development occurred during the transition through the positions rather than within them, describing nine positions on his full continuum. Although there are nine positions on Perry's continuum, it can be divided into four, three or even two parts. The most commonly used version of the theory is based on the four transition points in meaning-making (Love & Guthrie, 1999). These authors describe the

four transition points as (a) dualism, (b) multiplicity, (c) relativism, and (d) commitment to relativism.

Dualism is a way of making meaning that views the world as having answers which are Absolute Truths, provided by Authorities and describes the thinking orientation in positions one and two (Love & Guthrie, 1999; Perry, 1970). According to Perry (1970), none of the students he studied still had dualism as their basic point of reference, although dualism, or the idea that there are right and wrong answers, still carries over until students are in the fifth position. Multiplicity is a way of thinking in which knowledge is still viewed as known but just not known yet although students see uncertainty as just temporary (Perry, 1970). This transition, often a result of interactions with peers, is characterized by the idea that there are good and bad Authorities and the truth will eventually become clear (Perry, 1970). Relativism is the transition to the fifth position, in which students begin to view knowledge as contextual and qualitative, based on evidence and supporting arguments (Perry, 1970). He suggested that at first students must consciously alter their thinking, but that it soon becomes habitual. Finally, commitment to relativism is a process in which students begin to make choices, decisions and affirmations from the relativistic view and describes thinking in the sixth though ninth positions of Perry's Scheme (Love & Guthrie, 1999). Perry (1970) believed that making commitments was an important part of building identity, but these positions were not well developed, and this final position is more frequently associated with moral development than cognitive development (Love & Guthrie, 1999).

Women's ways of knowing. Belenky, Clinchy, Goldberger, and Tarule (1985) conducted in-depth interviews with women students leading them to conclude that

"women's thinking about thinking did not fit so easily into the Perry categories" (p. 13).

Belenky et al. (1985) subsequently reconceptualized Perry's theory to more accurately

capture women's voices. Their theory is based on five "perspectives" built on the concept

of "voice" rather than "seeing" (Love & Guthrie, 1999). The five stages are silence,

received knowing, subjective knowing, procedural knowing, and constructed knowing.

Belenky et al. (1985) use significantly different language from Perry to describe the

cognitive development process, calling it a culturally influenced psychological process.

The first perspective of silence is seen as unique to women and represents a "pre-

development" perspective often seen in women who have had negative experiences with

authority figures (i.e., abusive or domineering partners, fathers, etc.).

  Other cognitive theories. Two other cognitive development theories appeared

relevant to this project. The first had relevance due to the myriad of new experiences first

year students have in college, while the second is important in understanding the

foundation of Baxter Magolda' ERM and theory of self-authorship.

  King and Kitchener's reflective judgment model (RJM). King and Kitchener's

(1994) RJM built on Perry and other theories with a central concept that individuals make

reflective judgments when they need to bring closure to uncertain situations (Love &

Guthrie, 1999). The model has seven stages ranging from *prereflective thinkers* (who

cannot even conceive that knowledge is uncertain) to *reflective thinkers* (who view

knowledge as actively constructed within context and open to re-evaluation) (Evans et al.,

2010; Love & Guthrie, 1999). One important aspect of this model is that students operate

in a range of stages rather than any absolute stage, depending upon their previous

experience and the environment within which they are operating (Love & Guthrie, 1999).

This model has application in both the classroom and co-curricular life as students discuss complex issues in their coursework and have experiences which challenge their beliefs and existing knowledge structures in out of class settings. Of particular note, it is relevant to this project based on Evans et al.'s (2010) suggestion that there is a relationship between reflective thinking and students' appreciation of diversity.

   Kegan's theory (1994) of the evolution of consciousness. Kegan's (1994) theory of self-evolution was one of the first to integrate psychosocial and cognitive development, describing self-evolution as a process that "integrates thinking and feeling, cognition and affect, self and other" (Baxter Magolda, 2009a, p. 624). Kegan introduced the concepts of meaning-making and self-authorship, asserting that the activity of mean-making was the core of development and focusing on the experience of this development (Baxter Magolda, 2009a)

   Kegan's stages are called "orders" in which development occurs as the individual continually strives to resolve tension between the desire for differentiation and the desire to immerse oneself in one's surroundings (Evans et al., 2010). There are five orders in Kegan's theory, although Love and Guthrie (1999) suggest the first and last are not relevant to undergraduate college students and Evans et al. (2010) suggest only the last four are relevant. Each order is progressively more complex and it is important to note that they are not just about the content of thought, but about how one organizes thinking, feeling and relating to others based on experience (Love & Guthrie, 1999). The last four orders are (a) instrumental mind, (b) socialized mind, (c) self-authoring mind, and (d) self-transforming mind (Love & Guthrie, 1999). Kegan posited that one evolves to succeeding orders as periods of stability followed by periods of instability result in the

ongoing reconstruction of one's relationship with one's environment, creating new structures of meaning making (Baxter Magolda, 2009a). College is ripe with opportunities to shift between periods of stability and instability.

Social Identity Development Theory

The first social identity theories emerged in higher education in the early 1970's as a result of the work of Henry Tajfel and John Turner, whose 1971 Social Identity Theory (SIT) examined the motivational forces underlying identity from a social psychology perspective (Campbell, 1997). As student populations on college campuses began to diversify, a range of theories addressing multiple aspects of identity emerged (Evans et al., 2010). These theories address a range of identities from race and ethnicity to sexual identity to gender identity, with a growing number of multiple identity models emerging to address the complex intersections of the multiple identities of diverse students today (Evans et al., 2010). Racial and ethnic identity theories are types of social identity theory which were important to this project because identification as being from a diverse racial or ethnic group was a variable under consideration.

Racial and ethnic identity development. Students from diverse racial and ethnic backgrounds attending predominately white institutions (PWIs) do not experience the college environment in the same way their white peers do and consequently their development may not parallel that of their majority peers (Evans et al., 2010; Kuh, 2008, 2009; Kuh et. al., 2005; Kuh et al., 2006; Kuh et al., 2007; Pascarella & Terenzini, 1991, 2005). Because the ways in which students make meaning about the world and their experiences in it are an important part of how their social identities are formed, a

student's racial or ethnic identity or identities adds more complex dimensions to their personal and social development as they interact with the college environment.

The literature on racial and ethnic identity includes several different kinds of theories, including: (a) multi-group theories and models that look broadly at the concept of being a member of a minority group rather than a specific group; (b) racial identity theories that examine the role of race and its incorporation into one's identity and self-concept; (c) ethnic identity theories that consider how students understand their ethnicity and decide what role it will play in their lives; and (d) multiracial identity theories that focuses less on specific definitions and more on the role multiple heritages and the lack of acceptance mixed heritage people face plays in identity development (ASHE-ERIC, 2003; Evans et al., 2010). In most of these models students move through a series of phases or stages beginning with no racial or ethnic awareness, moving towards a process of realization and dissonance about race or ethnicity, and ending at a point in which the individual has accepted his/her own identity and developed an appreciation for the differences in others (ASHE-ERIC, 2003).

Multi-group racial and ethnic identity models are useful in that they provide a way to look at the broad concept of being from a minority group, but when used in isolation will "generalize and stereotype a group of people based on the assumption that their behaviors, beliefs, values and levels of consciousness are all the same" as those of people from other groups (ASHE-ERIC, 2003, p. 48). The racial and cultural identity development model (R/CID) is an example of the multi-group model that serves to provide a foundation for many other identity development models. The R/CID model is described later in this chapter.

Race is a social construct based on an individual's heritage, and racial identity "refers to a sense of group or collective identity based on one's perception that he or she shares a common heritage with a particular racial group" (Helms, 1993, p. 3). Chavez and Guido-DiBrito (1999) note that race is often a lens through which we view others suggesting that racial identity is a "surface level manifestation based on what we look like yet has deep implications for how we are treated by others" (p. 40). This concept is applicable in understanding the role race and developing racial identity can play for both non-white and white students on college campuses.

Racial identity development is "an active and fluid process of identifying one's own racial group as a viable self-reference group" through which one moves towards well-being and self-acceptance, as well as the acceptance of those who are racially different (Abrams & Trusty, 2004, p. 365). According to Howard-Hamilton (2000), theories of racial identity development help people of color and whites to better understand how their own racial identity and experiences affect their ability to understand the perspectives of others. Traditional student development theories do not account for the unique issues and experiences Black students bring with them to PWI campuses, including the importance of family and oral tradition in the Black community; the impact of past racial hostility and being treated as inferior, and the philosophical connection to African tradition and spiritualism (McEwen, Roper, Bryant & Langa, 1990). Racial identity theories "typically stress the importance of a psychological rebirthing process that entails an immersion into one's own racial group" (ASHE-ERIC, 2003, p. 46). One important racial identity theory is Cross's Theory of Nigrescence (1971), revised in 1991

and further enhanced in 2001 by Cross and Vandiver. Cross's model is described in the next section of this chapter.

Ethnic identity focuses on the shared culture of family and community, including foods, religion, geography, and cultural customs which bind an ethnic group together, and can be conscious or unconscious (Chavez & Guido-Brito, 1999; Torres, 1999). Ethnic identity development consists of an individual's movement toward a highly conscious identification with the cultural values, behaviors, beliefs, and traditions of one's own ethnic group (Chavez & Guido-Brito, 1999). In American society, white "ethnicity is usually invisible and unconscious because societal norms have been constructed around their racial, ethnic, and cultural frameworks, values, and priorities" and then referred to as "standard American culture" rather than as "ethnic identity'" (Chavez & Guido-Brito, 1999, p. 38). This can create challenges for students from diverse ethnic backgrounds as they navigate PWIs similar to those faced by racially diverse students in these same institutions. Torres and Baxter Magolda (2004) suggest that recent research indicates "ethnic identity (the intrapersonal dimension) is intricately interwoven with cognitive and interpersonal dimensions of development" (p. 343). One model of ethnic identity with relevance for this study is Phinney's (1990/1992) model of ethnic identity development, which is described in the next section of this chapter.

Racial and ethnic identity theories/models. This section describes the three previously cited theories/models, as well as a Helms (1995) theory of white identity development.

Racial and cultural identity development model (R/CID). Based on Atchinson, Morten and Sue's (1979) earlier model of minority development, Sue and Sue's R/CID

(1990/1993/1999) is a five stage multi-group model which describes the general process

through which students from racially and ethnically diverse backgrounds progress

(ASHE-ERIC, 2003). The five stages are (a) conformity, (b) dissonance, (c) resistance

and immersion, (d) introspection, and (e) synergistic articulation and awareness. In

conformity, one embraces completely the customs or beliefs of the dominant culture to

the exclusive of their own, often leading to depression or low self-esteem (Sue & Sue,

1999). In dissonance, one gradually shifts to a way of thinking in which one questions the

dominant culture but cannot embrace one's own (Sue & Sue, 1999). Then, in resistance

and immersion, the individual reverses stage one, completely rejecting the dominant

culture and taking pride in her own culture (Sue & Sue, 1999). When one enters

introspection, there is a realization that the extremes of stage three create dissonance as

well, and hinder the ability to develop identity (Sue & Sue, 1999). Finally, in integrative

awareness, the individual develops a sense of security in seeing the value and benefits

inherent in each culture, adopting those that feel most appropriate (Sue & Sue, 1999).

Within each stage, four processes of attitude area at work: (a) attitude about self,

(b) attitude toward other members of the same minority group, (c) attitude toward others

of different minority groups, and (d) attitude toward dominant group members (ASHE-

ERIC, 2003; Sue & Sue, 1999). This model describes a general process that is applicable

across racial and ethnic groups while various racial and ethnic theories or models address

the unique perspectives that one's race or ethnicity brings to the identity development

process.

Cross's theory of nigrescence. Cross first proposed his theory of nigrescence in

1971, later revised it in 1991, and further developed with Vandiver in 2001 as a result of

research involving the Cross Racial Identity Scale (CRIS) (Vandiver, Fhagen-Smith, Cokley, Cross & Worrell (2001). Cross's model is one of the most commonly used and provides the basis for understanding African American racial identity, shaping the development of other racial identity theories, including Helm's model (Worrell, Cross, & Vandiver, 2001).

Cross's revised theory, most recently expanded based on research using the CRIS, includes four clusters identifying multiple possible nigrescence identities in different stages: (a) pre-encounter, (b) encounter, (c) immersion-remersion, and (d) internalization. Pre-encounter is a complex identity stage involving three different identity clusters, including assimilation (race has little significance to the individual), miseducation (when the individual begins to believe negative distortions about their race) and self-hatred (when miseducation cause self-hatred and anti-Black feelings) (Worrell et al., 2001). Encounter refers to the process of having interactions, either positive or negative, with whites and how these interactions are personalized (ASHE-ERIC, 2003). Immersion-remersion refers to a process in which the individual rejects anti-Black feelings, begins to feel anti-White and becomes very involved in Black culture and identity (Vandiver et al., 2001). In addition to the behavioral manifestation of Black-involvement there are two emotional manifestations of this stage: (a) students may feel anger towards Blacks who are seen as still in pre-encounter mode or who are multiculturalists, or (b) students may have an intensely anti-White attitude. Both of these situations, when manifested on a college campus, can have serious consequences for students of all races (Vandiver et al., 2001). Finally, students who move to internalization may demonstrate this with a Black nationalist identity, a biculturalist identity, or a multiculturalist identity (Worrell et al.,

2001). Biculturalist and multiculturalist identities are the result of Black students internalizing their racial identity, while also recognizing other aspects of their personal identities as equally important (Vandiver et al., 2001).

According to Cross and Fagan-Smith (2001) Black students will progress through these various stages of development based on three concepts that will vary for each individual, including: (a) personal identity (one's personality traits); (b) reference group orientation (values, worldview, and lens that filters philosophical and political views); and (c) race salience (importance of race within one's life). Cross sees the nigrescence process as "a re-socializing process" and believes the identities "describe frames of reference or identity clusters through which the world is viewed, and they are exemplified by particular attitudes" (Worrell et al., 2001, p. 208).

Phinney's (1990/1992) model of ethnic identity development. Phinney (1990/1992) proposed a three stage, developmental model of ethnic identity based on the concept that people learn about their culture from family and community, and that as part of forming one's ethnic identity, youth from ethnically diverse groups must resolve two conflicts arising as a result of belonging to a minority group: (a) the negative attitudes and prejudice they face which threatens self-concept, and (b) the clash of value systems between majority and minority groups as they choose among values (Phinney, 1996).

Phinney (1996) describes three stages of ethnic identity development: (a) unexamined ethnic identity, (b) ethnic identity search, and (c) ethnic identity achievement, suggesting they are continuous because people may re-examine their ethnic identity throughout their lives. In the first stage, ethnic identity may not be relevant to the individual, and one may have positive, negative or neutral relationships with one's own

group and those of others, depending upon socialization (Phinney, 1996). In the ethnic

identity search phase, individuals may be highly involved in their own culture and as a

result of some experienced racism, may have negative feelings towards other races,

particularly whites (Phinney, 1996). Finally, in the last stage, individuals begin to have

realistic appraisals of their own group and those of others, feel secure in their sense of

belonging to their ethnic group, and have feelings that vary from tolerance for others

from different ethnic groups to positive involvement or integration with them (Phinney,

1996).

Phinney's model is important in understanding challenges that students from

some ethnic backgrounds attending predominately white institutions may face as

significant dissonance results from clashes between their ethnic and family culture and

that of their institution.

White identity theory. White students frequently do not think they have "white

identities" and often don't consider their racial identity until they encounter the diverse

range of students on their college campus. According to Helms (1995), white identity

development occurs in two sequential phases, each with three statuses. The first phase,

abandonment of racism, is a process in which white people move from (a) contact, in

which they may be oblivious to race and institutional racism and have had little contact

with people of other races, to (b) disintegration, in which new experiences they have

cause them to see racism and feel guilty or ashamed to learn about its existence, to (c)

reintegration, in which they begin to realize the existence of white privilege as it relates

to racism in society, but still may feel their privilege is deserved (ASHE-ERIC, 2003).

Once one is able to move past feeling that their privilege is deserved, s/he is ready to

enter the second phase, evolution of a nonracist identity, which is a phase of positive racial identification (Evans et al., 2010). This phase involves (a) pseudo-individualization, in which the individual accepts the privileges of being white, supports the efforts of others from different races to oppose it, but does not see his or her own role in confronting racism; to (b) immersion/emersion, in which the individual makes a deep effort to connect to whiteness and become non-racist; to (c) autonomy, in which the individual develops a positive identification with his or her white identity and uses it to become an active anti-racist (ASHE-ERIC, 2003; Evans et al., 2010).

Just as the college experience is ripe with opportunity for students from racial groups to address their racial identity and its place in their lives it also provides this same opportunity to white students. This is a very relevant concept for first year students, who may not even consider being white an identity.

Summary of social identity theory. Social identity theory provides a context for understanding much of the research findings in the literature relative to under-represented student populations and the differences in their experiences on college campuses. It was anticipated that social identity theory would play a role in explaining some of the expected findings from this study, given that the majority of the student population (89%) is white. After a review of findings, these social identity theories also provided insight into the role environmental changes may have contributed to eliminating differences between white students and students from racially and ethnically diverse backgrounds on this campus that the research on student engagement discussed later in this chapter indicated would exist.

Baxter Magolda's Theory of Self-authorship

Baxter Magolda began her work in 1986 with a series of interviews with 100 students from Miami University and followed these students in a longitudinal study into their forties (Evans et al. 2010). From this research Baxter Magolda (1992) developed the Epistemological Reflection Model (ERM), a four stage model focused largely on cognitive development and based on Kegan's concept of self-authorship. As her research evolved, Baxter Magolda's theory evolved into a more comprehensive one examining how cognitive, affective and interpersonal development work together to lead to self-authorship, which she defines as the "internal capacity to define one's beliefs, identity, and social relations" (Baxter Magolda, 2008, p. 269). Baxter Magolda introduced the Learning Partnership Model (LPM) as a way to aid practitioners in creating environments that foster the development of self-authorship (Evans et al., 2010).Perhaps more than any other today, Baxter Magolda's theory provides the type of holistic, integrated approach practitioners must understand, and utilize, to most effectively promote the cognitive and psychosocial development of college students. Baxter Magolda goes so far as to suggest that "faculty and student affairs educators are ethically obligated to work together to promote self-authorship and learning" (2009, p. 2).

Epistemological reflection model. Baxter Magolda's earliest theory, the ERM, is a four stage model that includes (a) absolute knowing, (b) transitional knowing, (c) independent knowing, and (d) contextual knowing, each of which has gendered patterns (Baxter Magolda, 1992). Much like in Perry's (1970) theory, absolute knowing is a stage in which knowledge is seen as certain and teachers are the source of absolute answers and truth (Baxter Magolda, 1992). Over two-thirds of the first year students

interviewed were in this stage of knowing, and Baxter Magolda (1992) found that women tended to receive knowledge more privately and with collaboration, while men tended to master knowledge in a more public process characterized by a level of competition with peers. Transitional knowing, the second stage, is characterized by an increased focus on understanding knowledge and an expectation of faculty to extend knowledge rather than just transmit it (Baxter Magolda, 1992). The interpersonal, female pattern emphasizes building rapport with peers and faculty, and knowledge sharing; while the impersonal, male pattern features a more critical, evaluative approach (Baxter Magolda, 1992). Baxter Magolda (1992) reported that half the sophomores she interviewed and almost 80% of the juniors and seniors were in this stage.

The next stage, independent knowing, is one in which students recognize that most knowledge is uncertain, and they expect faculty to provide a "context in which to explore knowledge" (Baxter Magolda, 1992, p. 55). This stage is also characterized by two patterns, interindividualization (predominately women) and individual (predominately men); however, Baxter Magolda (1992) found the male-female patterns were becoming more closely aligned in this stage than at earlier stages. The patterns eventually merge in the final stage, contextual knowing, as students come to realize that knowledge has its legitimacy within a context, and that supporting evidence to back up one's beliefs about knowledge are essential (Baxter Magolda, 1992). It is in this stage of contextual knowing that students can self-author their own lives.

As Baxter Magolda followed her research subjects into adulthood, her ideas evolved as the participants evolved, and she began to consider further the number and range of developmental tasks young adults face in their twenties (Evans et al., 2010).

These tasks are framed by three inter-related questions that lead to the path of self-authorship: (a) "How do I know?" (b) "Who am I?"; and (3) "How do I want to construct relationships with others?" (Baxter Magolda, 2003). According to Baxter Magolda (2003), young adults attempting to answer these questions are met with many complex issues in college and beyond, and she found that some of her interviewees were well beyond the college years before they felt they had satisfactorily answered all these questions.

Baxter Magolda (2003, 2008) asserts that self-authorship is essential to addressing the full range of challenges one faces in college, such as making good personal decisions, deciding on a major or establishing career goals, as well as being essential to the development of critical thinking skills, a primary objective of a college education. Further, she believes colleges do not currently create the kind of conditions which promote the development of self-authorship, but that if they did, they could advance the development of self-authorship earlier in students' lives, thus promoting development more fully (Baxter Magolda, 2008, 2009a; King, 2009b; King & Baxter Magolda, 1996).

Path to self-authorship. Baxter Magolda (2001) describes four phases on the path to self-authorship in which students move from external definition to internal definition. In the first phase, students ***follow formulas***, with their definition of self externally generated and their paths established by external authorities (such as parents) even though may believe the path is their own (Baxter Magolda, 2001). According to Baxter Magolda (2001) following formulas was "consistent with transitional assumption that following the lead of authority's lead results in resolving confusion" (p. 71).When students find that the path doesn't work well or is not satisfying, they may chafe about

being defined by how others see them, both individually and in the context of relationships, and enter the next phase, ***crossroads*** (Baxter Magolda, 2001). College provides multiple opportunities for students to stand at a "crossroad" on their path, and successful navigation leads them to the next phase, ***becoming the author of one's life***, a phase in which individuals engage in self-reflection, develop a stronger self-concept, and take greater care in the relationships they choose to build (Baxter Magolda, 2001). The fourth phase, ***internal foundation****,* is one in which young adults become grounded in their own belief systems, sense of identity, and the mutual nature of their relationships, creating a "solidified and comprehensive system of belief" (Baxter Magolda, 2001, p. 155). Baxter Magolda (2001) found from her longitudinal study that this final phase is often not achieved until well into young adulthood, when individuals begin use contextual knowing, making their life decisions on the internal foundation they have built.

Elements of self-authorship. Baxter Magolda (2008) proposed that self-authorship will evolve when there is a challenge to develop it and that challenge is matched with sufficient support to assist the individual in making the necessary shifts in meaning-making. The idea of appropriate levels of challenge and support, consistent with Sanford's (1967) theory, underpins the process by which Baxter Magolda (2004, 2008) asserts higher education practitioners can "create bridges" that encourage the development of self-authorship. Baxter Magolda (2008) suggests that this requires a comprehensive understanding of three elements (or building blocks) that comprise a self-authored system. These elements were developed from her longitudinal study and include:

- *Trusting the internal voice.* This element refers to the concept of knowing oneself deeply enough to live life on one's own terms, and know what is within one's own ability to control. It is "developing the internal voice to make decisions" (Baxter Magolda, 2008, p. 281).
- *Building an internal foundation.* This element is the development of the framework or philosophy that guides one's life—the "core of one's being"— in which one is "using the internal voice actively to build one's internal belief system" (Baxter Magolda, 2008, p. 281).
- *Securing internal commitments.* This element is the "crossing over" from understanding one's internal commitments to actually living them, or "refining and strengthening the internal system as it becomes the core of one's existence" as contextual knowing replaces less devolved ways of thinking (Baxter Magolda, 2008, p. 281).

Learning partnership model (LPM). Baxter Magolda (2004) identified six

dynamics characterizing the learning process for a wide range of students across

numerous environments. These dynamics are the foundation of the LPM (Baxter

Magolda, 2009b). Three supportive dynamics "strengthened students' internal voices":

(a) respecting the learner's thoughts and feelings and affirming their voices; (b) helping

the learner to see their experiences as opportunities to grow and learn; and

(c) collaborating with learner's, engaging with them in a mutual learning process as they

analyze their problems or challenges (Baxter Magolda, 2009b).

The remaining three dynamics challenge students to develop their self-authorship

and include: (a) drawing the learner's attention to the complexity of decisions or work in

ways that discourage simplistic thinking or solutions; (b) encouraging the learner to

develop "personal authority by listening to their own voices" in decision-making about

their lives; and (c) encouraging the learner to share expertise and authority, working with

others to solve problems interdependently (Baxter Magolda, 2009b, p. 3). Baxter

Magolda (2009b) reported that most of the participants interviewed did not experience

real learning partnerships in their undergraduate college years, but only later in work-related or other adult settings.

The LPM provides learners with "control of and responsibility for their educational journeys," and Baxter Magolda emphasizes that the debate over who is in charge of student learning, faculty or student affairs, is "misguided" because the student is in charge of his or her own learning, and to do so they need many partners in the process (2009, p. 4).

Implications of self-authorship. Self-authorship provides a framework for approaching student development holistically, and serves as a desired goal for programs and interventions to enable students to approach the many aspects of their lives with an increased ability to think critically about their best path(s). When colleges and universities understand how experiences impact their students, they can promote discussion that helps student explore their inner voice and learn to trust it, serving as guides to encourage self-authorship. This practice will enable practitioners to more intentionally guide students to build bridges between their experiences rather than leaving the connections to chance. Self- authorship is beginning to provide a framework for researchers seeking to understand student development more holistically and to impact that development more intentionally, such as Pizzolato (2005) who has explored the "moments" that help students move through the phases and Torres and Baxter Magolda (2004) who examined self-authorship in Latino students. It also has immeasurable application in higher education settings seeking to form strong academic affairs and student affairs collaborations to promote self-authorship.

Summary of student development theory. Student development theory provides

practitioners with a variety of ways to view the students with whom they work and tools

to understand student behavior and needs. For the purposes of this project, it provides a

framework for understanding the aspects of personal and social development one might

expect to see in first year students.

Role of the Environment on Development and Engagement

Numerous findings indicate that students' levels of development in both the

cognitive and psychosocial realms will impact how they experience the environment,

while the environment's actual impact will promote development in one or both realms

based on the individual and a variety of complex factors (Astin, 1993; Chickering &

Reisser, 1993; Kuh, 2008; Kuh et al., 1991; Kuh et al., 2005; Kuh et al., 2007; Pascarella

& Terenzini, 1991, 2005). For this reason, it is important to discuss the influence of the

environment on student development and efforts to formalize strategies designed to

maximize positive engagement with the environment.

This section will provide an overview of theories focused on specific conditions

within the environment proven to have positive impact on student development and

learning. A summary of Astin's findings about environmental impact will be discussed.

An overview of Chickering's hypotheses about the role of environment on student

development, which is now considered "good practice", will follow. Finally, a discussion

of the impact of NSSE findings in helping to formalize institutional attempts to promote

student engagement in educational purposeful activities will conclude this section.

Challenge and Support (Sanford). The work of Nevitt Sanford (1968) defies

categorization as anything beyond a foundational theory. Sanford's years of research on

college students led him to conclude that the change students experience in college is significantly influenced by college environments. His refreshingly simple theory asserts that in order for student development to occur and for students to succeed in college they need the proper balance of challenge and support, with the appropriate balance between the two varying based on individual background, personality and experiences (Sanford, 1967; Upcraft et al., 2005).

Sanford (1967) proposed the concept of readiness to student development theory, suggesting that students must be physically or psychologically ready to develop new behaviors or development will not occur. When students are ready, the correct balance of challenge and support pushes them to take the risks necessary to learn and grow.

This concept is integral to many of the previously discussed theories, and is crucial to working with first year students given the important foundation the first year plays in student success (Evans et al., 2010; Sanford, 1967).

Involvement (Astin). Perhaps no one has influenced the early body of literature on the role environment plays on college student development as much as Alexander Astin (1984/1999), whose theory of student involvement articulated nearly 20 years of his writing on the subject (Astin, 1984/1999). His work has shaped much of the practice in student affairs, providing a foundation for Tinto's work on retention, as well as the paradigm shifting work of George Kuh and others on student engagement, Terenzini and Reason's (2005) Comprehensive Model of Influences of Student Learning and Persistence, and Reason, Terenzini and Domingo's (2007) work to identify and link the collegiate factors contributing to personal and social development in the first year.

Astin's theory of student involvement was generated from a longitudinal study to improve understanding of the environmental factors influencing persistence. According to Astin (1993) environmental variables impact retention more than any other measure, with every positive influencing factor linked back to student involvement, and every negative influencing factor linked back to reduced involvement.

Astin's research (1993) also led him to two conclusions about first-year students which were supported by later research and which guide much of today's first-year student program design. First, virtually all types of student involvement were associated with greater than average changes in first-year students. Second, involvement was more closely associated with this change than the characteristics of either the entering students or their institution. Based on these conclusions, it stands to reason that any college or university can provide growth experiences for its first-year students through maximizing their involvement in that institution's own unique engagement opportunities in and out of the classroom.

Perhaps the most important aspect of involvement found by Astin is the power of peer influence on college students. Astin (1996) calls students' peer groups "the strongest single source of influence on cognitive and affective development." The strength of this influence is found in the ability of one's peer group to engage students more intensely in the college experience, and overall Astin found the influence to be a positive one. The role of peer influence is also fundamental to ecological systems theories of development, including that of Bronfenbrenner (1979).

Calling his theory simple, Astin (1984/1999) proposed five basic propositions about involvement. The first three relate to the actions of the students: (a) involvement is

the investment of physical and psychological energy in "objects," either generalized (the

student experience) or very specific (preparation for an exam); (b) regardless of the

object, involvement occurs along a *continuum* such that students exert varying levels of

involvement with different objects; and (c) involvement has both quantitative (hours

spent, number of organizations) and qualitative features (intensity of time spent) (Astin,

1999). The last two postulates have implications for institutional practice: (a) the amount

of learning and development associated with any educational program is directly

proportional to the quality and quantity of student involvement in that program, and

(b) the effectiveness of any educational policy or practice is directly related to its capacity

to increase student involvement (Astin, 1999).

Astin's (1984/1999) is not a developmental theory as it does not focus on

developmental outcomes (the *what* of development), but rather focuses on the processes

that promote student development (the *how* of development) during the college years.

Astin's (1993) longitudinal studies provided empirical evidence linking involvement to a

wide array of positive developmental outcomes.

Chickering's environmental hypotheses. As previously noted, Chickering

(1969) proposed seven hypotheses about the influence of the environment on student

development, which were supported by both his and Astin's research over the next few

decades (Chickering & Reisser, 1993). Together with Zelda Gamson, Chickering

developed these hypotheses into *Seven Principles for Good Practice for Undergraduate*

Education in 1987. These "good practices" include:

1. The development of clearly stated institutional objectives to develop programs
   and services designed to achieve the same outcomes.

2. An institutional size such that students do not outnumber the potential opportunities for involvement as this decreases the potential for development of competence, mature interpersonal relationships, identity and integrity.
3. Student-faculty relationships that are varied and extensive, and allow students to get to know faculty as caring and helpful.
4. A curriculum that is relevant, offers diverse perspectives, and helps students make meaning of what they are learning beyond the course content.
5. Teaching that calls for active learning and promotes time on task, holds high expectations and recognizes the diversity of student learning styles.
6. Friendship and student communities that are diverse, allow students to share common interests, and develop meaningful friendships.
7. Student development programs and services that foster development, promote application of concepts learned in the classroom, and provide the appropriate levels of challenge and support students need to foster growth. (Chickering & Gamson, 1991)

Kuh (2001, 2005, 2009) cites these good practices as the best known set of engagement indicators available using them to frame the definitions of conditions that matter to student success at effective institutions, which are measured by the NSSE.

Bronfenbrenner's Ecological Theory. Ecological systems theories are emerging as more integrative models for incorporating psychosocial development theory and empirical data derived from research which links development to environmental factors (Evans et al., 2010). Bronfenbrenner's (1979) Ecological Theory, which he developed to explain early childhood development and growth, differs from most person-environment theories in its focuses on the individual rather than the actual environment (Evans et al., 2010). Bronfenbrenner (1979) examined how and why outcomes occur as a result of specific interactions between individual(s) and their environment(s), suggesting that development evolves as a result of the person- environment interactions which occur in immediate, face to face settings where the individual exists.

Bronfenbrenner's theory lays out a model in which various systems link together to create the ecological system within which an individual operates, suggesting the

system either promotes or hinders development based on the patterns of interaction between four components: (a) process, (b) person, (c) context, and (d) time (Bronfenbrenner, 2005; Renn & Arnold, 2003). The core of the model is process, or the actual interaction between individual and environment, which becomes increasingly complex over time, thereby shaping development (Bronfenbrenner, 2005). The second component is the person, whose "developmentally instigative characteristics" shape the ways in which each individual interacts with the environments (Bronfenbrenner, 1993, p. 11). Bronfenbrenner (1993) suggests that these characteristics don't actually determine development, but they shape it as the individual interacts with the environment. The third component of the model is context, which relates to the four types of systems surrounding the individual and creating his/her full ecological system: (a) microsystems, (b) mesosystems, (c) exosystems, and (d) macrosystems (Bronfenbrenner, 1993).

Renn and Arnold (2003) propose that Bronfenbrenner's theory is relevant to understanding the role of peer culture on college student development because it accounts for the interactive effects of peer and family influences on students in ways that other models do not. Examining the interaction between student microsystems, including interactions with roommates, family, sports teams, co-workers, classmates and faculty; how the linkages between the multiple settings in which students operate (their mesosystems) either reinforce or counteract each other; and how exosystems beyond their control, such as the illness of a parent or financial aid decisions, exert influences on their environment, all help explain the influences of the environment on personal development (Renn & Arnold, 2003). Together, these various systems create a complex context within

which the person interacts with the environment, which becomes even more dynamic when the component of time is added (Renn & Arnold, 2003).

Student Engagement and the NSSE

According to Kuh (2009), the evidence linking student involvement, or engagement, to positive impacts on grades and persistence, sparked a new wave of interest in the role of institutions in promoting engagement. This interest led to development of the NSSE as a tool to help institutions assess how well their students are engaged in the kinds of activities believed to promote student learning and enhance student success. Since 2000, 1300 institutions have used NSSE and dozens of studies have been conducted to evaluate both the instrument and the five educationally effectiveness practices underlying its premises. Kuh (2009) reports that all five practices have been significantly linked to students' reported cognitive and non-cognitive gains as measured on the NSSE instrument.

Of greatest importance to this project, is the evidence from NSSE indicating that the largest positive effects of engaging in educationally purposeful activities are realized by students of color, academically under-prepared students, first in family to college and low-income students (Kuh, 2008), which represent the majority of the population at the research site. However, Kuh (2008) also reported that these same groups of students are also less likely to engage in these activities on their respective campuses, a finding which has prompted continued research into why this is the case and how these patterns can be altered.

Retention, Persistence, and Development in the First Year of College

This section provides an overview of the literature related to student retention, persistence, personal and social development and the first year of college. It presents a brief discussion of retention relative to today's diverse student population, with an overview of data to place the discussion in context relative to this project and the research site's population. A discussion of the factors affecting student departure and Tinto's retention theory follows. This is followed by a discussion of the first year movement and the current scholarly thinking about a more comprehensive approach to design and assessment and assessment of the first year. This is then followed by a summary of recent work to more fully understand how students develop personally and socially during the first year of college. Finally, this section concludes with relevant findings about persistence, focusing on some of the unique challenges faced by underserved student populations

Chapter 1 provided a detailed discussion of the retention issues facing today's higher education institutions which have resulted in criticism both within the academy and from broader society. With retention rates relatively unchanged over the last 30 years despite significant efforts by HEIs to improve access and student success (Engle & Tinto, 2008; Hossler et al., 2009; Kuh et al., 2007), it is important to understand some of the factors contributing to this issue. The academy's failure to improve student persistence and success comes with a significant cost to students, colleges and society as a whole in terms of monetary consideration, individual opportunity, and the ability to properly prepare a workforce to meet 21st century needs.

Kuh et al. (2007) report that 25% of first year students fail to return for their second year of college, while only 55% of students complete a college degree within six years (Kuh et al., 2007). While these numbers are low in and of themselves, they become even more discouraging when examined more closely relative to students of color, students from low-income households and those who are the first in their family to attend college. For example, only 43% of black students complete their degree within six years as compared to 63% of white students (Journal of Blacks in Higher Education (JBHE), 2007). Further, Engle and Tinto (2008) report that only 46% of low-income, first-generation students enrolled in four year institutions attain a degree within six years as compared to 83% of their peers who are not low-income. In addition, when enrolled in four-year public institutions, these students are three times more likely to drop out within the first year than their peers who are not low-income, first generation (Engle & Tinto, 2008).

Consideration of these numbers relative to overall retention rates speaks to the issue of student success at a macro level, which is important. However, because there is wide variability in retention numbers across institutions, there is growing evidence that when institutions apply the findings on student departure and persistence and alter their practices, it works to close these gaps (JBHE, 2007; Kuh et al., 2007). The success of some institutions to improve retention of under-served student populations offers promise that all institutions can improve the student experience on their own campuses to accomplish the ultimate goal of providing all students the opportunity to be successful.

Theoretical perspectives on student departure. The factors underlying student departure are complex, and many are beyond the control of colleges and universities to

address (Braxton, 2003; Kuh et al., 2007). Kuh et al. (2007) suggest five broadly defined

categories of variables influencing student departure, supported by the research cited

earlier, including:

- student background characteristics such as demographics, pre-college

    academic preparation, family and personal expectations and other

    experiences;

- structural characteristics of institutions such as mission, size and selectivity;

- student interactions with faculty and staff members and peers;

- student perceptions of the learning environment such as classes, residence

    halls and other campus sub-cultures; and

- the quality of effort students devote to educationally purposeful activities.

Astin's (1993) work provided much of the early understanding about student

persistence as evidenced by the final set of variables cited. Using Chickering's earlier

work on environment and personal development, Astin (1993) identified 146 pre-college

input variables (i.e., gender, race, ethnicity, income, and family education level) and 192

environmental factors, which in turn generated 82 outcomes (or effects of college) which

help to explain the factors influencing persistence. Key to all of these outcomes was

involvement (Ishler & Upcraft, 2005).

Tinto's (1993) theory of student departure. Vincent Tinto (1975, 1993)

provided a theory of student departure that built on Chickering's and Astin's work by

delineating the inter-relationship between the variables, highlighting differences between

involuntary departure factors and voluntary factors often arising from problems that

students perceived to be insurmountable (Ishler & Upcraft, 2005). Tinto was the first to

suggest that institutions were equally responsible for student departure, creating what has been called an interactionist theory, centered on the idea that social and academic integration are essential to creating the sense of belonging necessary for retention (Wolf-Wendel et al., 2009). Integration, a term Tinto no longer uses because of its more commonly associated meaning, is a state of being in which students form relationships with faculty and peers that create a sense of belonging, which develops into a reciprocal commitment on the part of the student and the institution (Wolf-Wendel et al., 2009).

First-year movement. Evidence that student persistence is influenced by a student's first year, particularly involvement in educational experiences and the institution's responsibility to foster this involvement, sparked a movement to improve the first year of college that began in the mid-1980s (Upcraft, Gardner & Associates, 1989; Upcraft et al., 2005). This movement included the formation of the National Resource Center for The First-Year Experience at the University of South Carolina (later the Policy Center on the First Year of College) and publication of *The Freshman Year Experience* 1989, which provides "a blueprint . . . for helping freshman to succeed" (Upcraft et al., 1989, p. xv). This movement also saw the growth of orientation programs and the freshman year seminar, considered the seminal tool of the first year experience at the time (Upcraft et al., 2005).

Over the next 20 years efforts to improve the first year exploded as research by Pascarella and Terenzini (1991), Astin (1993), and Tinto (1993) helped ground practices with improved information about their impacts (Upcraft et al., 2005). Campuses created first year offices and first year academic support centers; funding for first year initiatives increased; faculty began to engage more both in and out of the classroom; and tools such

as the Cooperative Institute Research Program (CIRP) Freshman Survey were developed

in 1966 out of UCLA by the American Council on Education to provide colleges with

information about characteristics of their first year students that have been proven to

impact persistence.

Challenging and Supporting the First Year Student, by Upcraft et al. (2005), was

published to "bring into perspective the myriad of programs, services, courses and other

initiatives" designed to improve first year student success (p. xi). These authors

acknowledged that despite significant progress in improving first year experiences,

several concerns still exist: (a) most best practices have not been sufficiently validated

and (b) many of these programs operate at the micro-level without sufficient connection

across the institution. In addition, other scholars such as Barefoot (2000), Terenzini and

Reason (2005), Reason, Terenzini and Domingo (2006, 2007) and Hossler et al. (2009)

have argued that the failure of HEIs to approach the design and assessment of the first

year in a more holistic manner has contributed significantly to the failure to increase

persistence and retention rates. Several of these scholar-researchers are working to

provide empirical evidence and models to improve both understanding of first year

outcomes and institutional practice that will promote student success.

Foundations of excellence in the first college year ™. In 2002, the Policy

Center on the First Year of College (The Policy Center) began a project to identify

criteria for excellence in the first year and develop a process to enable institutions to

assess their first year programs against these criteria (Upcraft et al., 2005). This project

became the Foundations of Excellence in the First College Year ™ Project (FOE) and

established the first comprehensive approach to looking at all the influences affecting

students in the first year through an externally guided self-study based on seven

Foundational Dimensions "that appear to underlie the structures, activities, and cultures

of institutions that are effective in promoting the success and persistence of their first-

year students" (Terenzini & Reason, 2005). These authors (p. 3) call the dimensions

"normative" and representative of the factors affecting first year students over which the

institution has control, enabling it to shape the first year more effectively. The research

site for this project engaged in this process five years ago, which resulted in changes in

some key areas of interaction with first year students.

Terenzini and Reason (2005) utilized the FOE dimensions and the decades of

research about how college affects students, to propose the development of a model

intended to avoid the "conceptual isolation" reported by Pascarella and Terenzini (1991,

2005) and to encourage "higher education researchers to look more broadly at the

multiple forces affecting student outcomes." Reason et al. (2006, 2007) built on this

work, exploring both the development of academic competence and the development of

personal and social competence in the first year of college using NSSE data from over

6700 students in a multi-institutional study.

Personal and social development in the first year. Reason et al. (2007) asserted

despite evidence showing the connection between students' reported gains in

psychosocial development and factors in the collegiate environment, little empirical

evidence of any causal relationships between first year experiences and personal and

social development. To address this lack of evidence, they conducted a cross-sectional

study of NSSE data from over 6000 first year students from 30 institutions. Reason et al.

(2007) found that reported increases in social and personal competence on the individual

level were strongly related to a number of factors including: (a) students' perceptions of the supportiveness of their institution's environment; (b) the emphasis their courses placed on higher-order thinking skills; (c) the emphasis their institution placed on student interactions with diverse people and ideas; (d) a collective student perception that faculty and staff were supportive of their academic, social and personal needs; (e) out-of-class engagement; and (f) academic challenge.

Several of these factors have particular relevance for this study, because of the research site's efforts through the FOE project to make its campus environment more supportive of first year students and the institution's heavy emphasis on promoting an appreciation of diversity and inclusion. Also, given that the institution's faculty have a teaching or student focus, rather than a research focus, the link Reason et al. (2007) found between students' reported gains in social and personal competence and their collective perceptions that the college's faculty and staff were supportive of their needs is also important.

Relevant Research on Student Development

As previously noted, the volume of research on student development is enormous, making it difficult to discuss all the findings. This section will provide a discussion of the findings most relevant to this project, particularly those associated with the 10 competency areas and the demographic variables under consideration. An emphasis on the findings relative to student involvement and intentional institutional efforts to foster that involvement will be highlighted, as will findings specifically associated with the first year.

This section will begin with some generalized findings and then, for convenience, be organized by one of the variables under study as appropriate.

General findings on student development. As previously noted, Astin (1977, 1985, 1993, 1999) found that involvement was linked to virtually every positive factor leading to persistence and satisfaction. He also reported that "nearly all forms of student involvement are associated with greater than average changes in entering freshman characteristics" (Astin, 1999, p. 524), with involvement outcomes being more strongly associated with this change than either their entering characteristics or the institutional characteristics. These findings have been confirmed repeatedly by other research, including numerous studies exploring the impact of involvement on traditionally underserved students.

A 2001study by the Institute for Higher Education Policy located in Washington, DC, looked at challenges to persistence in low-income and minority students and found that "students' involvement in and attachment to their institution are essential for success" (p. xi). Similarly, Kuh et al. (2006, p. 48) reported student engagement at PWIs appeared to have "compensatory effects for at-risk students, including low-income, first generation, and students of color."

Pascarella and Terenzini (1991, 2005) summarized 1000s of research studies on the affect of college on students which supported the concept that students change and grow in broad and inter-related ways during the college years, leading to increased complexity. These authors note that

> students achieve statistically significant gains in factual knowledge and a range of general and intellectual skills but also changed significantly on a broad spectrum of the value, attitudinal, psychosocial, and moral dimensions. And the changes

occurred in an integrated way, with change in any one area apparently part of a mutually reinforcing network. (Pascarella & Terenzini, 2005, p. 603)

Pascarella and Terenzini (2005) also found evidence of growth in clear directions for many specific outcomes, as well as evidence of integrated growth. The remainder of this section examines some of those directional findings relevant to the dependent and independent variables of this study.

Cognitive and intellectual skills. The purpose of this study was to examine psychosocial student development rather than to focus on cognitive development. However, because of the overwhelming evidence that psychosocial student development is linked to experiences in and out of the classroom, and the fact that interpersonal confidence is dependent upon good communication skills, the researcher chose to include writing and speaking skills as competencies to be measured in this project. Chickering and Reisser (1993) suggested that writing assignments intended to improve writing skills also "help students to clarify thoughts and assumptions, hone analytical skills, and touch inner feelings," leading to other aspects of personal development (p. 61).

Pascarella and Terenzini (2005) found evidence from their review of research from the 1980s and 1990s of several factors which positively influence cognitive and factual knowledge gains in college, including class size, certain teaching strategies and engagement with faculty. Specifically, 10 studies provided evidence that class size had an impact on subject matter learning, with increasing class size having a statistically significant negative influence on learning (Pascarella & Terenzini, 2005). Pedagogical instructional techniques contributing to content acquisition include reciprocal peer tutoring and instructor feedback.

Relative to oral and written communication skills, Astin (1993) reported that improved writing skills were often associated with majors in the humanities, as well as a student-oriented faculty, time spent on writing, faculty feedback, and discussing racial and ethnic issues. He did not find any distinct link between improved speaking skills and academic majors, but found a number of involvement factors linked to growth in this area, including: time spent speaking, including class presentations; involvement in clubs and organizations; leadership roles; and working on group projects (Astin, 1993). He also found a link between improved speaking skills and the number of writing classes taken.

Pascarella and Terenzini (2005) reported that even after controlling for age and academic ability, seniors in college have significantly better writing skills and speaking skills than first-year students. They estimated student change from first-year to senior year in oral communication to be .6 of a standard deviation, while the change in written communication to be .5 of a standard deviation (Pascarella & Terenzini, 2005). These estimates were based on studies they reviewed from the 1990s, largely consisting of student self-reports, and they did not cite any studies of growth over the first year. Pascarella & Terenzini (2005) believed that their estimates of effect were likely too conservative.

Research and evidence from the NSSE discussed previously also indicate that collaborative learning, timely and prompt feedback, and high expectations all contribute to improved student learning (Astin, 1993; Chickering & Gamson, 1987; Kuh et al., 2005; Kuh et al., 2006). These strategies are examples of educational approaches that promote increased student-faculty engagement, which has consistently been shown to

facilitate student growth and development on the social and personal level, not just the academic (Kuh et al., 2006).

    Problem-solving. Problem solving skills have been cited as one of the critical skills employers expect in college graduates they hire (National Association of Career Educators, 2011). Astin (1993) found that growth in problem-solving was associated with academic major and with a student orientation among the faculty. He also found that collaborative engagement with peers fostered growth in problem-solving, possibly due to the role of peer influence, as a student was accountable to others, and spent more time on task to solve problems, leading to growth.

    Much of the research reviewed by Pascarella and Terenzini (2005) focuses on critical thinking and reasoning skills, which encompasses the ability to solve problems. Pascarella and Terenzini (2005) suggest that seniors demonstrate the ability to use reason and evidence to address ill- structured problems about one standard deviation above first-year students, based on the body of evidence from the 1990s, although very few studies examined differences from the first to the second year.

    Pascarella and Terenzini (2005) reported that these skills can be cultivated in and out of the classroom, although unlike Astin (1993), these authors found very little evidence linking these skills to any specific academic major. However, there was evidence that students improve problem-solving and analytical skills in courses designed to teach quantitative reasoning skills, as well as through collaborative academic group project work that enables them to deal more effectively with the kind of unexpected problems that arise outside the classroom (Kuh et al., 2006; Pascarella & Terenzini, 2005). Additionally the wide variety of out-of-class experiences and peer interactions

that students encounter in college also fosters problem solving skills, including living on campus, dealing with peer pressure, and participating in intercollegiate athletics (Astin, 1993; Pascarella et al., 1995; Pascarella, Terenzini, & Blimling, 1996/1999).

Relative to the first year, Pascarella and Terenzini (2005) did report significant evidence that growth in first year critical thinking skills can be affected by the pattern of the courses that students take, affiliation with fraternities and sororities, volunteer or service work, and being involved in diverse activities. Reason et al. (2006), using cross-sectional data from the NSSE, examined several aspects of first year learning including analyzing analytical problems and thinking critically and analytically. Evidence of first year student growth in problem solving was tied to many of the previously cited factors, including a supportive environment; being challenged academically; cognitive engagement with peers and faculty; and students' perceptions that analytical, problem-solving skills are important or valued (Reason et al., 2006).

Decision-Making. Decision-making involves intellectual and personal competence, as well as emotional independence and self-confidence. Chickering and Reisser (1993) suggest the ability to make decisions can be complex, with students who have begun to develop autonomy making decisions with their own self interests in mind. Students begin to make better decisions when they become more aware of their interdependence with others and consider the ramifications their decision-making has on others (Chickering & Reisser, 1993). Surprisingly, decision-making was not clearly addressed in the research, except in connection to moral reasoning, which was not a factor under consideration in this project.

Self-knowledge. Pascarella and Terenzini (2005) reported that the terms self-knowledge and self-esteem are sometimes used interchangeably by researchers, as is the term self-concept. For this study, students were asked about self-knowledge and self-esteem/confidence separately, and although there was some overlap in their discussion of the two concepts, as there is in the literature, the distinction of "self-knowledge" as a complex concept tied to the entire process of establishing identity was clear. Chickering and Reisser (1993) suggest the primary element of identity is the

> solid sense of self, that inner feeling of mastery and ownership that takes shape as the developmental tasks for competence, emotions, autonomy, and relationships are taken with some success, and that, as it becomes firmer, provides a framework for purpose and integrity, as well as for more progress along the other vectors. (p. 181)

Chickering and Reisser (1993) suggest that a student's identity forms as that student resolves a series of crises around comfort with body and appearance; comfort with gender and sexual orientation; sense of self in social and cultural contexts; clarification of roles and lifestyle; a sense of self in response to feedback from values others; self-acceptance and self-esteem; and finally a sense of stability and integration.

Pascarella and Terenzini (2005) concluded that the research on students' self-concepts all consistently provided evidence that college had positive effects that were independent of maturation or getting older. Numerous studies conducted over the last few decades and reviewed by Pascarella and Terenzini (2005) have supported the idea that students go through various periods of identity resolution in their college years, leading these authors to conclude that despite ambiguous constructs used across the studies, the evidence supports student change in identity, self-concepts, and self-esteem during college. After 1990, studies on identity development tended to be more theoretical than

empirical, and began exploring students' many social identities, including race, ethnicity, gender and sexual orientation, with only a few studies exploring the degree of identity change that takes place during the college years. However, Pascarella and Terenzini (2005) report that findings from those studies did support previous findings prior to 1990, suggesting that students develop their self-concept, identity and esteem as a result of their college experiences.

After reviewing numerous studies done over a 30 year period, Kuh (1999) found the majority of students (nearly three-quarters) consistently reported that they had made progress in their self-understanding during college. Pascarella and Terenzini (2005) point out that most of these studies use samples across all four years without distinguishing between the class years. Kaufman and Creamer (1991), however, did report first to second year gains, suggesting they were more than "some" but not "quite a bit" (Pascarella & Terenzini, 2005). 2000 NSSE data seemed to suggest that students' self-understanding may actually decline in the first year as their initial college experiences result in doubt-producing self reflection and reevaluation (Kuh, Hayek, Carini, Ouimet, Gonyea, & Kennedy, 2001). Similar results are seen in self-esteem, which is discussed in the next section.

One significant finding of Pascarella and Terenzini (2005) was that very few studies actually examine the forces that led to student changes in self understanding, and fewer still investigated the role colleges played in these changes. Similarly, they point out that there is little evidence about whether college had any net effect on autonomy and independence, more mature interpersonal relations, or general personal development, and

most studies from the 1990s focusing on identity development tended to look at the influences of academic courses rather than the influence of out-of-class experiences.

Those studies that did explore out-of-class experiences and identity development indicated that exposure to diverse ideas had positive effects, linking identity development with gains in other competencies under study, including understanding of others who are different (Pascarella & Terenzini, 2005). For example, Rhoads' 1997 study found that students who were active in race, gender or sexual orientation issues may have experienced effects on their identity formation from their activism (as cited in Pascarella & Terenzini, 2005). White students appeared to derive racial identity benefits from activities focused on multicultural training (Astin, 1993; Parker, Moore & Neimeyer, 1998, as cited in Pascarella & Terenzini, 2005).

Most recently, Reason et al. (2007) attempted to isolate the affects of first year experiences and institutional factors on several measures of social and personal competence, including understanding self (and others) and developing personal values and ethics. They found significant links to personal growth with the previously noted measures of student perceptions and engagement, most notably a supportive campus environment; an emphasis on interactions with diverse others and ideas, and the frequency of those interactions; and a campus peer environment in which the students collectively perceive that faculty and staff care about their needs. The significance of this research is that it supports the idea that what an institution does has more impact on students' social and personal development than what the institution is in terms of its structural characteristics.

Self-Esteem. Pascarella and Terenzini (2005) reported that a number of studies suggested college has a positive impact on students' sense of self-esteem or self-confidence, just as it does on self-understanding. These impacts are found most often to be the result of influences within the institutional culture and the effects of various experiences with others within that culture. Pascarella and Terenzini (2005) reported that studies indicated consistent increases in students' social self-confidence, academic and social sense of self, self-esteem, and ability to relate to others as independent adults during college. In a large national survey of students as high school seniors, college sophomores, and then 12 years later, Knox, Lindsay and Kolb (1993, as cited in Pascarella and Terenzini, 2005) found a correlation between educational attainment and self-esteem, with the latter increasing for each year of additional education. Other smaller studies found similar results while most of the studies tended to focus on students' entire college careers.

However, there is evidence reported by both Chickering (1993) and Pascarella and Terenzini (2005) that first year students can sometimes experience a decrease in their self-esteem, both academically and socially, just as they do in self-understanding. Pascarella and Terenzini (2005) found evidence that this dip recovers in the second year and beyond, as noted above. Chickering (1993) discussed this at length as a natural result of the transition from high school, suggesting "students are discovering that they cannot rely on past history or their position in the social sub-group to gain companionship" feeling like "hogs on ice" (p. 81).

Academic self-esteem generally increases over the entire college career and is influenced by both student to student interactions and faculty to student interactions, as

well as academic major (Astin, 1993; Chickering, 1993; Pascarella & Terenzini, 2005). Kuh et al. (2006) reported a positive impact on students' academic self-esteem as a result of their out-of- class interactions with faculty, which may also have positive impact on their persistence, perception of a caring environment, and the acquisition of a deeper commitment to educational aspirations. Additionally, Kuh (1993, 1995, as cited in Kuh et al., 2006) reported that students realize increases in social self-esteem based on involvement in out-of-class experiences that foster peer interactions, work experiences, and meaningful leadership activities, including paraprofessional positions.

From their review of the research on self-esteem, Pascarella and Terenzini (2005) concluded that women appear to realize greater gains in self-esteem than their male peers, particularly from their involvements. Pascarella and Terenzini (2005) concluded that there were not differences in self-esteem gains between white students and students of color based on research findings they reviewed.

Pascarella and Terenzini (2005) also reported that first generation students have a more difficult time adjusting to college than their peers who are not first generation, while Bowman (2010) found that these students experience an overall diminished sense of psychological well-being during their first year.

Ability to work in a team. This skill is most like Chickering's (1993) concept of interdependence, which follows from a sense of autonomy when students experience "the growing knowledge that every action has an impact on others and that freedom must be bound by rules and responsibilities" (p. 140). Research has shown that out-of-class experiences in educationally purposeful activities promotes the ability to work in a team and engage in effective group process, including an understanding of sensitivity to

environmental culture which is important when graduates enter the workforce (Astin, 1993; Kuh et al., 2006). Specific activities found to promote gains in this skill include participating in intercollegiate athletics, volunteerism and community service, as well as holding a leadership position in student government, Greek life, or other peer paraprofessional role (Astin, 1993; Kezar & Moriarty, 2000; Kuh, 1995; Kuh et al., 2006; Pascarella & Terenzini, 2005). The impact of these experiences is discussed later in this section.

Diversity/dealing with difference. Astin (1993) reported that students from all racial and ethnic backgrounds report greater satisfaction with their college experience when those experiences include opportunities to gain exposure to diverse others, which promotes increased cultural awareness and the commitment to promoting racial understanding. First year students were most likely to interact with peers from different racial and ethnic backgrounds (Hu & Kuh, 2003, as cited in Kuh et al., 2006), often for the first time in their lives, as they live in proximity to and engage with people who are different than them in classes and campus activities. Research suggests that these experiences not only increase student satisfaction, but also have significant positive effects on students of all backgrounds across a wide range of desirable outcomes (Kuh et al., 2006).

Pascarella and Terenzini (2005) reported that no other attitude or value was the focus of as much research as that of attitudes associated with race, ethnicity and national origin during the 1990s. This body of research indicates friendships with racially or ethnically diverse others, and being a member of an inter-racial friendship group, has significant, positive effects on attitudes about racial and ethnic diversity and values

(Pascarella & Terenzini, 2005). Further, their review of the research led Pascarella and Terenzini (2005) to report that even casual interaction with diverse others has been shown to have significant positive effects on attitudes and values, increased self-knowledge, openness to manifestations of diversity, and promotion of racial understanding.

Pascarella and Terenzini (2005) also reported that a number of studies suggested academic experiences have important impacts on students' attitudes and values about diversity. National studies in diversity courses, including women's studies, and service learning courses have consistently been shown to increase tolerance, promote understanding of diverse others and cultures, and decrease racial prejudice, regardless of the actual course content or specific learning outcomes, and that the more courses a student takes, the greater the benefit (Antonio, 1999; Astin, 1993; Chang, 1999; Pascarella & Terenzini, 2005).

In addition, Pascarella and Terenzini (2005) report that general academic experiences shape student attitudes and values about diversity, not just course content. Studies they described indicated that faculty values and beliefs, instructional style, and even faculty gender, race, and ethnicity exert subtle influences on students, while the effects of a supportive and inclusive climate in the classroom that makes it easier for students to discuss difference are essential to promoting attitudinal change within the classroom.

Beyond the classroom, there are other experiences proven to impact students' attitudes and values about diversity. Volunteer work exposes students to a wide range of diversity (i.e., races, ethnic groups, age, and socioeconomic backgrounds) and Pascarella

and Terenzini (2005) report that "research published since 1990 indicates overwhelmingly that these encounters change students' awareness of and attitudes toward other groups" (p. 315) Other such experiences include study abroad, intercollegiate athletics, and membership in fraternities and sororities, although the there are mixed findings from research in these areas about the net effects as well as the impacts based on gender and race/ethnicity (Astin, 1993; Kuh et al., 2006; Pascarella & Terenzini, 2005).

Pascarella and Terenzini (2005) highlighted a few key points that emerged from the research on how college impacts students' attitudes and values about diversity that are of particular relevance to the study. Pascarella and Terenzini (2005) concluded that men and women may respond differently to various aspects of the campus experience For example, there is some evidence that although both genders are positively affected by friendships with students of color, men may be impacted more through their interpersonal contacts, while women tend to be more responsive to institutional efforts focused on promoting an inclusive environment as well as their participation in clubs and organizations (Pascarella & Terenzini, 2005). Pascarella and Terenzini (2005) reported that there may also be differences in the first year and that limited evidence has shown that both the general openness to diversity and student perceptions about their campus's support for it, may be positive for first year women but negative for first year men (Smith, 1992; Whitt, Edison, Pascarella, & Terenzini, 2001, as cited in Pascarella & Terenzini, 2005).

Pascarella and Terenzini (2005) also reported that some research indicated initial differences in the impact of collegiate diversity experiences of white students and students of color. According to these authors, Whitt et al., 2001 found that all students

were positively impacted by a campus environment they perceived to be non-discriminatory, but that after three years the affects were more positive for students of color. Pascarella and Terenzini (2005) reported that although all students benefited from racial-ethnic awareness workshops, white students benefited more than their non-white peers, a finding which has implications for a PWI such as the research site.

A recent qualitative study by Bergerson and Huftalin (2011) explored students' openness to identity-based difference and found that students recognize shifts forward and backward in their attitudes about difference. Bergerson and Huftalin's (2011) study also found that a campus environment which supports the process of becoming open to difference, including the struggles student have with this process, is essential to facilitate growth in this competency area..

Autonomy (Self-Responsibility). Because pilot studies revealed students did not recognize the word "autonomy," the survey language was changed to "responsibility for self," in order to gain insight into students' perceptions of their growing independence. Other words found in the research on college students exploring their increasing ability to be responsible for their own decisions, obligations, mistakes or academic and personal success include "self-efficacy," "locus of control," and "independence" (Pascarella & Terenzini, 2005). For the purposes of this study, the researcher was looking to see signs that students recognized the need to do for themselves, take steps to insure their own academic, social and personal success, and assume responsibility for their mistakes along the way. Simplistically, this might mean less reliance on their parents and more on themselves, but also less reliance on their peers, particularly as an excuse for poor behavior or lack of action.

Pascarella and Terenzini (2005) suggest that almost all studies examining the impact of college on general autonomy produced mixed results and they concluded that no confident conclusions could be made about the conditional effects of college on autonomy, suggesting the need for additional study. They found five studies which indicated students increased their independence from parents as they moved from the first year to senior year, but Pascarella and Terenzini (2005) cautioned against drawing firm conclusions from these studies because they were based on small samples from single institutions. Pascarella and Terenzini (2005) also reported that studies done in the 1990s examining changes in student autonomy did not provide sufficient evidence from which to draw solid conclusions.

In the last few decades, the commonly accepted idea of "helicopter parents" and a perceived negative impact on student autonomy has led to more research. Pascarella and Terenzini (2005) point out that the vast majority of student development theories, including Chickering's (1969) which suggests students begin to develop autonomy when they begin to separate from their parents and re-negotiate their relationship, were built on studies of white, traditional age students. As discussed later in this section, there is evidence from research done with diverse student populations that parental and familial connection while in college is important to some students' ability to be successful and persist. Research into the impact of this involvement on autonomy is relatively new and producing some mixed results (Pascarella & Terenzini, 2005).

Today's students report that their parents are the most influential people in their lives, influencing student choices about where to attend and what to study (Howe & Strauss, 2003; Levine & Cureton, 1998; Turrentine, Schnure, Ostroth, & Ward-Roof,

2000). Modern technology like cell phones and social media increase parental contact in ways not previously available to parents of college students (Moriarty, 2011). The impact of this contact and overall parental attachment on student autonomy is still uncertain, but in a single campus quantitative study of the same population targeted in this study, Moriarty (2011) found some positive effects, including a small positive correlation between parental contact and reported student autonomy was found. Moriarty (2011) also found evidence to support previous findings that both a secure attachment to parents and strong parental influence had positive correlations to student success and autonomy development.

Cullaty (2011), in a small qualitative study, found that supportive parental involvement has positive impact on development of autonomy, but that controlling parental intervention often seen by the students in the sample as meddling, interfered with the ability to become more responsible for self. More research is needed to fully understand the balance of support and separation from parents that may produce optimal autonomy development, and how that might differ for various segments of the student population, including students from racially and ethnically diverse backgrounds

Residence. The impact of living on campus versus commuting has been studied significantly over the years, primarily with traditional age college students. Early studies indicated that living on campus was one of the most consistent factors impacting student growth in college, contributing to increased interpersonal self-esteem, more positive self-concepts, autonomy, the ability to relate to others, overall campus involvement in out-of-class experiences, and persistence (Astin, 1984/1999; Chickering & Reisser, 1993; Kuh et al., 2006; Pascarella & Terenzini, 1991). Pascarella and Terenzini (2005) reported that

post-1990 research indicates living on campus may not necessarily impact self-esteem as much as previously thought, but does promote more positive and inclusive attitudes towards racial and ethnic diversity, more openness to difference in values, belief and lifestyle, and increased interpersonal skills. Pascarella and Terenzini (2005) suggest that much of the affect is a product of the increased involvement that comes from being on campus, something also noted by both Astin (1984/1999) and Chickering and Reisser (1993).

Terenzini, Pascarella and Blimling (1996/1999) concluded from a review of the literature that living in residence did not provide any real advantage in terms of academic performance, although it did help provide a sense of social integration and peer support not as readily available to students who live at home. Blimling (1999) found that students who live in residence have increased self-esteem and ego development, while also being more likely to persist in college. Similarly, Bowman (2010) found that students living in residence halls who became involved in a variety of co-curricular activities experienced gains in their sense of personal well-being and self-esteem.

Kuh et al. (2006) reported that living on campus had a larger affect on learning outcomes than any other campus characteristic, including cognitive outcomes, although the effects tend to more indirect through the opportunities they provided to students. First year students who were part of a living-learning community experienced gains beyond those found for students who simply lived on campus as residents (Kuh et al., 2006). Finally, Pascarella and Terenzini (2005) reported that women appear to realize greater gains from living on campus than men do.

Given the importance of social integration for persistence, the 2001finding by the Institute for Higher Education Policy that students of color and low income students living on campus were more likely to persist and be engaged on campus may have implications for this study. Kuh et al. (2006) also reported that based on the evidence, providing opportunities for students who are first in their family to attend college to live on campus, which would likely require added financial supports, would have positive impacts on their success.

Extra-curricular experiences and special populations. As has been already noted, involvement in extra-curricular activities such as clubs, fraternities/sororities, sports teams, community service, working on campus, among others is one of the most pervasive forms of engagement for college students (Pascarella & Terenzini, 2005). Educating new students about the benefits of this involvement is one of the primary ways colleges and universities can entice new students to become involved from the beginning of their college experience.

The research cited by Pascarella and Terenzini (2005) showed both positive and detrimental effects to some forms of involvement, such as fraternities/sororities and intercollegiate sports, but they concluded that there was an overall contribution to positive social self-concept from these experiences. It follows that the manner in which these activities are conducted on a campus and the culture within them will have significant impact on the likelihood that student engagement in Greek life and sports will provide the positive benefits that are possible.

Terenzini, Springer, Pascarella and Nora (1995) found evidence that involvement in clubs and organizations contributed to positive gains in critical thinking skills in first

year students, while Pascarella (1989) found no such link. Chickering and Reisser (1993) reported that involvement in activities such as student organizations that provided the opportunity to be part of group decision-making helped to move students towards interdependence and increased sense of responsibility.

Astin (1993) reported evidence that involvement in service learning and volunteerism contributed to increased appreciation for diversity and increased empathy, although they found that students were less inclined to volunteer in college as compared to their behaviors in high school. Pascarella and Terenzini (2005) reported that men were less likely to engage in these activities than women, although when they did, they tended to realize greater gains in general cognitive development than women did.

Perhaps the most important aspect of extracurricular involvements cited in the literature reviewed by is the opportunity they provide students to interact with peers and develop that sense of connection and mattering that is critical to persistence and satisfaction (Kuh et al., 2006; Pascarella & Terenzini, 2005). A growing body of evidence does link involvement in campus organizations with learning and persistence for students of color, first generation and low-income students, although these population tend to be less likely to take advantage of these opportunities, in part because they are less likely to live on campus (Kuh et al., 2006). Gupton, Castelo-Rodriguez, Martinez and Quintanar (2009) reported that social involvement in the campus can provide low-income and first generation college students with the supportive social networks they need to build their self-esteem and validate their identities. Tinto (2004) also presented data that the social support gained from these involvements may have a positive impact for all under-represented students.

Guiffrida (2003) found that social integration for African American students at PWIs was facilitated by association with multicultural student organizations that helped them to connect with others they perceived to be like them, to establish out-of-class connections with faculty, and to give back to other black students. Brown (2006) found similar results, while Harper (2006) found campus connections to be particularly important for men of color and Hawkins and Larabee (2009) highlighted the importance of these connections for first year students to promote persistence. These findings speak to the value of mentoring programs for students of color.

Finally, Fisher (2007) found that black and Hispanic students, who were more likely to be from low-income families and to be first in their family to attend college, were more satisfied and benefited academically from involvement in formal activities on campus, while their involvement in social activities was found to increase persistence.

In light of the changing demographics of today's students, and the high percentage of working students at the research site institution, the opportunities for involvement that working on campus can provide is also important to consider. Much of the earlier findings about work having adverse impacts on students appear to be changing, so much so that Kuh (2009) strongly recommends the use of on-campus employment as a form of engagement and learning, particularly for students from low income backgrounds who must work to stay in school. Specifically, Kuh (2009) reported that students working on campus part-time tended to have better grades, while these students also reported greater levels of engagement with faculty and staff and higher levels of active learning and collaboration.

In addition, several studies have linked campus employment with positive results for under-represented student populations, including self-esteem and social integration (Institute for Higher Education Policy, 2001; Kuh et al., 2006; Tinto, 2004).

Summary

There is considerable evidence that college has positive impacts on students in the acquisition of the competencies under study in this project. While some evidence may be contradictory, the overwhelming volume of research points to the benefit of student engagement with their peers, faculty and the campus as a whole to promote academic success, persistence, and personal growth that will have positive lifelong benefits. Recent evidence also indicates that for first year students, the perception that their institution is supportive of them and that faculty and administrators care about their academic, personal and social needs may have the greatest effect on engagement and personal and social growth.

There is evidence that indicates underrepresented and disadvantaged students may benefit more for their active engagement on campus, although they also tend to be less likely to become engaged. While this is true broadly, it is also true on individual campuses, as the variations in student engagement are greater within any individual institution than they are between or across institutions (Kuh et al., 2006). Understanding the patterns of engagement within an institution will provide opportunities to ensure that students who most need that engagement are encouraged to become involved, while also providing the institution with the opportunity to examine its internal structures, practices and policies that may be impeding engagement by more students.

The findings from this literature review shaped the concept for this project to gain further understanding about the development of first year students and the experiences that shaped that development. This research also helped to shape the methodology utilized to carry out this project which is discussed in Chapter 3.

Chapter 3

Methodology

This mixed methods project sought to add to the knowledge about first-year student development by exploring student perceptions of their first-year experiences at one college to understand how their experiences impacted personal and social development in 10 identified competency areas after completion of their first year. The purpose of the project was to determine if there were self-reported gains in the 10 competencies and to understand to what experiences students attributed any reported gains during the first year. Additionally, the project sought to understand any differences in gains between the various segments of the population.

This chapter presents the methodology used to conduct this research study. It provides a restatement of the purpose of the study, the research questions and the hypotheses. The research design and rationale for its choice are discussed, followed by a description of the population and setting, the survey method and instrument, pilot studies, and the variables examined. A discussion of the sample strategy and research design limitations follows. An overview of the methodology is presented. This is followed by discussion of the data collection procedures, the mixed methods data analysis employed, and how data are merged.

Purpose of the Study

This concurrent nested study investigated how college sophomores at Bridgewater State University perceived their personal development during the first year of college and what types of first year experiences contributed to any reported developmental gains. The objective of the project was two-fold. First, through quantitative analysis of a survey

administered at the start of the sophomore year (Sophomore Survey), the study sought to

determine whether students' self-reports of current skills in 10 specific competency areas

differed from their retrospective self-reports of first year entry-level skills in these same

competency areas. This objective was achieved through quantitative analysis of self-

reports on two Likert scale survey items. Secondly, the study sought to identify what

first-year experiences contributed to any reported differences in the 10 competency areas.

This objective was achieved through quantitative analysis of survey data about frequency

of participation in pre-determined activities and qualitative analysis of responses to open-

ended questions in which participants identified the factors they believed contributed to

their growth in each competency area.

Research Questions

The following research questions guided this study:

1. Do sophomore college students report differences in current level (CL) skill as

   compared to their entry level (EL) skill as first year college students in 10

   competency areas?

   a. Are there differences in speaking skills?

   b. Are there differences in writing skills?

   c. Are there differences in problem-solving skills?

   d. Are there differences in decision-making skills?

   e. Are there differences in self-knowledge?

   f. Are there differences in self-esteem/confidence?

   g. Are there differences in ability to work well in a team?

   h. Are there differences in understanding of people who are different?

     i.   Are there differences in self-responsibility?

     j.   Are there differences in community involvement?

2. Are there differences in reported skill level in any competency area for different student populations?

   a.   Are there differences based on gender?

   b.   Are there differences based on residency?

   c.   Are there differences based on race or ethnicity?

3. Does student participation in University identified meaningful activities have any effect on reported gains in the competency areas?

   a.   Do students who report involvement in at least one meaningful activity during the first year report higher overall skill gains across the 10 competencies?

   b.   Do students who report involvement in at least one meaningful activity during the first year report higher skill gains in any of the 10 competency areas?

   c.   Do students who report greater involvement, as measured by their number of meaningful activities, report higher overall skill gains across the 10 competencies?

   d.   Do students who report greater involvement, as measured by their number of meaningful activities, report higher gains in any of the 10 competencies?

4. Are there differences in student participation in University-identified meaningful activities for different student populations?

a. Are there differences based on gender?

b. Are there differences based on residency?

c. Are there differences based on race or ethnicity?

5. For competency areas in which students' self-reports indicate gains in skill, what first-year experiences do participants identify as contributing to these gains?

Hypotheses. The hypotheses associated with these quantitative research questions are as follows:

1. There will be gains in sophomore college student self-reports of CL skill as compared to EL skill in:

   a. Speaking skills

   b. Writing skills

   c. Problem-solving skills

   d. Decision-making skills

   e. Self-knowledge

   f. Self-esteem/confidence

   g. Ability to work well in a team

   h. Understanding of people who are different

   i. Self-responsibility

   j. Community involvement

2. There will be differences in sophomore college student self-reports of CL skill as compared to EL skill in the 10 competencies based on:

   a. Gender

    b.   Residency

    c.   Race or ethnicity.

3. Student participation in University-identified meaningful activities will have an effect on reported gains in the 10 competencies.

    a.   Students who report involvement in at least one meaningful activity will report higher overall skill gains than students who do not report involvement.

    b.   Students who report involvement in at least one meaningful activity will report higher skill gains in each of the 10 competency areas than students who do not report involvement.

    c.   Students who report higher levels of involvement will report higher overall skill gains than involved students who report lower levels of involvement.

    d.   Students who report higher levels of involvement will report higher skill gains in the 10 competencies than involved students who report lower levels of involvement.

4. There will be differences in student participation in University-identified meaningful activities based on:

    a.   Gender

    b.   Residency

    c.   Race or ethnicity.

When restated in the traditional null hypothesis format, the research hypotheses are as follows:

1. There will be no difference in sophomore college student self-reports of CL skill and EL skill in

   a. Speaking skills,

   b. Writing skills,

   c. Problem solving skills,

   d. Decision-making skills,

   e. Self-knowledge,

   f. Self-esteem/confidence,

   g. Ability to work well in a team,

   h. Understanding of people who are different,

   i. Self-responsibility, and

   j. Community involvement

2. There will be no difference in sophomore college student self-reports of CL skill and EL skill at the time of college entry in the 10 competencies based on

   a. Gender,

   b. Residency, and

   c. Race or ethnicity.

3. There will be no difference in reported competency gains between involved students and uninvolved students.

   a. There will be no difference in overall reported skill gain across the 10 competencies between students who report involvement in at least one meaningful activity and those who do not report such involvement.

b. There will be no difference in reported skill gain in any of the 10 competencies between students who report involvement in at least one meaningful activity and those who do not report such involvement.

c. There will be no difference in overall reported skill gain across the 10 competencies for involved students based on their number of reported involvements.

d. There will be no difference in reported skill gain in any of the 10 competencies for involved students based on their number of reported involvements.

4. There will be no difference in student participation in University-identified meaningful activities based on

a. Gender,

b. Residency, and

c. Race or ethnicity.

Research Design

A mixed methods concurrent, nested design was utilized for this project. A mixed methods design is premised on the concept that the use of quantitative and qualitative approaches together enhances the overall strength of the study and provides a greater understanding of the research problem(s) than either approach does alone (Creswell & Plano-Clark, 2007). In the nested approach one method is predominate and guides the project, while the secondary method is embedded for the purpose of answering a different question or to address a question from multiple perspectives, thereby enriching the findings from the primary data source (Creswell, 2008; Creswell & Plano-Clark, 2007).

In this project, quantitative and qualitative data were collected concurrently in a single phase via a web-administered survey questionnaire called the Sophomore Survey. The questionnaire primarily gathered quantitative data to answer the research questions, but also included 10 open-ended questions to gather qualitative data that linked back to more structured questions within the survey. The open-ended responses provided participants with an opportunity to describe in their own words the impact of various experiences on any self-reported growth.

Emphasis was placed on the quantitative findings to gather information that could be generalized to the research site population as a whole, but the qualitative findings of the project provided valuable data about the various experiences contributing to growth in individual students that could be utilized both for further research and institutional practice. As is the case in most nested designs, these qualitative data might not have been meaningful on their own. However, in conjunction with the findings of reported growth identified through analysis of the primary quantitative data, the qualitative data enhances and enriches the usefulness of the overall project (Creswell & Plano-Clark, 2007).

Mixed methods rationale. According to Creswell (2008), research design "involves the intersection of philosophy, strategies of inquiry, and specific methods" and researchers must consider how their own philosophical worldview and assumptions relate to their strategy of inquiry and the research procedures they will use when planning a study (p. 5). When selecting a research design, Creswell (2008) recommends a researcher consider the problem to be addressed, as well as one's own personal experiences and the intended audience. Johnson and Onwuegbuzie (2004) suggest the problem should drive

the selection of an approach, calling for "research methods to follow research questions in a way that offers the best chance to obtain useful answers" (p. 17).

The concurrent nested research method offered several advantages beneficial to this project. These include (a) the ability to collect a large amount of data quickly and efficiently, (b) the ability to answer research questions better by combining the advantages of both methods, and (c) the ability to gather data that offers a different and deeper perspective than would otherwise have been possible with one method alone (Creswell, Plano Clark, Gutmann, & Hanson, 2003). These benefits led the researcher to conclude that the concurrent nested design would provide the best opportunity to answer the research questions for this study and to obtain the most useful information for the institution.

As previously noted in the literature review, the variables affecting student development in the first year of college are complex, with evidence indicating that college students view the collegiate environment and their experiences within it through a variety of personal lenses. Mixed methods research has gained support as a means to understand more fully social problems of this type of complexity because it combines the advantages of quantitative and qualitative methods while neutralizing the disadvantages of each when used alone (Creswell et al., 2003). Pascarella (2006) cited the use of mixed methods as one of 10 new directions for research into college student development. He urged researchers to employ more mixed methodology in their research so as to enhance the quality of findings to date, which have been gathered primarily via quantitative means, and provide a deeper understanding of *why* students are impacted by various experiences and interventions. Consequently, this project has the potential to contribute

to the existing knowledge base rather than just replicate past findings because of the mixed methodology that was employed.

Use of concurrent data collection in this project provided a means to minimize potential recall bias which can occur when participants rely on memory to answer survey questions (Dillman, 2000). The survey required participants to think back one year to when they first entered college and to recall and assess their skills in the 10 competencies at that time. In addition, participants were asked to recall their experiences over the preceding year, which the researcher assumed they would be able to do at the beginning of their sophomore year. Simultaneous data collection ensured that all data were based on the participants' memory of themselves at one moment in time, thereby minimizing the potential for memories to be impacted by intervening experiences during the sophomore year, which may have occurred between separate data collection periods. Finally, mixing methods in this project enabled the researcher to support conclusions drawn from the quantitative findings using richer information that could not adequately have been captured from using one method alone (Creswell & Plano, 2007; Ivankova, Creswell, & Stick, 2006).

Population and setting. The target population for this study was full-time sophomores at Bridgewater State University who entered the university as first time, full-time students in fall 2009 (N = 1479) and successfully completed at least 24, but not more than 30, credit hours as of September 1, 2010. From the original cohort, 982 students met the criteria of sophomore status, becoming the final target population. The setting was chosen because the researcher is employed by this institution and had full institutional support to carry out this project. Preliminary studies at the site to pilot the

Sophomore Survey yielded a 40% response rates representative of the cohort's demographic profile under study. The students in this population were predominately females (61.6%) who lived on campus during their first year (68.4%) and identified as being white (89%). Table 3.2 later in this chapter shows the full demographic breakdown of the population and the sample.

In addition to the obvious convenience factor, the population demographics at this research site institution were appealing given the growing diversity in today's college students. In 2009, 63% of the student population at this institution identified as being in at least one of the following sub-populations: (a) first in their family to attend college, (b) low income (Pell eligible), or (c) a student from a racially or ethnically diverse background. The institution's methods of gathering profile data about students who were first in their family to attend college and those who were low income were only being put in place at the time of the study which prevented the researcher from considering these variables. However, the study did provide an opportunity to explore the impact of the first year of college on underserved students, a population for whom a college education has been shown to have the greatest benefit in the acquisition of many of the skills being measured in this project (Kuh et al., 2007; Pascarella & Terenzini, 2005). Later administrations will allow for further disaggregation of responses to more specifically understand differences between other segments of the student population.

Survey Method

The survey instrument was developed by the researcher after a review of the literature indicated none of the existing tools measured all intended variables; nor do existing instruments allow for the kind of specificity of experiences and open response

desired for this study. The survey instrument, entitled the Sophomore Survey of the First

Year (Sophomore Survey), consists of multiple choice questions, Likert-type scales, and

open-ended questions. In addition, the survey contained items that were not used for this

study but were intended to gather data for institutional purposes. The university will

continue to use the Sophomore Survey, which is located in Appendix A, in the future.

The researcher designed the Sophomore Survey in accordance with the 28

principles of survey design outlined by Dillman (2000). The constructs and related survey

wording were reviewed by an expert panel of senior student affairs and academic affairs

administrators from three institutions of higher education for content validity, and then

tested with a small group of sophomore students. Initial modifications were made based

on feedback from both the experts and the students prior to testing in the pilot study.

Based on the advice from the panel of experts, the construct communication was

divided into two separate variables: writing skills and speaking skills. Based on student

feedback from the pilot studies, the wording for two of the constructs was also changed.

"Autonomy" was not readily understood by the pilot participants but in a follow-up focus

group discussion there was universal understanding of the concept "taking responsibility

for my own behavior" that was consistent with the concept of autonomy. Also, students

were unable to articulate differences between "self-esteem" and "self-confidence" so the

words were combined to create the final construct used, which was self-

esteem/confidence.

Pilot studies. As noted earlier, the survey instrument was previously

administered at the research site in pilot studies with response rates of approximately

40% and completion rates upwards of 89% (IRB Approval #200609018EX). The first

pilot was used primarily to test content validity, with feedback generating changes to question structure and language. Feedback from subsequent pilots helped ascertain construct validity and that participants were able to define the competencies as the researcher intended. Changes were made as described in the previous section. These pilots also aided in question re-ordering to improve ease of completion and helped establish reliability based on multiple years findings. Overall content validity had been established through the use of an expert panel of higher education professionals.

Reliability of the competency scale was assessed using test-retest analysis. Sixty-eight students completed the scales twice within a 10 to 14 day period. Because the competencies being measured include constructs (i.e., self-esteem, problem-solving, etc.) that may be easily influenced by every day experiences such as poor test performance during the test-retest period, the researcher was concerned about mediating factors influencing responses. While this cannot be totally eliminated, Dr. Michael Young, then Director of Institutional Research and Assessment at the research site, recommended testing correlation by averaging the scores on the scales rather than correlating the scores for each individual competency. With a test-retest sample of this size, this approach can alleviate fluctuations in scores that may occur on any single construct based on one individual student's score due to mitigating factors (personal conversation, November 3, 2009). The test-retest analysis for the competency scales yielded statistically significant results: r (68) = 0.69, p = .000 for the entry level scale and r (68) = 0.75, n = 68, p = .000 for the current level scale.

The survey instrument. In total, the survey contained 33 questions, including the informed consent request. For this project, 17 items were used, while the remaining items

were for institutional purposes. Table 3.1 found at the end of this section describes the items used in this study and for what purpose.

A four-point Likert-type scale (Q#15) gathered participant data about frequency of involvement in nine specific activities, with response ranging from 1 for "never" to 4 for "very often." Responses were randomized automatically by Survey Monkey to reduce primacy effect (Dillman, 2000). This list included six activities deemed "meaningful" by the institution, which were used to distinguish between "involved" and "uninvolved" students for data analysis. These activities also served to prompt respondent memories, encouraging them to mention other specific experiences in the open-ended response questions at the end of the survey.

The two five-point Likert-type scales (Q#22 and Q#23) were identical in wording, with only the instructions changed. The responses on these scales ranged from 1 for "poor" to 5 for "excellent." Q#22 required respondents to think back to when they first entered the institution and to assess their entry-level (EL) skills in the 10 competency areas at that time. Q#23 asked respondents to consider themselves as they were at the time they took the survey and assess their current-level (CL) skills in the same competencies. Respondent self-reports on the EL skill scale were compared with self-reports on the CL skill scale to determine if there were significant differences.

This approach has been called the retrospective pre-test, or post-then-pre-design, in which participants are simultaneously queried about a topic "then" (pre-test) and "now" (post-test) (Colosi & Dunifon, 2006). The design is believed to minimize response shift bias because it enables participants to assess what they did and did not know, believe, or know how to do at the outset, thereby improving accuracy as they

reflect back on their initial knowledge or skill (Colosi & Dunifon, 2006; Rockwell &

Kohn, 1989). This method allows the participant to assess skills *after* they have sufficient

knowledge through their experiences to answer questions validly (Rockwell & Kohn,

1989).

Finally, the 10 open-ended items (Q#24-Q#33) each corresponded to one of the

10competencies. In each question participants were asked to describe the specific

experiences during their first year that contributed to gains in that competency area. The

initial instructions were designed to minimize response bias by encouraging participants

to consider ALL experiences that may have contributed to growth, whether related to

their collegiate experiences or not.

A summary of these questions, their format, intended purpose, and the research

question they correspond to can be found in Table 3.1. The question numbers are

consistent with the actual question numbers on the survey found in Appendix A.

Variables. This study involved 10 dependent variables and four independent

variables. The dependent variables examined in this project were student gains in 10

specific competency areas identified as intended student learning outcomes by the

research site institution. These 10 variables were (a) speaking skills, (b) writing skills, (c)

problem solving skills, (d) decision making skills, (e) knowledge of self, (f) self-

esteem/confidence, (g) ability to work well in a team, (h) understanding of people who

are different, (i) responsibility for ones' own behavior, and (j) community involvement.

The richness and breadth of student experiences in the curriculum and co-

curriculum during the first year result in potentially dozens of independent and

Table 3.1

Description of Survey Questions Used in This Research Project

Survey Question(s)	Item Format	Purpose	Research Question
Q#1	Multiple Choice	Verification of enrollment	
Q#2	Multiple Choice	Gain informed consent	
Q#10	Multiple Choice	Demographic: Residency	RQ#2
Q#15	4-point Likert Scale	Collect participation data in specific institutional programs/activities	RQ#3
Q#19	Multiple Choice	Demographic: Gender	RQ#2
Q#21	Multiple Choice	Demographic: Race or ethnicity	
Q#22	5-point Likert Scale	Retrospective self-report of EL skill in 10 competencies as a first year student	RQ#1, 2, 3
Q#23	5-point Likert Scale	Self-report of EL skill in 10 competencies as a sophomore student	RQ#1, 2, 3
Q#24-33	Open-ended Responses	Gather data in students' own words about what factors, if any, contributed to reported differences in each of the 10 competency areas	RQ#4

Note: Q = question; RQ = research question

intervening variables which may affect growth in one or more of these competencies. For

the purposes of this study two types of independent variables were selected. The first

were three demographic variables, including (a) gender, (b) residency during the first

year, and (c) race or ethnicity. It is important to note that race and ethnicity are distinctly

different concepts. However, for the purposes of this study students who identified with

any racial or ethnically diverse category are grouped into one group for comparison with

students who identified as white. This is consistent with current institutional practice,

which does not call Cape Verdean a race because students perceive this as their ethnicity. For reporting purposes these students are added to the category of students of color (SOCs), and classified as Black. However, as the institution gathers more data and improves its data collection methods, it is beginning to disaggregate data about racial and ethnic groups.

The second type of independent variable was student participation during the first year of college in six activities identified as meaningful and measured in Q#15 of the survey. These experiences included (a) participation in a student club or organization; (b) participation on an athletic team; (c) assuming a leadership position in a student club or organization; (d) participation in a college-sponsored community service program; (e) performing in a campus theater production, dance performance, or college band; and (f) participating in a college mentoring program. Students were first divided into two groups, involved students and uninvolved students, based on participation in at least one of the six meaningful involvements. The involved group was then further separated into groups based on actual number of meaningful involvements.

In addition, responses to the 10 open-ended questions (Q#24-33) generated a broader list of participant-identified first year factors contributing to growth in the competency areas. These factors were not utilized in the quantitative analyses to answer the research questions but instead provided more complete information about the full range of experiences contributing to student growth in the first year.

Sampling Strategy

The researcher sought to obtain a stratified random sample representative of the population frame based on gender, residency, and race or ethnicity. However, such a

sample could not be drawn until the university freeze date for census data, which occur exactly four weeks from the first day of classes in the fall semester. This would have delayed the survey launch until early October. After review of pilot study data, the researcher was concerned that if the survey launch was delayed, participant responses might be affected by sophomore year experiences during that four-week period. Therefore, the survey was launched during the first week of the semester and sent to all students from the original 2009 first year cohort who had returned to the university in fall 2010 and were at least 18 years of age. The rationale for this approach was to gather data as early as possible at the start of the sophomore year to minimize the impact any second year experiences might have had on the responses. The researcher then retroactively created a representative sample from the respondent pool once final population census data became available.

Research Design Limitations and Challenges

This section discusses the potential challenges of the concurrent embedded, mixed methods strategy and the validity of student self-reports.

While the concurrent embedded strategy has a number of previously mentioned advantages that facilitated this project, it also has some limitations and challenges. One challenge is the need to transform the data in some way to allow for integration in analysis if quantitative and qualitative datasets are used to answer the same questions (Creswell & Plano-Clark, 2007). This challenge was avoided by using the separate datasets to answer different questions, but these authors also cite potential difficulty in integrating results when the two methods are used to answer different questions. To address this challenge, the qualitative data were used only to enhance the quantitative

findings, so the datasets were not merged but rather compared in discussion of the findings. This is discussed in further detail later in this chapter. Finally, comparison of mixed methods datasets can lead to potential discrepancies between the two databases, creating an additional challenge (Creswell, 2008).

Validity of self-reports. The use of self-reporting has been cited as a challenge to construct validity. However, self-report has become the norm in many national tools used to gather information from college students (Reason et al., 2007). Evidence is growing that self-reports are in fact as valid as other measures under certain conditions (Pike, 1996; Reason et al., 2007; Turrentine et al., 2001). Kuh (2006, p. 159) cited five conditions under which self-reports can be reliable approximations for other more objective measures:

> 1) When the information requested is something known to the respondent;
> 2) When questions are phrased clearly and unambiguously; 3) When the questions
> being asked refer to recent activities; 4) When the respondents believe the
> question(s) merit a serious and thoughtful response; and 5) When answering the
> question(s) does not pose a threat, embarrass or violate the respondent's privacy,
> or encourage the respondent to answer in socially desirable ways.

This study was designed to meet all of these conditions from survey design to the wording of the invitations and reminders. Pilot studies validated that students felt safe answering the questions and took time to carefully respond to the questions as evidenced from the scope of data gathered in the final open-ended response questions.

Data Collection

This section discusses the data collection process and creation of the sample from the responses received. The survey was administered through Survey Monkey, a leading commercial provider for internet surveys. Internet surveys are inexpensive to administer, provide automated features which reduce implementation time, and enable the data

collected to be easily imported into analytical software such as SPSS (Dillman, 2000). Web-based surveys are the norm at the research site and student response is generally strong. The consent form was embedded in the survey and had to be completed by the respondent before the actual survey would launch. IRB approval was secured from the University of Nebraska Lincoln (IRB Approval #200609018EX) and the research site at the outset of the pilot studies and continued annually through project completion procedures (applicable re-approval for this study was BSU IRB Approval #2011024).

The Sophomore Survey was launched five days after classes began on September 12, 2010 to all students in the 2009 cohort aged 18 years or older enrolled for the fall 2010 semester. The survey was distributed to 1009 students via personalized emails generated automatically by the software program. Dillman recommends the use of personalized messages, multiple contacts, and financial incentives to maximize response rates. Because the researcher's name was known to first year students due to her work responsibilities, the emails were actually sent from the researcher's campus email address and personalized to include the recipient's first name. Sundays have proven to generate the highest initial survey responses at the research site, so the initial invitation was sent on a Sunday. Three email reminders were issued to non-responders over the two week data collection period. Consistent with college practice for surveys of this type, an IPod was offered as an incentive in a random drawing for all those who completed the entire survey. The contact schedule and samples of the messages can be found in Appendices section.

Sample Creation

A total of 449 responses were received. The data was screened for accuracy and completeness, and as a result, 43 cases were eliminated because the respondents failed to complete survey items required to answer the research questions. Another 66 cases were eliminated after review of the census data because those respondents did meet the sample criterion of sophomore status. In total, 109 cases were eliminated, leaving a final sample of 340 cases (n = 340) which represented approximately 34% of the population. Consultation with a research analyst at the site confirmed that the sample was statistically representative of the FY2009 cohort population by residency and race or ethnicity, and generally representative by gender. Table 3.2 illustrates the population and sample breakdown.

Table 3.2

Demographic Breakdown of Population and Sample

		Population		**Sample**	
Gender	Female	605	61.6%	246	72.4%
	Male	377	38.4%	94	27.6%
1st yr. Residency	Commuter	310	31.6%	106	31.2%
	Resident	672	68.4%	234	68.8%
Race/Ethnicity	White	874	89.0%	300	88.2%
	SOCs[1]	108	11.0%	40	11.8%
		982		**340**	

Note: Population data were obtained from 2010 Institutional Census Data Files.

[1] SOC = student of color, the term used at this institution to group students from both racially and ethnically diverse groups

Consultation with the Nebraska Evaluation and Research Center (NEAR) confirmed that the sample breakdown approximated the population breakdown sufficiently to eliminate the need for weighting or further manipulation.

Data Analysis

This section provides an overview of the data analysis procedures. It begins with a discussion of the quantitative data analysis methods, followed by a discussion of the qualitative data analysis, and concluding with the approach for mixing the data in analysis.

Data from the Sophomore Survey were downloaded into SPSS (version 17) for quantitative analysis. Text responses to the open-ended questions were downloaded into Excel workbooks to facilitate data sorting and coding for qualitative analysis. In keeping with guidelines outlined by Creswell and Plano-Clark (2007) for concurrent types of research design, the data were initially analyzed separately and then merged through comparison without transformation. The researcher had several phone consultations with quantitative and qualitative research staff members from the NEAR Center during the data analysis phase of the project to ascertain the appropriateness of the statistical tests, manipulation of the sample, interpretations of the findings, and predictive validity of the results.

Quantitative analysis. Descriptive statistics and inferential analysis were conducted to analyze the quantitative data. Demographics and participation levels were summarized with frequencies and percentages. Paired sample t-tests were run to compare EL skill scores and CL skill scores for each of the 10 competency variables to test the hypotheses for research question one. Paired samples *t* tests were appropriate because the

observations are (a) independent of each other, (b) the dependent variables are measured on an interval scale, and (c) scores are assumed to be normally distributed when the number of paired observations exceeds 30 (Green & Salkind, 2007).

Repeated measures analysis of variance (ANOVA) comparing EL and CL skill scores were conducted to test for statistically significant differences based on gender, residency, and race or ethnicity for each of the 10 competencies to examine the hypotheses associated with research question two. Repeated measures ANOVA was the appropriate statistical test because (a) the cases are random samples of the population; (b) the scores on the dependent variable are independent of each other; (c) the EL and CL scores represent the measurement of the same characteristics under different conditions; and (d) the dependent variables are close to being normally distributed for each population and the sample size is sufficiently large to yield an accurate p value (Green & Salkind, 2007; Lester, personal conversation, October 14, 2010).

To test the four hypotheses associated with research question 3, new variables were calculated. A variable for identifying involved and uninvolved students was created using respondent participation scores for the five meaningful activities, as was a variable to measure total number of involvements for each case. Total scores for EL skills and CL skills on the 10 competencies were also calculated for each participant to answer these questions. Univariate ANOVAs were conducted to test the four hypotheses and were appropriate for the same reasons cited above.

Finally, one-way analysis of variance (ANOVA) was used to test the hypotheses associated with research question four. Using the variable identifying students as involved or uninvolved, three ANOVAs were conducted to test for statistically significant

differences between the means of the involved and uninvolved groups based on gender, residency, and race or ethnicity.

Qualitative analysis of open-ended responses. Coding and emergent theme development was conducted for qualitative data analysis of the open-ended responses moving from the specific to the general as outlined by Creswell (2008). The data were organized in Excel workbooks created for each competency variable and prepared for analysis. Columns were created to facilitate sorting and re-organization of individual responses and link notes made during the coding process. The majority of responses were succinct, and generally easy to understand. Each set of responses was reviewed to get a general sense of the data; the researcher then made notes about impressions, common ideas, and initial codes. After this review, the researcher sorted like responses, creating codes to label or describe them. The data were then sorted then by code in the workbooks, further refined, and then grouped and categorized to develop a broad set of themes. A codebook, which can be found in the Appendix section, was created with detailed definitions of each code. Use of a codebook is recommended for establishing a systematic approach to qualitative analysis when quantitative research is dominate and when multiple researchers will be coding data (Creswell, 2008). Using the codebook, data for each of the 10 variables were coded with up to three codes which were identified as primary or secondary. The data were constantly compared to the codes to help ensure reliability of the procedures (Creswell, 2008).

Validity, or trustworthiness as it is called in qualitative research, was addressed through the use of two additional coders, both of whom earned their respective doctoral degrees by completing qualitative dissertations. One works in student affairs and the

other works in institutional research. Both are familiar with student affairs research and first year students. After receiving the raw data and codebook, each coded the responses independently using the codebook, and making notes about variations or discrepancies in codes and themes to help ensure reliability. In independent conferences with each reviewer, the researcher determined whether differences were the result of (a) unfamiliarity with the institution and respondents' acronyms, (b) code drifting, or (c) substantive differences in interpretation. The researcher modified or shifted codes as appropriate based on these conferences and then compared responses to determine the level of consistency. Miles and Huberman (1994, as cited by Creswell, 2009) recommend 80% agreement to establish trustworthiness. Complete agreement exceeded 80% on seven of the 10 competencies and agreement on the primary code exceeded 80% on all competencies.

Inter-rater reliability. As Table 3.3 illustrates, inter-rater reliability on the coding of open-ended responses was high.

Complete agreement on primary codes ranged from 76.7% to 98.3%. When secondary codes were found, the agreement rates were between 63.5% and 93.7% on both the primary and secondary codes. Depending upon the competency, the researcher identified additional codes that the other raters did not find between 1.2% and 10.7% of the time. Consensus could not be reached in only a small percentage of cases, with a high of 2.5% in one competency and no lack of consensus in half of the 10.

Table 3.3

Inter-rater Coding Agreement Percentages

Competency	N	Agree on Primary	Agree on All Codes	Additional Codes by Researcher	No Consensus
Speaking	197	98.6%	91.3%	1.4%	0
Writing	200	96.5%	87.3%	1.5%	10%
Problem	173	98.3%	91.3%	1.2%	--
Decision	150	83.4%	71.4%	5.3%	2.0%
Self-Know	159	76.7%	63.5%	10.7%	2.5%
Esteem/Conf	157	88.6%	73.4%	7.0%	1.3%
Teamwork	142	97.3%	93.7%	2.1%	--
Difference	150	95.3%	88.7%	1.3%	2.0%
Responsibility	131	93.9%	83.2%	3.9%	--
Involvement	126	92.5%	83.6%	4.5%	--

Mixed methods analysis. In this project the qualitative data were used to provide additional information about factors impacting gains in the competency areas beyond those factors examined in the quantitative research questions. Some qualitative data supported factors emerging from the quantitative findings, while some revealed factors not considered in the quantitative research questions. The two datasets were merged through discussion without transformation. This discussion can be found in Chapter 5.

Summary

This study was conducted using the mixed methods, concurrent nested approach for the purpose of examining first-year student development through exploration of student perceptions about growth in 10 competency areas and the first-year experiences

which contributed to that growth. This methodology enabled the collective of quantitative data about growth and participation levels in specific engagements while also allowing participants to describe their experiences in their own words in open ended responses. Chapter 4 presents the findings from this project.

Chapter 4

Results

This mixed methods project sought to add to the knowledge about first-year student development by exploring student perceptions of their first-year experiences at one college to understand how their experiences impacted personal and social development in 10 identified competency areas after completion of their first year. The purpose of the project was to determine if there were self-reported gains in the 10 competencies and to understand to what experiences students attributed any reported gains during the first year. Additionally, the project sought to understand any differences in gains between the various segments of the population.

This chapter presents the findings from this project, beginning with an overview of the methodology followed by presentation of demographic data about the participants. It continues with presentation of the findings organized by research questions. Descriptive statistics from relevant survey items are presented next, followed by findings from the statistical tests used to test the hypotheses for each of the quantitative questions. Finally, qualitative findings for the research question four are presented and discussed relative to the quantitative findings.

Review of Methodology

The survey population was students of sophomore status who began their college career as first-time, full-time students at a public institution in Massachusetts in fall, 2009. The data were collected in fall 2010 using a survey developed for this purpose and administered electronically to 1009 students via Survey Monkey, a commercial software package. A sample of 340 cases ($n = 340$) or approximately 35% of the population, was

obtained. Quantitative and qualitative data analysis was used to answer the research questions. Data screening and analysis was conducted in consultation with Houston Lester from the NEAR Center.

Descriptive statistics were computed to provide information about the participants based on gender, residency, and race or ethnicity, the three demographic independent variables under consideration. Descriptive statistics were also used to summarize responses to the two Likert-scale questions measuring participants' self-assessments of first-year, entry-level (EL) skill and current sophomore level (CL) skill in the 10 dependent variables of speaking skills, writing skills, problem-solving skills, decision-making skills, self-knowledge, self-esteem/confidence, ability to work with others in a team (teamwork), understanding of people who are different (understanding of difference), self-responsibility, and community involvement. These data were analyzed for the sample as a whole and for each demographic variable.

Descriptive statistics were used to summarize data about participant's level of involvement in specific activities. These data were then used to calculate new variables to identify involved and uninvolved participants and to group involved students based on their total number of meaningful engagements.

Paired samples *t* tests and one way, repeated measures analysis of variance (ANOVA) were used to examine the quantitative research questions. Data were analyzed at the 95% confidence level. Thematic analysis was used to examine the qualitative data from the open-ended responses seeking respondent feedback on factors impacting their reported gains in the 10 competencies. Houston Lester of the NEAR Center assisted with the determination of appropriate statistical tests and analysis of results.

The presentation of findings begins with demographic data about the participants and continues with a presentation of findings organized by research question. Descriptive statistics from relevant survey items are presented first, followed by findings from the statistical tests used to test the related hypotheses for each of the quantitative questions. Finally, the qualitative findings for research question five are presented.

Demographic Analysis

The majority of respondents were white (88.2%), women (72.4%), and lived on campus during their first year (68.8%). This was consistent with the population in the F2009 cohort which was 89% white, 61.6% women, and 68.4% resident. Participants who identified their race or ethnicity as Black, Cape Verdean, Hispanic, Asian, or Native American were combined into a single category called students of color (SOC), which comprised 11.8% of the sample. Also included in this category were a small number of participants identifying as "other" and listing non-white ethnicities. This was done because no single non-white racial or ethnic designation had sufficient numbers to insure anonymity or provide meaningful results if analyzed separately. This grouping is consistent with institutional practice. Table 4.1 presents the frequency and percentage of participants based on gender, residency status and race or ethnicity.

Key to Table Codes

Due to the number of the number of competencies under review and the multiple measurements of these competencies, two series of abbreviations were used on the tables in this chapter. When possible one-word abbreviations were used to denote variables; but on some tables three letter abbreviations were used to save space. A summary of the abbreviations and corresponding competencies is found in Table 4.2.

Table 4.1

Demographic Characteristics of the Participants (n = 340)

Characteristic	Frequency	%
Gender		
Female	246	72.4
Male	94	27.6
Residency Status		
Resident	234	68.8
Commuter	106	31.2
Race/Ethnicity		
White	300	88.2
SOC[a]	40	11.8

Note: SOC = student of color. [a]SOC is a calculated variable including participants who identified as Black, Cape Verdean, Hispanic, Asian, or Native American.

Table 4.2

Competency Variable Abbreviations

Variable	Common Abbr.	Shortened Abbr.
Speaking Skills	Speaking	SPK
Writing Skills	Writing	WRT
Problem-Solving Skills	Problem	PRB
Decision-Making Skills	Decision	DEC
Self-Knowledge	Self-Know	SKN
Self-Esteem/Confidence	Esteem/Conf	EST
Ability to Work With Others in a Team	Teamwork	TMW
Understanding of People Who are Different	Difference	DIF
Self-Responsibility	Responsibility	RSP
Community Involvement	Involvement	INV

Quantitative Findings

This section presents the quantitative findings organized by research question. Descriptive statistics are presented first and followed by discussion of the hypotheses testing and results.

Research Question 1. Do sophomore college students report differences in current skill level as compared to their skill level upon entry to college as first year students in 10 competency areas, including: (a) speaking skills, (b) writing skills, (c) decision-making, (d) problem-solving, (e) self-knowledge, (f) self-esteem/confidence, (g)working in a team, (h) understanding of difference, (i) self-responsibility and (j) community involvement? Responses from two items on the Sophomore Survey were used to examine this research question. Both items were 5-point Likert scales, with scores ranging from poor (1) to excellent (5) that asked participants to assess their skills in the 10 competencies. Q#22 was designed to gather self-reported data on entry-level (EL) skill in each competency by asking participants to "Picture yourself on your first day at Bridgewater State University. Remember how you felt that day, what you knew about yourself, other people, the University, the world, etc. Now, with that picture in your mind, please rate yourself on each of the following categories, based on how you were when you FIRST came to Bridgewater." Q#23 was designed to gather data on current-level (CL) skill in the same competencies by asking participants to "Now, think about yourself as you are TODAY. With this picture in your mind, please rate yourself on each of the following categories, based on your level of skills and personal development TODAY." Tables 4.3 and 4.4 present the frequencies (*f*) and percentages (%) of

Table 4.3

Participants' Self-Assessment of Entry Level Skills

Competency	Poor (1)		Fair (2)		Avg (3)		Good (4)		Exc (5)		N
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*N*
Speaking	8	2.4	34	10.0	111	32.6	140	41.2	47	13.8	340
Writing	3	0.9	13	3.8	103	30.3	163	47.9	58	17.1	340
Problem	1	0.3	14	4.1	105	30.9	169	49.7	51	15.0	340
Decision	5	1.5	14	4.1	97	28.5	149	43.8	74	21.8	339
Self-Know	4	1.2	20	5.9	92	27.1	133	39.1	90	26.5	339
Esteem/Conf	18	5.3	49	14.4	110	32.4	121	35.6	41	12.1	339
Teamwork	1	0.3	21	6.2	73	21.5	162	47.6	81	23.8	338
Difference	1	0.3	13	3.8	74	21.8	137	40.3	115	33.8	340
Responsibility	1	0.3	4	1.2	49	14.4	149	43.8	137	40.3	340
Involvement	40	11.8	60	17.6	105	30.9	91	26.8	44	12.9	340

Table 4.4

Participants' Self-Assessment of Current Sophomore Skills

Competency	Poor (1) f	Poor (1) %	Fair (2) f	Fair (2) %	Avg (3) f	Avg (3) %	Good (4) f	Good (4) %	Exc (5) f	Exc (5) %	N
Speaking	2	0.6	8	2.4	63	18.5	178	52.4	89	26.2	340
Writing	2	0.6	3	0.9	39	11.5	190	55.9	106	31.2	340
Problem	1	0.3	6	1.8	47	13.8	194	57.1	92	27.1	340
Decision	0	0	4	1.2	49	14.4	175	51.5	111	32.6	339
Self-Know	1	0.3	3	0.9	32	9.4	139	40.9	165	48.5	340
Esteem/Conf	8	2.4	13	3.8	63	18.5	159	46.8	97	28.5	340
Teamwork	1	0.3	4	1.2	45	13.2	168	49.4	122	35.9	340
Difference	0	0	3	0.9	33	9.7	131	38.5	172	50.6	339
Responsibility	0	0	1	0.3	24	7.1	132	38.8	182	53.5	339
Involvement	20	5.9	41	12.1	86	25.3	114	33.5	78	22.9	339

participants' responses for each of the five rating categories for EL and CL skills in the 10 competencies respectively.

The majority of participants rated their EL skills as "good" or "excellent" for 8 of the 10 variables, with the three most highly rated skills being self-responsibility ($M = 4.23$; $SD = .756$), understanding of people who are different ($M = 4.04$; $SD = .858$) and ability to work with others in a team ($M = 3.89$; $SD = .849$). Participants on average rated their EL skills on self-esteem/confidence ($M = 3.35$; $SD = 1.039$) and community involvement ($M = 3.11$; $SD = 1.193$) at "average" or below. These two EL skills also had the greatest variation in rating, with almost 20% and 30% of respondents rating these skills "fair" or "poor" respectively. Low self-esteem/confidence ratings were consistent with comparable self-ratings by the FY2009 cohort on the CIRP survey administered to first year students at the start of the year. Students from this institution tend to rate themselves lower than their peers at 4-year public colleges nationally on both academic self-confidence and social self-confidence (BSU CIRP Summary, 2009).

The majority of participants rated their CL skills as "good" or "excellent" on all variables. Self-responsibility ($M = 4.46$; $SD = .639$) and understanding of difference ($M = 4.39$; $SD = .698$) remained as the top two ranked skills. Self-knowledge ($M = 4.36$; $SD = .714$) replaced ability to work in a team ($M = 4.1$; $SD = .727$) as the third higher rated CL skill with 48.5% of respondents assessing themselves as having "excellent" self-knowledge.

Table 4.5 illustrates the mean (M), standard deviation (SD), and standard error of the mean (SEM) for the EL and CL scores for each competency. Participants rated their

Table 4.5

Descriptive Statistics for EL and CL Skill Scores

		EL Scores			CL Scores		
Skill	N	M	SD	SEM	M	SD	SEM
Speaking	340	3.54	.932	.051	4.01	.722	.042
Writing	340	3.76	.808	.044	4.16	.700	.038
Problem	340	3.75	.768	.042	4.09	.707	.038
Decision	338	3.80	.874	.048	4.16	.703	.038
Self-know	340	3.83	.947	.051	4.36	.714	.039
Esteem/Conf	339	3.35	1.039	.056	3.95	.915	.050
Teamwork	338	3.89	.849	.046	4.20	.723	.039
Difference	339	4.04	.859	.047	4.39	.698	.038
Responsibility	339	4.23	.757	.041	4.46	.639	.035
Involvement	339	3.12	1.189	.065	3.56	1.143	.062

Note. EL = Entry-Level skill; CL = Current Level skill; M = Mean (1 to 5); SD = standard deviation; SEM = standard error of the mean

CL skills higher than their EL skills on all 10 competencies. These findings are consistent with the predictive hypothesis that students would report gains in skill in all the competencies after their first year in college.

Hypothesis Testing. The hypothesis associated with research question one was that there would be differences in student self-reports of CL skill in: (a) speaking skills, (b) writing skills, (c) problem-solving, (d) decision-making, (e) self-knowledge, (f) self-esteem/confidence, (g) ability to work well in a team, (h) understanding of difference, (i) self-responsibility, and (j) community involvement as compared to self-reports of EL skill at time of college entry on those same competencies.

Restated for testing, the null hypothesis was that there would be no differences in student self-reports of CL skill in: (a) speaking skills, (b) writing skills, (c) problem-solving, (d) decision-making, (e) self-knowledge, (f) self-esteem/confidence, (g) ability to work well in a team, (h) understanding of difference, (i) self-responsibility, and (j) community involvement as compared to self-reports of EL skill on those same competencies.

Paired samples *t* tests were conducted to compare participants' reports of CL skill on the 10 competencies with their reports of EL skill on those same competencies. The paired samples *t* test was the appropriate test to use because the observations were (a) independent of each other, (b) the dependent variables are measured on an interval scale, and (c) scores are assumed to be normally distributed when the number of paired observations exceeds 30 (Gaskill, 2009). The results of the t tests identified significant gains for all 10 competencies as follows:

a. There was a significant difference in the scores for CL *speaking skills* ($M = 4.01$, $SD = .722$) and EL *speaking skills* ($M = 3.54$, $SD = .932$), $t(339) = -13.281$, $p < 0.001$.

b. There was a significant difference in the scores for CL *writing skills* ($M = 4.16$, $SD = .700$) and EL *writing skills* ($M = 3.76$, $SD = .808$), $t(339) = -12.441$, $p < 0.001$.

c. There was a significant difference in the scores for CL *problem-solving* ($M = 4.09$, $SD = .707$) and EL *problem-solving* ($M = 3.75$, $SD = .768$), $t(339) = -10.478$, $p < 0.001$.

d. There was a significant difference in the scores for CL *decision-making*

    ($M = 4.16$, $SD = .703$) and EL *decision-making* ($M = 3.80$, $SD = .874$),

    $t(337) = -10.875$, $p < 0.001$.

e. There was a significant difference in the scores for CL *self-knowledge*

    ($M = 4.36$, $SD = .714$) and EL *self-knowledge* ($M = 3.83$, $SD = .947$),

    $t(339) = -12.768$, $p < 0.001$.

f. There was a significant difference in the scores for CL *self-esteem/confidence*

    ($M = 3.95$, $SD = .915$) and EL *self-esteem/confidence* ($M = 3.35$,

    $SD = 1.039$), $t(338) = -13.467$, $p < 0.001$.

g. There was a significant difference in the scores for CL *ability to work in a*

    team ($M = 4.20$, $SD = .723$) and EL *ability to work in a team* ($M = 3.89$,

    $SD = .849$), $t(337) = -9.556$, $p < 0.001$.

h. There was a significant difference in the scores for CL *understanding of*

    difference ($M = 4.39$, $SD = .698$) and EL *understanding of difference*

    ($M = 4.04$, $SD = .859$), $t(338) = -10.604$, $p < 0.001$.

i. There was a significant difference in the scores for CL *self-responsibility*

    ($M = 4.46$, $SD = .639$) and EL *self-responsibility* ($M = 4.23$, $SD = .757$),

    $t(338) = -6.800$, $p < 0.001$.

j. There was a significant difference in the scores for CL *community*

    involvement ($M = 3.56$, $SD = 1.143$) and EL *community involvement*

    ($M = 3.12$, $SD = 1.189$), $t(338) = -9.473$, $p < 0.001$.

These findings indicate the participants perceived statistically significant
increases in their skills in all 10 competencies from the first year to the second year.

Table 4.6 illustrates the means (*M*), standard deviations (*SD*), standard error of the means (*SEM),* confidence interval (*CI*), t statistics, (*t*), degrees of freedom (*df),* and *p* values (2 tailed) for this analysis.

Research Question #2. Does (a) gender, (b) residency, or (c) race or ethnicity have any effect on gains found for any of the 10 competencies? Data from Q# 22 and Q#23 on the Sophomore Survey asking participants to self-assess EL skills and CL skills were also used to examine this research question. In addition, data on the three demographic independent variables gathered from survey questions 10, 19 and 21 were examined and utilized.

Gender. The EL skill means and standard deviations for men and women were fairly similar on 7 of the 10 variables. However, examination of the means and profile plots indicated slight gender differences in self assessments of self-esteem/confidence, ability to work in a team and community involvement. On average, men (*M* = 3.47, *SD* = .969) reported slightly higher EL self-esteem/confidence than women (*M* = 3.30, *SD* = 1.063), while women (*M* = 3.95, *SD* = .835) reported slightly higher EL ability to work in a team than men (*M* = 3.74, *SD* = 871). The mean score differences between men and women on EL community involvement were the most noticeable.

The mean for men indicated below average EL skill (*M* = 2.85, *SD* = 1.270) as compared to the mean for women, which indicated average EL skill (*M* = 3.22, *SD* = 1.149). Table 4.7 the means (*M*) and standard deviations (*SD*) of participants' EL skill assessment for each competency by gender.

Table 4.6

Paired Samples t-tests Comparing Entry Level Skills (EL) and Current Level Skills (CL) for 10 Competencies

	Skill	M	SD	SEM	CI - 95%		t	df	Sig (2-tailed)
					Lower	Upper			
Pair 1	EL Speaking - CL Speaking	-.471	.653	.035	-.540	-.401	-13.281	339	.000
Pair 2	EL Writing - CL Writing	-.397	.588	.032	-.460	-.334	-12.441	339	.000
Pair 3	EL Problem- CL Problem	-.338	.595	.032	-.402	-.275	-10.478	339	.000
Pair 4	EL Decision – CL Decision	-.335	.600	.033	-.419	-.291	-10.875	337	.000
Pair 5	EL- Self-Know- CL- Self-Know	-.535	.773	.042	-.618	-.453	-12.768	339	.000
Pair 6	EL Esteem/Conf- CL Esteem/Conf	-.605	.827	.045	-.693	-.516	-13.467	338	.000
Pair 7	EL Teamwork- CL Teamwork	-.311	.598	.033	-.375	-.247	-9.556	337	.000
Pair 8	EL Difference- CL Difference	-.357	.620	.034	-.423	-.291	-10.604	338	.000
Pair 9	EL Responsibility – CL Responsibility	-.233	.631	.034	-.300	-.166	-6.800	338	.000
Pair 10	EL Involvement – CL Involvement	-.437	.849	.046	-.527	-.346	-9.473	338	.000

Table 4.7

Descriptive Statistics for Self-Assessment of EL Skills by Gender

	Women			Men			Total		
	N	M	SD	N	M	SD	N	M	SD
Speaking	246	3.52	.951	94	3.59	.885	340	3.54	.932
Writing	246	3.78	.789	94	3.73	.857	340	3.76	.808
Problem	246	3.74	.753	94	3.77	.809	340	3.75	.768
Decision	246	3.82	.873	93	3.77	.886	339	3.81	.876
Self-Know	245	3.82	.932	94	3.89	.910	339	3.84	.925
Esteem/Conf	245	3.30	1.063	94	3.47	.969	339	3.35	1.039
Teamwork	245	3.95	.835	93	3.74	.871	338	3.89	.849
Difference	246	4.07	.811	94	3.96	.972	340	4.04	.858
Responsibility	246	4.26	.727	94	4.14	.824	340	4.23	.756
Involvement	246	3.22	1.149	94	2.85	1.270	340	3.11	1.193

Table 4.8 illustrates the means (*M*) and standard deviations (*SD*) of CL skill assessment for each competency by gender. A comparison of these data with that on EL skills revealed that after the first year the only noticeable difference remaining between the genders was in community involvement. Both women and men reported higher CL community involvement skill than their initial EL skill, but the average mean CL score for men (*M* = 3.25, *SD* = 1.222) was still noticeably lower than that of the women (*M* = 3.67, *SD* = 1.092).

Men and women both reported significant self-esteem/confidence gains after the first year, but it appeared from examination of the CL means that the gap between men and women found in their EL means for self-esteem/confidence narrowed, perhaps

Table 4.8

Descriptive Statistics for Self-Assessment of CL Skills by Gender

	Women			Men			Total		
	N	M	SD	N	M	SD	N	M	SD
Speaking	246	4.02	.772	94	4.00	.776	340	4.01	.772
Writing	246	4.15	.698	94	4.19	.708	340	4.16	.700
Problem	246	4.06	.712	94	4.16	.693	340	4.09	.707
Decision	246	4.15	.706	93	4.17	.701	339	4.16	.704
Self-Know	246	4.35	.716	94	4.41	.710	340	4.36	.714
Esteem/Conf	246	3.90	.944	94	4.10	.817	340	3.95	.914
Teamwork	246	4.23	.721	94	4.11	.740	340	4.19	.727
Difference	245	4.39	.691	94	4.39	.722	339	4.39	.698
Responsibility	245	4.49	.618	94	4.38	.689	339	4.46	.639
Involvement	246	3.67	1.092	93	3.25	1.222	339	3.56	1.143

indicating that the women's gains were greater than those of the men. Similarly,

comparison of CL mean scores for ability to work in a team reveal the previous gaps

between men's and women's EL means also narrowed after the first year, possibly

indicating that men's gains were greater than women's in this competency. Repeated

measures ANOVA tests described later in this chapter were used to test whether any of

these differences were actually significant.

> **Residency.** Table 4.9 illustrates the means (*M*) and standard deviations (*SD*) of

participants' EL skill assessment for each competency based on residency. Comparison

of the means for residents and commuters revealed slight differences on reported EL skill

Table 4.9

Descriptive Statistics for Self-Assessment of EL Skills by Residency

	Residents			Men			Total		
	N	M	SD	N	M	SD	N	M	SD
Speaking	234	3.57	.902	106	3.48	.997	340	3.54	.932
Writing	234	3.71	.825	106	3.90	.755	340	3.76	.808
Problem	234	3.71	.770	106	3.84	.758	340	3.75	.768
Decision	234	3.77	.891	105	3.88	.840	339	3.81	.876
Self-Know	233	3.79	.907	106	3.95	.960	339	3.84	.925
Esteem/Conf	233	3.36	1.016	106	3.33	1.093	339	3.35	1.039
Teamwork	232	3.94	.782	106	3.78	.976	338	3.89	.849
Difference	234	4.00	.869	106	4.11	.832	340	4.04	.858
Responsibility	234	4.20	.763	106	4.28	.740	340	4.23	.756
Involvement	234	3.21	1.120	106	2.92	1.325	340	3.11	1.193

scores for three competencies: self-knowledge, ability to work in a team and community involvement.

Commuters ($M = 3.95$, $SD = .960$) reported slightly higher EL self-knowledge than residents ($M = 3.79$, $SD = .907$). Residents reported slightly higher EL ability to work in a team ($M = 3.94$, $SD = .782$) and community involvement ($M = 3.21$, $SD = 1.120$) than their commuter peers.

Table 4.10 illustrates the means and standard deviations of CL skill assessment for each competency by gender. Comparison of these CL data with the EL skill data revealed that the reported gap in self-knowledge found between commuters and residents

Table 4.10

Descriptive Statistics for Self-Assessment of CL Skills by Residency

	Residents			Men			Total		
	N	M	SD	N	M	SD	N	M	SD
Speaking	234	4.05	.734	106	3.92	.847	340	4.01	.772
Writing	234	4.15	.703	106	4.20	.696	340	4.16	.700
Problem	234	4.08	.679	106	4.10	.768	340	4.09	.707
Decision	234	4.14	.694	105	4.20	.726	339	4.16	.704
Self-Know	234	4.36	.718	106	4.37	.708	340	4.36	.714
Esteem/Conf	234	4.00	.874	106	3.85	.993	340	3.95	.914
Teamwork	234	4.24	.684	106	4.08	.806	340	4.19	.727
Difference	233	4.41	.690	106	4.35	.718	339	4.39	.698
Responsibility	234	4.45	.635	105	4.48	.652	339	4.46	.639
Involvement	233	3.69	1.046	106	3.26	1.290	339	3.56	1.143

at the start of the first year closed by the start of the second year (Mcom = 4.37, SD = .708; Mres = 4.36, SD = .718).

Residents appear to have achieved higher gains. If this difference proves to be significant, it would be consistent with previous research indicating that on-campus living provides first year students with opportunities to examine their personal identity and increase self-knowledge.

Comparison of the mean differences for CL teamwork skill by gender indicated that while both men and women experienced gains in this competency, the differences between the two groups remain relatively consistent over time. Residents still reported higher CL teamwork skill ($M = 4.24$, $SD = .684$) than commuters did ($M = 4.08$, $SD =$

.806). Despite gains in community involvement over time for both residents and commuters, comparison of the means on CL community involvement indicated that the original EL gap between residents and commuters actually grew over time (M_{res} = 3.69, SD = 1.046; M_{com} = 3.26, SD = 1.290). This finding is consistent with institutional data that commuter students tend to be less engaged with the university than their resident peers. Repeated measures ANOVA tests were conducted to test if any of these apparent differences were significant and will be discussed later in this chapter.

   Race or ethnicity. Table 4.11 illustrates the means (*M*) and standard deviations (*SD*) of participants' EL skill assessment for each competency by race or ethnicity.

Table 4.11

Descriptive Statistics for Self-Assessment of EL Skills by Race or Ethnicity

	White			SOC			Total		
	N	M	SD	N	M	SD	N	M	SD
Speaking	300	3.55	.915	40	3.50	1.062	340	3.54	.932
Writing	300	3.79	.810	40	3.60	.778	340	3.76	.808
Problem	300	3.75	.775	40	3.73	.716	340	3.75	.768
Decision	299	3.81	.883	40	3.78	.832	339	3.81	.876
Self-Know	299	3.82	.941	40	3.97	.800	339	3.84	.925
Esteem/Conf	299	3.33	1.046	40	3.50	.987	339	3.35	1.039
Teamwork	299	3.89	.867	39	3.92	.703	338	3.89	.849
Difference	300	4.03	.875	40	4.07	.730	340	4.04	.858
Responsibility	300	4.22	.767	40	4.25	.670	340	4.23	.756
Involvement	300	3.13	1.201	40	3.02	1.143	340	3.11	1.193

Comparison of the means for whites and SOCs indicated slight differences on the reported EL skill scores for three competencies: self-knowledge, self-esteem/confidence, and writing skills. On average, students of color ($M = 3.97$, $SD = .800$) reported slightly higher EL self-knowledge than white students ($M = 3.82$, $SD = .941$). Students of color ($M = 3.50$, $SD = .987$) also reported higher EL self-esteem/confidence than their white peers ($M = 3.33$, $SD = 1.046$), and this difference was even more noticeable than that in self-knowledge. However, on average, students of color report lower EL writing skills than their white peers ($M = 3.60$, $SD = .778$; $M = 3.79$, $SD = .810$).

Table 4.12 illustrates the means (M) and standard deviations (SD) of CL skills for each competency by race or ethnicity.

Table 4.12

Descriptive Statistics for Self-Assessment of CL Skills by Race or Ethnicity

	White			SOC			Total		
	N	M	SD	N	M	SD	N	M	SD
Speaking	300	4.02	.738	40	3.93	.997	340	4.01	.772
Writing	300	4.19	.702	40	3.98	.660	340	4.09	.707
Problem	300	4.10	.713	40	4.02	.660	340	4.09	.707
Decision	299	4.16	.718	40	4.17	.594	339	4.16	.704
Self-Know	300	4.35	.733	40	4.45	.552	340	4.36	.714
Esteem/Conf	300	3.93	.922	40	4.15	.834	340	3.95	.914
Teamwork	300	4.19	.733	40	4.20	.687	340	4.19	.727
Difference	299	4.39	.698	40	4.40	.709	339	4.39	.698
Responsibility	299	4.47	.636	40	4.40	.672	339	4.46	.639
Involvement	299	3.55	1.129	40	3.65	1.252	339	3.56	1.143

Comparison of the CL data revealed that the gap between whites and SOCs seen in EL self-knowledge scores closed after the first year, although SOCs still reported higher CL self-knowledge than their white peers ($M = 4.45$, $SD = .552$; $M = 4.35$, $SD = .733$). In comparison, the means for CL self-esteem/confidence indicated that the gap between students of color ($M = 4.15$, $SD = .702$) and white students ($M = 3.93$, $SD = .922$) actually widened slightly after the first year, despite reported gains by both groups. This difference may be attributable to the number of programs intentionally designed by the institution to promote student success for this population, which will be discussed in Chapter 5. Finally, comparison of the difference in means for CL writing skill indicated that despite reported gains by both groups, the gap between the groups remain relatively consistent over the year, with white students still reporting higher CL writing skill ($M = 4.19$, $SD = .702$) than their peers of color ($M = 3.98$, $SD = .660$).

Hypothesis Testing for H2. It was hypothesized that there would be differences in self-reported gains between EL skill and CL skill in the 10 competencies based on (a) gender, (b) residency, and (c) race or ethnicity. Restated for testing, the null hypothesis was that there would be no significant difference in the gains between EL skill and CL skill in the 10 competencies based on (a) gender, (b) residency, and (c) race or ethnicity.

To test this hypothesis, a series of one-way repeated measures ANOVA tests were conducted. Three within group ANOVAs were conducted for each competency to compare the mean difference between CL skill scores and EL skill scores to determine whether gender, residency, and race or ethnicity had any effect on reported gains. For

simplicity, the results will be reported separately for each of the three demographic variables.

Gender. Table 4.13 reports the sum of the square (*SS*), the degrees of freedom (*df*), the mean square (*MS*), the F-ratio (*F*), and the level of significance (*p*) for the ANOVA to identify significant differences in the competencies based on gender. For all 10 ANOVAs, at $p > .05$ there were no statistically significant differences in reported gains over time on any competency based on gender. The null hypothesis was not rejected.

As previously noted, the descriptive statistics seemed to indicate differences between men and women on EL skills for self-esteem/confidence, teamwork, and community involvement. After the first year, the gaps between these differences for self-esteem/confidence and teamwork narrowed while the gap for community involvement did not. While the ANOVA results did not find any significant effect of gender on differences in gains over the first year, the between group ANOVAs provided some explanation for the trends seen in the descriptive data for community involvement.

The between group ANOVA, $F (1, 337) = 8.372$, $p = .004$, indicated significant gender differences on overall community involvement scores although there was no significant difference in reported gains between the genders. As theory would suggest, women reported higher overall levels of community involvement than men, both as entering first year students and as sophomores. Men still achieved significant gains in their level of community involvement over the first year, the implications of which are discussed in Chapter 5.

Table 4.13

ANOVA Results- Competency Gains by Gender

Competency		SS	Df	MS	F	p
Speaking	Within Groups	.212	1	.212	.991	.320
	Between Groups	.063	1	.063	.050	.824
Writing	Within Groups	.255	1	.255	1.485	.224
	Between Groups	.034	1	.034	.036	.850
Problem	Within Groups	.205	1	.205	1.161	.282
	Between Groups	.416	1	.416	.455	.501
Decision	Within Groups	.157	1	.157	.870	.352
	Between Groups	.086	1	.086	.079	.778
Self-Know	Within Groups	.001	1	.001	.002	.966
	Between Groups	.777	1	.777	.716	.398
Esteem/Conf	Within Groups	.050	1	.050	.147	.702
	Between Groups	5.260	1	5.260	3.364	.068
Teamwork	Within Groups	.277	1	.277	1.553	.214
	Between Groups	3.153	1	3.153	2.992	.072
Difference	Within Groups	.435	1	.435	2.303	.130
	Between Groups	.373	1	.373	.359	.550
Responsibility	Within Groups	.006	1	.006	.028	.868
	Between Groups	1.904	1	1.904	2.434	.120
Involvement	Within Groups	.232	1	.232	.645	.422
	Between Groups	18.982	1	18.982	8.712	.004*

*p < .05

Although the results of the between group ANOVAs for self-esteem/confidence, $F(1, 337) = 3.364$, $p = .068$, and teamwork, $F(1, 336) = 2.992$, $p = .085$ were not statistically significant at the $p = .05$ level, they do approach significance and provide some explanation for the trends observed in the profile plots. This may bear further study in the future given the gender representation in the sample was not statistically representative of the F2009 cohort.

Residency. Two of the 10 ANOVAs indicated statistically significant differences in reported gains over time based on residency. The null hypothesis was rejected for writing skills and understanding of difference. Table 4.14 reports the sums of the square (*SS*), the degrees of freedom (*df*), the mean squares (*MS*), the F-ratios (*f*), and the level of significance (*p*) calculated for the ANOVAs to identify significant differences in the 10 competencies based on residency.

Table 4.14

ANOVA Results- Competency Gains by Residency

Competency		SS	Df	MS	F	p
Speaking	Within Groups	.062	1	.062	.291	.590
	Between Groups	1.885	1	1.885	1.502	.221
Writing	Within Groups	.750	1	.750	4.367	.037*
	Between Groups	1.704	1	1.704	1.766	.185
Problem	Within Groups	.472	1	.472	2.670	.103
	Between Groups	.745	1	.745	.814	.368
Decision	Within Groups	.052	1	.052	.289	.591
	Between Groups	.747	1	.747	.687	.408
Self-Know	Within Groups	.993	1	.933	3.531	.061
	Between Groups	1.205	1	1.205	1.110	.293
Esteem/Conf	Within Groups	.549	1	.549	1.601	.207
	Between Groups	.916	1	.916	.586	.444
Teamwork	Within Groups	.009	1	.009	.050	.823
	Between Groups	3.578	1	3.578	3.394	.066
Difference	Within Groups	1.220	1	1.220	6.458	.011*
	Between Groups	.120	1	.120	.115	.734
Responsibility	Within Groups	.175	1	.175	.874	.351
	Between Groups	.462	1.	.462	.591	.443
Involvement	Within Groups	.618	1	.618	1.721	.190
	Between Groups	18.191	1	18.191	8.023	.005**

*p <. 05; **P < .001

The repeated measures ANOVA for writing skills, (F (1,336) $= 4.367, p = .037$)

indicated that residency had a significant effect on writing skill gains over the first year.

As previously noted, the descriptive statistics revealed that commuters reported higher

EL ($M = 3.90, SD = .755$) and CL ($M = 4.20, SD = .696$) writing skills than residents

($M_{EL} = 3.71, SD = .825; M_{CL} = 4.15, SD = .703$), although both groups reported

significant gains in writing skills over time. The results of the ANOVA indicated that

residents achieved greater gains ($MD = .4402, SEM = .040$) than commuters

($MD = .3019, SEM = .050$) did during the first year. Living on campus during the first

year had a significant positive effect on reported gains in writing skills, which was not an

anticipated result based on the literature.

The results of the ANOVA for understanding of difference, F (1,337) $= 6.458$,

$p = .011$ also indicated a statistically significant difference in gains over the first year

between residents and commuter, confirming the difference seen in the descriptive

statistics. Commuters reported higher EL understanding of difference ($M = 4.11, SD =$

$.832$) than their resident peers ($M = 4.00, SD = .869$), but the trend was reversed by the

start of the sophomore year when residents reported higher CL understanding of

difference ($M = 4.41, SD = .690$) than commuters ($M = 4.35, SD = .806$). This finding is

consistent with theory and partially explained by the qualitative data presented later in

this chapter.

One ANOVA result that was not statistically significant at the $p < .05$ level does

warrant discussion. Although residents did not report significantly higher gains in self-

knowledge than commuters, the ANOVA indicated that the difference approached

significance, $F(1,337) = 3.531, p = .061$, which is consistent with the trend seen for this

competency in the descriptive statistics as well as in the qualitative data discussed later in this chapter.

The between group ANOVAs also found a significant effect of residency on a third variable, community involvement, $F(1,337) = 8.023$, $p = .005$. Although there was no significant difference in gain between the two residency groups, this finding indicated that residency status in the first year had a statistically significant effect on overall community involvement scores, with residents reporting higher EL ($M = 3.21$, $SD = 1.120$) and CL ($M = 3.69$, $SD = 1.046$) community involvement than commuters ($M_{EL} = 2.92$, $SD = 1.325$; $M_{CL} = 3.26$, $SD = 1.290$). Although both groups reported significant gains over the first year, and the gains were not significantly different between the two groups, a comparison of the means for EL and CL community involvement show the gap between the two groups began to widen by the start of the sophomore year. The implications of this finding for practice will be discussed in Chapter 5.

Race or ethnicity. Table 4.15 reports the sum of the square (*SS*), the degrees of freedom (*df*), the mean square (*MS*), the F-ratio (*F*), and the level of significance (*p*) calculated for the ANOVAs to identify significant differences in the 10 competencies based on race or ethnicity.

For all 10 ANOVAs, at $p < .05$ there were no statistically significant differences in reported gains over time on any competency based on race or ethnicity. The null hypothesis was not rejected. These findings are not consistent with the literature and may provide evidence that coordinated efforts across the institution to improve student success for underserved students is working. The implications of these finding for practice will be discussed in Chapter 5.

Table 4.15

ANOVA Results- Competency Gains by Race or Ethnicity

Competency		SS	*df*	MS	*F*	*p*
Speaking	Within Groups	.078	1	.078	.366	.546
	Between Groups	.534	1	.534	.425	.515
Writing	Within Groups	.024	1	.024	.141	.708
	Between Groups	2.351	1	2.351	2.438	.119
Problem	Within Groups	.047	1	.047	.266	.606
	Between Groups	.073	1	.073	.080	.778
Decision	Within Groups	.048	1	.048	.267	.606
	Between Groups	.001	1	.001	.001	.979
Self-Know	Within Groups	.120	1	.120	.426	.514
	Between Groups	1.496	1	1.496	1.378	.241
Esteem/Conf	Within Groups	.023	1	.023	.067	.795
	Between Groups	3.008	1	3.008	1.923	.166
Teamwork	Within Groups	.001	1	.001	.004	.947
	Between Groups	.007	1	.007	.006	.937
Difference	Within Groups	.046	1	.046	.246	.620
	Between Groups	.044	1	.044	.042	.837
Responsibility	Within Groups	.185	1	.185	.926	.337
	Between Groups	.048	1	.048	.061	.805
Involvement	Within Groups	.618	1	.618	1.721	.190
	Between Groups	.691	1	.691	.305	.581

Research Question #3. Does student participation in meaningful activities identified by the university have any effect on reported gains in the competency areas? This research question generated four sub-questions:

a) Do students who report involvement in at least one meaningful activity during the first year report higher overall skill gains across the 10 competencies?

b) Do students who report involvement in at least one meaningful activity during the first year report higher skill gains in any of the 10 competency areas?

c) Do students who report greater involvement as measured by their number of meaningful activities report higher overall gains between EL and CL skill scores across the 10 competencies?

d) Do students who report greater involvement as measured by their number of meaningful activities report higher gains between EL and CL skill scores in any of the 10 competencies?

To answer these questions, data from Q#15 on the Sophomore Survey were used in addition to data from Q#22 and Q#23. Q#15 asked participants

> During your FIRST year at BSU, how often did you do each of the following:
> (a) play on an athletic team; (b) participate in a student club or organization;
> (c) assume a leadership role in a student organization or club; (d) participate in a college-sponsored community service program; (e) participate in a mentoring program (i.e., POE, LINKS, etc.); (f) perform in a campus theater production, dance performance, or college band; (g) attend a lecture, play or other performance on campus; (h) attend social or athletic events on campus; and (i) meet with a faculty member, academic advisor or mentor.

Participants were asked to respond to each activity with one of four options: 1-never, 2-sometimes, 3-often, and 4-very often.

Descriptive statistics for H3. Table 4.16 illustrates the frequency (*f*), percentage (%), mean (M), and standard deviation (SD) of participant responses for each of the nine activities. Activities marked with an (*) are the six identified by the institution as meaningful engagements.

A meaningful engagement was one which by its nature would have required the participant to spent significant time engaging with peers, faculty or staff if they had participated in that activity often or very often.

Table 4.16

Descriptive Statistics for Frequency of Participation in Activities

Activity	Never		Sometimes		Often		Very Often		*M*	*SD*	*N*
	f	%	*f*	%	*f*	%	*f*	%			
Met with fac/adv/mentor	30	8.8%	198	58.2%	89	26.2%	23	6.8%	2.31	.726	340
Attend social event	76	22.4%	145	42.6%	74	21.8%	45	13.2%	2.26	.952	340
Part in club/organization *	150	44.2%	84	24.8%	43	12.7%	62	18.3%	2.05	1.141	339
Attend performance event	98	28.9%	161	47.5%	64	18.9%	16	4.7%	1.99	.818	339
Part in comm service *	186	54.9%	98	28.9%	34	10.0%	21	6.2%	1.68	.891	339
Leadership role in club *	256	75.7%	41	12.1%	25	7.4%	16	4.7%	1.41	.822	338
Part on athletic team *	271	79.7%	26	7.6%	17	5.0%	26	7.6%	1.41	.896	340
Part in mentoring program *	271	80.7%	31	9.2%	21	6.3%	13	3.8%	1.33	.762	336
Perform in fine arts event *	295	87.0%	22	6.5%	12	3.5%	10	2.9%	1.22	.650	339

The column header "Level of Participation" spans Never, Sometimes, Often, and Very Often.

Note. Part = participating; comm. = community; fac/adv/mentor = faculty, advisor, or mentor. Activities highlighted with an "*" are identified as meaningful. The % represents the valid percentage, accounting for missing data.

As Table 4.16 illustrates, three of the top four activities with the highest

participation levels were not those identified as meaningful. Overall, participation in all

activities was low. As a result, the researcher decided to collapse the data for frequency

of response into two categories, "involved" and "uninvolved." New variables were

calculated, with responses of "very often" and "often" transformed into the "involved"

variable and responses of "seldom" or "never" transformed into the "uninvolved"

variable. The majority of participants (56.5%, $n = $ 192) did not engage in any of the

meaningful activities and therefore fell into the uninvolved group. The remaining 43.5%

($n = $ 148) of participants comprised the involved group.

Table 4.17 illustrates the frequencies (*f*) and percentage (*%*) of involved and

uninvolved participants for each of the six meaningful engagements. Data for these

groupings were used to answer research sub-questions 3a and 3b.

At almost 31% (n = 105) participating in a club or organization was the

meaningful engagement with the greatest level of participation. This was followed by

participating in college-sponsored community service at approximately 16% (n = 55),

participating on an athletic team at just over 12% (n = 43), taking a leadership role in a

club or organization at 12% (n = 41), participating in a mentoring program at 10% (n =

34), and performing in a theater, dance or band performance with just over 6%(n = 22).

The involved group (*n = * 148) was also examined based on their number of

involvements. Table 4.18 illustrates the frequency (*f*) percentage and percentage (*%*) of

the total sample (*N = * 340) and the involved sub-group (*n = * 148) by number of

involvements.

Table 4.17

Descriptive Statistics for Involvement in Meaningful Activities

	Involved		Uninvolved		
	n	%	*n*	%	*N*
Part in a club/organization	105	30.9%	234	68.8%	339
Part in community service	55	16.2%	284	87.9%	339
Part on an athletic team	43	12.6%	297	87.4%	340
Leadership role in a club/org	41	12.1%	297	87.9%	338
Part in a mentoring program	34	10.1%	302	89.6%	337
Perform in a performance group	22	6.5%	317	93.5%	339

Note. Part = participating; org = organization. The % represents the valid percentage, accounting for missing data.

Table 4.18

Frequency and Percentage by Number of Engagements

Meaningful Engagements	Total (N = 340)	% of N	Involved (*n* = 148)	*% of n*
0	192	56.5		
1	57	16.8%	57	38.5%
2	51	15.0%	51	34.5%
3	21	6.2%	21	14.2%
4	15	4.4%	19	12.8% *
5	3	.9%		
6	1	.3%		

Note. * indicates the valid percentage participating in 4, 5 or 6 activities.

About 39% of the 148 involved respondents participated in only one engagement, while just under 35% participated in two engagements. Due to the small cell size of those involved in 5 and 6 activities ($n = 3$ and $n = 1$ respectively), the researcher decided to collapse the six groups into four groups to test the hypotheses for research questions 3c and 3d. The four new groups were (1) those involved in one engagement ($n = 57$), (2) those involved in two engagements ($n = 51$), (3) those involved in three engagements ($n = 21$), and (4) those involved in four or more engagements ($n = 19$).

Hypothesis Testing for H3a. The first hypothesis generated from research question 3 was that there would be differences between the cumulative gains reported by involved students and those reported by uninvolved students across the 10 competencies. Restated for testing, the null hypothesis was that there is no difference between the cumulative gains reported by involved students and those reported by uninvolved students across the 10 competencies.

Table 4.19 illustrates the means (*M*) and standard deviations *(SD)* for the cumulative sum scores on EL skill and CL skill across the 10 competencies for the involved group and the uninvolved group.

To test the hypothesis, a repeated measures ANOVA test was conducted comparing the cumulative score of the 10 EL skills with the cumulative score of the 10 CL skills for the involved and uninvolved groups. Table 4.20 illustrates the results of this ANOVA. There was no statistically significant difference in the cumulative sum gains across the competencies between the involved group and the uninvolved group, $F(1, 338) = .516$, $p = .473$. The hypothesis was not rejected. Involvement in meaningful

Table 4.19

Descriptive Statistics of SUM Scores by Involvement Group

		M	SD	N
Sum EL Skills	Involved	38.1014	5.23429	148
	Uninvolved	36.6146	5.85402	192
Sum CL Skills	Involved	42.3041	4.67103	148
	Uninvolved	40.5156	5.40891	192

Table 4.20

ANOVA Results – Sum Gains in Competencies by Involvement

		SS	df	MS	F	p
Gains *Involved	Within Groups	3.803	1	3.803	.516	.473
	Between Groups	448.259	1	448.259	8.978	.003 *

* p<.05

activities during the first year did not have a significant effect on the overall gains students reported in the 10 competencies.

However, the ANOVA did reveal a statistically significant between-group affect of involvement on overall competency scores, $F (1, 338) = 8.978$, $p = .003$. Involved participants reported higher overall competency scores on both EL skills ($M = 36.6146$, $SD = 5.85402$) and CL scores ($M = 42.3041$, $SD = 4.67103$) than their uninvolved peers ($M_{EL} = 38.1014$, $SD = 5.23429$; $M_{CL} = 40.5156$, $SD = 5.40891$). It may have been that students who evaluated their competencies more highly were also more likely to become involved, but the implications of this finding are not explored in this project.

Hypothesis Testing for H3b. The second hypothesis generated by this research

question was that there would be differences between the cumulative gains reported by

involved students and those reported by uninvolved students in individual competencies.

Restated for testing, the null hypothesis was that there would be no difference between

the gains reported by involved students and those reported by uninvolved students in any

of the 10 competencies.

To test this hypothesis, a series of one-way repeated measures ANOVA tests

were conducted to compare the mean differences between participants' EL and CL skill

scores for the involved group and the uninvolved group on each competency to determine

whether there were significant differences. Table 4.21 illustrates the results of these tests.

For all 10 ANOVAs, at $p < .05$, there were no statistically significant differences

between involved and uninvolved students on any of the 10 competencies. The null

hypothesis was not rejected. Although previous tests revealed significant gains on all of

these competencies, involvement in meaningful activities during the first year was not

found to have had a statistically significant effect on those gains.

However, the results of the between group ANOVAs did reveal a statistically

significant affect of involvement on the overall scores for three of the 10 competencies:

speaking skills, ability to work in a team, and community involvement. Additionally, the

effect of involvement on self-esteem/confidence scores approached significance, $F(1, 337) = 3.636$, $p = .057$.

As the results in Table 4.21 reveal, a significant affect of involvement in

meaningful activities was found on overall community involvement, $(F(1,1) = 44.314$, $p = .000$. Students who became involved during their first year reported significantly

Table 4.21

ANOVA Results- Competency Gains by Involvement

Competency		SS	df	MS	F	P
Speaking	Within Groups	.129	1	.129	.605	.437
	Between Groups	13.308	1	13.308	10.952	.001**
Writing	Within Groups	.003	1	.003	.029	.887
	Between Groups	.005	1	.005	.005	.945
Problem	Within Groups	.146	1	.146	.824	.365
	Between Groups	1.336	1	1.336	1.467	.227
Decision	Within Groups	.076	1	.076	.418	.518
	Between Groups	1.376	1	1.376	1.276	.259
Self-Know	Within Groups	.367	1	.367	1.302	.255
	Between Groups	1.664	1	1.664	1.536	.216
Esteem/Conf	Within Groups	.157	1	.157	.457	.499
	Between Groups	5.686	1	5.686	3.636	.057
Teamwork	Within Groups	.017	1	.017	.093	.760
	Between Groups	6.365	1	6.365	6.063	.014*
Difference	Within Groups	..229	1	.229	1.191	.276
	Between Groups	.017	1	.017	.017	.897
Responsibility	Within Groups	.122	1	.122	.612	.435
	Between Groups	.456	1	.456	.562	.446
Involvement	Within Groups	..000	1	.000	.001	.982
	Between Groups	92.737	1	92.937	44.314	.000**

*p < .05, **p <.01

higher scores on both EL community involvement (M_{INV} = 3.54, SD = 1.061) and CL community involvement (M_{INV} = 3.98, SD = .983) than their peers who did not get involved (M_{EL} = 2.80, SD = 1.183; M_{CL} = 3.23, SD = 3.23). Since the results indicated no significant differences in gains in community involvement over the first year between these two groups, it can be inferred that lack of involvement in meaningful engagements as first year students did not prevent the uninvolved group from increasing their overall

level of community involvement, potentially from engagement in other activities not examined in this study. Further, these results might indicate that students who evaluated their community involvement more highly were simply more likely to become involved in the first place, but further study would be required to understand the full implications of this result.

Similarly, although involvement in meaningful engagements was not found to have a significant impact on gains in ability to work in a team, it was found to have a significant affect on the overall scores for ability to work in a team between the groups, $F(1, 336) = 6.063$, $p = .014$. Students who became involved reported higher EL ($M = 4.01$; $SD = .772$) and CL teamwork scores ($M = 4.31$; $SD = .648$) than their uninvolved peers ($M_{EL} = 3.80$; $SD = .648$; $M_{CL} = 4.12$; $SD = .769$). Although this study does not attempt to explain this finding, it could be inferred from the literature that students who are able to work with others in a team might be drawn towards group involvements more than their peers who are not as skilled in this area.

Finally, a significant affect of involvement in meaningful activities was also found on overall scores for speaking skills, $F(1, 338) = 10.952$, $p = .001$, although there was no difference found in the reported gains between the two groups. Involved students once again reported higher EL scores ($M = 3.72$; $SD = .926$) and CL scores ($M = 4.16$; $SD = .677$) than their uninvolved peers ($M = 3.41$; $SD = .916$; $M = 3.90$; $SD = .769$). This finding was unexplained and further research would be required before any inferences could be drawn.

Hypothesis Testing for H3c. The third hypothesis generated from this research question was that within the involved group, there would be differences in cumulative

gains across the 10 competencies based on their number of meaningful involvements. Restated for testing, the null hypothesis was that there would be no difference in cumulative gains across the 10 competencies of involved students based on their number of meaningful involvements.

Table 4.22 illustrates the means (*M*), standard deviation (*SD*), and frequency (*n*) for the cumulative EL and CL skill scores for each of the four groups based on their number of meaningful involvements.

Table 4.22

Descriptive Statistics of SUM Scores by Number of Involvements

	# of Involvements	M	SD	*n*
SUM of EL Skills	1	37.3509	5.07969	57
	2	38.0588	4.84319	51
	3	40.2381	4.73186	21
	4-6	38.1053	6.80600	19
SUM of CL Skills	1	41.6667	4.49735	57
	2	41.8824	4.51064	51
	3	44.6677	4.11501	21
	4	42.7368	5.60597	19

To test the hypothesis, a one-way repeated measures ANOVA was conducted to determine the effect of the number of involvements on the difference between the sum scores for EL skills and sum scores for CL skills for the 148 students who reported involvement in meaningful activities. Table 4.23 illustrates the results of the ANOVA.

Table 4.23

ANOVA Results – SUM Gains in Competencies by Number of Involvements

		SS	*df*	MS	*F*	*p*
Gains*Inv	Within Groups	6.314	143	2.105	.256	.857
	Between Groups	274.767	3	91.589	2.285	.081

The ANOVA results indicated no statistically significant difference between the cumulative gains of involved students based on their number of involvements, $F(3,143 = 2.105, p = .256)$. The null hypothesis was not rejected.

Hypothesis Testing for H3d. The final hypothesis generated by this research question was that there would be differences in the gains of involved students in individual competencies based on their number of meaningful involvements. Restated for testing, the null hypothesis was that there would be no difference between the gains reported by involved students in any competency based on their number of meaningful involvements.

To test this hypothesis, a series of one-way repeated measures ANOVA tests were conducted to compare the mean difference between participants' EL skill scores and CL skill scores on each competency to determine whether the number of meaningful involvements had any effect on reported gains in any competency.

As the results presented in Table 4.24 indicate, the within-group ANOVAs indicated no statistically significant differences for involved participants in reported gain in any competency based on their number of meaningful activities. The null hypothesis was not rejected. A participant's number of involvements during the first year did not have a significant effect on the amount of first to second year gain reported by involved

Table 4.24

ANOVA Results- Competency Gains by Number of Involvements

Competency		SS	*df*	MS	*F*	*p*
Speaking	Within Groups	.066	3	.022	.095	.963
	Between Groups	10.134	3	3.378	3.240	.024*
Writing	Within Groups	.020	3	.007	.033	.992
	Between Groups	3.359	3	1.120	1.247	.295
Problem	Within Groups	.508	3	.169	.819	.486
	Between Groups	1.942	3	.647	.738	.531
Decision	Within Groups	.135	3	.045	.246	.864
	Between Groups	2.642	3	.881	.837	.476
Self-Know	Within Groups	.433	3	.144	.453	.715
	Between Groups	.598	3	.199	.222	.881
Esteem/Conf	Within Groups	.728	3	.243	.735	.533
	Between Groups	6.757	3	2.252	1.699	.170
Teamwork	Within Groups	.338	3	.113	.535	.659
	Between Groups	5.115	3	1.705	2.164	.095
Difference	Within Groups	.032	3	.011	.046	.987
	Between Groups	2.285	3	.762	.789	.502
Responsibility	Within Groups	.821	3	.274	1.211	.308
	Between Groups	3.330	3	1.113	1.513	.214
Involvement	Within Groups	.424	3	.141	.333	.802
	Between Groups	30.745	3	10.248	6.861	.000**

Note: * p < .05, ** p <.001

students in any of the 10 competencies. However, the ANOVAs did reveal significant

between group differences on the overall scores for two competencies: speaking skill and

community involvement.

The between group results of the repeated measures ANOVAs indicated that

overall speaking scores differed significantly across the four involvement groups,

$F(3,144) = 3.240, p = .024$. Additional post hoc analysis was required using the Tukey

Honestly Significant Difference (HSD) test to determine which group means were

significantly different from one another. Table 4.25 illustrates the results of the Tukey

HSD analysis for speaking skills by number of involvements.

Table 4.25

Tukey HSD Post Hoc for Speaking Gains by Number of Involvements

	(I) # of Inv	(J) # of Inv	MD (I-J)	SE	*p*
Speaking	1	2	.09	.139	.917
		3	-.48	.184	.051
		4	.04	.191	.998
	2	1	-.09	.139	.917
		3	-.57*	.187	.015
		4	-.05	.194	.992
	3	1	.48	.184	.051
		2	.57*	.187	.015
		4	.51	.229	.117
	4	1	-.04	.191	.998
		2	.05	.194	.992
		3	-.51	.229	.117

Note. # of Inv = Number of Involvements. * Mean difference is significant at the .05 level.

A significant difference at $p < .05$ was found between the groups with two and three involvements. The participant group with three involvements had significantly higher EL ($M = 4.14$, $SD = .368$) and CL ($M = 4.62$, $SD = .462$) speaking scores than the participant group with two involvements ($M_{EL} = 3.59$, $SD = .876$; $M_{CL} = 4.04$, $SD = .692$). No other between group comparisons yielded statistically significant results.

The ANOVA tests also indicated that the overall community involvement scores differed significantly across the four involvement groups, $F(3,143) = 6.861$, $p = .000$. Tukey HSD post hoc comparisons of the four groups found significant mean differences on community involvement for the group with one involvement as compared to the other three groups. Table 4.26 illustrates the results of the Tukey HSD analysis for community involvement by number of involvements.

The mean EL and CL community involvement scores ($M_{EL} = 3.16$, $SD = 1.082$; $M_{CL} = 3.63$, $SD = 1.029$) for the participant group with one involvement were significantly lower for the than those for the group with two involvements ($M_{EL} = 3.66$, $SD = .917$; $M_{CL} = 4.04$, $SD = .856$), the group with three involvements ($M_{EL} = 3.90$, $SD = .1.091$; $M_{CL} = 4.24$, $SD = 1.091$), and the group with four involvements ($M_{EL} = 4.00$, $SD = 1.00$; $M_{CL} = 4.58$, $SD = .607$). No significant differences were found between any other groups

Research Question #4. Does a) gender, b) residency or c) race or ethnicity have any effect on student participation in University-identified meaningful activities? To answer this question, data from Q#15 of the Sophomore Survey used to group students into the involved and uninvolved groups were examined, as were the demographic data gathered from Qs #10, 19 and 21. Table 4.27 illustrates the means (M)

Table 4.26

Tukey HSD Post Hoc for Community Involvement by Number of Involvements

	(I) # of Inv	(J) # of Inv	MD (I-J)	SE	*p*
Community Involvement	1	2	-.46*	.167	.037
		3	-.68*	.221	.014
		4	-.89*	.229	.001
	2	1	.46*	.167	.037
		3	-.22	.225	.758
		4	-.44	.233	.238
	3	1	.68*	.221	.014
		2	.22	.225	.758
		4	-.22	.274	.856
	4	1	.89*	.229	.001
		2	.44	.233	.238
		3	.22	.274	.856

Note. # of Inv = Number of Involvements. Mean difference is significant at the .05 level.

and standard deviations (SD) for participation in meaningful activities based on gender, residency and race or ethnicity.

    Hypothesis testing for H4. It was hypothesized that there would be differences in student participation in meaningful activities based on (a) gender, (b) residency, and (c) racial/ethnic diversity. Restated for testing, the null hypothesis was that there would be

Table 4.27

Descriptive Statistics for Participation by Demographic Variable

	M	SD	N
Men	.3723	.48602	94
Women	.4593	.49936	246
Residents	.5299	.50017	234
Commuters	.2264	.42050	106
White	.4067	.49203	300
SOCs	.4353	.49653	340

no significant difference in student participation in meaningful activities based on

(a) gender, (b) residency, and (c) racial or ethnic diversity.

To test this hypothesis, three between group ANOVAs were conducted to

determine whether there were differences in participation based on gender, residency, and

racial or ethnic diversity. Table 4.28 illustrates the results of the ANOVA for gender.

Table 4.28

ANOVA Results – Participation by Gender

	SS	*df*	MS	*F*	*p*
GENDER	.515	1	.515	2.095	.149
Error	83.062	338	.246		
Total	83.576	339			

There was no statistically significant difference between participation in

meaningful activities between men and women, $F(1,339) = .2.095$, $p = .149$.

Table 4.29

ANOVA Results – Participation by Residency

	SS	*df*	MS	*F*	*p*
RESIDENCY	6.720	1	6.720	29.552	.000*
Error	76.857	338	.227		
Total	83.576	339			

*p < .001

As Table 4.29 illustrates, the between group ANOVA revealed a statistically significant difference in participation in meaningful activities based on residency during the first year, $F(1, 339) = 29.552$, $p = .000$. Resident students were significantly more likely to be involved in meaningful activities than their commuting peers. This finding is consistent with expectations based on the literature and national research findings indicating that campus residency is associated with higher degrees of student engagement.

The results of the final ANOVA measuring differences in participation based on racial or ethnic diversity is presented in Table 4.30.

Table 4.30

ANOVA Results – Participation by Race or ethnicity

	SS	*df*	MS	*F*	*p*
RACE/ETHNICITY	.2.090	1	2.090	8.668	.003*
Error	81.487	338	.241		
Total	83.576	339			

p < .05

The ANOVA revealed a statistically significant difference in participation in meaningful activities based on racial or ethnic diversity, F (1, 339) = 8.668, p = .003. Students of color were significantly more likely than their white peers to be involved, which is contrary to the findings in the literature which indicate students of color are less likely than their white peers to be engaged. The implications of these findings, and possible explanations, are discussed in Chapter 5.

Quantitative Analysis Summary

The quantitative findings of this study revealed some anticipated results as well as some unanticipated results. The results for the first research question indicated that students achieved statistically significant gains in all 10 competencies as a result of their first year of college, which was consistent with the hypothesis generated from previous research. However, contrary to the hypotheses and literature, the findings for the second research question did not identify any statistically significant effects on reported gains in the 10 competencies based on gender or racial or ethnic diversity. The findings did reveal significant effects of residency on gains during the first year of college for two competencies, and one effect approaching significance.

Students living on campus during their first year reported significantly higher gains in understanding of people who are different from them and in writing skills than their non-resident peers. The first finding is consistent with the literature which suggests that campus residency does promote greater appreciation of diversity. However, there is no conclusive evidence in the literature to explain the increased gains in writing skills, nor is there an explanation in this study. Finally, although not significant, the increased gains reported by residents in self-knowledge as compared to their commuting peers did

approach significance, and findings in the literature have indicated that residence does increase opportunities for first year students to explore many aspects of their personal identity.

The study focused on differences in reported gains based on the three demographic variables, and did not suggest any hypotheses about between group differences on overall scores. However, the findings did reveal significant differences in overall mean scores of EL and CL skills in one competency, community involvement. Overall community involvement scores were significantly affected by both residency and gender, with residents and women reporting higher scores on average both as entering first year students and as sophomores. No between group differences were found on any competency between white students and students of color.

Relative to research question three, the researcher predicted differences in reported gains based on involvement in meaningful activities. However, the findings did not reveal any differences in either overall gain across the 10 competencies or in any individual competency based on involvement. Similarly, among involved students, the number of actual involvements has no effect on reported gains across the competencies or in individual skill area. In contrast, there were four significant between group differences between involved and uninvolved students. Involved students had higher overall EL and CL scores across the 10 competencies, as well as higher overall scores for speaking, teamwork and community involvement. Among the involved students, further between-group differences were found based on the students' number of involvements. Students with three involvements reported higher overall speaking skills that students with two involvements, while students with only one involvement reported lower overall

community involvement scores than students in the three other groups of two, three and four or more involvements.

Finally, results for question four examining participation based on gender, residency and racial or ethnic diversity revealed several statistically significant results. As expected, residents were more likely to be involved in meaningful activities than their commuting peers. However, the finding that students of color were more likely to be involved in meaningful activities than their white peers was contrary to findings from a large number of other studies suggesting students of color are a segment of the under-served population less likely to be engaged. This finding has some possibly exciting implications for the research site.

The implications of these findings and relevant insights found in the qualitative data are discussed in Chapter 5.

Qualitative Findings

This section begins with a summary of the process used to obtain qualitative data about student perceptions of contributing factors to gains in the 10 competencies. A description of the process used to analyze this data follows, including how items were coded and steps taken to ensure trustworthiness of the data. An overall summary of the codes and themes is described. This is followed by a discussion of the findings for each of the 10 competency areas, including a table of the factors described, examples of responses to explain the findings, and where applicable, discussion of how they relate to the quantitative findings.

To provide more information about the type of first year experiences that contributed to the competency gains students reported from the first to second year, the

Sophomore Survey also included a series a 10 open-ended questions seeking feedback from the participants about each of the 10 competencies. Survey questions #24 to #33 asked participants to think back to their responses on the Likert scales and to identify and describe the factors they believed made a difference in their level of skill and personal development in each of these categories from the first to second year. In order to encourage broad based thinking, the instructions suggested they consider things they did at BSU, either in or out of class, their personal or work life, or simply the process of getting older.

Analysis of Open-Ended Responses. Because the questions asked participants to describe the factors contributing to growth in each competency and not all participants reported growth in all areas, their number of responses to open-ended questions did not approach the *n* of 340. The frequency of responses for each question ranged from a high of 220 to a low of 126 after the "not applicable" or "N/A" responses were eliminated. Responses of no change were eliminated except in many cases where the respondent added an explanation, such as there was no change because they felt they were already skilled in that area. Therefore, the number of useable responses was between a high 200 and low of 98.

Each of 10 open-ended questions was analyzed and coded separately. Responses were not linked back to any of the independent variables nor were they linked to the participants' responses to the other nine variables. However, on the initial read-through, the researcher did review the entire response set for each participant to determine viability of the data for inclusion in analysis; less than 3 cases were eliminated as a result. Two broad thematic areas emerged from these data. The first was extrinsic and causal in

nature, things students experienced as result of being in college and to which they

attributed some portion of growth in any competency area (i.e., a core curriculum course,

living away from home, etc.). Within this thematic area the factors cited generally fell

into two categories: academic or curricular factors and non-academic collegiate or co-

curricular factors. Some factors were unique to one competency, but most crossed over

more than one skill area. Respondents frequently cited factors from both the curricular

and non-curricular themes as being equally important contributors towards growth in

some competencies, while in others they easily identified one single contributing factor.

The second thematic area was more intrinsic in nature, less about what happened

to them and more about how experiences they had in the first year affected their thinking

or feeling, or how they responded as the result of some experience(s). Two broad

categories emerged within this theme, representing various levels of growth along

Chickering's seven vectors. The first category of factors included changes in the

respondents that they recognized for themselves, (i.e., increased confidence in a skill, the

ability to adapt, etc.) These factors demonstrated growth in early vectors such as personal

competence or managing emotion, as seen in this comment "(I) became more aware of

what I enjoy doing." The second category included factors that went beyond simple

recognition of personal change to include conscious efforts or steps to deal with or create

change as the result of some dissonance or dissatisfaction with their way of thinking or

being (i.e. developing a plan to remove obstacles to academic or personal success). An

illustration of this is one student's comment, "The pressure to get everything done in a

timely manner helped me to figure out how to budget my time and to come up with a

manageable schedule." This set of factors demonstrated more developed growth along the

vectors such as moving from autonomy to interdependence or establishing identity, for example as one student wrote, "I try to make the right decisions now because I understand that my decisions now will affect my future."

As with the first thematic area, factors in the second thematic area were not mutually exclusive of each other. Nor were the comments restricted to one thematic area. Within each theme's categories a number of recurring factors emerged. Some factors were unique to one competency, but many were found repeatedly across responses to multiple competency areas. Many respondents articulated how their growth came from their personal action as the result of something they experienced. Less frequently, responses provided evidence of a student's ability to integrate new knowledge or competence into who they were and how they will manage their life going forward. Finally, there were inevitably some miscellaneous comments that did not fit into either theme or category, but these were few.

In the sections that follow, the findings are reported by competency area. Tables were created for each variable, summarizing the factors by category and theme. The tables illustrate how frequently each factor was cited as a primary or secondary contributor for growth within the competency, and includes the percentages for the prevalence of each theme, category and factor within the competency. The richness of the response data frequently yielded multiple primary factors per response so the actual frequency and percentage totals may exceed the number of cases in some competency areas. The percentage figures reported represent the percentage of times each factor, category and theme was cited in the overall responses to the question.

Speaking Skills. There were 184 useable responses to the question "What contributed to differences in your Speaking Skills?" As Table 4.31 illustrates, over 88% of the responses cited academic/curricular factors as the reason for improvement in speaking skills, with the two most frequently cited factors being required core communication courses (39.1%) and expectations to speak or present in class (32.1%).

One student's comment, "My classes where I needed to stand up and speak in front of the class. I hated it, and still do not like it, but I have conquered that initial fear," was a commonly expressed idea.

Almost 30% of the respondents also cited non-academic factors such as meeting new people, making friends or navigating the overall collegiate environment as primary reasons for improved speaking skill, while another 8% cited these as secondary factors. For example, one student wrote "Getting to know people on campus and talking to them took me outside of my comfort zone because everyone was a stranger." Just over 20 % of respondents specifically mentioned a personal change they recognized in themselves such as increased confidence or comfort in self or interpersonal skills, as either a primary factor or a secondary factor associated with curricular and co-curricular factors. A few responses illustrated the impact of active student engagement and effective teaching on personal motivation, such as "(…) being surrounded by professors and students that were in class because they WANTED [*sic*]to be made me strive to speak more eloquently and be able to explain myself thoroughly."

Table 4.31

Factors Contributing to Gains in Speaking Skills

		Primary		Secondary	
Thematic Area	Factor	*f*	*%*	*f*	*%*
Academic or Curricular		**162**	**88.6%**		
	Core curriculum communication class	72	39.1%		
	Required speaking/participation/ presentations in a class	59	32.1%		
	Classes	14	7.6%		
	Effective teaching practices (feedback, group discussions, actual instruction in making speeches)	14	7.6%	4	2.2%
	Role/Influence of Faculty	4	2.2%		
Non-Academic or Co-Curricular		**52**	**28.3%**	**14**	**7.6%**
	Getting to know people/making friends	32	17.4%	10	5.4%
	Overall collegiate environment	9	4.9%	2	1.1%
	Co-Curricular Involvements	9	4.9%	2	1.1%
	A job/working	2	1.1%		
Changes in the Student		**23**	**12.5%**	**16**	**8.6%**
	Increased confidence/comfort with self on campus	14	7.6%	1	0.5%
	Increased confidence in interpersonal skills	4	2.2%	14	7.6%
	Working at communication skills	2	1.1%	1	.05%
	Getting older/maturity	3	1.6%		
Miscellaneous		**4**	**2.2%**		
	Came to college with this skill	4	2.2%		

Note. Thematic category totals are bold-faced.

Nothing in these responses shed any light on why involvement had an impact on overall speaking scores. Perhaps those who feel more comfortable with interpersonal communication also tend to be more engaged, but there is no evidence to support this conjecture based on the results of this project.

Writing Skills. There were 200 responses to the question "What contributed to differences in your Writing Skills?" As Table 4.32 illustrates, students overwhelmingly (95%) attributed growth in this area to academic or curricular factors. It was not surprising that the two most often cited factors were core writing courses (44%) and the amount or scope of writing required in courses (18.5%) as both these factors are intentionally designed into the institutional curriculum to help first year students achieve intended writing skills outcomes. Of particular note and encouragement to institutional engagement efforts was the fact that over 12% of the respondents mentioned the influence of, assistance from, or personal attention of a specific faculty member in contributing to improved writing skills. In fact, many of the 14% who mentioned factors involving personal change on their part, talked about this in concert with the influence of a faculty member to increase motivation, actual skills, or confidence in their skills.

One student's comment revealed a solid understanding of the purpose of the core:

Challenging English [*sic*] courses, in and out of the major, have helped my writing skills. Also, varied subjects in classes that magically correlate into one another from one department from the next; it's provided good source material for essays and writing assignments.

Finally, there was nothing in any of the responses to suggest explanations for the significant difference in reported writing skill gains between resident and commuter students.

Table 4.32

Factors Contributing to Gains in Writing Skills

	Primary		Secondary	
Factor	*F*	*%*	*f*	*%*
Academic/ Curricular	**190**	**95.0%**	**27**	**13.5%**
Core curriculum writing class	88	44.0%	1	.5%
Required writing/amount of writing required in class	37	18.5%	2	1.0%
Role/Influence of specific faculty	25	12.5%	1	.5%
Effective teaching practices (feedback, peer editing, etc)	19	9.5%	18	9%
Faculty in general	11	5.5%	2	1.0%
Classes in general	9	4.5%		
Increased academic expectations	1	.5%	3	1.5%
Non-Academic/ Co-Curricular	**9**	**4.5%**		
Institutional writing supports	6	3.00%		
Co-curricular involvements	3	1.5%		
Changes in the Student	**10**	**5.0%**	**18**	**9.0%**
Adapting to changing expectations	4	2.0%	3	1.5%
Increased confidence in writing skills	2	1.0%	1	0.5%
Increased effort/motivation	2	1.0%	5	2.5%
Improved writing skills	2	1.0%	6	3.0%
Getting Older/Maturity			3	1.5%
Miscellaneous	**8**	**4.0%**	**1**	**.05%**
Came to college with strong skill	5	2.5%		
No change but actively trying	2	1.0%		
Interest in writing as a career	1	0.5%	1	0.5%

Note. Thematic category totals are bold-faced.

Problem Solving Skills. There were 150 responses to the question "What contributed to differences in your Problem Solving Skills?" As Table 4.33 illustrates, just under half (49%) of the responses cited academic factors as the basis for improvement in problem solving while 34% cited non-academic factors.

In the academic and curricular area, core curriculum math and reasoning courses (25.3%) were the most commonly mentioned factor contributing to skill gain. Students also cited hands on work solving problems in their classes, and the very common first year challenge of managing workload as key factors. For example, one student noted:

> Just being in college level classrooms and being given the freedom of getting my work in on time without always being reminded and kept on top of made me realize that it was up to me to solve my own problems.

For many students, the impact of being in college, living away from home for the first time, and dealing with problems on their own emerged as important factors contributing to gains in the ability to solve problems. The lines between academic problem-solving and solving problems outside the classroom blurred for many who responded to this question. Students indicated that what was learned in one aspect of their life impacted all aspects of their approach to problem solving. For example, students seemed to recognize the need to acquire more robust skills as they were "faced with situations in and out-of-class that require initiative and quick thinking" and navigated "being in a more diverse and a mature world (college)." A few students talked about the interplay between in and out-of-class life working together, as in this comment, "Just getting involved with different organizations and regular everyday life on campus contributed to differences in problem solving skills, whether it was hard homework or problems with roommates."

Table 4.33

Factors Contributing to Gains in Problem-Solving Skills

Factor	Primary		Secondary	
	F	*%*	*f*	*%*
Academic/ Curricular	**74**	**49.3%**	**2**	**1.4%**
Core math/reasoning courses	38	25.3%		
Classes in general	16	10.7%	1	0.7%
Eff. teaching prac/strategies taught in class	10	6.7%	1	0.7%
Prac/exp solving problems in acad settings	8	5.3%		
Increased academic expectations/resp.	2	1.4%		
Non-Acad./ Co-curricular	**51**	**34.0%**	**2**	**1.3%**
Overall collegiate experiences	13	8.7%		
Inc responsibility/independence of college life	12	8.0%		
Exp solving everyday life problems	11	7.33%		
Specific co-curricular involvements	6	4.0%	2	1.3%
Exp solving interpersonal problems	5	3.3%		
A job/working	4	2.7%		
Changes in The Student	**24**	**16.0%**	**4**	**2.7%**
Getting older/maturity	8	5.33%	2	1.3%
Learning to analyze problems/think differently	7	4.7%	1	0.7%
Taking time to consider aspects of a problem	4	2.7%		
Increased self-awareness/understanding	3	2.0%		
Learning from one's own mistakes	1	0.7%		
Increased mental ability to solve problems	1	0.7%	1	0.7%
Student Action/Effort to Change	**23**	**15.3%**	**9**	**6.0%**
Working with others or seeking assistance	12	8.0%	1	0.7%
Recognition of need & acting for oneself	6	4.0%	2	1.3%
Developing steps to manage personal situations better	2	1.3%	3	2.0%
Helping others solve problems	2	1.3%	3	2.0%
Applying lessons learned from others' prob	1	.7%		
Miscellaneous	**10**	**6.7%**		
Came to college with this skill	6	4.0%		
Couldn't explain growth they saw	4	2.7%		

Note. Thematic category totals are bold-faced. Prac = practice; exp = experiences; acad = academic; Prob = problems.

As students described the non-academic factors impacting their growth in problem solving skills, being away from home and living with others emerged as fertile ground for opportunities to practice problem solving and learn related skills that spilled over to other competencies. Students talked of having "to deal with my problems myself and learn how to fix them" or face "situations that needed me to come to a conclusion and grow as an individual." There was evidence that improved problem-solving was also tied to other competencies under study in this project, such as understanding of difference, as seen in this comment: "In the dorms you have to figure things out by yourself or with roommates so you learn to really examine a problem from different sides."

Decision Making Skills. There were 134 responses to the question "What contributed to differences in your Decision Making Skills?" As Table 4.34 illustrates, the majority of factors cited for gains in decision making moved from the academic/curricular theme categories to the non-academic/co-curricular category, with over 50% citing out-of-class factors as a primary reason for growth and another 11% citing them as secondary factors.

Within this theme the majority of factors cited derived from being in college as a first year student, particularly living independently in residence halls and the resulting need to make their own decisions, often about issues they have never faced before. Many comments were similar to those for problem solving, with students recognizing they were responsible for their own lives and that the choices they made would directly impact their futures. One student's comment that "Living on my own forced me to grow up a lot and I

Table 4.34

Factors Contributing to Gains in Decision Making Skills

Factor	Primary		Secondary	
	F	*%*	*f*	*%*
Academic/Curricular	**9**	**9.7%**	**5**	**7.5%**
Classes	5	3.7%	4	6.0%
Faculty/effective teaching	2	3.0%		
Prac/exp in an academic setting	2	3.0%		
Increased academic expectations			1	1.5%
Non-Academic/ Co-Curricular	**68**	**50.7%**	**15**	**11.2%**
Making decisions as result of living independently at college	36	26.9%	3	2.2%
Collegiate environment/new decisions Required	9	6.7%		
Exp making more/important decisions	5	3.7%	7	
Exp making interpersonal decisions	5	3.7%	1	1.5%
Exp making decisions in everyday life	5	3.7%	2	3.0%
Co-curricular involvement	3	2.2%		
Impact of a job/working	3	2.2%	2	3.0%
Exp making decisions in social life	2	3.0%		
Changes in the Student	**33**	**24.6%**	**15**	**11.2%**
Getting Older/Maturity	13	9.7%	1	1.5%
Increased awareness/self-knowledge	8	6.0%	4	6.0%
Learning from own mistakes/poor dec.	5	3.7%	2	3.0%
Learning to take time to think first	3	2.2%	2	3.0%
Recognizing consequences of decisions on self & future	3	2.2%	4	6.0%
Recognizing consequences of decisions on others			2	3.0%
Increased confidence in skills	1	1.5%		
Student action/ effort to Change	**16**	**11.9%**	**12**	**9.0%**
Successfully dealing with peer pressure	7	5.2%	1	1.5%
Working with & seeking assistance from others	4	6.0%	2	3.0%
Taking initiative to manage personal situation(s) better	2	3.0%	6	4.5%
Helping others/learning from others			2	3.0%
Miscellaneous	**7**	**5.2%**		
Came to college with good decision making skills	7	5.2%		

Note. Thematic category totals are bold-faced. Prac = practice; exp = experience; Dec = decision.

learned to make the best decisions for myself," was echoed by many others, with some "going through experiences and [learning from] the consequences of mistakes."

Almost inseparable from comments about learning to making decisions as a result of new collegiate experiences was the role personal growth and decisions to be more deliberative about self and goals played in developing these skills, as they "began to understand [themselves] a little bit better." Sometimes the comments were focused inwardly, as for the student who said, "Knowing who I am makes it easier to make decisions professionally and socially." But some students demonstrated signs of more complex development along the vectors, recognizing the impact their own decision making had on others, such as "having roomates [*sic*] and seeing how others react to certain things you say and do." Students talked of how they "became more aware of people and [their] self discipline had to increase" as they were "compromising and working with many different people with different values."

Finally, a handful of students decided to take action to change their circumstances by seeking assistance from others, in many cases using institutional supports such as learning assistance or the counseling staff.

Self-Knowledge. There were 138 responses to the question "What contributed to differences in your Knowledge of Self?" It was evident in these comments that self-knowledge was strongly interwoven with the other nine competencies in the eyes of many students. As a result, the range of factors cited as contributing to gains in self-knowledge were complex and varied, which can be seen in Table 4.35.

Table 4.35

Factors Contributing to Gains in Self-Knowledge

	Primary		Secondary	
Factor	*f*	*%*	*f*	*%*
Academic/ Curricular	**7**	**5.9%**	**3**	**2.2%**
Classes	3	2.2%	2	1.4%
Learning about interests in a class	3	2.2%	1	0.7%
Faculty/effective teaching	1	0.7%		
Increased academic expectations	1	0.7%		
Non-Academic/ Co-Curricular	**94**	**68.1%**	**22**	**15.9%**
Living independently at college	21	15.2%	3	2.2%
Overall collegiate experiences	15	10.9%	2	1.4%
Getting to know others/make friends	13	9.4%	6	4.3%
Learning about self & interests through others/making friends	11	8.0%	4	3.6%
Specific co-curricular involvements	11	8.0%	1	0.7%
Trying new things in new environment	7	5.1%	1	0.7%
Experiences in everyday life	6	4.3%		
Finding acceptance at college/in friends	5	3.6%		
Interpersonal experiences	2	1.4%	5	3.6%
Changes in the Student	**32**	**23.2%**	**12**	**8.7%**
Getting Older/Maturity	15	10.9%	1	0.7%
Self-acceptance/confidence who they are	8	5.8%	1	0.7%
Increased awareness/self-understanding	5	3.6%	3	2.2%
General sense of personal growth	3	2.2%	4	3.6%
Learning about skills/capabilities through success in new things	1	0.7%	3	2.2%
Student action/ effort to Change	**15**	**10.9%**	**13**	**9.4%**
Self-reflection/Assessing personal strengths/weaknesses/goals	9	6.5%	8	5.8%
Taking steps to redefine oneself	3	2.2%	4	2.9%
Taking action towards goals/imp things	1	0.7%		
Working with & seeking assistance from others	2	1.4%	1	0.7%
Miscellaneous	**7**	**5.1%**		
Came to college knowing oneself	7	5.1%		

Note. Thematic category totals are bold-faced. Imp = important.

Over 68% of the respondents cited non-academic/co-curricular factors, generally related to the new experience of being a college student, while 5% cited academic factors. Nearly 25% of the comments referenced identified personal changes as a primary contributor to increased self-knowledge and roughly 11% cited specific steps taken by students to learn about themselves.

Living independently at college, new experiences and trying new things, and making new friends were the most frequently cited factors in increased self-knowledge. Student comments revealed that they were at various stages in the process of getting to know themselves. Some students spoke of beginning to explore identity, as "being in a new environment brought up questions in my mind," while others reflected on learning "a little more about how I am when I am outside of my comfort zone" or discovering " I [*sic*]have more skills that i [*sic*] never even knew about."

Still others mentioned the opportunity to redefine themselves in a new environment, sometimes intentionally because being in college was a fresh start, as in the student who said "I realized that not many people at college knew me yet . . . and I could make the experience however I wanted it to be," and sometimes because they found their peers were more accepting, allowing them to be themselves, as when "Having an open campus that is accepting to others definitely helped me find myself. I am definitely much better at peace with who I am now because of college."

As suggested by the literature, meeting a diversity of new people challenges students to think about themselves and either reaffirm or adapt their sense of who they are. This oft cited reason for gains in self-knowledge was perhaps summed up best by the student who said "Getting to know a bunch of different kinds of people that I wasn't

exposed to in my hometown in high school allowed me to reflect on myself and find and create myself."

The idea of self-reflection, a key component in developing identity, was seen in many comments, whether directly stated as such or implied. Students talked about spending time alone and engaging in self reflection about their interests, their goals and career aspirations, indicating it was instrumental both to developing a stronger sense of self, and in a few cases, to developing a sense of purpose. For example, one student wrote, "I just thought about what i [*sic*] wanted more in life and i [*sic*] just thought about what i [*sic*] needed to achieve while i [*sic*] was in school." Another said, "Following my first year, I realized what it was that I really wanted in life. I ended up adding a new major to my school plan and changing my concentration in one."

Self-Esteem/Confidence. There were 140 useable responses to the question "What contributed to differences in your Self-Esteem/Confidence?" Respondents overwhelmingly cited factors in the non-academic or co-curricular theme as contributing to their gains in self-esteem/confidence, with over 75% citing one or more as the primary factor and almost 20% as a secondary factor, as seen in Table 4.36.

About 6% of students cited academic or curricular factors. About 25% of the responses referenced changes students saw in themselves as contributing factors, and roughly 20% referred to student actions or efforts that improved self-esteem. As with self-knowledge, the responses to this question frequently referenced other competencies as related to gains in self-esteem/ confidence, i.e., the role of increased self-knowledge, ability to make difficult decisions, or solve personal problems.

Table 4.36

Factors Contributing to Gains in Self-Esteem/Confidence

Factor	Primary		Secondary	
	f	*%*	*f*	*%*
Academic/ Curricular	**13**	**9.3%**	**10**	**7.1%**
Classes/academic success	5	3.6%	2	1.4%
Participating/engaging in classes	4	2.2%	1	0.7%
Faculty support/effective teaching	3	2.1%	6	4.3%
Dealing with tougher acad expectations	1	0.7%	1	0.7%
Non-Academic/ Co-Curricular	**106**	**75.7%**	**26**	**19.3%**
Making friends/building peer support network	50	30.7%	6	4.3%
Support and/or feedback from others	13	9.2%	1	0.7%
Specific co-curricular involvements	12	8.6%	3	2.1%
Overall success in collegiate exps	11	7.9%	3	2.1%
Finding acceptance at BSU	10	7.1%	4	2.9%
Living independently at college	8	5.7%	2	1.4%
Having fun/participating/social life	5	3.6%	4	2.9%
A job/working	2	1.4%	1	0.7%
Trying new things in new environment	1	.07%	3	2.1%
Experiences in everyday life	1	0.7%		
Changes in the Student	**18**	**12.9%**	**16**	**11.4%**
Accepting self/caring less about others' opinions	6	4.3%		
Increased awareness/self-understanding	5	3.6%	5	3.6%
Getting Older/Maturity	4	2.9%	3	2.1%
Learning about skills/capabilities through success in new things	3	2.1%	3	2.1%
Inc confidence in own abilities/skills			5	3.6%
Student action/ effort to Change	**17**	**12.1%**	**9**	**6.4%**
Taking action towards goals/increased self- motivation	5	3.6%	4	2.9%
Taking steps to define or redefine self	4	2.9%	3	2.1%
Dealing with personal challenges or peer pressure successfully	7	2.9%	1	0.7%
Working with & seeking assistance from others	1	0.7%	1	0.7%
Miscellaneous	**4**	**2.9%**		
Came to college self-confident	4	2.9%		

Note. Thematic category totals are bold-faced. Acad = academic; exps = experiences; inc = increased.

Looking at the non-academic factors contributing to self-esteem/confidence, it was not surprising to find that making new friends, often a new student's biggest fear; the ability to build a strong, supportive peer network; and being accepted at the university were the most commonly cited contributors in over one third of the responses. Disengaging from parents and living independently at college, students who successfully get past the "hog on ice" feelings, find supportive peer networks, and achieve social and academic success gain confidence as their emotional independence grows (Chickering and Reisser, 1993).

For some, improved confidence came from decreased reliance on family, reflected in comments such as "The fact that I was still successful even when my parents were not there to help with everything that I had to do." For others, it emanated from the changes they saw in themselves and the steps they had taken to ensure their own success. For example, one student said,

> Doing well in school and not going out to party when my friends do helped my build my self confidence because I know that I will succeed in the end. I also learned how to stick up for myself and others while living on my own.

These signs of growing self-confidence and increased autonomy were not isolated, as comments seen in comments like "To be able to have confidence n [*sic*] yourself and high self-esteem because no one can bring you down and know that you can achieve anything" and

> I never thought I was attractive in high school and I was wicked awkward. . . . Now I can walk up to a group of strangers and introduce myself. I have gotten over caring what other people think. This is who is [*sic*] [I] am and if someone doesn't like it then they don't have to be friends with me.

Although the number of responses that cited academic factors was small (just over 9%), it is noteworthy that these comments did not just cite students' own academic success as contributing factors. An equal number of students referenced the role of "great professors" who "wanted to teach and wanted me to succeed" and "Getting good-positive feedback as well as constructive criticism from Professors [*sic*] and mentors who truly cared for me." This may provide some evidence for the institution that the commitment to maintain small class sizes for first year students, particularly in the core curriculum, is fostering the increased student-faculty engagement intended.

Finally, although no statistically significant gains in self-esteem/confidence were found as the result of involvement in meaningful activities, a few students cited their involvement as the only contributing factor to increased self-confidence, including joining Greek life, community service, being part of an athletic team, and for one student, being chosen after an audition to perform in a theater show.

Ability to work well in a team. There were 117 useable responses to the question "What contributed to differences in your Ability to Work Well in a Team?" As Table 4.37 illustrates, the responses were fairly equally split between the academic and non-academic themes, with 55% of responses citing academic factors contributing to gains in ability to work in a team and almost 60% citing non-academic contributing factors. Respondents seemed to have a clearer sense of specific contributing factors for gains in this competency as compared to their responses in some of the previous areas. There was a tendency to emphasize factors as having equal priority, and as a result the number of secondary factors was relatively small. The most commonly cited academic factor contributing to teamwork, mentioned by 34% of those who answered this question, was

Table 4.37

Factors Contributing to Gains in Ability to Work Well in a Team

	Primary		Secondary	
Factor	*ƒ*	*%*	*ƒ*	*%*
Academic/ Curricular	**65**	**55.6%**	**3**	**2.6%**
Group work experiences in class(es)	40	34.2%	2	1.7%
Core courses/classes in general	23	19.7%		
Faculty/effective teaching	2	1.71%	1	0.9%
Non-Academic/ Co-Curricular	**70**	**59.8%**	**4**	**3.4%**
Specific co-curricular involvements	36	30.7%	2	1.7%
Clubs/organizations	14	12.0%		
Being part of an athletic team	12	10.3%		
Community service	7	6.0%		
Taking a leadership role	3	2.6%		
General exp working w/others on campus	16	13.7%		
Exp living & working w/others in residence	7	5.7%	2	1.7%
Working w/strangers in groups	4	3.4%		
A job/working	4	3.4%		
Exp working with others towards goals	3	2.6%		
Changes in the Student	**9**	**6.8%**	**2**	**1.7%**
Recognition that own success is dependent on others	4	3.4%		
Increased awareness/self-understanding	5	4.3%	2	1.7%
Miscellaneous	**12**	**10.3%**		
Came to college able to work with others in a team	12	10.3%		

Note. Thematic category totals are bold-faced. Acad = academic; exps = experiences; inc = increased.

group work experiences in academic settings, including group work required in and out of classes for projects, and to a lesser extent working in study groups. However, most of these respondents did not make the connection between this group work and their own success, only that it improved their skill level. Only a few students demonstrated signs of understanding their interdependence with others, such as the student who said, "I learned

that in college there are many group projects and in order to get a good grade you have to work well with the people around you."

Many of those who cited academic group work as a factor for improved teamwork skills also cited non-academic factors as equally important. Thirty percent of respondents talked about specific co-curricular involvements including student organizations, being part of athletic teams, doing volunteer work and taking on a leadership role for a group, which may be related to the impact of involvement on overall scores in ability to work with others in a team. There was more evidence in these responses about involvements as factors that the students appreciated their interdependence with others, as they spoke of "being with so many different kinds of people striving for similar goals" and how "being in clubs helped [them] learn that we can all share the work load to work more efficiently." A smaller number of students spoke of their experiences living in residence as lessons in working well with others. For example, "Having to work with my roommates, seeing as I have never shared a room in my life, and I went from living alone in a room to living with three other girls in one room."

In general, although the participants attained statistically significant gains in this competency area, the overall tenor of the responses indicated that most did not yet fully grasp the significance of this particular skill to their current or future success.

Understanding of Difference. There were 139 useable responses to the question "What contributed to differences in your Understanding of People Who are Different From You?" As Table 4.38 illustrates, students overwhelming credited their gains in this area to experiences outside the curriculum. Over 85% of the responses described factors in the co-curricular theme, predominately listing those related to being exposed to,

Table 4.38

Factors Contributing to Gains in Understanding of Difference

	Primary		Secondary	
Factor	*f*	*%*	*f*	*%*
Academic/ Curricular	**20**	**14.4%**	**4**	**2.9%**
A specific class/class(es)	11	7.9%	3	2.2%
Diversity in classes/learning from diverse others	9	6.5%	1	0.7%
Non-Academic/ Co-Curricular	**120**	**86.3%**	**7**	**3.5%**
Bridgewater's diversity	28	20.1%	2	1.4%
Getting to know diverse others on Campus	28	20.1%		
BSU diversity as first real exposure to others who are different	18	12.9%		
Living with diverse others	18	12.9%		
Specific out-of-class experiences	9	6.5%	1	0.7%
Overall exp in & out of class	6	4.3%		
Friendships with diverse others	5	3.6%	2	1.4%
Intentional campus programming	5	3.6%		
A job/working	1	0.7%		
Changes in the Student	**16**	**11.5%**	**9**	**6.5%**
Learning to work with and from diverse others	7	5.0%	3	2.2%
Recognition that everyone is different/difference is normal	4	2.9%	2	1.4%
Getting older/more mature	2	1.4%		
Increased awareness/self-understanding	1	0.7%	4	2.9%
Finding common ground w/diverse others	2	1.4%		
Miscellaneous	**16**	**11.5%**		
Already had skill from exps in diverse schools/ neighborhoods	9	6.5%		
Came to college understanding diff	7	5.0%		

Note. Thematic category totals are bold-faced. Exp(s) = experience(s); diff = difference.

getting to know, working with, and living with diverse others on a campus they saw as significantly more diverse than their hometown neighborhoods and schools. Almost 13% of respondents said Bridgewater provided their first real exposure to diverse others. Some talked about being "sheltered" before coming to BSU, or needing to "adjust" to those who were different. One student said it best in her comment that "College popped my small town bubble."

Many of these responses seemed to imply a basic understanding or acknowledgement that the world is more diverse than students had previously thought, and that they were experiencing some dissonance about this fact. For example, students often mentioned "them" when referring to people who looked or thought differently than they did, and in discussing living with diverse others one student wrote, "Getting to know people that are different from me. Living with one. [*sic*]"

A few others made comments that suggested learning to work with diverse others had positive impacts on them beyond just learning to work with different types of people, including forming friendships and finding common ground. This is seen in comments like "There is a lot of diversity at bridgewater [*sic*], and interacting with them changed things for me" and "Being in an enviroment [*sic*] where there are many differences in race, sexuality and culture, but still having things in common and becoming good friends." A very few showed evidence of integrating their new realizations about diversity into a different way of seeing people as a whole, as in this response, "I've always been empathetic but college is a huge melding pot of culture, religion, differences and similarities. It helped me learn that you can be whoever you want to be as long as you're happy :)."

About 14% of the responses spoke about how students improved their understanding of people who are different through an array of classes in which diversity was discussed or in which they learned from diverse others through discussions in class, while about 4% mentioned co-curricular intentional programming as contributing factors. Given that diversity is both a core learning outcome of the institution and a strong student affairs focus area, more responses of this nature were expected. The responses did, however, demonstrate that the community's broad definition of diversity was recognized as students spoke of race, ethnicity, culture, religion, political beliefs, sexual orientation, and ability as aspects of diversity they learned to understand better.

Finally, about 12% of responses indicated that students felt they came to the institution with strong ability in this competency, with 7% explaining that they came from very diverse neighborhoods and schools, which is a reflection of the areas from which the institution draws its students.

The quantitative findings revealed that the gains of on-campus residents in this competency were statistically higher than those of commuters and the factors described by students help to explain this finding, even though the responses were not analyzed by residency status. The preponderance of factors contributing to gains in understanding of difference occurred outside the classroom. Residents spend more time on campus out-of-class than their commuter peers, interacting with the diverse student population, particularly in the residence halls.

Self-Responsibility. There were 113 useable responses to the question "What contributed to differences in your Self-Responsibility?" These responses were consistent with and provided some insight into why this was the competency with the highest

overall mean scores. As Table 4.39 illustrates, almost 20% of respondents indicated that they came to college with a strong sense of responsibility for self. In addition, only 56% of the responses pointed to external factors in the themes of academic/curricular (almost 9%) and non-academic/co-curricular (almost 47%) as contributing to their reported gains.

Of the non-academic factors cited, the majority focused on experiences that forced students to stand on their own, apart from parents, as they lived independently and learned to be successful college students. They spoke of "realizing that you can't blame others for things you didn't do," "no one to fall back on except yourself," and "facing up to mistakes." The sense of personal reflection, coming to grips with dissonance and an understanding of their own autonomy was more evident in the responses to this question than in any other. One student's response particularly illustrated the level of self-reflection seen in the answers to this question, even in those who talked of coming to college already possessing a strong sense of personal responsibility:

> I have always been good at owning up to my faults. I realize that the above question about Understanding People who are Different than Myself shows a fault in my beliefs and behaviour, [*sic*] and I accept that. This is a function of me being taught to be unfailingly honest. Thanks Dad.

Almost 40% of the respondents addressed changes in themselves through increased self-awareness, the recognition that adults take responsibility for themselves, and "that . . . in the real world no one is going to take responsibility for something that you do wrong." Although a few students simply said they were afraid to get in trouble, the overwhelming majority demonstrated both an understanding of their own accountability to themselves and not just to others.

Table 4.39

Factors Contributing to Gains in Self-Responsibility

	Primary		Secondary	
Factor	*f*	*%*	*f*	*%*
Academic/ Curricular	**10**	**8.8%**	**4**	**3.5%**
A specific class/class(es)	3	2.7%		
Inc academic requirements, workload & expectations	5	4.4%	3	2.7%
Faculty/effective teaching	2	1.8%	1	0.9%
Non-Academic/ Co-Curricular	**53**	**46.9%**	**15**	**13.3%**
Living independently at college	24	21.2%	5	4.4%
Not having parents/others to rely on & take responsibility for them	9	8.0%	3	2.7%
Inc resp/expectations as college student	4	3.5%	4	3.5%
Being held accountable by others	3	2.7%	1	0.9%
Concern for getting in trouble	3	2.7%		
Interpersonal exps with roommates	2	1.8%	1	0.9%
Co-curricular involvements	2	1.8%	1	0.9%
Assistance from others	2	1.8%		
Everyday experiences	2	1.8%		
A job/working	1	1.8%		
Changes in the Student	**44**	**38.9%**	**18**	**15.9%**
Learning to be resp for own mistakes	10	8.9%	2	1.8%
Realization that no one else can be resp for you/your success	8	7.1%	4	3.5%
Increased awareness/self-understanding	8	7.1%	2	1.8%
Realization that adults assume resp	5	4.4%	3	2.7%
Getting older/more mature	5	4.4%	1	0.9%
Finding values/ own boundaries/ sense of integrity	4	3.5%		
Recognizing impact of actions on self and/or others	3	2.7%	4	3.5%
Miscellaneous	**22**	**19.5%**	**1**	**0.9%**
Came to college self-responsible	22	19.5%	1	0.9%

Note. Thematic category totals are bold-faced. Exp(s) = experience(s); resp = responsible.

Community Involvement. There were 113 useable responses to the question "What contributed to differences in your Community Involvement?" As Table 4.40 illustrates, over 70% of the responses cited co-curricular factors as contributing to increased involvement. Over 40% of the respondents mentioned involvement in one of the institution's intentional involvement efforts as a primary contributing factor, with student clubs and organizations and organized community service the most frequently cited. The frequency with which these factors were cited, and student's discussions about the value placed on service in campus organizations, provides some evidence that the institution's strategic goal of fostering civic engagement is being operationalized in out-of-class experiences. That the message is being heard by some students is evident in this remark, "I have always liked being involved, but the college community kind of pushes student involvement and it made me realize just how important it is to try and involve myself with my community."

Although only mentioned in 7% of the responses, there was also evidence that service infused in the curriculum is having an effect. As an example, one respondent wrote, "One class required community service and I enjoyed it, so I would like to get more involved this year."

The student who said "At the moment I am a contributor for the campus newspaper, armed with more knowledge about political science and how to do research and interviews in order to ensure that I write decent articles" demonstrated the potential connections between the curriculum and community involvements.

Table 4.40

Factors Contributing to Gains in Community Involvement

	Primary		Secondary	
Factor	*f*	*%*	*F*	*%*
Academic/ Curricular	**8**	**8.2%**	**1**	**1.0%**
Service learning as part of a course	3	3.1%		
Faculty/effective teaching	2	2.0%	1	1.0%
Service as tie to career goals	2	2.0%		
Class(es)/a specific course	1	1.0%		
Non-Academic/ Co-Curricular	**71**	**72.4%**	**17**	**17.3%**
Specific co-curricular involvements:	40	40.8%*	8	8.2%*
Clubs/organizations	*15*	*15.3%*		
College sponsored community service	*12*	*12.2%*	*3*	*3.1%*
Being part of an athletic team	*6*	*6.1%*		
Fraternities/sororities	*4*	*4.1%*		
Taking a leadership role	*2*	*2.0%*		
Service as value of group joined	*1*	*1.0%*	*5*	*5.1%*
Influence of people/offices on campus	8	8.2%	3	3.1%
Scope of available inv opportunities/ size of community	7	7.1%		
As means to meet people on campus	6	6.1%	2	2.0%
A job/working	4	4.1%		
Attending events/activities on campus	2	2.0%	3	3.1%
BSU's message about value of inv	1	1.0%	1	1.0%
To counteract homesickness/replicate HS involvements missed	1	1.0%	1	1.0%
Changes in the Student	**14**	**14.3%**	**12**	**12.2%**
Recognition that involvement is important to self & community	5	5.1%	3	3.1%
Desire to maximize college experience	3	3.1%		
Motivation to make a difference	2	2.0%	2	2.0%
Making effort to put self out/engage	2	2.0%	1	1.0%
Being involved generated more interest	1	1.0%	2	2.0%
Doesn't like inactivity	1	1.0%	1	1.0%
Getting involved was fun			3	3.1%

| | | Primary | | Secondary |
Factor	*f*	*%*	*F*	*%*
Impediments to Involvement	**7**	**7.1%**	**3**	**3.1%**
Inability to continue past involvements	5	5.1%		
Challenges of commuting/other resp	2	2.0%		
Nothing of interest			2	2.0%
Belief opportunities are open enough			1	1.0%
Miscellaneous	**6**	**6.1%**	**1**	**1.0%**
Has always been involved in community	6	6.1%	1	1.0%

Note. Thematic category totals are bold-faced. * Represents total of individual involvements lists below in italics. Inv = involvement; resp = responsibilities.

A number of responses included comments on the value of community involvement for students themselves, that "involvement makes me feel more included and wanted," and the larger community, "I realized Ineed [*sic*] to make a difference." Some of those who talked about wanting to be more involved almost spoke with a level of guilt, as in this example, "I didn't [*sic*]do much in the community, and i [*sic*]still don't but i'm [*sic*] going to start," which indicates the message is being heard. However, many students talked of impediments to involvement, such as commuting, being an on-campus resident without a car, outside responsibilities, jobs, and not being able to continue high school engagements or find good alternatives. Many of the challenges mentioned have been identified in other research done on campus, and may provide some insight into the finding that on-campus residency had statistically significant impact overall community involvement scores.

The quantitative findings revealed a number of between group effects related to community involvement. Gender, residency and involvement in meaningful activities all had a statistically significant effect on overall scores for community involvement, with

men reporting higher mean scores than women, residents reporting higher mean scores than commuters and involved students reporting higher mean scores than uninvolved students. This is consistent with the literature, but the only finding from this question that might explain any one of these effects relates to the comments which discuss commuting and other responsibilities as impediments to involvement. Exploring the impact of and the factors impacting community involvement are ripe for further study in a future project.

Qualitative Analysis Summary

The qualitative findings of this study provided explanations for the growth identified in the quantitative data that was consistent with Chickering and Reisser's (1993) vector theory, demonstrating that students frequently identified links between experiences in their first year collegiate lives that helped them develop academic and social competence, as well as a stronger sense of their identity and connection to others. The data revealed collective growth in the first three vectors which these authors' suggest are most relevant to first year students, while also providing evidence of growth further along the vectors for a number of students. The participants' explanations also illustrated that a number of students had begun the journey down the path to self-authorship, recognizing their own role in shaping who they are and how they will live their lives. Although most students in the sample were still exploring these questions, and were at the crossroads described by Baxter Magolda (2004, 2008), a few indicated through their explanation that they had begun to find their inner voices and build inner foundations that would guide their continued journey.

This data also revealed consistent experiences and environmental influences in and out of the classroom during the first year that had impacted growth in multiple competencies. Although the comments focused on individual competencies, a number of them served to illustrate the interconnectedness of growth across competencies, and vectors, that are indicative of the more holistic nature of student development. Factors for growth cited by the respondents indicated several strong elements of the institutional environment that have been shown to promote positive growth.

This study generated a significant amount of data about first year student growth and student perceptions about the factors affecting their growth. In Chapter 5, these results will be summarized and their implications for both practice and additional research will be discussed.

Chapter 5

Discussion and Implications

The purpose of this mixed methods concurrent nested project was to study how the first year experiences of college students at a regional public four year university impacted their personal and social development in 10 identified competency areas, as perceived by these students upon completion of their first year, and to understand what types of first year experiences contributed to any reported developmental gains. More specifically, the aim of the project was to understand how students perceived their growth in these competencies over their first year and to understand what experiences contributed to any reported growth. The project provided institution specific information about first year student experiences to guide institutional practice, while also contributing to the knowledge base about first year student psychosocial development.

Chapter 5 presents a brief review of the background literature pertinent to the purposes of this project. It then presents a summary of the methodology employed in the study followed by a review of the findings by research question. The qualitative data from research question five were merged into the findings for research questions 1a through 1j to provide insight into how first year experiences contributed to the reported gains. Following this section, the chapter continues with a summary of the major findings and an interpretation and discussion of these findings. This is followed by a discussion of implications for practice, particularly within the research site, concluding with recommendations for future research based on the findings and the limitations of the study.

Background

Evidence from decades of research on student development indicates that the college experience has profound and lasting effects on students' cognitive and personal development. Further, this research has demonstrated that the first year of college "lays the foundation on which undergraduate education is built" (Alexander & Gardner, 2009) and that student experiences during the first year "shape the amount and nature of student change and learning" throughout the collegiate experience (Reason et al., 2007). Evidence discussed by Pascarella and Terenzini (2005) suggests that over two-thirds of a student's cognitive development and knowledge acquisition occurs during the first two years. This development has been shown to be in direct proportion to students' engagement in the formal and informal curriculum with faculty, staff and other students (Astin, 1993; Kuh et al., 2005; Reason et al., 2006). Although evidence also suggests that this engagement contributes significantly to psychosocial development in the first year, there is actually little empirical evidence to support this conclusion (Pascarella & Terenzini, 2005; Reason et al., 2007).

Despite the lack of empirical evidence, numerous studies have identified connections between students' reported gains in social and personal competence in the first year and the variety of factors within the collegiate environment that influence these gains, although few studies provided evidence of causal relationships between growth and specific environmental influences (Kuh et al., 2006; Pascarella & Terenzini, 2005; Reason et al., 2007; Zhao & Kuh, 2004). This led Reason et al. (2007) to undertake a multi-institutional longitudinal study of NSSE data from 6700 students to determine factors within and across institutions that impacted social and personal growth. One

factor was found to cross all institutions, an environment that is perceived to support students (Reason et al., 2007). Factors that significantly impacted individual growth during the first year, included: (a) students' perceptions of the supportiveness of their institution's environment; (b) the emphasis their courses placed on higher-order thinking skills; (c) the emphasis their institution placed on student interactions with diverse people and ideas; (d) a collective student perception that faculty and staff were supportive of their academic, social and personal needs; (e) out of class engagement; and (f) academic challenge (Reason et al., 2007).

Review of the Methodology

The methodology employed in this study was the mixed methods concurrent, nested design approach in which quantitative and qualitative data were collected simultaneously in one phase (Creswell & Plano-Clark, 2007). Quantitative data were predominant, while qualitative data were secondary, providing richer information with which to explore the findings obtained from the primary data (Creswell, 2003). A web-administered survey, the Sophomore Survey, was created by the researcher and administered to sophomores at the research site who had successfully completed their first year as full-time students at the research site. A total of 340 students meeting the sample criterion completed the quantitative portion of the survey for a response rate of just under 35%. The respondents were statistically representative of the population by residency and racial or ethnic diversity, and approximately representative by gender. Respondents self-reported their entry-level (EL) and current level (CL) skill in each of the 10 competencies, as well as demographic data and rates of participation in meaningful activities during the first year. Respondents also completed open-ended questions

providing data about the factors they believed contributed to their growth in each of the 10 individual competencies: speaking skills, writing skills, problem-solving skills, decision-making skills, self-knowledge, self-esteem/confidence, ability to work with others who were different, teamwork, self-responsibility and community involvement. The number of respondents answering these questions ranged from 29% to 59% based on the competency.

Quantitative data were analyzed to answer the four quantitative research questions; qualitative data were analyzed to identify broad categorical themes and specific factors identified by respondents as contributing factors to their growth. The data were presented separately in chapter four and are discussed and merged in this chapter to provide a more holistic picture of first year development and experiences at this institution relative to the literature and related research findings.

Review and Discussion of the Findings

The findings are summarized by research question, with a brief discussion linking the results to related literature and existing research. The quantitative results for research questions 1a to 1j are presented first, with the related qualitative findings from research question 5 included with each question. Results for research questions 2 through 4 follow. This is followed by a discussion of the findings in a more holistic manner, relative to student development theories and research linking growth to collegiate environmental factors.

Research Question 1a. Do sophomore students report differences in CL speaking skills as compared to their EL speaking skills? To what do respondents attribute any reported gains? Findings from the paired samples t test identified

statistically significant gains in speaking skills from the first to the second year of college at $p < .01$. This was the competency in which students' mean scores showed the second greatest gain from first to second year, which cannot be explained from the literature, although the fact that only 2% of the respondents indicated they came to college with strong speaking skills may provide some explanation.

Over 88% of the 184 responses offering feedback about contributing factors to improved speaking skills cited factors in the academic or curricular category, with the top two being "core curriculum communication classes" and "required speaking and/or presentations in a class." These two factors are frequently cited in the literature as important to developing speaking skills. In addition, less frequently mentioned factors that spoke of faculty engagement and feedback to improve were consistent with Astin's (1993) finding that student-centered faculty contributed to overall academic development, as well as the links Reason et al. (2007) found between growth and student perceptions of faculty caring about their academic needs.

Almost 30% of the responses cited contributing factors in the non-academic or co-curricular category, with the predominant cause being "getting to know people and making friends." The fact that all first year students are starting over in a new environment forces them to reach out to others and improve their communication skill, an important interpersonal competency (Chickering & Reisser, 1993). Only 5% of the responses mentioned the role of out-of-class involvement in promoting speaking skills, which Astin (1993) and Pascarella and Terenzini (2005) both cited as a key non-academic factor.

Finally, only a small percentage of responses (12%) mentioned factors indicative of personal change or development, with increased confidence in self and skills being foremost in this category. While students recognized that their skills had increased and could point to specific environmental factors, only a few linked this growth back to changes in their perceptions about themselves.

Research Question 1b. Do sophomore students report differences in CL writing skills as compared to their EL writing skills? To what do respondents attribute any reported gains? The findings from paired samples *t* tests identified statistically significant gains in writing skills at p < 0.01. Students overwhelmingly attributed their growth in this area to their academic work, with over 95% of the 200 responses offering feedback about contributing factors cited factors in the academic or curricular category. The top academic factor, mentioned in over 40% of the responses, was "core curriculum writing classes," while "required writing assignments and/or the amount of writing required in classes" was the second most cited factor in 32% of responses. Both these factors have been consistently been shown to improve writing skills.

The third and fourth most commonly cited factors were mentioned much less frequently, with just over 12% citing that "the influence or role of a specifically named faculty member" and just over 9% citing "effective teaching practices in the classroom, including feedback" as contributory factors to improved writing. However, this finding is particularly important given that it provides evidence about the nature of student-faculty interactions in first year classrooms, as well as the perceptions these students had that their professors cared about their success and needs. A faculty culture that prompts

students to say "my teacher was always encouraging," "he took the time to get to know us as individuals and our individual writing techniques" and "she . . . never failed to make sure her students succeeded" is indicative of a key environmental factor shown in the research to be one of the strongest links to cognitive and psychosocial development (Reason et al., 2007). It provides evidence that the institutional efforts to increase first year student support are proving effective for many of these students.

Only 5% of student responses mentioned personal change factors, which centered on adapting to changing expectations and increased confidence. Just over 2% of the responses indicated that students felt they came to college with good writing skills.

Research Question 1c. Do sophomore students report differences in CL problem-solving skills as compared to their EL problem-solving skills? To what do respondents attribute any reported gains? The findings from the paired samples *t* test identified statistically significant gains in problem-solving skills, at $p < 0.0$. The ability to use reason to analyze problems and think critically about strong and weak arguments are important signs of increasing cognitive complexity, and research has shown the effect of college on increasing these skills (Pascarella & Terenzini, 1991). The finding of significant gains in this study sample is consistent with the literature indicating that students attain nearly two-thirds of their cognitive development in the first two years of college (Pascarella & Terenzini, 2005).

Almost half of the 150 responses offering feedback about contributing factors to improved problem-solving skills cited factors in the academic or curricular category, while 34% cited non-academic factors, and over 31% of responses cited factors associated with personal change. This range of responses may well be a sign of

increasing complexity in students' thinking, as they considered the diverse avenues that provided opportunities to acquire these skills in their first year. The specific factors cited were somewhat diffused, with only two factors, both in the academic category, mentioned in more than 10% of the responses: "core math or reasoning classes" and "classes in general." This is consistent with existing research that gains in problem-solving are closely tied to courses designed to teach quantitative reasoning skills (Kuh et al., 2006; Pascarella & Terenzini, 2005).

Although the remaining factors were each mentioned less than 10% of the time, several were consistent with what was expected from the literature, including "the overall experience of being in college;" "increased expectations and associated freedoms of college;" and "experience solving a broad range of academic and personal problems as a college student." Chickering and Reisser (1993) suggested that the sense of competence is subjective, coming from the way students feel about their accomplishments, and how well they think they have solved problems. The responses citing personal change factors bore this out, revealing increasing cognitive complexity ("learning to think more analytically" and "taking time to consider various aspects of a problem") and increasing autonomy ("deciding to take action," "seeking assistance from others," and "helping others with problems").

Research Question 1d. Do sophomore students report differences in CL decision-making skills as compared to their EL decision-making skills? To what do respondents attribute any reported gains? The findings of the paired samples t test identified statistically significant gains in decision-making skills, at $p < 0.01$. This skill is closely tied to problem-solving skills, since the decisions first year students must make

often address problems they solve as a result of their new environment. Some students

believed their decisions are better when they used analytical processes to make them ("I

make more logical decisions now and i [*sic*]think everything through a bit more"), further

tying together the connection between these two competencies. The researcher found

very little available associated decision-making as a competency in the research literature

on psychosocial development; much of this work has been done in the area of moral

reasoning, which was not addressed in this study.

The 134 responses offering feedback about contributing factors to improved

decision-making shifted dramatically from the academic or curricular category (under

10%) to the non-academic or co-curricular category (over 50%). The top factor cited was

"the need to make decisions as a result of living independently in college," which was

mentioned in just under 27% of responses, and has consistently appeared in the literature

as an important growth experience for first year college students. Chickering and Reisser

(1993) suggested that decision-making is a complex process, that often involves the need

for college students to begin to work interdependently with others, like roommates, group

project partners, and peers in clubs and organizations. This was supported by the list of

related factors associated with the new kinds of academic, social and personal decisions

students were required to make in college that were also mentioned as contributing

factors.

Approximately 35% of the factors cited were in the personal change category, and

included "increased self-awareness," "learning from and recognizing the consequences of

their mistakes and those of others," and "working with or seeking help from others," all

of which were also found by Chickering and Reisser in their research. Nearly 12% of

these answers indicated that students had taken conscious steps to act on their behalf to create a personal change. Nearly 10% of responses indicated that students felt just "getting older or maturing" contributed to their improved decision-making skills.

      Research Question 1e. Do sophomore students report differences in CL self-knowledge as compared to their EL self-knowledge? To what do respondents attribute any reported gains? The findings of the paired samples t test identified statistically significant gains in self-knowledge, at $p < 0.01$. This finding indicated that self-knowledge was the area in which students reported the second highest level of growth. Perhaps this is because, as Chickering and Reisser (1993) suggested, the formation of identity could be described as the coming together of the earlier vectors as students develop or become aware of their competencies, values, and emotions, and move through autonomy to interdependence. Although Pascarella and Terenzini (2005) found very little evidence in the literature to explain how college contributed to positive growth in self-knowledge, they concluded that research overwhelmingly proved that it did have a positive effect on student's self-concepts and identity, independent of simply getting older or maturing. One student comment summed this up well "The whole experience [*sic*] of college just causes you to learn about yourself."

      As expected, over 68% of the 138 responses offering feedback about contributing factors to improved self-knowledge cited factors in the non-academic or co-curricular category. The top five factors were "living independently at college;" "overall experiences as a college student;" "getting to know others and making friends;" "learning about themselves and/or their interests through the process of getting to know others;" and "specific co-curricular involvements." These responses were consistent with the

theories of Chickering and Reisser (1993) and Astin (1993), and supported by the research summarized by Kuh et al. (2006) and Pascarella and Terenzini (2005).

Just under 24% of the responses cited specific factors in the personal change category, indicating the students recognized changes in themselves or the efforts they had make to create personal change. The top two factors in these categories, mentioned 5% of the time or more (which was high for this question), were factors associated with developing identity, "self-reflection and assessment of strengths, weaknesses, and goals" and "self-acceptance and/or increased confidence in their own identity."

The literature suggests first year students may experience a decline in self-understanding that reverses in the second year (Kuh et al., 2001), but only one response showed indications that a student was actually less sure of who s/he was after the first year. Perhaps only students who experienced positive change made comments, and those who did not refrained from offering feedback, but in light of the magnitude of change reflected in the scores, and evidence from the comments, the researcher believes environmental factors may have come into play. Specifically, the overall student perception that faculty and staff cared about their well-being and needs and the institution's push for students to embrace diverse others (Reason et al., 2007), which was consistently reflected in comments on this and other competencies. Ten percent of the comments indicated that students attributed increased self-knowledge simply to getting older or maturing.

Research Question 1f. Do sophomore students report differences in CL self-esteem/confidence as compared to their EL self-esteem/confidence? To what do respondents attribute any reported gains? The findings of the paired samples *t* test

identified statistically significant gains in self-esteem/confidence, at $p < 0.01$, which was also consistent with the research cited in the literature and linked to environmental influences and experiences with peers and faculty in that environment (Pascarella & Terenzini, 2005; Reason et al., 2007) Although the research shows that academic and social self-esteem both increase in college, over 75% of the 140 responses offering feedback about contributing factors for increased self-esteem or confidence mentioned primary factors from the non-academic or co-curricular category. By far, the top factor mentioned, in over 30% of responses, was "making friends and building peer support networks," consist with Astin's finding that peers and peer groups had the greatest influence on college students of all factors impacting growth.

This factor was followed by six others, mentioned in 10% to 5% of the responses, including: "support or feedback from others (including faculty);" "specific co-curricular involvements;" "being successful in the first year of college;" "being accepted for who they were at the institution;" and "living independently at college." These factors all appeared in the research as important contributors to positive academic and social self-esteem (Astin, 1993; Chickering and Reisser, 1993; Kuh et al., 2007; Pascarella & Terenzini, 2005).

Twenty-five percent of the responses specifically mentioned personal change factors as reasons for improved self-esteem. Top among those were "accepting themselves and caring less about what others thought;" "increased self-awareness or understanding;" "taking steps or action towards their own goals;" "taking steps to redefine themselves;" and "successfully dealing with challenges, including peer pressure." Although only cited between 3% and 5% of the time as primary, these factors

were additionally cited as secondary factors, and the tenor of the comments clearly indicated that these changes were recognized by students as the result of other more tangible factors or experiences within the collegiate environment. They reflected the "growing sense of self-worth" and "self-love" that Chickering and Reisser (1993, p. 200) suggests will enable students to move to stability and integration, more at peace with their inner self.

Research Question 1g. Do sophomore students report differences in CL ability to work in a team as compared to their EL ability to work in a team? To what do respondents attribute any reported gains? The findings of the paired samples *t* test identified statistically significant gains in ability to work in a team at p < 0.01. The 117 responses providing feedback about contributing factors to improved teamwork cited factors in both the academic or curricular category (nearly 56%) and the non-academic or co-curricular category (nearly 60%) almost equally, while many cited reasons in both categories as equally important. Two academic factors cited most frequently were "group work experiences in classes," which was mentioned in 34% of responses and "classes, including specific core courses," mentioned in 20% of responses. Once again, the effect of working with others academically has been found to have a positive impact on improving students' abilities to work with others, as cited from the early research of Astin (1993) to the more recent work of Reason et al. (2007).

One co-curricular factor, "specific co-curricular experiences," was cited in over half the responses in this category, with particular experiences in clubs and organizations, athletic teams, and community service work mentioned repeatedly, all of which were found to have strong impacts in previous research (Astin, 1993; Kezar & Moriarty, 2000;

Kuh et al., 2006; Pascarella & Terenzini, 2005). Two additional factors of note were "working with others on campus" and "experiences living with and working with others in residence," with the latter factor consistently cited as having a strong influence on personal and social growth in college.

Students were less likely to notice the effects of these experiences on their personal growth than they had been with the self-knowledge and self-esteem/confidence competencies. Just 7% of responses cited a personal change factor, while over 10% indicated the student felt s/he came to college with this skill already.

Research Question 1h. Do sophomore students report differences in CL understanding of people who are different as compared to their EL understanding of people who are different? To what do respondents attribute any reported gains**?** The findings of the paired samples *t* test identified statistically significant gains in understanding of people who are different at $p < 0.01$. The overwhelming majority of research has shown increased "cultural awareness" (Astin, 1993) or valuing racially/ethnically diverse others to be one of the most significantly impacted attitude/value or competency in college, as well as one of the most studied in recent years (Kuh et al., 2006; Pascarella & Terenzini, 2005). The positive effects of college on this competency have been shown for all races and ethnicities, and positive growth in this area has also been shown to impact other competencies under study in this project, including self-knowledge (Pascarella & Terenzini, 2005).

Of the 139 responses offering feedback about contributing factors to increased understanding of difference, the overwhelming majority (86%) mentioned factors in the non-academic or co-curricular category. The top two factors, cited over 20% of the time,

were "the institution's diversity" and "getting to know diverse others on campus," with students including an array of diversity, such as sexual orientation and socio-economic class, not just racial or ethnic difference. Two other non-academic factors cited in almost 13% of responses, were that "the institution offered students their first real exposure to people who were different" and "living in a residence hall with diverse others" These latter two findings are consistent with those reported by Hu and Kuh (2003, as cited in Kuh et al., 2006).

In contrast to all of this, almost 12% of the responses indicated students felt they came to college with this competency, with more than half saying their schools or neighborhoods were more diverse than the institution. Fourteen percent of responses cited academic experiences as contributing to their understanding of difference, an area that the literature suggests should be higher to promote stronger gains. Only 11% mentioned a personal change factor associated with their increased skill in this competency. The overall comments indicated that many students were only just beginning to think about diversity and to accept that diverse people and ideas had validity, although a few students expressed feelings indicative of genuine celebration of difference, both in others and as a means to be free and secure in their own difference. The comments did, however, reinforce the fact that students perceived that the institution had expectations for them to engage with diverse others and be open to diverse ideas, one of the key factors cited by Reason et al. (2007) as linking to strong first year growth in personal and social competencies.

Research Question 1i. Do sophomore students report differences in CL self-responsibility as compared to their EL self-responsibility? To what do respondents

attribute any reported gains? Findings from the paired samples *t* test identified

statistically significant gains in self-responsibility at p < 0.01. Less than 60% of the 113

responses offering feedback about contributing factors to increased self-responsibility

included factors in either the non-academic or co-curricular category (47%) or the

curricular category (9%). The top two cited non-academic factors were "living

independently at college" and "not having parents to assume responsibility for them."

The remaining factors in this category were cited less than 5% of the time, but they

illustrated the full range of development in this area, with a few students showing signs

that they were not ready to be autonomous ("fear of getting in trouble") and a few others

showing growth further along the vectors, beginning to develop purpose ("finding their

own boundaries and a sense of integrity"), and with most falling somewhere in between.

Nearly 40% of the responses cited personal change factors as major contributors

to their gain in self-responsibility, providing a rich illustration of the wide range of

personal development taking place in this sample over their first year of college. Factors

cited included: "recognition that adults accept responsibility for themselves;" "the

realization that only they could be responsible for their own success;" and "recognition of

the impact their actions had on themselves and others."

Nearly 20% of those responding said they felt they came to college already

willing to accept responsibility for themselves. This rate was nearly twice as high as the

next highest competency, which was consistent with the quantitative data indicating that

self-responsibility was the highest rated competency on average, with the smallest mean

difference from the first year to the second. Moriarty's (2011) study conducted on the

same on-campus residential population found in this study's population also revealed

relatively high levels of autonomy and willingness to be self-responsible. The high

percentage of students from low-come and first generation college families may have had

some impact on where students placed themselves upon entry to college. Many of these

students work more than 20 hours a week to pay for school and comments from other

sections of the Sophomore Survey indicate that they feel a burden to be successful in

college due to the investment their families are making, which may help explain these

results, but that is a subject for further research.

Research Question 1j. Do sophomore students report differences in CL

community involvement as compared to their EL community involvement? To what

do respondents attribute any reported gains? The findings of the paired samples *t* test

identified statistically significant gains in community involvement at $p < 0.01$, despite

being low overall. Increased community involvement is indicative of engagement with

and integration into the campus community, which can manifest itself in multiple ways.

We know from the literature that it is a key contributor to student learning and

persistence, as cited many times throughout this dissertation, and given the high first to

second year retention rate at this institution (82%), gains in involvement were anticipated.

Over 72% of the 113 responses offering feedback about contributing factors

toward increased community involvement cited factors in the non-academic or co-

curricular category, and over half of these referenced "specific co-curricular

involvements," including clubs and organizations; college sponsored community service;

being on an athletic team; and fraternities and sororities, all of which were expected from

the existing research. Two other factors cited in this category provided evidence that the

college environment's support of engagement played a part in involvement gains,

specifically "the influence of people or offices on the campus" and "the scope of different opportunities available." These comments provide evidence that institution messages and efforts are working, and have strong implications for practice that will be discussed later in this chapter.

Only 8% of responses mentioned academic factors, most notably "the role of service learning in a course or chosen career path." Only 14% of the responses referenced personal change factors, while over 7% mentioned impediments to community involvement, most notably challenges that commuting or personal responsibilities posed.

Research Question #2a. Does gender have any effect on gains found for any of the 10 competencies? Findings from the one-way repeated measures ANOVAs found no significant effect of gender on the gains for men or women in any of the 10 competencies. This is not consistent with some of the literature. Women are more likely to experience greater gains in self-esteem than men as a result of college (Pascarella & Terenzini, 2005). Pascarella and Terenzini also cited some evidence that women may be more open to diversity than men in the first year.

There was one between-group effect found for gender. Specifically, women reported higher overall scores for community involvement both as entering first year students and as sophomores. Kuh et al. (2006) and Pascarella and Terenzini (2005) both found that women are more likely to become engaged in college than men, and both sets of researchers noted that the gains women experienced in self-esteem were in part the result of their involvements, particularly in community service. Given that the women in this sample began college more involved and remained more involved than men at the conclusion of the first year may help explain why no within-group differences were

found between the genders on any of the competencies. However, caution must be taken in generalizing these findings to the population because the sample was not statistically representative of the FY2009 student cohort.

Research Question #2b. Does residency have any effect on gains found for any of the 10 competencies? The repeated measures ANOVAs found only one significant effect of residency on reported gains from the first to the second year. Residency was found to have an effect on understanding of those who are different, at $p < .05$. Resident students reported significantly higher gains in understanding of difference after the first year than their commuting peers, which was supported by the qualitative data citing experiences in campus residence as contributing to gains in this competency area. In addition, the effect of on-campus residency approached significance at $p = .061$ for self-knowledge, although the higher gains reported by on-campus residents were not significant, as was expected from the literature. Again, the qualitative data provided explanation for the near significance based on the comments students made about learning about themselves living away from home with diverse others. The literature had led the researcher to suspect differences would be found on self-esteem, self-responsibility, ability to work with others, and community involvement, but they were not.

However, the finding from the between-group ANOVAs may provide some explanation. A statistically significant impact of campus residency on overall community involvement scores at the $p < .01$ was found. Although no significant difference in gains from first to second year were found between residents and commuters, students living on campus reported higher EL and CL community involvement scores. The only possible

explanation the researcher can offer for this may come from the qualitative data and will be discussed later in this chapter.

Also, although not significant, residency effects on overall ability to work in a team approached significance at $p = .066$, with resident scores for EL and CL teamwork approaching a significantly higher mean than their commuter peers. This will also be discussed in the implications for the practice section of the chapter.

Research Question #2c. Does racial or ethnic diversity have any effect on gains found for any of the 10 competencies? The ANOVAs revealed no statistically significant differences in reported gains over time for students from racial or ethnic diversity groups for any of the 10 competencies. No between-group effects were found for any competency either. The lack of findings may have strong implications for the institution, based on the research suggesting that institutional support and effects to fully engage students of color can have mitigating effects on cognitive and psychosocial growth and persistence that has been shown to be higher for white students than for racially or ethnically student populations. This will be discussed in the section on implications for institutional practice.

Research Question #3a. Do students who report involvement in at least one meaningful activity during the first year report higher overall skill gains across the 10 competencies? Findings from the repeated measures ANOVA revealed no statistically significant difference in the cumulative gains across the competencies between the involved group and the uninvolved group at $p < .05$. Contrary to what the literature suggests, involvement in meaningful activities during the first year did not have an effect on the gains students realized after their first year in college.

Research Question #3b. Do students who report involvement in at least one meaningful activity during the first year report higher skill gains in any of the 10 competency areas? Findings from the 10 repeated measures ANOVAs revealed no statistically significant difference in gains for any of the 10 competencies between the involved group and the uninvolved group at $p < .05$. Contrary to what the literature suggests, involvement in meaningful activities during the first year did not have an effect on any of the competency gains students realized after their first year in college.

However, the ANOVAs did reveal significant between-group effects of participation in meaningful activities on overall EL and CL scores for speaking skills, ability to work in a team, and community involvement, at $p < 0.5$. Students who became involved in meaningful activities in their first year reported significantly higher scores on speaking skills, teamwork and community involvement than their uninvolved peers both as entering first year students and at the start of their second year. In addition, the between group effect of involvement on overall self-esteem/confidence scores approached significance at $p = .057$. The researcher would suggest that higher perceived skills in these competencies at the start of college might indicate a pre-disposition to becoming involved, but further research would be required to explain this finding.

Research Question #3c. Do students who report greater involvement as measured by their number of meaningful activities report higher overall gains between EL and CL skill scores across the 10 competencies? The results of the repeated measures ANOVA revealed no statistically significant difference in the cumulative gains of involved students based on their number of meaningful involvements

at $p < 0.5$. The number of involvements students participated in had no effect on cumulative gains over the first year of college.

Research Question #3d. Do students who report greater involvement as measured by their number of meaningful activities report higher gains between EL and CL skill scores in any of the 10 competencies? The results of the repeated measures ANOVAs indicated no significant difference in gains of involved students in any of the 10 competencies based on their number of meaningful involvements at $p < 0.5$. The number of involvements during the first year had no significant effect on first to second year gains reported by involved students in any competency.

However, significant between-group differences were found on overall scores in speaking skill and community involvement across the four involvement groups. Post hoc tests on the ANOVA for speaking skill showed that overall EL and CL scores for students with three involvements were significantly higher than those for students with two involvements. Post hoc tests on the ANOVA for community involvement indicated that the overall EL and CL scores for students with only one involvement were significantly lower than the overall scores for students in the other three groups. No explanations for this can be provided based on the scope of this study.

Research Question #4a. Does gender have any effect on student participation in University-identified meaningful activities? There was no statistically significant difference in participation in meaningful activities between men and women, at $p < 0.5$. Gender did not have any effect on student involvement in meaningful activities. Once again, this finding is not consistent with the literature on involvement and engagement

that indicates women are more likely to become engaged in college, although the findings

may not be reliable given the sample did not statistically represent the population.

Research Question #4b. Does residency have any effect on student

participation in University-identified meaningful activities? There was a statistically

significant difference in participation in meaningful activities between residents and

commuters, at $p < 0.5$. This finding is consistent with the literature and research

indicating that living on campus has a positive effect on student involvement in

meaningful activities. This is inconsistent with the finding that residency had no

significant effect on gains in community involvement. Pilot studies indicated that

students understood community involvement to mean involvement in the campus

community in a variety of ways. The conflicting findings may however indicate that

actual involvement in tangible activities is not the same as a general student perception of

engagement with the community. This could have serious implications for practice,

which will be discussed further later in this chapter.

Research Question #4c. Does racial or ethnic diversity have any effect on

student participation in University-identified meaningful activities? The findings

from the ANOVA revealed a statistically significant difference in participation in

meaningful activities between white students and students of color, at $p < 01$. Contrary to

the literature on student engagement indicating that students of color were less likely than

their white peers to be engaged, this study revealed the opposite. First year students of

color were significantly more likely than their white peers to become involved in

meaningful activities. This finding may be attributable to the explanations offered earlier

in this chapter about the institution's supports provided to students of color and the

implications will be discussed further in the section on implications for institutional practice.

Caution must be taken in generalizing this finding, however, because although the sample was representative of population of color at the institution, the *n* was still very small (*n* = 40). This study did not control for any pre-entry student characteristics, nor did it consider the effect of campus residency for students of color, due to the small sample size. However, the findings that there were no significant between group differences for students from racially or ethnically diverse groups for any of the competencies or on involvement in meaningful activities may provide evidence to support a conclusion that current institutional practices are in fact effectively reaching this segment of the student population. Additional longitudinal study and qualitative exploration would be required to determine if this trend is in fact a direct result of current practices, and not just an anomaly.

Discussion of Findings Relative to Overall First Year Psychosocial Development

Pascarella and Terenzini's (1991, 2005) reviews of decades of research about college students led them to conclude that even with a tremendous volume of information about how college affects students, information about first year outcomes in psychosocial development is highly segmented and incomplete. They noted that "students change in holistic ways" through "multiple influences in both the academic and nonacademic domains" of their lives, and that these lives in and out of the classroom are "interconnected in complex ways we are only beginning to understand" (p. 602). One student's comment in this study illustrated this point well, as s/he said, "Everything about being in college. The freedom, responsibility, classes, friends, roommates, and even the

issues I had with friends and roommates and classes" contributed to increased self-knowledge.

A growing number of researchers have been working over the past decade to understand how these complex aspects of experiences and institutional influences affect first year students' psychosocial development. Terenzini and Reason (2005) suggested that the effect of these experiences on student development is often subtle, and may be neither "catalytic nor even immediately apparent to the individual student" (p. 11), but that when we study the impact of these influences, they are treated in a "highly segmented and often discrete fashion" (p. 12), which provides only a partial picture of development. Pascarella (2006) concurred, calling for more mixed methods research that seeks to understand the processes or mechanisms that cause a program or intervention to be effective in creating desired student change.

Nonetheless, it is difficult to study the impact of student experiences on personal and social development and to gain an understanding of how those experiences contribute to growth without identifying variables and examining them in discrete segments, as can be seen from the existing research. This project is no different in that the researcher chose 10 specific dependent variables deemed to be important social and personal outcomes, examining growth in each one. However, by adding a qualitative element to the project that gave students permission to cite any factor in or out of the classroom, or elsewhere in their lives, that influenced their growth in each competency, the researcher hoped to be able to bring the findings back together in a way that would provide a more holistic picture of how the respondents developed over their first year.

This study was able to identify some themes that wove throughout the students' comments and which tied to the literature, but did not establish as clear a picture of the holistic development as the researcher had hoped. Using Chickering and Reisser's (1993) vectors, Baxter Magolda's (2004) theory of self-authorship, and Reason et al. (2007) NSSE derived findings about factors in the institutional environment that influence first year development of social and personal competence, this section provides a summary of the findings from this study as they tie to existing thought about student development in the first year.

As seen in the results, the first year students in this sample realized significant gains over their first year of college in all 10 of the competencies under study. The researcher anticipated that students would recognize and report growth in these competencies, based on Chickering and Reisser's (1993) theory postulating that college students will develop social and academic competencies, learn to manage their emotions, and move through autonomy towards interdependence during their first year. The qualitative data not only provided evidence of growth that occurred in these three vectors, but also suggested that many students experienced growth in the fourth and fifth vectors, developing more mature interpersonal relationships and establishing identity, and that some students even showed signs of developing purpose the sixth vector.

These comments shared by students about their growth in individual competencies provided explanations that aligned with Chickering and Reisser's (1993) theory and findings, as well as those across the literature. Students not only described improvements in competence in individual skills which they were able to associate with specific influences or factors, but their comments also illustrated that many contributing

factors also had effects across multiple competencies. For example, as one student wrote, "Doing well in school and not going out to party when my friends do helped my build my self confidence because I know that I will succeed in the end. I also learned how to stick up for myself and others while living on my own." This explanation illustrated growth in decision-making, self-confidence and self-knowledge, and aligned with all the first three vectors.

Student comments provided evidence of the influence environmental factors had on their growth, particularly in areas of intellectual competence. Chickering and Reisser (1993) elaborated on the importance a purposeful educational environment with faculty engagement to promote development. Reason et al. (2007) linked a number of environmental factors to first year social and personal competence gains, and the comments of students in this study illustrated the importance of two of these factors, a supportive campus environment and the perception of a caring faculty staff, to their personal and social growth, as well as their growth in intellectual competence. For example, the following comments are a few of dozens of assertions about how these factors influenced both improved cognitive skills (speaking and writing) and improved psychosocial skills (self-knowledge, self-esteem/confidence): "Getting good-positive feedback as well as constructive criticism from Professors [*sic*] and mentors who truly cared for me" and "I met so many individuals who helped boost my confidence." Also, the number of specific faculty members cited by students as spending time to help them improve their skills and be successful also illustrated that there is a strong peer culture perception at the institution that the faculty is willing to engage with them as individuals to help them succeed.

Students reported growth in understanding of people who are different and working well with others in a team that also provided insight into how classroom and co-curricular experiences contributed. Their comments in these areas also illustrated the ways in which growth in these areas also contributed to improved self-knowledge and self-esteem, as Pascarella and Terenzini (2005) reported in the literature. For example, comments like "My social science classes (especially anthropology and the one about social problems) have enlightened me as far as the behavior of others goes. COMM 130 also helped to raise my awareness of the risks of ethnocentricity" and "Getting to know . . . different kinds of people . . . allowed me to reflect on myself and find and create myself" showed the interconnection between these multiple competencies.

There was also evidence in these types of comments that students were asking the key questions Baxter Magolda (2004) asserts will lead to self-authorship, specifically: "How do I know?" "Who am I?" and "How do I want to relate to others?" The number of references that students made to the use of self-reflection; spending time alone to get know who themselves and what they wanted; and with whom they wanted to associate provided evidence that some students were taking steps down this path. This was further illustrated by comments indicating that students recognized that they alone had responsibility for their success, both as a student and in the future when they graduated. Some students expressed elements of their inner beliefs that illustrated they were building the blocks needed to author their own lives (Baxter Magolda, 2008). However, these comments were not made by the majority of students and have implications for institutional practice going forward.

The existing data, when viewed across competencies for each respondent, did provide glimpses into student insights about their overall experiences and growth, some of which revealed holistic connections. However, because these responses were voluntary, and not all respondents answered every question, the data were still too discrete to go beyond these broad generalities. The study provided more data about first year experiences than the institution has had previously, but still does not fully establish a picture of holistic development in the first year. Instead, it provides evidence that first year students are actively engaged in an array of experiences that are fostering growth in psychosocial competencies, and that they understand this growth is happening and what is contributing to it. To foster increased growth that would enable faculty and staff at the institution to become true partners who can assist students in becoming the authors of their own life as early as possible in their college careers, additional information is needed to confirm some of these findings and link them in more tangible ways.

Summary of Conclusions

This study sought to understand how college sophomores at a four-year public institution in Massachusetts perceived their personal development during the first year of college and to identify what types of experiences contributed to any reported gains in the 10 competencies under study. It also sought to identify any differences in competency development based on gender, residency, and racial or ethnic diversity, factors which have traditionally been associated with differential levels of growth in the literature on student development. The aim of the study was to connect what is known about social and personal gains at the national level with the experiences of students at the research site to inform institutional practice. Consequently, the conclusions reached from this

study apply to the research site and this first year cohort, although the study could be easily replicated at other institutions.

The conclusions reached by the researcher regarding the research questions are as follows:

- Students reported statistically significant growth in speaking skills; writing skills; problem-solving skills; decision-making skills; self-knowledge; self-esteem/confidence; ability to work with others in a team; understanding of people who are different; self-responsibility; and community involvement from the first year to the second year.

- There were no significant differences between men and women in reported gains on any of the competencies. This result may not be representative of the full cohort due to underrepresentation of men in the sample.

- Campus residency had an effect on reported gains in understanding of difference, consistent with the literature. After the first year of college, on-campus residents reported statistically higher gains in their understanding of others who were different from them than their commuting peers did.

- Campus residency also had a between group effect on community involvement, with on-campus residents reporting higher overall scores than their commuting peers on community involvement both as entering first year students and at the start of their sophomore year.

- Students who identified as being from racially or ethnically diverse groups had no significant effect on reported gains in any of the competencies. This finding is in contrast with the literature.

- Contrary to the literature, involvement in University-identified meaningful activities had no significant effect on reported gains in the competencies, either cumulatively or individually.

- Also in contrast to the literature, gender had no significant effect on participation in meaningful activities, although the composition of the sample may make this finding suspect.

- Campus residency had a significant effect on involvement in meaningful activities, with residents reporting involvement at significantly higher rates than their commuting peers.

- Racial or ethnic diversity had a significant effect on involvement in meaningful activities. The effect was in contrast to the literature, with students of color reporting involvement at significantly higher rates than their white peers, which has major implications for practice.

- For involved students, there were no significant effects on reported gains in the competencies, either cumulatively or individually, based on the number of involvements they reported.

- In contrast, involvement in University-identified meaningful activities did have significant between group effects on overall scores for speaking skills, ability to work in a team, and community involvement, with involved students reporting higher overall scores on EL scores as entering first year students and CL scores at the start of the sophomore year in these three competencies.

- Overall scores for community involvement also revealed two additional between group effects. Women and on-campus residents reported higher

overall community involvement scores on this competency both as entering first year students and at the start of the sophomore year.

- The qualitative data revealed that experiences in both the academic and non-academic aspects of students' lives impacted their gains in the competencies. For each competency, students reported varying levels of impact for each type of factor.

- Academic factors predominated in the acquisition of speaking skills and writing skills, with core curriculum courses intended to teach these skills, frequency of practice, effective instruction and individual faculty attention most commonly credited with reported gains.

- Non-academic factors predominated in the acquisition of decision-making skill, self-knowledge, self-esteem/confidence, understanding of difference and community involvement. The factors were more diverse than the academic factors, but most notable were the experience and responsibilities of being a new college student; getting to know others and building a peer support network; living independently; taking time to reflect on self, interests, and goals as part of getting to know others; and co-curricular involvements.

- Factors in both the academic and non-academic aspects of students' lives contributed about equally to the acquisition of problem-solving skills and the ability to work with others in a team. In both realms, the experience of doing these things, learning from mistakes and building on successes that contributed to growth.

- Students' comments demonstrated strong levels of personal change, including examples of their own efforts to create those changes, in five competency areas: problem-solving, decision-making, self-knowledge, self/esteem/confidence, and self-responsibility.

- Finally, there was strong evidence in student comments that the institution had created several environmental factors that recent research from NSSE results has linked to positive personal and social growth. This included: (a) an environment students perceived to be supportive; (b) an overall peer perception that faculty and staff care about student needs; and (c) a student perception that interaction with diverse others and ideas is important.

Implications and Recommendations

This study attempted to examine psychosocial growth in first year students at the research site and to understand student experiences contributing to this growth. It was in part successful in providing the university with important information about its first year students and their psychosocial growth, as well as providing information about the differences between different segments of the population, based on residency, gender, and racial or ethnic diversity . The study also provided valuable data about the experiences and environmental factors contributing to student growth in the various competencies.

The implications of this project are predominately local implications, providing potential evidence of successful practice and suggestions for improving practice to promote greater student success. While the findings cannot be generalized beyond the research site, the study does contribute to the knowledge base about first year student

development and contributing factors. It also offers an instrument, the Sophomore

Survey, which can be used beyond the research site with relative ease and modification.

This section will discuss the implications for practice at the institution, as well as

recommendations for future research.

Implications for Practice. Overall, the findings from this survey have positive

implications for the practice of the research site. The results provide strong evidence of

first year student growth in all the psychosocial competencies measured in this study, and

that significant growth is being achieved by students regardless of their gender, living

status during the first year, or membership in a racially or ethnically diverse group on

almost all competencies. Further, the study results provided exciting information about

the experiences of students of color. While national studies have consistently shown this

population to be less engaged at PWIs (Kuh et al., 2006), the students of color in this

sample were found to be engaged in meaningful activities at significantly higher rates

than their white peers, which suggests that intentional institutional efforts to promote

such engagement on this campus are working. Finally, the study provided specific

feedback about environmental factors which indicate the institution has successfully

established some elements with the environment and campus culture that research

suggests will promote engagement, persistence and personal development in first year

students.

The study revealed that the sample grew in all 10 competencies, indicating that

the educational experiences of first year college students at the university helped to foster

psychosocial growth that these were able to identify. However, although all students did

report gains in the 10 competencies, there was evidence that not all student sub-

populations were achieving the same level of growth in all competencies, in part because they initially entered the university with lower scores in these competencies. It stands to reason then, that by successfully engaging these student populations in meaningful activities or intentionally designed experiences, the institution may be able to promote levels of development that could mitigate for lower first year entry skills and eliminate the gaps in these skills for these populations as sophomores.

Another implication of the findings might be that the institution has not correctly identified all of the experiences that prove to be meaningful for its students. Despite low overall engagement in these university-identified meaningful activities, and the finding that this involvement did not have the anticipated positive effects on gains in the competencies, there was still evidence that students did feel connected and engaged with the institution. The results for community involvement revealed that all students experienced gains in this competency, which suggests that they found involvement through other avenues than those designed to intentionally foster it, including strong peer engagement and strong engagement with faculty. The institution may need to examine these engagements further and find ways to replicate them for the population segments that still had lower overall community involvement scores.

The study provided the institution with evidence that some of its intentionally designed efforts to deliver messages to new students are working effectively, particularly in the areas of diversity, engaging with the community and the increased academic rigor of college. Students' recognition of the wide range of diversity, not just differences that are visible, and their comments about specifically designed institutional efforts to promote interaction and learning from diverse others, mentioned the role of orientation in

helping them to think about difference, as well as multicultural clubs and programs. That orientation is their first experience with the campus, occurred immediately after high school graduation, and was still cited more than a year later speaks positively of the campus efforts to clearly articulate expectations around diversity early on and that those efforts are in fact effective.

On the other hand, the study findings for student of color engagement have quite promising implications for the institution. Contrary to national trends, students of color in this sample appear to be significantly more engaged in meaningful activities than their white peers. This appears to provide some evidence that institutional efforts to intentionally craft experiences to promote engagement in this population are effective. The Center for Multicultural Affairs (CMA) provides students with a critical "cultural space" students of color at PWIs need to promote their social integration in the first year (Guiffrida, 2003). Through this space, students have the chance to connect with others like themselves; connect to faculty outside the classroom, particularly faculty of color; and to become involved in formal activities on campus like multicultural student organizations (Brown, 2006; Fisher, 2007; Guiffrida, 2003; Harper, 2006). Understanding this, the institution connects with its students of color prior to the start of the first year, encouraging their engagement with the CMA, its associated student organizations, and its first year peer mentoring program, LINKS. As part of this program, students are also introduced more broadly to campus resources and services to foster a greater sense of comfort engagement with the wider community beyond CMA.

In addition, the institution's five year Nellie Mae Foundation grant to promote student success for underserved student populations established an institution-wide

committee to promote best practices in and out of the classroom, including a pilot of a faculty-staff mentoring program targeting students of color, among others, in which the FY2009 cohort participated. Assessment evidence from this program also revealed strong success at engaging students in at least one meaningful activity through the one on one mentoring provided. There may be implications to argue for increased resources to serve the growing population of students of color given that these efforts are working.

Also, this study finding suggests that effective practices with students of color may be replicated successfully with other underserved groups, such as students who are first in family to college. Over time, this could provide the same results and insure their engagement, growth and persistence.

The study finding that commuters were significantly less likely to participate in meaningful activities, as is the national norm, has implications for practice given that almost two-thirds of the student population commutes at this institution. Comments made in the responses about this competency indicated that commuters believed they faced barriers to involvement, including long commutes, outside jobs and other responsibilities, despite expressing a desire to do so. This is an area of practice ripe for improvement. Efforts must be made to identify possibilities for engaging these students in new ways that work for them, perhaps starting in the classroom. Given the indications that students generally perceived their professors as caring, and the environment as supportive, and the fact that the classroom is the one common place commuters all meet (with the exception of the parking lot!), the opportunities appear strongest in this venue.

Finally, consistent with the literature, first year student experiences living independently and encountering diverse others for the first time provided ample

opportunity for these students to grow in several competencies, which they recognized and discussed. Although some students described personal changes resulting from their experiences, the majority of students did not consistently include descriptions of how the experiences contributing to growth actually created these changes. This may have been the result of the wording for the question, which did not explicitly state that they should describe the personal change, only what contributed to it, but some of the rich comments that respondents offered, leads the researcher to believe those who did not describe change may not have internalized its impact.

As a result, there may be implications that the institution must more intentionally foster discussions about first year experiences which could assist students to understand the growth they are experiencing in more meaningful ways. With more intentional conversations, practitioners can begin to encourage self-authorship in these first year students by helping them to answer the questions their experiences raise, and to begin to trust their inner voice.

This could happen in residence in the first-year learning communities that do exist and by establishing other such communities, as well as through floor programs with RAs to take advantage of the peer influence factor. For commuters, in particular, this can happen through conversations with academic advisors, through core curriculum classes, or through the establishment of more first-year mentoring programs. The evidence from the study indicated that students perceived the environment to be supportive of them, and the design of more intentional partnerships to guide students on their self-discovery would likely be welcomed, could promote increased growth, and even lead to greater participation in campus engagement opportunities.

Implications for Further Study. This study attempted to examine psychosocial growth in first year students at the research site and to understand student experiences contributing to this growth. It was in part successful in showing that the sample grew in all 10 competencies, and that with few exceptions, there was little difference between the various segments of the population. It also provided clear reasons for growth, as perceived by these students, which can be enhanced and used intentionally to promote additional growth for first year cohorts in the future. It also provided an instrument that other institutions can adapt and use to assess the experiences in their own environment.

There are a number of implications for further study drawn from what the study found, what it did not find, and what it did not explore. The researcher has the following suggestions for future study:

1) This study did not control for any variables that may have impacted the findings. Given the number of significant between- group findings based on the demographic variables and the lack of significant effect these variables had on actual gains, further study that examines other random or interactional variables is warranted. This is particularly true with regards to gender given that the sample was not statistically representative.

2) The lack of significant effect of involvement on the competency gains contrary to overwhelming evidence in the literature to the contrary suggests the need to reconsider what is meaningful to this population and measure additional forms of involvement in additional studies. These could include things like academic involvements, although many formal ones are limited for

first year students, as well as working on campus. The latter could be examined in connection with campus residency.

3) Additional follow-up with individuals or focus groups is needed to more fully understand the interaction of the experiences across the variables, and the connections students make between gains in the various competencies. This qualitative approach would serve multiple purposes. First, it could lead to a more holistic understanding of personal development over the first year. Second, it would provide improved assessment of the specific elements in the environment that students see as supportive and those that could be enhanced. Finally, it could provide information about the specific experiences and environmental factors that are fostering higher rates of involvement in students of color.

4) Longitudinal study of multiple first year cohorts is needed to verify the findings of this study, particularly the findings that are not consistent with national norms, such as the higher level of involvement by students of color. This would also provide opportunities to examine changing elements within the environment that increase or detract from its effectiveness in promoting personal and social development in first year students.

5) The data could be compared to the most recent institutional data from NSSE to triangulate some of the findings and increase their validity. This would need to be done with a cohort that takes both surveys, which occurs only once every three years at this institution.

6) Finally, the researcher recommends that other institutions use the Sophomore Survey, adapting the identified experiences and possibly the outcomes measured, to examine first year growth on their own campuses. This would allow for additional information that could contribute to the knowledge base about the first year.

Study Conclusion

This study sought to investigate how college sophomores perceived their personal development during the first year of college and to identify whether several factors had any effect on developmental gains. It also sought to understand what first year experiences were perceived by participants to have contributed to any reported gains. The findings revealed that first year students at the research site attained significant growth in all 10 of the competency areas under investigation and that gender and racial or ethnic diversity did not impact these gains, while living on campus during the first year had an effect on one competency, understanding of difference.

Further, the study revealed that as sophomores, the participants were able to identify specific experiences that contributed to their growth in each competency area and consistent with the literature, the contributing factors were both curricular and co-curricular in nature. Perhaps, most exciting to the institution under study is that finding that students from racially and ethnically diverse backgrounds reported engagement in intentionally designed involvements at rates higher than their white peers, providing evidence that institutional practices to engage these students are proving effective.

The institution will be able to use these findings to reinforce those practices which are proving effective and possibly extend them to other segments of the population to

improve gains and success in the first year. Finally, this project has the potential to be replicated at other institutions, thereby offering a cost-effective and easily conducted method to assess student learning and evaluate first year initiatives.

References

Abrams, L., & Trusty, J. (2004). African American's racial identity and socially desirable responding: An empirical model. *Journal of Counseling & Development, 27,* 365-374.

Alexander, J., &. Gardner, J. (2009, May-June). Beyond retention: A comprehensive approach to the first college year. *About Campus, 14*(2), 18-26.

Antonio, A.L. (1999). Racial diversity and friendship groups in college: What the research tells us. *Diversity Digest 3*(4), 6-7, 16.

ASHE-ERIC. (2003). Identity development in diverse populations [Electronic Version]. *ASHE-ERIC Higher Education Report*, *29*(6).

Astin, A. (1977). *What matters in college?* San Francisco: Jossey Bass.

Astin, A. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Development, 25.* 297-308

Astin, A. (1993). *What matters in college? Four critical years revisited*. San Francisco: Jossey Bass.

Astin, A. (1996, March/April). Involvement in learning revisited: Lessons we have learned. *Journal of College Student Development, 37*(2), 123-134.

Astin, A. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development, 25.* 297-308 (Reprinted from 1984).

Barefoot, B. (2000). The first-year experience: Are we making it better? *About Campus 4*(6), 12-18.

Barefoot, B., Gardner, J., Cutright, M., Morris L., Schroeder, C., Schwartz, S., et al.

    (2005). *Achieving and sustaining institutional excellence in the first year of*

    college. San Francisco: Jossey-Bass.

Baxter-Magolda, M. B. (1992). *Knowing and reasoning in college: gender related*

    patterns in students' intellectual development. San Francisco: Jossey-Bass.

Baxter Magolda, M. B. (2001). *Making their own way: Narratives for transforming*

    higher education to promote self-development. Sterling, VA: Stylus.

Baxter Magolda, M. (2003, March/April). Identity and learning: Student affairs role in

    transforming higher education. *Journal of College Student Development, 44*(2),

    231-247. doi: 10.1353/csd.2003.0020

Baxter Magolda, M. B. (2004). Learning partnerships model: A framework for promoting

    self-authorship. In M. B. Baxter Magolda & P. M. King (Eds.), *Learning*

    partnerships: Theory and models of practice to educate for self-authorship (pp.

    37-62). Sterling, VA: Stylus.

Baxter Magolda, M. (2008, July/August). Three elements of self-authorship. *Journal of*

    College Student Development,49(4), 269-284. doi: 10.1353/csd.0.0016

Baxter Magolda, M. (2009a, November-December). The activity of meaning making: A

    holistic perspective on college student development. *Journal of College Student*

    Development, 50(6), 621-639. doi: 10.1353/csd.0.0106

Baxter Magolda, M. B. (2009b). Promoting self-authorship to promote liberal education.

    Journal of College & Character, X(3), 1-5.

Belenky, M., Clinchy, B., Goldberger, N., & Tarule, J. (1985). Epistemological

    development and the politics of family talk. *Journal of Education, 167*(3), 9-27.

Bensimon, E. M. (2004). The diversity scorecard: A learning approach to institutional change. *Change, 36*(1), 44-53.

Berger, J. B. (2002). The influence of organizational structures of colleges and universities on college student learning. *Peabody Journal of Education, 77*(3), 40-59.

Bergerson, A. A., & Huftalin, D. (2011, July/August). Becoming more open to social identity-based difference: understanding the meaning college students make of this movement. *Journal of College Student Development, 52*(4), 377-395.

Blimling, G. (1999, September/October). A meta-analysis of the influence of college residence halls on academic achievement. *Journal of College Student Development, 40*(5), 551-561.

Bowman, N. (2010, March/April). The development of psychological well-being among first-year college students. *Journal of College Student Development, 51*(2), 180-200. doi: 10.1353/csd.0.0118

Braxton, J. (2003). Student success. In S. R. Komives, D. B. Woodward, and Associates (Eds.), *Student services: A handbook for the profession* (pp. 317-338). San Francisco, CA: Jossey-Bass.

Bridgewater State University Office of Institutional Research & Assessment. (2011). *Fall 2011 enrollment and retention report to the Board of Trustees.* Bridgewater, MA: Bridgewater State University

Bridgewater State University Office of Institutional Research & Assessment. (2010). *Bridgewater State University Factbook 2009-2010.* Bridgewater, MA: Bridgewater State University

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design.* Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1979). The ecology of cognitive development: Research models and fugitive findings. In R.H. Wozniak and K.W. Fisher (Eds), *Development in context: Acting and thinking in specific environments* (pp. 3-44) Hillsdale: NJ: Erlsbam.

Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage

Brown, C. (2006). The impact of campus activities on African American college men. In M. J. Cuyjet & Associates (Eds.), *African American men in college* (pp. 47-67). San Francisco, CA: Jossey-Bass.

Campbell, C. (1997). Self-esteem in context: a case study of the motivational processes underlying social identity construction by township youth. *Psychology in Society (PINs), 22,* 20-36.

Chang, M. J. (1999). Does Racial Diversity Matter? The Educational Impact of a Racially Diverse Undergraduate Population. *Journal of College Student Development, 40*, 377-395.

Chavez, A. F., & Guido-Brito, F. (1999). Racial and ethnic identity development. *New Directions for Adult and Continuing Education, 84,* 38-46.

Chickering, A. (1969). *Education and identity.* San Francisco CA: Jossey Bass.

Chickering, A. W., & Gamson, Z. F. (1991). Applying the seven principles for good practice in undergraduate education. *New Directions for Teaching and Learning, 47.* San Francisco: Jossey-Bass.

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. AAHE Bulletin, March, 3-7.

Chickering, A., &. Reisser, L. (1993). *Education and identity (2nd ed.)* San Francisco CA: Jossey-Bass.

Colosi, L., & Dunifon, R. (2006). What's the difference? "Post then Pre" & "Pre then Post." Retrieved from http://www.citra.org/practice.php

Creswell, J. (2008). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research.* Thousand Oaks, CA: Sage.

Creswell, J, Plano Clark, V, Gutmann, M., & Hanson, W. (2003). Advanced mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research.* Thousand Oaks, CA: Sage.

Cross, W. E., Jr. (1971). The Negro-to-Black conversion experience. *Black World, 20*(9), 13-27.

Cross, W.E. (1991). *Shades of black: Diversity in African-American identity.* Philadelphia, PA: Temple University Press.

Cross, W. E., Jr., & Fhagen-Smith, P. E. (2001). Patterns of African American identity development: A life span perspective. In C. L. Wijeyesinghe & B. W. Jackson (Eds.), *New perspectives on racial identity development: A theoretical and practical anthology* (pp. 243-270). New York: New York University Press.

Cross, W. E., & Vandiver, B. J. (2001). Nigrescence theory and measurement: Introducing the cross racial identity scale (CRIS). In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C.M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 371-393). Thousand Oaks, CA: Sage.

Cullaty, B. (2011). Role of Parental Involvement in Autonomy Development of College Age Students. *Journal of College Student Development, 52*(4), 425-439.

Dillman, D. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York: John Wiley.

Engle, J., & Tinto, V. (2008). *Moving beyond access: College success for low-income, first-generation students.* Retrieved from http://www.pellinstitute.org

Erikson, E. H. (1959/1994). *Identity and the life cycle.* New York: W. W. Norton & Company.

Evans, N. (2003). Psychosocial, cognitive, and typology perspective on student development. In S. R. Komives, D. B. Woodward, and Associates (Eds.), *Student services: A handbook for the profession* (pp. 179-201). San Francisco, CA: Jossey-Bass.

Evans, N., Forney, D., & Guido-DiBrito, F. (1998). *Student development in college.* San Francisco: Jossey-Bass.

Evans, N. J., Forney, D. S., Guido-DiBrito, F., Patton, L., & Renn, K. (2010). *Student development in colleg* (2nd ed.). San Francisco:Jossey-Bass.

Fisher, M. (2007, March). Settling into campus life: Differences by race/ethnicity in college involvement and outcomes. *Journal of Higher Education, 78*(2), 125-161.

Green, s. & Salkind, N. (2007). *Using SPSS for Windows and Macintosh:Analyzing and understanding data (5th edition).* Saddle River, NJ: Prentiss Hall.

Guiffrida, D. (2003, May/June). African American student organizations as agents of social integration. *Journal of College Student Development, 44*(3), 304-319.

Gupton, J. T., Castelo-Rodriguez, C., Martinez, D. A., & Quintanar, I. (2009). Creating a pipeline to engage low-income, first generation college students. In S. R. Harper & S. J. Quaye (Eds.), *Student engagement in higher education: Theoretical perspectives and practial approaches for diverse populations* (pp. 243-260). New York and London: Routledge.

Harper, S. (2006). Enhancing African American male student outcomes through leadership and active involvement. In M. J. Cuyjet & Associates (Eds.), *African American men in college* (pp. 68-94). San Francisco, CA: Jossey-Bass.

Hawkins, V. M., & Larabee, H. J. (2009). Engaging racial/ethnic minority students in out-of-class activities on predominantly white campuses. In S. R. Harper & S. J. Quaye (Eds.), *Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations* (pp. 179-197). New York and London: Routledge.

Hayek, J. C., & Kuh, G. D. (2004). Principles for assessing student engagement in the first year of college. *Assessment Update, 16*(2), 11-13.

Helms, J. E.(1993) (Ed.). *Black and White Racial Identity: Theory, Research and Practice*. Westport, CT.: Praeger, 1993.

Helms, J.E. (1995). An update of Helms's White and People of Color racial identity
models. In J. G. Ponterotto, J.M. Casas, L.A. Suzuki, & C.M. Alexander (Eds.),
Handbook of multicultural counseling (pp. 181-198). Thousand Oaks, CA: Sage.

Hossler, D., Ziskin, M., &. Gross, J. (2009, January-February). Getting serious about
institutional performance in student retention. *About Campus, 13*(6), 2-11.

Howard-Hamilton, M. (2000). Creating a culturally responsive learning environment for
African American students. *New Directions for Teaching and Learning, 82,*
45-53.

Institute for Higher Education Policy. (2001, February). *Getting through college: Voices
of low-income and minority students in New England.* Braintree, MA: Nellie Mae
Foundation.

Ishler, J., & Upcraft, M. L. (2005). The keys to first-year student persistence. In M. L.
Upcraft, J. Gardner, B. Barefoot, & Associates (Eds.), *Challenging and
supporting the first-year student* (pp. 27-63). San Francisco, CA: Jossey-Bass.

Ivankova, N. V., Creswell, J., & Stick, S. L. (2006). Using mixed methods sequential
explanatory design: From theory to practice. *Field Methods, 18*(3), 3-20. DOI:
10.1177/1525822X05282260.

Johnson, R. B., & Onwuegbuzie, A. J. (2004, October). Mixed methods research: A
research paradigm whose time has come. *Educational Researcher, 33*(7), 14-26.

Josselson, R.(1987). *Finding Herself: Pathways to Identity Development in Women.* San
Francisco: Jossey-Bass Publishers.

Journal of Blacks in Higher Education. (2007). Black student college graduation rates
inch higher but a large racial gap persists [Electronic Version]. *Journal of Blacks*

in Higher Education. Retrieved from

http://www.jbhe.com/preview/winter07preview.html

Kaufman, M. A., & Creamer, D, G. (1991). Influences of student goals for college on

freshman-year quality of effort and growth. *Journal of College Student*

Development, 32, 197-206.

Keeling, R. (Ed.). (2004). *Learning reconsidered 2: A practical guide to implementing a*

campus-wide focus on the student experience. Washington, DC: American

College Personnel Association, Association of College and University Housing

Officers–International, Association of College Unions–International, National

Academic Advising Association, National Association for Campus Activities,

National Association of Student Personnel Administrators, & National

Intramural-Recreational Sports Association.

Kegan, R. (1982). *The evolving self.* Cambridge, MA: Harvard University Press.

Kegan, R. (1994). *In over our heads: The mental demands of modern life*. Cambridge,

MA: Harvard University Press.

Kezar, A. J., & Moriarty, D. (2000). Expanding our understanding of student leadership

development: A study exploring gender and ethnic identity. *Journal of College*

Student Development, 41(1), 55-69.

King, P. (2009a). Perry's theory of intellectual and ethical development. In N. Evans,

D. Forney, & F. Guido-DiBrito (Ed), *Student development in college* (pp. 82-98)*.*

San Francisco: Jossey-Bass.

King, P. (2009b, November/December). Principles of development and developmental change underlying theories of cognitive and moral development. *Journal of College Student Development, 50*(6), 597-620. doi: 10.1353/csd.0.0104

King, P. M. & Baxter Magolda, M. B. (1996). A developmental perspective on learning. *Journal of College Student Development, 37* (2), 163-173.

King, P., & Howard-Hamilton, M. (2000). Using student development theory to inform research. *New Directions for Institutional Research, 108*(Winter), 19-36.

King, P. M., & Kitchener, K. S. (1994). *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. San Francisco: Jossey-Bass.

Kuh, G. D. (1995). The Other Curriculum: Out-Of-Class Experiences Associated With Student Learning and Personal Development. *Journal of Higher Education, 66*(2): 123-155.

Kuh, G.D. (1999). Setting the bar high to promote student learning. In G.S. Blimling, E.J. Whitt and Associates, *Good practice in student affairs: Principles to foster student learning*. San Francisco: Jossey-Bass.

Kuh, G. D. (2001). Assessing what really matters to student learning: Inside the National Survey of Student Engagement. *Change*, *33*(3), 10-17, 66.

Kuh, G. D. (2005). Student engagement in the first year of college. In Upcraft, L. M., Gardner, J. N., & Barefoot, B.O. (Eds.), *Challenging and supporting the first-year student*. San Francisco: Jossey-Bass.

Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter.* Washington, DC: Association of American Colleges and Universities.

Kuh, G. D. (2009, November/December). What student affairs professionals need to know about student engagement. *Journal of College Student Development, 50*(6), 683-706. DOI: 10.1353/csd.0.0099

Kuh, G., Hayek, J., Carini, R., Ouimet, J., Gonyea, R., and Kennedy, J. (2001).*NSSE Technical and Norms Report*. Indiana University Center for Postsecondary Research and Planning, Bloomington, IN.

Kuh, G., Kinzie, J., Buckley, J., Bridges, B., & Hayek, J. (2006, July). *What matters to student success: A review of the literature*. Washington, DC: National Center for Education Statistics (NCES), U.S. Department of Education, National Postsecondary Education Cooperative.

Kuh, G., Kinzie, J., Cruce, T., Shoup, R., & Gonyea, R. (2007, January). *Connecting the dots: Multi-faceted analysis of the relationship between student engagement results from the NSSE and the institutional practices and conditions that foster student development.* Final report to Lumina Foundation for Education. Bloomington, IN: Indiana University Center for Postsecondary Research. Retrieved from http://nsse.iub.edu/pdf/Connecting_the_Dots_Report.pdf

Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J., & Associates. (2005). *Student success in college: Creating conditions that matter*. San Francisco, CA: Jossey-Bass.

Kuh, G. D., Schuh, J. H., Whitt, E. J., Andrea, R. E., Lyons, J. W., Strange, C. C. et al.

（1991). *Involving colleges: Successful approaches to fostering student learning*

and development outside the classroom. San Francisco, CA: Jossey-Bass.

Levine, A., & Cureton, J. S. (1998). *When hope and fear collide: A portrait of today's*

college student. San Francisco, CA: Jossey-Bass.

Love, P., & Guthrie, V. (1999, Winter). Understanding and applying cognitive

development theory. *New Directions for Student Services, 88*.

McEwen, M. (2003). The nature and use of theory. In S. Komives, D. Woodard, &

Associates (Ed.), *Student services: A handbook for the profession* (pp. 153-178).

San Francisco, CA: Jossey-Bass.

McEwen, M., Roper, L., Bryant, D., & Langa, M. (1990). Incorporating the development

of African-American students into psychosocial theories of student development.

Journal of College Student Development, 31, 429-436.

Moriarty, E. (2011). Relationship of helicopter parenting on autonomy development in

first-year college students (Unpublished doctoral dissertation). Johnson and Wales

University, Providence, RI.

National Association of Career Educators (NACE). (2011). *Job outlook survey 2012*.

Bethlehem, PA: Author.

National Survey of Student Engagement. (2008). *Promoting engagement for all students:*

2008 Results. Retrieved from

http://nsse.iub.edu/NSSE_2008_Results/docs/withhold/NSSE2008_Results_revis

ed_11-14-2008.pdf

Onwuegbuzie, A., & Collins, K. (2007, June). A typology of mixed methods sampling designs in social science research. *The Qualitative Report, 12*(2), 281-316.

Pace, C. R. (1984). Measuring the quality of college student experiences. An account of the development and use of the college student experiences questionnaire. Los Angeles: Higher Education Research Institute.

Pascarella, E. (1989). The development of critical thinking: Does college make a difference? *Journal of College Student Development, 30*, 19-26.

Pascarella, E. (2006, September/October). How college affects students: Ten directions for future research. *Journal of College Student Development, 47*(5), 508-520.

Pascarella, E., Bohr, L., Nora, A., & Terenzini, P. (1995). Intercollegiate athletic participation and freshman year cognitive outcomes. *Journal of Higher Education, 66*, 369-387.

Pascarella, E., & Terenzini, P. (1991). *How college affects students: Findings and Insights from Twenty Years of Research.* San Francisco CA: Jossey-Bass.

Pascarella, E., & Terenzini, P. (2005). *How college affects students: A third decade of research.* San Francisco CA: Jossey-Bass.

Pascarella, E., Terenzini, P., & Blimling, G. (1999, September/October). Students' out-of-class experiences and their influence on learning and cognitive development: A literature review. *Journal of College Student Development, 40*(5), 610-623. (Originally published in 1996).

Perry, W. (1970). *Forms of intellectual and ethical development in the college years: A scheme*. New York: Holt, Rinehart and Winston.

Phinney, J. (1992). The multigroup ethnic identity measure: A new scale for use with diverse groups. *Journal of Adolescent Research, 7*, 156-176.

Phinney, J. (1996, November/December).Understanding ethnic diversity. *American Behavioral Scientist, 40*(2), 143-153.

Piaget, J. (1950). The psychology of intelligence. New York: Harcourt & Brace.

Pike, G. R. (1996). Limitations of Using Student Self-Reports. *Research in Higher Education, 37(*1)*, 177-195.

Pike, G. R. (2006). The dependability of NSSE scalets for college and department-level assessment. *Research in Higher Education, 47,* 177-195.

Pizzolato, J. E. (2005). Creating crossroads for self-authorship: Investigating the provocative moment. *Journal of College Student Development, 46*(6), 624-641.

Reason, R. (2009, November/December). An examination of persistence research through the lens of a comprehensive conceptual framework. *Journal of College Student Development, 50*(6), 659-682. doi: 10.1353/csd.0.0098

Reason, R., Terenzini, P.. & Domingo, R. (2006, March). First things first: Developing academic competence in the first year of college. *Research in Higher Education, 47*(2), 149-175. doi:10.1007/s11162-005-8884-4

Reason, R., Terenzini, P., & Domingo, R. (2007, Spring). Developing social and personal competence in the first year of college. *The Review of Higher Education, 30*(3), 271-299. doi: 10.1353/rhe.2007.0012

Renn, K., & Arnold, K. (2003). Reconceptualizing research on college student peer culture. *The Journal of Higher Education, 74*(3), 261-291.

Rockwell, S. K., & Kohn, H. (1989, Summer). Post-then-pre-evaluation. *Journal of Extension, 27*(2). Retrieved from http://www.joe.org/joe/1989summer/a5.php

Sanford, N. (1968). *Where colleges fail.* San Francisco, CA: Jossey-Bass.

Schroeder, C. (2005). Collaborative partnerships between Academic and Student Affairs. In M. L. Upcraft & Associates (Eds.), *Challenging and supporting the first-year student* (pp. 204-220).San Francisco, CA: Jossey-Bass.

Sue, D. W., & Sue, D. (1999). *Counseling the culturally different: Theory and practice* (3rd ed.). New York: John Wiley.

Terenzini, P., Pascarella, E., & Blimling, G. (1999, September/October). Students' out-of-class experiences and their influence on learning and cognitive development: A literature review. *Journal of College Student Development, 40*(5), 610-623. (Originally printed in 1996).

Terenzini, P., & Reason, R. (2005, November 19). *Parsing the first year of college: A conceptual framework for studying college impacts.* Paper presented at the Association for the Study of Higher Education. Philadelphia PA: Penn State Center for the Study of Higher Education.

Terenzini, P., Springer, L., Pascarella, E., & Nora, A. (1995). Influences affecting the development of students' critical thinking skills. *Research in Higher Education, 36*, 23-29.

Tierney, W. G. (2000). Power, identity and the dilemma of college student departure. In J. M. Braxton (Ed.), Reworking the student departure puzzle. Nashville: Vanderbilt University Press.

Tinto, V (1975) Dropout from Higher Education: A Theoretical Synthesis of Recent

    Research. *Review of Educational Research* (*45*)1, pp.89-125.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*

    (2nd ed.). Chicago: The University of Chicago Press.

Tinto, V. (2004, July). Student retention and graduation: Facing the truth, living with the

    consequences.Retrieved from: http://www.pellinstitute.org/tinto

Torres, V. (1999). Influences on ethnic identity development of Latino college students in

    the first two years of college. *Journal of College Student Development*, *44*(4),

    532-547.

Torres, V., & Baxter Magolda, M. B. (2004). Reconstructing Latino identity: The

    influence of cognitive development on the ethnic identity process of Latino

    students. *Journal of College Student Development, 45*(3), 333-347.

Torres, V., Jones, S., & Renn, K. (2009, November/December). Identity development

    theories in student affairs: Origins, current status, and new approaches. *Journal of*

    College Student Development, 50(6), 577-596. doi: 10.1353/csd.0.0102

Turrentine, C. G., Schnure, S. L., Ostroth, D. D., & Ward-Roof, J. A. (2000). The parent

    project: What parents want from the college experience? *NASPA Journal, 39*(1),

    31-43.

Upcraft, M. L., Gardner, J. N. & Associates (1989). *The freshman year experience.* San

    Francisco, CA: Jossey-Bass.

Upcraft, M. L., Gardner, J., Barefoot, B., & Associates. (2005). *Challenging and*

    supporting the first-year student. San Francisco, CA: Jossey-Bass.

Vandiver, B., Fhagen-Smith, P., Cokley, P., Cross, W., Jr., & Worrell, F. (2001). Cross's nigrescence model: From theory to scale to theory. *Journal of Multicultural Counseling and Development, 29*(3), 174-200.

Wolf-Wendel, L., Ward, K., & Kinzie, J. (2009, July/August). A tangled web of terms: The overlap and unique contributions of involvement, engagement, and integration to understanding college student success. *Journal of College Student Development, 50*(4), 407-428. DOI: 10.1353/csd.0.0077

Worrell, F., Cross, W., Jr., & Vandiver, B. (2001) Nigrescence theory: Current status and challenges for the future. *Journal of Multicultural Counseling and Development, 29*(3), 201-213.

Zhao, C., & Kuh, G. D. (2004). Adding value: Learning communities and student engagement. *Research in Higher Education, 45,* 115–138.

Appendix A

Sophomore Survey as it Appeared in SurveyMonkey

2010 Sophomore Survey of the First Year -final cohort responses

1. Introduction

WELCOME TO THE 2010 SOPHOMORE SURVEY!

You have been specially selected to complete a survey about your experiences as a first year student last year. Bridgewater State University is interested in using your feedback to improve the overall first year experience for incoming students. All students who complete the entire survey will automatically be entered into a drawing to win an IPod Nano. Please note that your responses are completely confidential and no individual information about your responses will be shared. Your name and email will be retained so we can enter you in the drawing later this semester.

In addition, the data from this survey will also be used by the researcher to complete her doctoral dissertation at the University of Nebraska-Lincoln.

The following page contains a detailed description of this survey project and asks you to indicate your consent to take part. In total, we expect the survey to take approximately 15 minutes or less for you to complete.

If you would prefer to complete the survey in a paper format, that can be arranged. Simply contact the Student Affairs Office at ext. 1276 and let the staff know you would like a paper version of the sophomore survey and we will arrange to get you one.

Otherwise, you can proceed by simply selecting "Next."

1. Are you currently enrolled in classes for fall 2010 at Bridgewater State University?

◯ Yes

◯ No

2. Informed Consent

Project Title: Sophomore Survey of the First Year

Investigator: Cathy Holbrook, Student Affairs, ext 1276.

A DESCRIPTION OF THE SURVEY AND INFORMED CONSENT IS REQUIRED FOR ALL SURVEYS OF THIS TYPE.

This survey is designed to collect information about your experiences, the quality of your transition to the college, and your thoughts about how your first year helped you to develop skills and develop personally. This information may help us improve experiences for future students. Those completing the entire survey will be entered into a drawing for an Ipod Nano. The survey will take about 15 minutes of your time, and your answers will remain completely confidential. You have been assigned a random code that will allow us to identify who has and who has not completed the survey. This code will also be used to compare responses to coded responses from last year's survey of first year students, if you participated in that project. You must be at least 18 years old to participate in this survey.

If you have any questions about the survey before you agree to participate, you can contact me at 508-531-1276, or email me at cholbrook@bridgew.edu.

If you decide to participate in the project, please acknowledge this agreement by clicking the "I Agree" button at the bottom of the page. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigator, Bridgewater State University or the University of Nebraska-Lincoln. Refusal to participate in this study or deciding to withdraw from it will have no effect on any future services you may be entitled to from the University.

There are no known risks to participating in this survey and students who have taken it suggest it was helpful to them in

2010 Sophomore Survey of the First Year -final cohort responses

better understanding their own development over the first year.

Any questions regarding the conduct of the project or questions pertaining to your rights as a research subject should be brought to the attention of either the BSU Institutional Review Board (IRB) Administrator at (508) 531-1242 or the University of Nebraska-Lincoln Institutional Review Board (IRB) at (402)472-6965.

Any questions about the conduct of the research project should be brought to the attention of the principal investigator: Cathy Holbrook, Room 106 Boyden Hall, 508-531-1276.

2. Are you willing to participate in this Survey?

◯ I Agree to Participate in the Survey

◯ I do not Agree to Participate in the Survey

3. First Year Transition

3. Please select the statement that most closely describes your feelings about how long it took for you to transition as a Bridgewater State University student last year.

◯ I felt like a part of the BSU community almost from the moment I started classes last fall

◯ It took me a few weeks to become comfortable on campus and to feel like I belonged

◯ I didn't feel comfortable or a part of the community until halfway through the fall semester

◯ It took me the entire fall semester to feel comfortable and part of the community

◯ It took me almost all of my first year to feel comfortable and part of the community

◯ I still do not feel like part of the BSU community

4. Please feel free to elaborate on your response to question #2.

[text box]

5. Please select the statement that best describes your feelings about your transition as a student at Bridgewater.

◯ Overall, my transition to the college was relatively EASY.

◯ Overall, my transition to the college was relatively DIFFICULT.

4. For students whose transition was relatively easy

These two questions are for students who indicated in Queston #4 that their transition to Bridgewater was a relatively easy, successful one.

2010 Sophomore Survey of the First Year -final cohort responses

6. If you feel you made a SUCCESSFUL transition to Bridgewater, please indicate how much each of the the following helped you in your transition.

	Very Important	Important	Somewhat Important	Not Important	Not Applicable
My RA or RD	◯	◯	◯	◯	◯
Participating in a student organization or team	◯	◯	◯	◯	◯
Living on campus	◯	◯	◯	◯	◯
My friends at Bridgewater	◯	◯	◯	◯	◯
An academic advisor/counselor	◯	◯	◯	◯	◯
A faculty member	◯	◯	◯	◯	◯
New Student Orientation	◯	◯	◯	◯	◯
Working on campus	◯	◯	◯	◯	◯
My family	◯	◯	◯	◯	◯
Going to events on campus	◯	◯	◯	◯	◯

7. Please identify any other significant factors not mentioned in question # 3 that made your transition to Bridgewater easier.

5. For students whose transition was relatively difficult

These two questions are for students who indicated in Question # 4 that their transition to Bridgewater was a relatively difficult one.

2010 Sophomore Survey of the First Year -final cohort responses

8. If you feel you had a DIFFICULT transition to Bridgewater, please indicate to what extent the following things contributed to this difficulty.

	Very Significant	Significant	Somewhat Significant	Not Significant	Not Applicable
Difficulty of my coursework	◯	◯	◯	◯	◯
Commuting limits my involvement on campus	◯	◯	◯	◯	◯
Haven't made any real friends on campus	◯	◯	◯	◯	◯
Felt overwhelmed by the workload	◯	◯	◯	◯	◯
Haven't found clubs/activities that interest me	◯	◯	◯	◯	◯
Job/work responsibilities	◯	◯	◯	◯	◯
Family responsibilities	◯	◯	◯	◯	◯
Not living on campus	◯	◯	◯	◯	◯
Inability to find campus resources	◯	◯	◯	◯	◯
Personal finances	◯	◯	◯	◯	◯

9. Please describe any other significant factors not included in question # 5 that made your transition to Bridgewater difficult.

6. First Year Residency Status

10. During your first year as a Bridgewater student, where did you live:

◯ On-Campus

◯ Off-Campus

7. For residents

11. Where did you live on campus?

◯ Shea/Durgin

◯ Woodward Hall

◯ More than one hall over the course of the year

Other (please specify)

2010 Sophomore Survey of the First Year -final cohort responses

12. During your first year, approximately how many weekends per month did you go home for the weekend?

◯ Almost every weekend

◯ Twice a month

◯ Once a month

◯ I usually did not go home on the weekends

8. For Commuters

13. Where did you live off-campus?

◯ At home with my family

◯ In an apartment with friends

◯ In a rented room

Other (please specify)

[   ]

14. How long did it take you to commute to campus ONE way?

◯ Less than 15 minutes

◯ 16 to 30 minutes

◯ 31 to 45 minutes

◯ 46 to 1 hour

◯ Over 1 hour

9. Campus Participation

2010 Sophomore Survey of the First Year -final cohort responses

15. During your FIRST year at BSU, how often did you do each of the following:

	Very often	Often	Sometimes	Never
Attend a lecture, play or other performance on campus	○	○	○	○
Attend social or athletic events on campus	○	○	○	○
Participate in a student club or organization	○	○	○	○
Participate in a college-sponsored community service program	○	○	○	○
Meet with a faculty member, academic advisor or mentor	○	○	○	○
Perform in a campus theater production, dance performance, college band	○	○	○	○
Participate in a mentoring program (i.e, POE, LINKS, etc.)	○	○	○	○
Play on an athletic team	○	○	○	○
Assume a leadership role in a student club or organization	○	○	○	○

10. Work During Your First Year

16. Did you work during your first year as a Bridgewater student?

○ Yes

○ No

17. During the academic year, please indicate where you worked and how many hours you worked per week on average. If you worked BOTH on and off-campus, please answer for each one.

	10 or less	11-15	16-20	21-30	more than 30	Not applicable
On Campus	○	○	○	○	○	○
Off-Campus	○	○	○	○	○	○

11. Final Comments

2010 Sophomore Survey of the First Year -final cohort responses

18. Now that you have completed your first year at Bridgewater State University, we would like to better understand how the college could have made your transition process easier.

• Is there any information that should have been provided to you that was not provided?
• Are there any issues you encountered that the college might have more effectively prepared you to expect or deal with?
• What specific suggestions do you have that would enable Bridgewater to provide greater assistance to new students in the future?

Please feel free to offer any feedback about what the college might have done to improve your transition during your first year.

12. Demographics

We would just like to know a little bit about you, if you don't mind.

19. Are you:

○ Male

○ Female

○ Transgendered

20. What is your age (As of 9/1/2010)

○ 18 to 20

○ 21 to 23

○ Over 23

2010 Sophomore Survey of the First Year -final cohort responses

21. Are you:

- ◯ White
- ◯ Black
- ◯ Cape Verdean
- ◯ Asian
- ◯ Native American
- ◯ Hispanic
- ◯ International
- ◯ Other (please specify)

[   ]

13. Explanation of Final Section

The final questions of this survey ask you to look at the changes you've seen in yourself over the last year and to consider what has contributed to these changes. This information is very important to the college as we try to shape experiences that contribute to your learning. Students who have completed this section in previous years said that it was very satisfying to think about themselves in this way.

I really appreciate your willingness to complete the final section of this survey! Once you have completed it, you will be automatically entered into the drawing for the IPod.

22. Picture yourself on your first day at Bridgewater State University. Remember how you felt that day, what you knew about yourself, other people, the University, the world, etc. Now, with that picture in your mind, please rate yourself on each of the following categories, based on how you were when you FIRST came to Bridgewater.

	Poor	Fair	Average	Good	Excellent
Speaking Skills	◯	◯	◯	◯	◯
Writing Skills	◯	◯	◯	◯	◯
Problem Solving Skills	◯	◯	◯	◯	◯
Decision Making Skills	◯	◯	◯	◯	◯
Knowledge of Myself	◯	◯	◯	◯	◯
Self-Esteem/Confidence	◯	◯	◯	◯	◯
Ability to Work Well in a Team	◯	◯	◯	◯	◯
Understanding of People Who are Different From Me	◯	◯	◯	◯	◯
Taking Responsiblity for my own Behavior	◯	◯	◯	◯	◯
Community Involvement	◯	◯	◯	◯	◯

14. Current Skills

2010 Sophomore Survey of the First Year -final cohort responses

23. Now, think about yourself as you are TODAY. With this picture in your mind, please rate yourself on each of the following categories, based on your level of skills and personal development TODAY.

	Poor	Fair	Average	Good	Excellent
Speaking Skills	○	○	○	○	○
Writing Skills	○	○	○	○	○
Problem Solving Skills	○	○	○	○	○
Decision Making Skills	○	○	○	○	○
Knowledge of Myself	○	○	○	○	○
Self-Esteem/Confidence	○	○	○	○	○
Ability to Work Well in a Team	○	○	○	○	○
Understanding of People Who are Different From Me	○	○	○	○	○
Taking Responsiblity for my own Behavior	○	○	○	○	○
Community Involvement	○	○	○	○	○

15. REASONS FOR CHANGE IN SKILL LEVEL

Now, thinking back to your responses to the last two questions, please consider what made the difference in your level of skill and personal development for each of the categories in which you believe you experienced a change between when you first came to Bridgewater and today.
* Was it something you did at BSU, either in or out of class?
* Was it something in your personal or work life?
* Was it simply getting older?

In the spaces below, please identify the factors you believe made a difference in your level of skill and personal development in each of these categories. Please describe the thing(s) you believe made this difference.

24. What contributed to differences in your SPEAKING SKILLS?

25. What contributed to differences in your WRITING SKILLS?

26. What contributed to differences in your PROBLEM SOLVING SKILLS?

2010 Sophomore Survey of the First Year -final cohort responses

16. Reasons (pg.2)

27. What contributed to differences in your DECISION MAKING SKILLS?

28. What contributed to differences in your KNOWLEDGE OF SELF?

29. What contributed to differences in your SELF-ESTEEM/CONFIDENCE?

17. Reasons (pg # 3)

30. What contributed to differences in your ABILITY TO WORK WELL IN A TEAM?

31. What contributed to differences in your UNDERSTANDING OF PEOPLE WHO ARE DIFFERENT FROM YOU?

32. What contributed to differences in your ability to TAKE RESPONSIBILITY FOR YOUR OWN BEHAVIOR?

33. What contributed to differences in your INVOLVEMENT IN YOUR COMMUNITY?

18. THANK YOU!

Thank you so much for taking the time to complete this survey! Your input will be very valuable to Bridgewater's efforts to improve the first year experiences for our students.

If you completed the entire survey, you have automatically been entered in the drawing for the Ipod Nano. At the conclusion of the survey you will receive an email telling you who won this prize and how to pick it up if you are the

2010 Sophomore Survey of the First Year -final cohort responses

winner.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Cathy Holbrook
Associate Vice-President, Student Affairs
cholbrook@bridgew.edu

19. Thank you for those who say no

Thank you for considering participation in this survey. We will remove your name from the list. Good luck!

20. Thank you for Those Not Currently Enrolled as Students

Only those currently enrolled as students at Bridgewater State University are eligible to take the survey. Thank you so much for your consideration of the survey.

21. End of the Survey

This concludes the survey. Please click "Done" to exit the survey website.

Appendix B

Data Collection Schedule and E-Mail Invitation and

Reminder Notices to Take the Survey

Data Collection Schedule

Initial Invitation	Sunday, September 12, 2010
First reminder	Thursday, September 16, 2010
Second reminder	Wednesday, September 22, 2010
Final Reminder	Sunday, September 26, 2010

Initial Invitation mailed on Sunday, September 12, 2010

Message Preview

Below is a preview of your message based on the first recipient in your list ([Email]).

To: [Email]
From: "cholbrook@bridgew.edu via surveymonkey.com" <member@surveymonkey.com>

Subject: Fall 2010 Sophomore Survey
Body: Dear [FirstName],

You may remember completing the First Year Student Survey last fall. At that time we mentioned that you might be contacted this fall to complete the Sophomore Survey of the First Year. This survey is a follow-up to last year's survey, as well as an opportunity to gain feedback about your first year experiences as a Bridgewater State College student! I am hoping you will take about 15 minutes to share your thoughts and ideas with us by completing this brief survey (the link appears below).

In appreciation for completing the entire survey, all students who do so will be entered in a drawing to win an Apple IPod!

As a successful sophomore, you are in an ideal position to provide us with valuable feedback about your experiences last year, and about how effectively the college provided you with the resources you needed to become a member of the college community. Please be assured that your responses to the survey will remain completely confidential. Thank you in advance for your willingness to share your opinions and experiences with us in this effort!

Here is a link to the survey:
https://www.surveymonkey.com/s.aspx

If you have any questions, you can contact me at cholbrook@bridgew.edu or by calling my office at 508-531-1276. If you would prefer to take this survey via a paper copy, just let me know, and we can arrange for you to do so.

Thanks in advance for your participation!

Sincerely,

Cathy Holbrook
Associate Vice-President, Student Affairs
Room 106 Boyden Hall

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
https://www.surveymonkey.com/optout.aspx

« Back to Messages List

First reminder on Thursday, September 16, 2010

To: [Email]
From: "cholbrook@bridgew.edu via surveymonkey.com" <member@surveymonkey.com>

Subject: Reminder: Sophomore Survey & Chance to win an Ipod
Body: Dear [FirstName],

Each fall we conduct the Sophomore Survey of the First Year to gain feedback about the first year experiences of our students and better understand how these experiences have impacted students in a number of personal skill areas. Your feedback is very important and I am hoping you will take about 15 minutes to share your thoughts and ideas with us by completing this brief survey (the link appears below).

In appreciation for completing the entire survey, all students who do so will be entered in a drawing to win an Apple IPod!

As a successful sophomore, you are in an ideal position to provide us with valuable feedback about your experiences last year, and about how effectively the college provided you with the resources you needed to become a member of the college community. Please be assured that your responses to the survey will remain completely confidential. Thank you in advance for your willingness to share your opinions and experiences with us in this effort!

Here is a link to the survey:
https://www.surveymonkey.com/s.aspx

If you have any questions, you can contact me at cholbrook@bridgew.edu or by calling my office at 508-531-1276. If you would prefer to take this survey via a paper copy, just let me know, and we can arrange for you to do so.

Thanks in advance for your participation!

Sincerely,

Cathy Holbrook
Associate Vice-President, Student Affairs
Room 106 Boyden Hall

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
https://www.surveymonkey.com/optout.aspx

« Back to Messages List

Second reminder on Wednesday, September 22, 2010

Message Preview

Below is a preview of your message based on the first recipient in your list ([Email]).

To: [Email]
From: "cholbrook@bridgew.edu via surveymonkey.com" <member@surveymonkey.com>

Subject: Reminder: Sophomore Survey/chance to win an Ipod
Body: Dear [FirstName],

Last week we launched the Sophomore Survey we conduct each fall to gain feedback about the first year experiences of Bridgewater students. We want to better understand how these experiences have impacted students in a number of personal skill areas. Your feedback is very important and I am hoping you will take about 15 minutes to share your thoughts and ideas with us by completing this brief survey (the link appears below).

In appreciation for completing the entire survey, you will be entered in a drawing to win an Apple IPod!

As a successful sophomore, you are in an ideal position to provide us with valuable feedback about your experiences last year, and about how effectively the college provided you with the resources you needed to become a member of the college community. Please be assured that your responses to the survey will remain completely confidential. Thank you in advance for your willingness to share your opinions and experiences with us in this effort!

Here is a link to the survey:
https://www.surveymonkey.com/s.aspx

If you have any questions, you can contact me at cholbrook@bridgew.edu or by calling my office at 508-531-1276. If you would prefer to take this survey via a paper copy, just let me know, and we can arrange for you to do so.

Thanks in advance for your participation!

Sincerely,

Cathy Holbrook
Associate Vice-President, Student Affairs
Room 106 Boyden Hall

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
https://www.surveymonkey.com/optout.aspx

« Back to Messages List

Final Reminder on Sunday, September 26, 2010

Message Preview [Edit]

No recipients have been defined, so we can't generate a full preview of your message.

To:
From: "cbholbrook2902@gmail.com via surveymonkey.com" <member@surveymonkey.com>

Subject: Final 24 Hours for the Sophomore Survey
Body: Dear ,

This is a final reminder about the Sophomore Survey of the First Year, which will close on at 12 noon on Monday, Sept. 26.

Your feedback is very important and I am hoping you will take about 15 minutes to share your thoughts and ideas with us by completing this brief survey (the link appears below).

In appreciation for completing the entire survey, you will be entered in a drawing to win an Apple iPod!

Please be assured that your responses to the survey will remain completely confidential. Thank you in advance for your willingness to share your opinions and experiences with us in this effort!

Here is a link to the survey:
https://www.surveymonkey.com/s.aspx

If you have any questions, you can contact me at cholbrook@bridgew.edu or by calling my office at 508-531-1276. If you would prefer to take this survey via a paper copy, just let me know, and we can arrange for you to do so.

Thanks in advance for your participation!

Sincerely,

Cathy Holbrook
Associate Vice-President, Student Affairs
Room 106 Boyden Hall

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
https://www.surveymonkey.com/optout.aspx

« Back to Messages List

Appendix C

IRB Original Approval and Extension Approval for Fall 2010

UNIVERSITY OF
Nebraska
Lincoln

October 19, 2006

Catherine Holbrook
Dr. James O'Hanlon
Educational Administration
16 Sprague Street
Brockton MA 02302

IRB# 2006-09-018 EX

TITLE OF PROJECT: **Bridgewater State College First Year Experience Survey**

Dear Catherine:

This letter is to officially notify you of the approval of your project by the Institutional Review Board (IRB) for the Protection of Human Subjects. This project has been approved by the Unit Review Committee from your college and sent to the IRB. It is the Board's opinion that you have provided adequate safeguards for the rights and welfare of the participants in this study. Your proposal seems to be in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46) and has been classified as exempt.
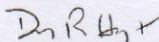
Date of EX Review: **10/6/06**

You are authorized to implement this study as of the Date of Final Approval: **10/19/06.** This approval is Valid Until: **10/18/07.**
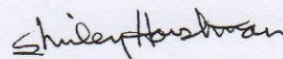
1. Please include the assigned and approved IRB number on the web-based informed consent form. Please return one copy of the form, with the number included, for our records.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board. For projects which continue beyond one year from the starting date, the IRB will request continuing review and update of the research project. Your study will be due for continuing review as indicated above. The investigator must also advise the Board when this study is finished or discontinued by completing the enclosed Protocol Final Report form and returning it to the Institutional Review Board.

If you have any questions, please contact Shirley Horstman, IRB Administrator, at 472-9417 or email at shorstman1@unl.edu.

Sincerely,

Dan R. Hoyt, Chair
for the IRB

Shirley Horstman
IRB Administrator

cc: Faculty Advisor

Sent By: IRB NUgrant System
Sent On: 09/07/2010 11:02 am
Reference: IRBProjectForm - 12434
Subject: Official Approval Letter for IRB project #7525
Message: September 7, 2010

Catherine Holbrook
Department of Educational Administration

James O'Hanlon
123 TEAC, UNL, 68588-0360

IRB Number:
Project ID: 7525
Project Title: Bridgewater State College First Year Experience Survey

Dear Catherine:

The Institutional Review Board for the Protection of Human Subjects has completed its review of the Request for Change in Protocol submitted to the IRB.

1. It has been approved to conduct a full census sample of the sophomore class, including approximately 1200 students. Total number of participants will be 1600 over the life of the project.

2. It has been approved to modify the survey to 1) eliminate a couple of questions not producing useful data; 2) change the list of activities a student can indicate they participated in while they were a first year student; and 3) to verify that they are in fact currently taking classes and eligible to complete the survey.

3. Please include the IRB approval number in the informed consent section of the survey. Please email a copy of the survey, with the number included, to irb@unl.edu for our records.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This letter constitutes official notification of the approval of the protocol change. You are therefore authorized to implement this change accordingly.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

Becky R. Freeman

Becky R. Freeman, CIP
for the IRB

Attachments: No Data

Appendix D

Qualitative Responses Codebook

Q 24 - Speaking Skills Codes and Themes

Final Codes		Original Codes	Description of this code
Thematic Area	**Factor**		
Academic or Curricular		**Academic/Curricular Factors**	
	Core curriculum communication class	Core Communication Courses	Refers to specific core comm courses, ie., public speaking, Comm 140, etc
	Classes	Classes	Refers to classes in general and non-Comm classe like: English & writing classess; FY seminar; acting, etc
	Required speaking/participation/ presentations in a class	speaking/participation in class	refers to being required to participate in class, speaking to others in class, repeated practice of speaking in class to do well
		Speeches/presentations in class	formal presentations; group project presentations; giving a speech in front of the room, etc
	Effective teaching practices (feedback, group discussions, actual instruction in making speeches)	Effective Teaching practices	When there is a reference to a specific type of effective practice: being engaged in class; being taught speaking skills;faculty feedback;classroom feedback; group discussions
		Other Course related activities	refernces to required reading; building vocabulary
		Faculty/teaching in general	faculty in general; good faculty; good teaching practices in general
	Role/Influence of Faculty	Role/Influence of an individual Faculty	specific professor's teaching style; influence of faculty who speak well; interacting w/specific faculty out of class
Non-Academic or Co-Curricular		**Non-academic experiences as new college student**	
	Getting to know people/making friends	Getting to know people/make friends	The typical act of meeting/talking to new peopleat a new school; social interactions w/peers; making friends; roommate interactions; going to events
		Making the effort to connect with others	Refers to specific steps student took - Putting self "out there"; making an effort to meet and get to know others; being more talkative; being outgoing; networking; listening better;

	Overall collegiate environment	Overall college environment/experiences	References to the campus environment, ie., being a friendly campus; being in situations requiring speech or interaction w/non-peer others; being forced out of comfort zone; institutional expectations
	Co-Curricular Involvements	Co-Curricular Involvements	getting involved in clubs/orgs/teams; taking on leadership role; on campus job expectations/environment; becoming engaged in an interest requiring speech to others
	A job/working	A job or working	references to working on or off campus
Changes in the Student		**Changes in the Student**	
	Increased confidence/comfort with self on campus	Increased comfort with self and campus	increased comfort with self or being in college;
		Increased confidence in classroom/academic settings	increased comfort/confidence in speaking in class, giving presentations, etc; getting over fear of speaking in class; increased confidence in skills and abilities to communicate with others in class
	Increased confidence in interpersonal skills	Increased confidence in interpersonal communication skills	Increased comfort talking to new people/strangers socially; increased comfort/confidence in speaking publically to group socially; getting over fear of speaking; increased confidence in skills and abilities
	Working at communication skills	Working to improve communication skills	becoming a better listener; making an intentional effort to improve
	Getting older/maturity	Getting older/maturity	
Miscellaneous		**Miscellaneous**	
	Came to college with this skill	Already had good speaking skills	For any references that s/he came to BSU with strong skills or has already had them, etc.
		No change	if they said they didn't change (shouldn't be there much)

Q 25 - Writing Skills Codes and Themes
Final Codes

Thematic area	Factor	Original Codes	
Academic/ Curricular		**Academic/CurricularFactors**	
	Core curriculum writing class	Core Writing Courses	FY English/ENG101&1022; FySeminar;writing intensive courses
	Required writing/amount of writing required in class	Writing Assignments/Amount of Writing required in college courses	References to the number and frequency of assignments both in and out of class; amount of practice in classes;
	Role/Influence of specific faculty	Role of an individual Faculty	writing professor(s) cited by name; individual attention from a faculty member; specific faculty feedback
	Effective teaching practices (feedback, peer editing, etc)	Effective Teaching practices	engagement in class; good teaching; use of group work/peer editing in class; constructive feedback on writing; in class writing; specific techniques taught or learned in class
	Faculty in general	Faculty/teaching in general	good faculty; great faculty; the professors
	Classes in general	Classes	Classes in general; other classes
	Increased academic expectations	increased expecations in courses	References to the increased challenge of college courses; expectations for different writing styles; etc
Non-Academic/Co-Curricular		**Co-Curricular Factors**	
	Institutional writing supports	Institutional Writing Supports	AAC/tutoring/writing center (these are college sponsored academic supports)
	Co-curricular involvements	co-curricular involvement	Involvement in out of class writing opportunities, ie., literary journal; writing for an organization; working in writing center; blogs; newsletters
Changes in the Student		**Change in the student**	
	Adapting to changing expectations	Adapting to changing expecations	Adapting to faculty expectations; understanding different styles of writing
	Increased confidence in writing skills	increased confidence in writing ability/skills	Increased sense of confidence in writing or academic ability/skills; confidence from success
	Increased effort/motivation	Increased effort/motivation	References to hard work/personal motivation; personal effort; consciously working to improve skills
	Improved writing skills	increased skills to succeed	references to actually improving writing skills; developing increased skills to succeed; specifically cited writing improvements
	Getting Older/Maturity	Getting older/maturity	any reference to growing up, getting more mature at college, etc.
		Personal growth	Increased awareness; seeing connections between courses; seeing own growth
Miscellaneous		**Miscellaneous**	
	Came to college with strong skill	Already had good writing skills still working on it	Any reference indicating student felt they came to BSU with good writing skills already
	No change but actively trying		
	Interest in writing as a career	Enjoyment of writing/majoring in English	an academic interest in writing for the major or career choice
		Personal Life	

Q 26- Problem Skills Codes and Themes
Final Codes

Original Codes

Thematic area	Factor		
Academic/ Curricular		**Academic/CurricularF actors**	
	Core math/reasoning courses	Core Reasoning Courses	references to core curriculum classes intended to teach this skill: Math class, philosophy classes, quantitative reasoning, etc
	Classes in general	Classes	classes in general; other subjects- psych, buisness, stats, accounting, etc
	Eff. teaching prac/strategies taught in class	Faculty member/effective teaching	Any references to faculty, whether specific or general; good teaching; references to role or influence of faculty
		Effective skills/strategies learned in a class	references to skills & strategies they learned in class relative to problem solving
	Prac/exp solving problems in acad settings	Specific academic situations relative to problem solving	references to speed in which problems need to be solved in class, the pace, etc. This sometimes accompanies the "inc. Resp" code, but adds the idea of intensity of pace
		Practice/experience solving problems in academic settings	References to getting practice/experience in assignments and/or in classes
	Increased academic expectations/resp.	Increased responsibility/expectatio ns in college classes	references to increased expectations to do work on time; monitoring own progess; needing to be responsible for own success
Non-Academic/Co-Curricular		**Co-Curricular Factors**	
	Overall collegiate experiences	overall collegiate experiences	Broad references to everyday experiences in college and the first year, breadth of college life and the problems that can arise. I used this when they combined references to in and out of class as one, vague idea
	Inc responsibility/independence of college life	Increased responsibility/independe nce of college life	living independently; not having parents around; more problems to solve in general by virtue of being in college
	Exp solving everyday life problems	Experience(s) solving everyday life problems	This refers to the more non-specific situations requiring problem-solving, including experience in doing so that wasn't specifically interpersonal in nature
	Specific co-curricular involvements	Specific out of class Involvements on campus	Any referece to a specific co-curricular experience. Examples include jumpstart; teams; SJL; campus organizations; program planning; being an RA
	Exp solving interpersonal problems	experience(s) solving interpersonal problems	references to experiences solving problems in situations involving others, managing interpersonal conflict, and specific experiences solving conflict
	A job/working	A job/working	learning to solve problems in a job or working setting

Changes in the Student		Changes in the Student	
	Getting older/maturity	Getting older/maturity	any reference to growing up, maturing
	Learning to analyze problems/think differently	Learning to analyze problems/think differently	learning to use analysis skills to solve problems; looking at problems differently; thinking outside the box; references that indicate student conciously made more of an effort
	Taking time to consider aspects of a problem	Taking time to consider aspects of a problem	refers to cognitive process of reflecting, thinking about things prior to taking action;
	Increased self-awareness/understanding	Increased self-awareness/understanding	references to changes in self-awareness, understanding or self-knowledge improving their skills in solving problems; personal growth
	Learning from one's own mistakes	Learning from one's own mistakes	refers to statements indicating they made mistakes and improved as a result
	Increased mental ability to solve problems	Increased mental ability	refers to student's belief that they got smarter/improved skill, not just the practice itself; solving things mentally; getting smarter; more of the mental success
Student Action/ Effort to Change		Student Efforts to Change	
	Working with others or seeking assistance	Working with/seeking assistance from others	refers to seeking help from peers, faculty, friends, institutional supports, etc;
	Recognition of need & acting for oneself	taking initiative/responsibility for solving own problems	refers to accepting the need to take personal responsibility for solving own problems
		Deciding to address/manage personal situation better	References to the realization that they had to take some kind of action (either to succeed or for their own good)
	Developing steps to manage personal situations better	Developing a plan of action	Refers to taking action to resolve problems like time management; learning to channel stress; balancing school and other responsibilities
	Helping others solve problems	helping others solve problems	references to learning skills by helping others with their problems
	Applying lessons learned from others' prob	applying lessons seen w/others to own problems	Refers to applying lessons they learned by seeing others with problems; consequences; not wanting to repeat same mistakes
Miscellaneous		Miscellaneous	
	Came to college with strong skill	Already had this skill	references to be good problem solvers before coming to BSU
	Couldn't explain growth they saw	Unsure/no explanation	

Q 27- Decision-Making Skills Codes and Themes

Final Codes

Original Codes

Thematic area	Factor		
Academic/ Curricular		*Academic/Curricular Factors*	
	Classes	Classes/ a specific class	references to classes or any specific course
	Faculty/effective teaching	Faculty/effective teaching	influence of faculty members or effective teaching practices
		Effective skills/strategies learned in a class	references to some specific kind of strategy(ies) learned in classes
	Prac/exp in an academic setting	Practice/experience in academic settings	references to the need to make decisions in the classroom or relative to academic work (an ongoing kind of thing)
		Specific academic situations/issue	a specifically cited situation or issue experienced in academic life
	Increased academic expectations	Higher expectations/accountablity in class	refers to the need to make decisions due to higher expectations academically, being held accountable for making your own academic choices
Non-Academic/Co-Curricular		Co-Curricular Factors	
	Making decisions as result of living independently at college	Making own decisions as a result of living independently at college	The need to make decisions as a result of living independently at college, without family around to help
	Collegiate environment/new decisions Required	Overall collegiate experience and new decisions it required	Generalized reference to college experiences including the new types of decisions that need to be made in college
	Exp making more/important decisions	Experience making more/more important decisions as a result of college	references to increased number of decisions needing to be made and increased significance of the decisions that need to be made
	Exp making interpersonal decisions	experience(s)/practice related to interpersonal relationships	refernces to experiences having to make interpersonal decisions (roommates, friends, significant others)
	Exp making decisions in everyday life	Experience(s)/practice from everyday life	general references to practice in life in general, not specifically to college based decisions;
	Co-curricular involvement	Co-curricular involvement(s)	decisions made in involvements in clubs, greek life, teams, service, etc
	Exp making decisions in social life	Social life/events	references to making decisions in one's social life or in social situations (implied difficult ones) that arose
	Impact of a job/working	Impact of a job/working	references to decision making skills acquired from on or off campus work

Changes in the Student		Changes in the Student	
	Getting Older/Maturity	getting older/maturity	
	Increased awareness/self-knowledge	Increased awareness/understanding/self-knowledge	references to increased levels of awareness, comfort, understanding and knowledge about themselves that impacted ability to make decisions
	Learning from own mistakes/poor dec.	Learning from mistakes made/poor decisions	statements referencing lessons learned from making bad decisions, mistakes, etc
	Learning to take time to think first	Learning to take time to consider things before making decisions	Realizing that reflection and consideration of issues makes for better decisions -reflects a cognitive shift
		Learning to look at issues/situations from various angles	Recognizing the need to explore multiple sides of an issue first - cognitive shift
	Recognizing consequences of decisions on self & future	Recognition of consequences of decisions on self/future	statements indicating the consequences their decisions will have on themselves/their future; implying a new sense of ownership
	Recognizing consequences of decisions on others	Recognition of consequences of decisions on others	statements that indicate recognition of how their decisions affect others
	Increased confidence in skills	Increased confidence in skills	references to having increased confidence in their ability to make a decision
Student Action/ Effort to Change		**Student Efforts to Change**	
	Successfully dealing with peer pressure	Dealing with peer pressure	Handling peer pressure and making decisions on their own
	Working with & seeking assistance from others	Working with/ seeking assistance from others	references to seeking help from others, including friends/staff/family to solve their own .
	Taking initiative to manage personal situation(s) better	Taking initiative/ responsibility for oneself	recognizing the need to take responsibility for their own decision making; doing it (this is more about the realization of their own ownership than just to solve a problem)
		Deciding to address/ manage personal situation/issue(s) better	references to taking action to manage time, balance work&school, address a situation in life they are not happy with
	Helping others/learning from others	Helping others/ lessons learned from others	references to skills acquired through helping other people w/decision-making
Miscellaneous		**Miscellaneous**	
	Came to college with good decision making skills	Already had good decision-making skills	references to being a good decision-makers before coming to BSU
		Unsure/no explanation	

Q 28- Self-Knowledge Codes and Themes
Final Codes

Original Codes

Thematic area	Factor		
Academic/ Curricular		Academic/Curricular Factors	
	Classes	Classes/ a specific class	classes of any kind
	Learning about interests in a class	learning about interests through classes	references to learning about new interests, goals from courses
	Faculty/effective teaching	Faculty/effective teaching	Any reference to faculty or teaching approach that increased their own self-knowledge
	Increased academic expectations	Dealing with more challenging classes/higher expectations	references to dealing with difficult classes, what they had to do to do well in class, etc that help them learn about themselves
Non-Academic/Co-Curricular		Co-Curricular Factors	
	Living independently at college	Living independently at college	statements about the effect living on their own, away from family had on their knowledge of who they are, what they are
	Overall collegiate experiences	overall college experiences	broad references to what they learned about themselves from being in college without specifics
	Getting to know others/make friends	Getting to know others/making friends	general statement about effect of getting to know others and making friends (just that act of getting to know people in general)
	Learning about self & interests through others/making friends	Learning about oneself/one's interests through friends/others	specific references to learning about interests/values/self, etc from friends and by finding common bonds with people they spent time with
	Specific co-curricular involvements	Specific out of class Involvements on campus	learning about self and interests through involvement in clubs, greek life, service, etc and working with others with common goals
	Trying new things in new environment	Experiences trying new things/being in a new enviroment	references to role trying new things, being in a new environment had on their self-knowledge
	Experiences in everyday life	Everyday life experiences	more generalized references to life experiences not specifically at college
	Finding acceptance at college/in friends	Finding acceptance through friends or the college environment	Finding friends and a supportive environment in which to "find self" created comfort, safety to do so - this is deeper than the one above
	Interpersonal experiences	Experiences dealing with others (in residence, relationships, etc)	references to learning about self through experiences in residence, relationship, interpersonal conflicts, etc
		Social life/dealing with social situations	references to role building a social life and dealing with the situations (implied difficult ones) that arose

Changes in the Student		Personal Changes in the Student	
	Getting Older/Maturity	getting older/maturity	if they said either of these
	Self-acceptance/confidence who they are	Accepting oneself/increased confidence in who one is	statements reflecting self-acceptance, increased comfort with who they are; defining self rather than letting others define them
	Increased awareness/self-understanding	Increased awareness/understanding/self-knowledge	statements indicating an increase in self-awareness, self-understanding or knowledge of oneself
	General sense of personal growth	personal growth	kind of a catch all of general growth
	Learning about skills/capabilities through success in new things	Learning about one's skills/capabilities from success in new things	reference to the realization of one's competency in areas previously unknown/untried

Student Action/ Effort to Change		Student Efforts to Change	
	Self-reflection/ Assessing personal strengths/weaknesses/ goals	Taking time /Spending time with oneself	actually taking or spending time by themselves, with their own company to get to know self
		Assessing personal strengths/weaknesses	references to examining strengths, identifying areas in need of improvement; analysis
		Taking time to reflect on who one is/interests/beliefs	are, what they are interested in, what they value or believe in
		Taking time to reflect on one's goals/apirations/future	what they want to do with their lives, careers,etc
	Taking steps to redefine oneself	Taking steps to define or redefine oneself	references to "finding self" or reinventing self in the new environment
	Taking action towards goals/imp things	Doing what is important/taking action towards goals	their own goals/values; this is the action after the thought process- the result of some of the codes above
	Working with & seeking assistance from others	Working with/seeking assistance from others	Statements about seeking assistance or working with others to get to know themselves better

Miscellaneous		Miscellaneous	
	Came to college knowing onself	Already knew themselves	Statements that they knew themselves before coming to BSU

Q 29- Self-Esteem Confidence Codes and Themes
Final Codes   **Original Codes**

Thematic area	Factor		
Academic/ Curricular		*Academic/Curricular Factors*	
	Classes/academic success	Classes/ a specific class	when the first year in its entirety is specifically cited
	Participating/engaging in classes	participating/engaging in class	receiving support or positive feedback from a faculty member, when faculty believes in their capabilities
	Faculty support/effective teaching	Faculty/effective teaching	references to dealing with difficult classes, what they had to do to do well in class, etc
	Dealing with tougher acad expectations	Dealing with more challenging classes/higher expectations	confidence from ability to participate or be engaged in class
		academic success in the first year	
Non-Academic/Co-Curricular		Co-Curricular Factors	
		Meeting/getting to know others	references to the fact they were able to meet people and get to know others
	Making friends/building peer support network	Making friends/building a peer support system	specific references to friends/circles of support that builds/built their esteem and confidence
	Support and/or feedback from others	Support from others	references to support from friends, faculty, or family
	Specific co-curricular involvements	Specific out of class Involvements on campus	involvement in clubs, greek life, service, etc that built their confidence
	Overall success in collegiate exps	overall college experiences/being a successful college student	broad references to their success as a college student or in the firs year inspiring a sense of self-confidence
	Finding acceptance at BSU	Finding acceptance at college/the open BSU environment	being accepted for who they are; being on a more open campus environment (more than making friends - being embraced, finding place for self)
	Living independently at college	Living independently at college	successful experiences being on their own and being independent and confidence that grew from it
	Having fun/participating/social life	Having fun/creating a social life/participating in campus events	social endeavors to fit in, enjoy college life, belong etc,
	A job/working	A job/working	success in a job or work situation
	Trying new things in new environment	Experiences trying new things/being in a new enviroment	specific references to trying new things, being out of comfort zone, taking risks, etc
	Experiences in everyday life	Everyday life experiences	more generalized references to life experiences not specifically at college

Changes in the Student		PersonalChanges in the Student	
	Accepting self/caring less about others' opinions	Accepting oneself/caring less about others' opinions	statements reflecting self-acceptance in the face of disapproval or not being liked by others
	Increased awareness/self-understanding	Increased awareness/understanding/self-knowledge	statements indicating an increase is self-awareness, self-understanding or knowledge of oneself
	Getting Older/Maturity	getting older/maturity	if they said either of these
	Learning about skills/capabilities through success in new things	Learning about one's skills/capabilities from success in new things	the realization of one's competency in areas previously unknown/untried
	Inc confidence in own abilities/skills	Increased confidence in skills/abilities to be successful/achieve goals	statements reflecting that their confidence in skills/abilities grew; belief they can achieve goals/do well
	not used	personal growth	kind of a catch all of general growth
Student Action/ Effort to Change		**Student Efforts to Change**	
	Taking action towards goals/increased self motivation	Taking initiative/action toward's one's goals /self-motivation	acting on what they need to do to be successful, attain a goal; evidence of being self-determined
	Taking steps to define or redefine self	Taking steps to define or redefine oneself	references to intentional steps to make changes in who they are
		Dealing with personal/family challenges	knowledge gained from dealing with difficult personal and family issues
	Dealing with personal challenges or peer pressure successfully	Dealing with peer pressure	standing up to others or dealing with peer pressure to act against one's own best interests
	Working with & seeking assistance from others	Working with/seeking assistance from others	when student mentions taking action to seek help or to work with friends or others in this process
Miscellaneous		**Miscellaneous**	
	Came to college self-confident	Already had high self-esteem/confidence	Statements that they were already confident before coming to BSU

Q 30 - Teamwork Codes and Themes
Final Codes

Thematic area	Factor	Original Codes	
Academic/ Curricular		**Academic/Curricular Factors**	
	Group work experiences in class(es)	Group work experience in academic settings	mention of working well with others being an expection or requirement of doing well in a class
	Core curriculum class(es)	Core Class/Classes	mention of any core course that involved working with others in a team
	Faculty/ Effective teaching practices	Faculty/effective teaching	when mention of group work is relative to the classroom
Non-Academic/Co-Curricular		**Co-Curricular Factors**	
	Specific co-curricular involvements	Specific out of class Involvements on campus	work with specific involvements - clubs, greek life, teams, service groups, etc
	Clubs/organizations		
	Being part of an athletic team		
	Community service		
	Taking a leadership role		
	General exp working w/others on campus	Experience/practice working w/others in everyday/campus life	from experiences of getting to know others or working in groups in varous settings on or off campus (may not refer to BSU group exp)
	Exp living & working w/others in residence	Experience(s) living/ working with others in residence	specific residence life references, including having to live with others
	Working w/strangers in groups	Experience working in groups w/stranger	reference to working in groups with people you have never met and adapting to it
	A job/working	A job/working	reference to working on/off campus
	Exp working with others towards goals	Experience working with others towards a goal	When a common goal or purpose is cited
Changes in the Student		**Change in the student**	
	Recognition that own success is dependent on others	recognition that own success depends on working well with others	
	Increased awareness/self-understanding	Increased awareness/ understanding/ self-knowledge	
	Getting Older/Maturity	getting older/maturity	any reference to growing up, getting more mature at college, etc.
Miscellaneous		**Miscellaneous**	
	Came to college able to work with others in a team	Already worked well with others in a team	Any reference indicating student felt they came to BSU with good teamworkskills already

Q 31- Understanding of Difference Codes and Themes

Final Codes | | **Original Codes**

Thematic area	Factor		
Academic/ Curricular		**Academic/Curricular Factors**	
	A specific class/class(es)	Classes/ a specific class	any mention of a class or classes in general
	Diversity in classes/learning from	Learning about differences/diversity in class(es)	when learning about diversity is specifically cited as the result of or occuring in a class
		Diversity in the classroom/working w/diverse students in class	the result of diverse classmates rather than the curriculum/faculty
	Not used	Faculty/effective teaching	
Non-Academic/Co-Curricular		**Co-Curricular Factors**	
	Bridgewater's diversity	Bridgewater's diversity	Broad mention of lots of "groups", different kinds of people, etc at BSU
	Getting to know diverse others on campus	Meeting/getting to know wide range of new/different people on campus	responses that mention talking to others or getting to know different kinds of people
	BSU diversity as first real exposure to others who are different	BSU's diversity as first exposure/opportunity to interact w/ diverse others	When they specifically say they BSU is more diverse than hometown, HS, etc
	Living with diverse others	Living w/diverse others	having diverse roommates or general mention of living in residence with diverse others
	Specific out-of-class experiences	Specific out of class Involvements	inv in clubs, greek life, teams, service, etc that provided exposure to diverse others
	Overall exp in & out of class	Overall experiences in and out of class w/diverse others	general experiences w/o a distinct reference everything about college
	Friendships with diverse others	Interacting w/diverse others on campus	more than meeting - spending time with, being in groups, class projects, etc
		Friendships w/diverse others	specific mention of becoming friends or a friendship altering their perspective
	Intentional campus programming	Intentional campus efforts (events, training, etc)	Any reference to a college sponsored effort to promote diversity - orientation programming, cultural events, etc
	A job/working	A job/working	on or off campus employment

Changes in the Student		Change in the student	
		Learning from and about diverse others/making the effort to	Responses indicating perspective changed due to learning about others who are different or intentional efforts to seek out this knowledge/understanding
	Learning to work with and from diverse others	Learning to work w/diverse others/adapt to diverse perspectives	responses that convey changing behavior to work more effectively w/diverse others
		Recognition that everyone is different/difference is acceptable	general realization that difference is the norm, it is "okay" or shouldn't prevent acceptance
	Recognition that everyone is different/difference is normal	Increased apprecation for difference/its value	clear indication that they now value diversity, people who think/act differently, beyond it is "okay"
		Realization of the diverse world we live in	connecting their experience to real life or the broader society and world- a deeper level of understanding/value for diversity
	Getting older/more mature	getting older/maturity	
	Increased awareness/self-understanding	Increased self-awareness/understanding/self-knowledge	indication of reflection, increase awareness, understanding, comfort, etc
		Becoming more open-minded	
	Finding common ground w/diverse others	Recognizing what one has in common w/diverse others	finding commonalities w/those who are 'different'
Miscellaneous		**Miscellaneous**	
	Already had skill from exps in diverse schools/ neighborhoods	Had previous exposure to diversity/felt they were already accepting	Responses that indicate student felt they came to BSU with an acceptance or appreciation of difference based on HS, hometown, etc

Q 32- Responsibility for Self Codes and Themes
Final Codes   **Original Codes**

Thematic area	Factor		
Academic/ Curricular		**Academic/Curricular Factors**	
	A specific class/class(es)	Classes/ a specific class	Classes/ a specific class
	Inc academic requirements, workload & expectations	Academic requirements/increased academic expectations&workload	Responding to Academic requirements/increased academic expectations & workload & doing what is needed
	Faculty/effective teaching	Faculty/effective teaching	references to Faculty input, lessons leand from effective teaching
Non-Academic/Co-Curricular		**Co-Curricular Factors**	
	Living independently at college	Living independently at college	living on their own, w/o parents (but not any mention of them not being able to do things for the student, just being away)
	Not having parents/others to rely on & take responsibility for them	not having parents to lean on/take responsibility for you	mention of not having parent to dothings for them, not having parents to lean on etc
		no one else to fix your mistakes/do for you/blame for your mistakes	mention of not being able to blame someone else - forced to "fess up"
		Need to do for self to get things done/to be successful	that they had to do it for themselves but not really ownership
	Inc resp/expectations as college student	Increased responsibilities & expectations of being a college student	broad statements about being held more accountable, expectations in college
	Being held accountable by others	being held accountable by others/constructive feedback from others	includes teamwork
	Concern for getting in trouble	concern for getting in trouble	indication of still being "other-directed"
	Interpersonal exps with roommates	Experiences living w/others& resolving interpersonal conflict	roommates & need to live with them or fix problems
	Co-curricular involvements	Specific out of class Involvements	clubs, organizations, etc
	Assistance from others	Not in original codes	

Everyday experiences	Experiences in everyday life	vague or unnamed experiences; no mention of college
A job/working	A job/working	
Changes in the Student	**Change in the student**	
Learning to be resp for own mistakes	learning to take responsibility/make own decisions/from mistakes	generalized learning to do it, experience making decisions, etc
Realization that no one else can be resp for you/your success	realization that no one else CAN be responsible for you/your success	indication of the sense of ownership, self-direction
Increased awareness/self-understanding	Increased self-awareness/understanding/self-knowledge	a level of increased personal awareness
	Understanding/realization that responsibility is part of being an adult	indication that they understand this is an adult expectation
Realization that adults assume resp	recognition of consequences of one's actions/behavior/decisions on self	indication of understanding there are consequences to NOT being responsible
Getting older/more mature	growing up/getting older/maturity	
Finding values/ own boundaries/ sense of integrity	Establishment of values/own boundaries/integrity	indication of establishing what was important, their own expectations of self
Recognizing impact of actions on self and/or others	Recognition of impact of one's actions/behavior/decisions on others	recognizing the effect their actions/errors have on others
Not used	Seeking assistance from parents or others	
Miscellaneous	**Miscellaneous**	
Came to college self-responsible	Came to BSU w/this skills	General statements about being responsible before getting to BSU

Q 33 - Community Involvement Codes and Themes
Final Codes

Original Codes

Thematic area	Factor		
Academic/ Curricular		**Academic/Curricular Factors**	
	Service learning as part of a course	Service Learning as part of a course	this includes psychology class that hung out there
	Faculty/effective teaching	Faculty/effective teaching	mention of any core course that involved working with others in a team
	Service as tie to career goals	Direct tie to academic or career interests/goals	when mention of group work is relative to the classroom
	Class(es)/a specific course		
Non-Academic/Co-Curricular		**Co-Curricular Factors**	
	Specific co-curricular involvements:	Specific out of class Involvements on campus	work with specific involvements - clubs, greek life, teams, service groups, etc
	Clubs/organizations		
	College sponsored community service	Role of the community service center	if they mention the center or its staff
	Being part of an athletic team		
	Fraternities/sororities		
	Taking a leadership role		
	Service as value of group joined		
	Scope of available inv opportunities/ size of community	Breadth/number of opportunities at BSU	references to the number/scope of things they could be involved in on campus
		Easier to be involved/more time/more access living on campus	
	As means to meet people on campus	Means to meet people/make friends/belong	
	A job/working	A job/working	when they said a job increased involvement
	Attending events/activities on campus	attending events/activities/general campus involvements	
	BSU's message about value of inv	BSU's intentional messages about the value of involvement	

To counteract homesickness/replicate HS involvements missed	Means to counter being homesick or replace a high school interest	

Changes in the Student / **Change in the student**

Recognition that involvement is important to self & community	Belief it is important to self and/or community	Anything that sugggests they felt they should be involved; that it is necessary or important
Desire to maximize college experience	desire to maximize college experience/changing priorities/less focus on work	
Motivation to make a difference	motivation to contribute/make a difference	Found involvement to be fun/rewarding/impactful in some way
Making effort to put self out/engage	Making an effort to put self out there/conscience effort to do so	when there is an indication that this was out of comfort zone/hard
Being involved generated more interest	Impact of one involvement sparked additiional ones	
Doesn't like inactivity	Doesn't like to be inactive	
Getting involved was fun		

Impediments to Involvment / **Impediments**

Inability to continue past involvements	Inability to continue w/pre-college involvements/service has decreased inv	some students actually cite less involvement
Challenges of commuting/other resp	Commuting or outside responsibilities make it difficult	
Nothing of interest	Hasn't found anything of interest	Either lack of interesting opportunities or inability to connect w/them
Belief opportunities are open enough	belief opportunities aren't open enough	mention of "regulars" being in everything

Miscellaneous / **Miscellaneous**

Has always been involved	Already is active in community	Any reference indicating student felt they came to BSU storongly involved and are continuing