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Exploring the Relationship between College Student Leadership Experiences and the Practice of Effective Leadership Behaviors

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EXPLORING THE RELATIONSHIP BETWEEN COLLEGE STUDENT LEADERSHIP EXPERIENCES AND THE PRACTICE OF EFFECTIVE LEADERSHIP BEHAVIORS

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The purpose of this study was to identify out-of-classroom leadership experiences which undergraduate student leaders attribute to their own leadership development and to then examine the relationship between those experiences and the practice of five leadership behaviors measured in the Student Leadership Practices Inventory (Student LPI) (Kouzes & Posner, 2006). The behavioral practices measured in the Student LPI are grouped into five themes: (a) challenging the process; (b) inspiring a shared vision; (c) enabling others to act; (d) modeling the way; and, (e) encouraging the heart (Kouzes & Posner, 1987). The following research questions guided the study:

1. To what out-of-classroom student leadership experiences do students attribute the development of their leadership behaviors?

2a. Is there an association between certain out-of-classroom student leader experiences and the leadership behaviors measured in the Student LPI?

2b. What is the strength of any associations that exist?

3. Is there a difference between the experiences of less effective leaders and more effective leaders?

To answer the study's research questions, the researcher applied a sequential mixed-method approach which utilized focus groups and descriptive questionnaires to gather data. Two phases, the second dependent on data from the first, allowed the

researcher to explore the possibility that certain out-of-classroom leadership experiences are characteristic of effective leadership behavior in a sample of 141 undergraduate student leaders at a four-year, private college in the Northeastern United States.

Based on the study's findings, student affairs practitioners now have an empirically-based list of experiences which correlate with the five behavioral practices measured in the Student LPI. The researcher found positive and highly significant ($p <$ .003) correlations in 13 of 15 associations between the experiences and the behaviors examined. Two experience types that contributed to the practice of all five leadership behaviors were (a) those who are leaders who mobilized their membership to coordinate projects or to attend events, and (b) those who involved dialogue between the leader and their membership, such as running meetings or including the members in decision making. Furthermore, this study shows that experience frequency can differentiate between more effective and less effective leaders in four of the behaviors measured.

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CHAPTER 1

INTRODUCTION

Leadership development has been a valued goal of colleges and universities since the earliest institutions of higher education were established (Astin & Astin, 2000), and for just as long, stewarding out-of-classroom learning experiences has been the central role of student affairs personnel (American College Personnel Association, 1996). In fact, research studies have consistently identified leadership development as one of many benefits resulting from participation in out-of-classroom leadership activities, such as student government, programming boards, residence hall management, and other student organizations (Kuh, 1995; Pascarella, Ethington, & Smart, 1998; Shuh & Laverty, 1993). It is not exactly clear, however, if simply holding a student leadership position ensures that leadership development will occur. Therefore, understanding which specific student leader experiences (i.e., biographical data) are most influential in leadership development could help student affairs personnel make improvements to existing student leadership opportunities. For example, student affairs personnel might use this type of information to modify conditions or create situations, such as job descriptions, responsibilities, and training programs, where effective leadership behaviors could be practiced more often and with more students.

Using a mixed-methods approach, the researcher explored the relationship between out-of-classroom student leader experiences and the practice of leadership behaviors. The research design of this study incorporates qualitative and quantitative data collection techniques by using a researcher-developed biographical questionnaire, created from the data gathered in a series of student focus groups, in combination with an

existing leadership behavior questionnaire to examine two constructs: leadership experiences and leadership behaviors.

Background

The quest for ways to develop tomorrow's leaders has challenged educators since the days of Aristotle (Northouse, 2001). In fact, according to Carry (2003), grooming future leaders was among the original functions and founding principles of American higher education. However, it was not until 1978 when prominent scholar, James McGregor Burns (1978), published his work on leadership theory that the study of leadership emerged as an academic discipline (Mangan, 2000; Pulitzer Prize Winner, 2001; James McGregor, n.d.). After three more decades of research on leadership theory, development, and assessment, the challenge of determining what most effectively influences the development of leadership remains.

Thomas Cronin said:

> Leadership . . . is an applied matter, best learned in a summer job, in internships or on the playing fields. You learn it from gaining experience on the job, making mistakes and learning from these. And you should learn it from mentors. (Wren, 1995, p. 29)

Psychologist Daniel Isenberg (1994) discovered that what managers described as intuition in regard to making effective decisions was in fact based on trial-and-error experiences. Evidence in the literature suggests that simply holding the post of team captain or class president will not insure leadership development (Pascarella & Terrezini, 1991). Rather, the development occurs when the student has specific experiences or

challenges where acquired knowledge is transferred through practice into a leadership behavior (Kuh, 1995; Mumford, Marks, Connelly, Zaccaro, & Reiter-Plamon, 2000).

The amount of time undergraduates typically dedicate to attending class and studying each week represents only about one-third of their waking hours (Kuh, Schluh, Whitt, & Associates, 1991). The additional time spent outside the classroom has considerable potential for increasing learning (Astin, 1993; Chickering & Reisser, 1993; Kuh, 1993; Kuh, Schluh, Whitt, & Associates, 1991; Pascarella & Tenenzini, 2005). "Consensus seeking, compromise, and negotiation are indispensable skills for working with people," [skills] more likely to be addressed in out-of-classroom activities than in academic courses (Kuh, Schluh, Whitt, & Associates, 1991, p. 13). Student affairs personnel, therefore, represent a profession bearing considerable responsibility for influencing how undergraduates spend "their largest block of discretionary time" (Kuh, Douglas, Lund, & Ramon-Gyurnek, 1994, p. iii). As a consequence, student affairs personnel across the country do play a significant role in promoting student learning and development on college and university campuses, particularly through students' engagement in leadership activities.

Leadership activities, such as president of a student organization, community service, or committee work, are types of out-of-classroom activity associated with gains in student learning. This kind of student leadership involvement has been correlated with development of humanitarian and civic values (Astin & Kent, 1983; Kuh, 1995; Pascarella, Ethington, & Smart, 1988). A variety of student leadership positions have also been linked to improved self-concept and intrapersonal competence, improved self-esteem, autonomy in peer interactions, enhanced interpersonal communication, and group

dynamics (Kuh, Douglas, Lund, & Ramon-Gyurnek, 1994). When Cress, Astin, Zimmerman-Oster, and Burkhardt (2001) studied developmental outcomes of student leaders, their results showed that the more time students spend in these positions, the more likely they are to show gains in leadership skills. This finding supports the drilling down to discover which types of specific experiences can lead to gains in leadership skill.

Problem

A frequent aspiration of higher education, as cited in college and university mission statements, is student leadership development (Clark, 1985; Roberts, 1981). Nearly 900 colleges and universities provide student leadership programs, such as workshop, seminars, and full-fledged degree programs (Carry, 2003). Research has shown that leadership development is not confined to the classroom or to specific leadership programming; a plethora of opportunities for leadership development are being fostered through the efforts of student affairs personnel in out-of-classroom activities.

Employers have expressed an interest in the type of learning students gain from their out-of-classroom experiences. This is because although students seem prepared in their field of study, they sometimes lack the more practical skills, such as communication, group process, teamwork, and decision-making needed to be successful in the workforce (Kuh, Branch-Douglas, Lund, & Ramin-Gyurnek, 1994). The research confirms that involvement in out-of-classroom activities provides opportunities for development of leadership skills (Kuh, Schluh, Whitt, & Associates, 1991) such as teamwork, decision-making, and planning (Shuh & Laverty, 1983). However, it is not sufficient to know that student leadership positions provide opportunities for students to

develop leadership skills or to know that the time spent in these experiences promotes skill development; it is essential to study which specific experiences are most influential in promoting the rich opportunities where students can practice and develop effective leadership behaviors. Currently, as student affairs personnel evaluate student leaders' effectiveness, they do not have the benefit of knowing how specific experiences within a student leadership position have affected leadership development. If student affairs personnel can know more about which experiences are strongly related to the development and practice of effective leadership behaviors, these experiences can be intentionally reproduced and possibly made available to a broader range of students.

Purpose

The purpose of this mixed-method study was to identify the experiences which student leaders attribute to their own leadership development and to then examine the relationship between those experiences and the practice of five leadership behaviors measured in the Student Leadership Practices Inventory (Student LPI) (Kouzes & Posner, 2006). The behavioral practices measured in the Student LPI are grouped into five themes: (a) challenging the process; (b) inspiring a shared vision; (c) enabling others to act; (d) modeling the way; and, (e) encouraging the heart (Kouzes & Posner, 1987).

Where significant relationships between experiences and behaviors were found to exist, the strength of those relationships were determined in an effort to distill the most influential experiences from the least influential experiences in terms of their ability to characterize effective student leaders. Effective leadership was defined by the percentile scores generated by each participant on the Student LPI (Kouzes & Posner, 2006) self-

report. Disparity in the experiences of effective versus less effective student leaders will also be examined. The following research questions guided the study:

1. To what out-of-classroom student leadership experiences do students attribute the development of their leadership behaviors?

2a. Is there an association between certain out-of-classroom student leader experiences and the five leadership behaviors measured in the Student Leadership Practices Inventory?

2b. What is the strength of any associations that do exist?

3. Is there a difference between the out-of-classroom student leader experiences of less effective leaders and more effective leaders?

Significance

National and regional accreditation agencies continue to exert pressure on higher education to demonstrate effectiveness. The ability to clearly demonstrate if and to what extent learning occurs for students attending college is emphasized in *The Student Learning Imperative,* (American College Personnel Association, 1996), *Principles of Good Practice in Student Affairs,* (American College Personnel Association & National Association of Student Personnel,1997), *Greater Expectations* (Association of American Colleges & Universities, 2002), *Learning Reconsidered* (American College Personnel Association & National Association of Student Personnel, 2004), and *Assessment Reconsidered* (Keeling, Wall, Underhile, & Dungy, 2005). The authors of *The Student Learning Imperative* (American College Personnel Association, 1994) challenged student affairs personnel to measure their own effectiveness by measuring how much students have learned rather than by how many opportunities they have or how satisfied they may

be with their experiences. The evaluation of student learning based on students' involvement in out-of-classroom experiences is a critical practice in student affairs (American College Personnel Association & National Association of Student Personnel, 1997) that helps justify a continued investment of financial and human resources. In *Learning Reconsidered* (2004), seven broad student learning outcomes were identified as a way to express the potential effects of a college education. With an emphasis on learning outcomes, student proficiency can be measured, and a case can be made for the impact that student affairs personnel have on a prominent goal of higher education, namely building effective leaders (Clark, 1985; Roberts, 1981). The call for greater accountability in higher education and an accreditation emphasis on proving effectiveness (Association of American Colleges & Universities, 2002) means student affairs personnel need to demonstrate that their time and money are positively influencing the development of students as leaders.

Another important factor which makes the study of experiences of student leaders worthwhile is the practical matter of securing a job after graduation. While attendance at college has steadily risen, too many students graduate unprepared for a dynamic workplace (Association of American Colleges & Universities, 2002). Employers must ask if graduates have the skills to evaluate evidence, make judgments, take action, resolve conflict effectively, and manage their own learning. An in-depth study conducted from the corporate perspective on the preparedness of young people for the workplace focused on two main questions: (a) "What skills are necessary for success in the workplace of the 21st century;" and, (b) "Do new entrants to the workforce . . . have those skills" (Casner-Lotto & Barrington, 2006, p. 7). In the survey of over 400 employers, results indicated

that employers were disappointed over the deficiencies in applied skills seen in new workforce entrants. Eighty-one percent of employers rated leadership as a very important applied skill for new employees with a four-year degree (Casner-Lotto & Barrington, 2006). When the study delineated the skill deficiencies by level of educational attainment, leadership was the third most frequently-rated deficient skill for four-year college graduates. Student affairs personnel play a significant part of the leadership skill development process "because of the opportunities they provide for students to learn through action, contemplation, reflection and emotional engagement" (Dungy, Evans, Fried, Kornives, McDonald, & Salvador, 2004, p. 12) outside the classroom. Therefore, for student leadership positions to provide the opportunities that they promise (i.e., leadership skill development) the challenge is in knowing which specific experiences do the best job of influencing the leadership development that is so valued by prospective employers. Research that addresses this challenge can provide valuable information about which actual experiences appear to be most or least effective in facilitating leadership development.

During the literature review, links were found between student development, including leadership development, and traditional student leadership positions. However, there was little evidence to illuminate the relationship between leadership experiences occurring while holding formal leadership positions (e.g., managing a budget, meeting with administrators, preparing a meeting agenda, conducting a fundraising activity) and effective leadership behavioral outcomes. Therefore, this study adds to the research literature by identifying the specific experiences of student leaders and describing any

relationships which emerge between those experiences and the five leadership behaviors empirically established by and measured in the Student LPI (Kouzes & Posner, 2006).

When Alan Mumford addressed the need for a coherent approach to leadership skill development, he argued that specifically designed events for learning, using real problems owned by the learner, should be emphasized (Mumford, 1983). The use of a locally designed instrument, in conjunction with a sound and established instrument, i.e., the Student LPI (Kouzes & Posner, 2006), to study the associations between leadership experiences and leadership behaviors provides a suitable methodology for this purpose. A broader, multi-institutional approach using this study's instrumentation may be limited in application, since the environment on each campus is vastly different based on student interactions with the institution (i.e., students create and define the environment). If other institutions model this study's approach, but modify the locally developed instrument using the experiences of its own student leaders, then the research design could very well have value in a wider sphere. Therefore, regardless of institution, student affairs personnel could determine which singular or collective out-of-classroom experiences on their own campus contribute to practicing effective leadership behaviors. Further, student affairs personnel at the host institution may be able to use information from this study to redesign position descriptions, responsibilities, or assignments based on which experiences are shown to differentiate effective leaders from less effective ones.

Definition of Terms

Leadership behaviors. For the purpose of this study, leadership behaviors are defined as the five practices measured in the Student Leadership Practices Inventory (Student LPI) developed by Kouzes and Posner (2006). The leadership practices

originally distilled in the Kouzes and Posner (1987) research are: (a) challenging the process; (b) inspiring a shared vision; (c) enabling others to act; (d) modeling the way; and, (e) encouraging the heart. Two behaviors are embedded within each of the five practices.

Effective leadership. Percentile scores from the Student LPI (Kouzes & Posner, 2006) serves as the metric for differentiating between effective leadership and less-than-effective leadership. Scores of 70% or higher are considered effective and scores below 30% are considered less effective (Kouzes & Posner, 1998).

Out-of-classroom experiences. This term is defined as those educationally purposeful experiences which are structured or unstructured, which occur beyond the classroom, laboratory, studio, or library, and which do not have any direct academic curricular ties. This study focuses on those experiences that occur as part of a student leadership position.

Student leader. A student leader is defined as a student holding a formal role commonly recognized as an undergraduate leadership position. For example, a student leader would be a person holding one of the highest posts within their organization or club (i.e., president, vice president, treasurer, secretary) or having direct responsibility for managing others (e.g., program or team leader, committee chair, supervisor, residence advisor).

Student affairs personnel. In this study, student affairs personnel are salaried college employees who work in the Division of Student Affairs. These are the employees who are responsible for providing services and developing programs that affect many aspects of students' lives outside the classroom.

Summary

The researcher acknowledges that many factors have an impact on leadership ability; however, this study was framed to view leadership development as a process which relies on the practice of learnable behaviors. The researcher hoped to identify student leadership experiences that resulted in increased practices of empirically established leadership behaviors. This information can prove useful to student affairs professionals as they attempt to promote leadership skill development in undergraduate students.

This mixed-methods study explored the relationship between college student leader out-of-classroom experiences and the five effective leadership behaviors measured in the Student LPI (Kouzes & Posner, 2006). The researcher carried out the study in two sequential phases. The first phase used focus groups to explore experiences (i.e., biographical data) that student leaders identified as contributing to their own leadership development. Since biographical data can be used as a reliable predictor of future performance (Reilly & Chao, 1982) and of behavior (Neiner & Owens, 1982), the researcher views its use as compatible with a study of student leadership behaviors in the manner suggested. The focus group aggregate data were then used to create a biographical questionnaire that when administered alongside the Student LPI provided the data needed to examine associations between the out-of-classroom experiences and the practice of effective leadership behaviors. Where relationships were discovered, the strength and direction of the relationships were described. Differences between the experiences of the more effective and less effective leaders were also analyzed.

Many factors make researching the nature of the relationships between specific out-of-classroom leadership experiences and leadership behaviors worthy of study:

1. The types of experiences that student leaders believe are critical to their own development are identified.

2. A useful methodology for measuring the relationship between experiences and specific leadership behaviors is created.

3. Insights about the developmental experiences of student leaders can impact the practices and resource allocation at the host institution.

4. Knowledge in the field is advanced by learning if certain out-of-classroom experiences are statistically linked to the practice of leadership behaviors.

What the data revealed about leadership experiences can encourage student affairs personnel to shape leadership training programs or revise job assignments so that students are more likely to practice effective leadership behaviors. Using John Gardner's (1990) words, "We cannot design a production line that turns out leaders, but we can offer promising young people opportunities and challenges favorable to the flowering of whatever leadership gifts they may have" (p. 158).

CHAPTER 2

LITERATURE REVIEW

College students typically spend over 60% of their waking hours on activities other than attending class or studying (Kuh, Shuh, Whitt, & Associates, 1991). A quote by a senior at Grinnell College highlights the potential for out-of-classroom learning, "One of the things I remember my mother telling me was not to let my studies interfere with my education. What she meant, I guess, was that there are important things to learn at college in addition to classes" (Kuh, 1995, p. 149). In fact, a significant body of research firmly supports the contributions that various out-of-classroom experiences have on student development (Kuh, Branch-Douglas, Lund, & Ramin-Gyurnek, 1994; Pascarella & Terenzini, 2005), including the effects of leadership activities on student development (Astin & Kent, 1983; Cress, Astin, Zimmerman-Oster, & Brurkhardt, 2001; Kuh, 1995; Kuh & Lund, 1994; Pascarella, Ethington, & Smart, 1988).

It is less apparent which out-of-classroom experiences stimulate students' leadership skill development. Student affairs personnel would benefit from knowing which out-of-classroom experiences are more likely to promote the development of the skills and behaviors which enable students to become effective leaders (Astin, 1997). Armed with this information, student affairs personnel could inject the developmentally richest experiences into a multitude of leadership positions and thereby provide student leaders with repeated opportunities to transfer their acquired knowledge into behavioral practices during their leadership tenure.

The research literature used to construct a framework for this study begins with student development and leadership development, then narrows to describe studies

conducted on student leadership, and finally discusses the use of a mixed methodology for answering the research questions.

Theoretical Framework

Student Development

The term *student development* has been most often applied in post-secondary education to describe a student's growth and increased capabilities as a result of enrollment at an undergraduate institution (Rodgers, 1990). Psychologist Nevitt Sanford formally defined development as it relates to college students "as a positive growth process in which the individual becomes increasingly able to integrate and act on many different experiences and influences" (quoted in Evans, Forney, & Guido-DiBrito, 1998, p. 4). It was in the 1960s that psychologists and social scientists became more curious about how students change in college. The student development research and theory that resulted has evolved into a philosophy upon which student affairs personnel base decisions regarding programming, policy development, and the creation of positive growth environments for students.

A thorough review of the literature indicates that there are four theoretical groupings of student development models: (a) typological; (b) cognitive-structural; (c) psychosocial; and, (d) person-environment interaction. These theories all relate to this study because they can help practitioners frame environments that purposefully facilitate development (Rodgers, 1990). For example, typological theories address the individual differences in the way in which people approach their world (i.e., learning styles and personalities) and then categorizes them based on style or preference differences. Kolb's (1981, 1984, 1985) experiential learning and learning style theories consist of a four-step

learning cycle combined with four types of learners. His is a typology designed with a heavy focus on the role of experience, requiring the learner to choose which learning ability will apply each time he or she encounters a situation.

The cognitive-structural approaches to student development focus on the process of change. This viewpoint on development took shape due largely to Perry's (1968) theory on intellectual and ethical development. The theories in this group refer to how students perceive and interpret events in their lives (i.e., meaning-making). On the other hand, psychosocial theories focus on the nature of change and try to describe the issues a person faces at different points in life.

Building on the work of Erikson (1959), Arthur Chickering (1969) identified the establishment of identity as the primary developmental issue of college-aged students. Research conducted by Chickering and Reisser (1993) resulted in a psychosocial development theory referred to as the seven vectors. Each of the seven vectors highlights an issue faced by undergraduates: (a) developing competence; (b) managing emotions; (c) moving through autonomy to interdependence; (d) developing mature interpersonal relationships; (e) establishing identity; (f) developing purpose; and, (g) developing integrity. These vectors were not intended to be sequential, but they do build upon each other, and students might find themselves dealing with issues from two vectors simultaneously or revisiting an issue previously resolved. Chickering and Reisser also presumed that the college environment had a powerful influence on development and identified seven key areas of influence within their theory. Chickering's theory of identity development provides a comprehensive framework that describes how a student

must resolve increasingly complex developmental issues within each vector in order to form a stable personal identity.

Thus far, each of the theoretical groups mentioned acknowledges the role of environmental influences on student behavior and development to some degree. However, person-environment theories examine the details of the environment and how it influences behavior in a more substantial manner. For instance, Sanford's (1967) ideas on student development may have hinged on the psychosocial readiness of an individual to recognize and choose to change (Pascarella & Terenzini, 1991), but he also viewed the challenges and supports within a college environment as vital to creating student development. The person-environment theories represent a shift away from describing the human factors and toward describing environmental factors as the primary source of student development.

Some theorists researched student change from this new perspective by focusing on the impact of the college environment and experiences on student development. Studies by Douglas Heath (1968, 1977) examined the effects of college on maturation of undergraduates, and Feldman and Newcomb (1969) noted peer group influences on student development. These researchers were asking what effect college has on the various aspects of student development. Once again, much of this work was built on psychosocial student developmental models, but it was the beginning of a second family of student development models called college impact models (Pascarella & Terenzini, 2005). College impact models concentrate on the effect (i.e., impact) of college on student development. While both families of theoretical models include the manner in which the student acts or thinks, the college impact models assign a more prominent role

to the environment and in fact, view the "environment as an active force that not only affords opportunities for change-inducing encounters but can also induce particular types of responses" (Pascerella & Terenzini, 2005, p. 60). This study assumes a college impact model of student change and an involvement construct, where the amount of time and energy invested is a predictor of increased benefits. Two large bodies of research by Astin (1970, 1976, 1977, 1984, 1993) and Pace (1979, 1982, 1983, 1984) examined the contributions of various experiences on undergraduate student development from this theoretical perspective.

Astin's (1970) input-environment-outcome model (I-E-O) was one of the first college impact models proposed. The I-E-O model is actually a design for assessing outcomes. According to the model, college outcomes are the result of combining inputs, which students bring to college (i.e., personal, background, and educational characteristics), with the environment (i.e., aggregate of college experiences) that students encounter once they enroll (Schuh & Upcraft, 2001). Astin's evaluation instrument, the Cooperative Institutional Research Program (CIRP) questionnaire, allows the I-E-O college impact model to be applied nationally for the purpose of studying the student outcomes of college (Astin, 1993).

Astin's (1976) interest in studying the environmental factors which significantly affect college persistence led him to test his model further by examining college students' persistence. In 1972 Astin mailed follow-up questionnaires to a randomly selected sample of 101,000 participants, from two-year and four-year institutions, who had first taken the CIRP as freshman in 1968. Of the questionnaires returned, 41,356 were weighted to correct for bias that may result from a non-response to the questionnaires

(Astin, 1976). Astin's follow-up questionnaire included questions about how students financed their education, where they had lived since entering college, and types of jobs held. In addition, the institutions provided student scores on Scholastic Aptitude and American College tests and whether they had completed their degree by 1972. The data analysis had two steps: first to estimate each student's chance of dropping out and then to identify other environmental experiences which may have influenced the chances of dropping out. This multi-institutional, longitudinal study of college dropouts produced a number of strong positive environmental influences on persistence, such as living on campus, membership in fraternities and sororities, participation in extracurricular activities, and holding a part-time campus job. Each of these factors represents a level of involvement in campus life beyond the minimum. Astin also found the most compelling reasons students dropped out of college included boredom, marriage, and pregnancy. These were all factors that prevented students from getting more deeply involved in campus life at their particular institution.

Astin's (1976) findings supported his emerging *theory of involvement*, and he continued to study the impact of college on a wider range of outcomes. Focusing on the effects of several types of involvement, he further analyzed longitudinal data that by this time had been collected on over 200,000 students at more than 300 post-secondary institutions and with more than 80 different student outcomes (Astin, 1977). There are eight types of involvement on which this study focused attention: (a) place of residence; (b) involvement with faculty; (c) familiarity with professors; (d) familiarity with professors in major field; (e) verbal aggressiveness; (f) academic involvement; (g) involvement in research; (h) participation in student governance; and, (i) athletic activity

involvement. In the data analysis, Astin concluded that most forms of student involvement were associated with above average changes in entering freshman characteristics, and for some outcomes involvement was more strongly associated with change than either entering freshman characteristics or the institutional characteristics. Based on these findings, Astin found reason to articulate in greater detail his *theory of involvement* which simply states that "students learn by becoming involved" (Astin, 1985, p. 133). Involvement theory encompasses two elements: (a) the investment in psychological energy or commitment to an activity or project; and, (b) the time devoted to an activity or project (Astin, 1984). Astin's earlier research (1970, 1976, 1977) supports his later theory that much of student development in college can be attributed to the college experience rather than maturation or inputs, such as student or institutional characteristics. Astin (1984) emphasized that there is a behavioral component to involvement and defines involvement as what the student does.

During the late 1980s, this same researcher conducted another four-year longitudinal study about the impact of college and used 192 environmental measures (Astin, 1993) in a follow-up questionnaire. The questionnaire was administered to a stratified random sample of 27,064 traditional-aged, full-time students at 468 four-year colleges. Each of these students had already completed the CIRP when entering college as first-year students in the fall of 1985. The overall response rate was 29.7% (Astin, 1993). The statistical methods used were multiple-regression techniques on the combined inputs to obtain a projected score for each outcome measure. The second part of the analysis estimated the effects of the environmental factors on each outcome measure. Although the resulting comparisons were done separately for students in

different colleges, the weighted results were done in a way that would make them generalizable for the national population of 1985 entering first-year students. Using regression analysis, Astin reviewed the relationship of environmental factors to specific outcomes and noted the direct or indirect effects of each factor. His detailed findings underscore the power of student involvement for influencing students' cognitive and affective development. The impact of Astin's work on this study is the repeated conclusion that the effectiveness of any experience is directly related to how well that experience increases a student's involvement. That is important because it highlights how sheer exposure to the environment, a situation, or an experience may or may not have a developmental consequence.

If student involvement can be viewed as a combination of a student's effort and devoted time, then the research conducted by Pace (1979a, 1982, 1983, 1984) parallels Astin's (1976, 1977, 1984, 1993) in that both examined student experiences to uncover what about the experiences influenced a student's progress toward the attainment of the educational outcomes of college. For instance, Pace (1979a) started trying to measure a concept he called "quality of effort' in the late 1970s. His search for a valid, reliable metric to explain student development from the types of experiences which the college makes possible and are intended to facilitate student development (Pace, 1984) resulted in the creation of a questionnaire, the College Student Experiences Questionnaire (CSEQ). This questionnaire's design focus was on measuring the development process rather than the outcome. Pace devised 14 quality-of-effort scales which reflected student use of an institution's facilities and opportunities in 142 different activities ranging from taking notes to explaining a concept (Pace, 1979a). The 14 scales were grouped into

broad experience clusters "(a) academic and intellectual experiences, (b) personal and interpersonal experiences, and (c) group facilities and opportunities" (Pascarella & Terenzini, 1991, p. 100). On the quality of effort scale, respondents indicated their level of involvement during the academic year for each activity on a "never" to "very often" continuum.

Following pilot testing and revisions, the CSEQ was administered to college students from 13 colleges and universities and in the final analysis included 3,006 respondents (Pace, 1979a). Pace attempted to predict achievement on 18 goals of higher education which had been factor-analyzed to four broad clusters: (a) social development; (b) intellectual skills; (c) general education, literature, and the arts; and, (d) understanding science. Through stepwise multiple regression analysis, Pace found that one or more of the quality of effort scales made the greatest contribution toward explaining each of the four achievement categories measured. Before considering the quality of effort measures, the other criteria (e.g., student background, environment ratings) accounted for 24% to 36% of the performance results. Once quality of effort measures were added, the data then explained 39% to 47% of the performance results (Pace, 1979a). For example, the best predictors for students' progress toward the achievement category called social development are the quality efforts scales dealing with activities intended to promote interpersonal skills and with the use of athletic and recreational facilities. The quality of effort scores are a measure of the college's success in providing a stimulating out-of-classroom environment, the rewards of which would be increased student achievement in key educational outcomes of college.

During the next several years, as Pace continued to collect and analyze CSEQ data from 14,600 students at 62 colleges he found that "the distribution of scores had become reliably constant" (Pace, 1982, p. 30). Pace's conclusion was based on the fact that no percentage at any point in the distribution was changed by more than two points. By 1983, the revised edition of the instrument no longer included the science laboratory scale, and in the conversation topics scale one item was modified and two were added (Pace, 1984). Using this second edition CSEQ, he analyzed data obtained from 2,229 different students at eight different institutions and reaffirmed that generalizations for predicting achievement from CSEQ data were stable (Pace, 1984).

Repeatedly, Pace's analyses (1979, 1982, 1983, 1984) confirmed that time-on-task is important, but greater credence must go to quality of effort, which has a consistent and general predictive value for achievement. Pace (1983, 1984) made another significant conclusion. Unlike prior research holding that student characteristics and personal background are the most important influences on educational achievement in college, in fact, Pace pointed to what students do once they get into college as the most important determinant. Simply put, once a student arrives at college, who they are and where they are matters less than what he/she does. The impact of Pace's work on this research study rests with the validation of effort as a predictor for outcome achievement.

The examinations of undergraduate student development conducted by Astin (1976, 1977, 1984, 1993) and Pace (1979a, 1979b, 1982, 1983, 1984) resulted in many conclusions about the effects of the college environment on students. Amongst the many findings, two important conclusions were (a) the impact that college has on student development is heavily dependent on the institutions' ability to offer experiences which

encourage out-of-classroom student involvement, and (b) a student's quality of effort has the greatest influence on how much development occurs. Using these conclusions as a basic premise, another researcher, George Kuh (1991) provided a slightly different approach to student involvement by exploring the characteristics of colleges that had successfully enticed students to become more involved. Kuh, Schluh, Whitt, and Associates (1991) examined student development by identifying the factors and conditions that foster out-of-classroom student involvement. The resulting compilation of student development research (Kuh, et al., 1991) yielded the characteristics of colleges which were successful at capturing student time and energy outside the classroom. Kuh, et al. (1991) referred to these places as *involving colleges*.

In an attempt to dig deeper into the meaning that students derive from their experiences, Kuh interviewed 149 seniors from 12 different institutions that Kuh, et al. (1991) had previously identified as providing rich out-of-classroom opportunities for students (Kuh, 1994). The conceptual framework for Kuh's (1994) exploratory college impact study was Astin's (1984) involvement principle. Using phenomenological interviews, Kuh (1994) attempted to pinpoint the out-of-classroom experiences that seniors associated with their personal development at college. A five-phase iterative procedure, including both qualitative and quantitative methods, was used to analyze the transcripts. During the first transcript analysis, 8 categories of out-of-classroom experiences and 14 outcome factors were distilled from the data (Kuh, 1995). By the end of the analysis process, the number of experience categories remained the same: (a) leadership; (b) peers; (c) academic; (d) faculty; (e) work; (f) travel; (g) ethos; and, (h) other. However, only five outcome factors had emerged: interpersonal competence;

cognitive complexity; knowledge and academic skills; practical competence; and, humanitarianism (Kuh, 1994).

In Kuh's (1995) general observations of the results, he found that *specific* leadership responsibilities was the category of out-of-classroom experiences mentioned at least once by the most students as being instrumental to some aspect of their personal development. Eighty-five percent of participants reported that specific leadership responsibilities were instrumental to growth in at least one or more outcomes categories (Kuh, 1995). Kuh's research concentration on the experiences outside the classroom, his use of mixed-methods, and his findings in regard to leadership responsibilities are influential to the current study. Kuh (1994) also noted that there is more to discover about the out-of-classroom contributions and recommended that studies which attempt to link various out-of-classroom experiences with specific outcomes would be helpful to decision-makers at colleges and universities.

Leadership Development

The study of leadership from a scientific perspective fits into three periods, referred to as the trait, the behavior and the contingency periods (Wren, 1995).

Trait Period

Beginning in the early 1900s, the study of leadership generated hundreds of trait-driven studies by researchers, such as Terman (1904, 1925), Woods (1913), Kohs and Irle (1920), Page (1935), and Kilbourne (1935). They may have been influenced by the very early work of Galton (1869) who looked at the correlation between leaders and geniuses in an attempt to argue that intelligence is the key to leadership, that the gift of effective leadership is inherited. The trait-based perspectives were built on a theoretical premise

that one is born a great leader and that effective leaders possess certain superior hereditary characteristics. This view restricted leadership to a select group of people with a certain leadership pedigree, and it focused on the leaders exclusively. The primary research methods used to collect the data in these studies were observation, nominations by associates, and analysis of biographical and case study data (Bass, 1990). Although the research is extensive, the trait approach failed to produce a set of universal traits, and even if they had, it would have minimal use for leadership development, since traits are considered inherent gifts (Northouse, 2001). The trait theories have no direct application to this study.

The behavior period was framed by early researchers like Aaronovich and Khotin (1929) who used reinforcements to alter the leadership behavior of monkeys. Many years later, this led to Mawhinney and Ford's (1977) view of leadership in terms of operant conditioning. These theorists experimented with developing leadership behavior through the use of positive reinforcement. By the start of World War II, the behavior period had fully emerged, and researchers like Lewin, Lippitt, and White (1939) began studying the effects of three different leadership styles: (a) authoritarian; (b) democratic; and, (c) laissez faire. Lewin, et al. trained three graduate assistants in the different styles of leadership before measuring the effect the three leadership styles had when the graduate assistants worked with preadolescent boys. Strikingly, their results showed that members of the authoritarian-led group demonstrated greater aggression than the group with democratic style leaders by a ratio of 40 to 1. The study's key findings were not as significant as the fact that Lewin, et al. defined leadership as a behavioral style.

Certain researchers stumbled upon their conclusions about leadership in behavioral terms while researching within another theory construct. For instance, when Ralph Stogdill attempted to distinguish a reliable and coherent pattern of leadership attributes from 124 trait studies, he found varied and conflicting results (Northouse, 2001). Stodgill (1948) concluded, "A person does not become a leader by virtue of the possession of some combination of traits" (p. 64). Stodgill realized that the leader's traits should be relevant to the context in which the leader functions. Stogdill's research review emphasized that traits were not the only factor to consider in the study of leadership and, like Lewin, et al.'s (1939) research, Stodgill's conclusions were important in shifting the focus away from traits and toward what a leader actually does (Bass, 1981). During this time period, other extensive reviews of the trait approach by Bird (1940) and Jenkins (1947) left researchers believing that leadership characteristics are specific to situations, and the interaction between the leader and his or her group should not be ignored.

Behavior Period

In 1945, a group of investigators at Ohio State University who were influenced by the question of what a leader actually does began conducting a series of studies on leadership behavior. The researchers were attempting to describe an individual's behavior while he or she acted as a leader of a group or organization. While the investigators used a variety of methods to answer their question, the Leader Behavior Description Questionnaire (LBDQ) developed by Hemphill (1949) was common to each of the studies. Hemphill and his associates developed a list of 1,800 items describing different aspects of leadership behavior and then sorted them into nine categories (Bass,

1981). One hundred fifty behaviors could be assigned to only one category whereas the rest could be assigned to several. Hemphill and Coons (1957) used those 150 items to develop the first version of the LBDQ. The LBDQ is used to collect leadership behavior descriptions of the leader by him or herself, subordinates, and superiors. Several factor analysis studies by Halpin and Winer (1957) revealed that two factors rather than the original nine were being measured by the questionnaire items. Those two patterns of behavior were identified by Hemphill as *consideration* and *initiation of structure*. Consideration was defined as "the extent to which a leader exhibited concern for the welfare of the other members of the group," and initiation of structure "referred to the extent to which a leader initiated activity in the group, organized it, and defined the way work was to be done" (Bass, 1981, p. 358).

In 1959, Stogdill (Bass, 1981) attempted to account for missing behaviors not captured in the original version of the LBDQ by proposing a major revision. Stogdill constructed 10 additional behavioral patterns that may have lacked complete independence from consideration and initiating structure but had the potential to recapture behaviors lost by focusing on just two factors. The new items Stogdill included were "(a) representation, (b) reconciliation, (c) tolerance of uncertainty, (d) persuasiveness, (e) tolerance of freedom, (f) role retention, (g) production emphasis, (h) predictive, (i) integration, and (j) influence with supervisors" (Bass, 1981, p. 363). Stogdill's (1963) revised version of the LBDQ, called the Leadership Behavior Description Questionnaire-Form XII (LBDQ-XII), used 10 items to measure leadership. Factor analysis results on the data generated using the LBDQ-XII "consistently clusters

around the original two behavioral patterns when no additional constraints are placed on the analysis" (Bass, 1981, p. 367).

Starting with the same basic question of what a leader actually does used by the Ohio State University studies, Kouzes and Posner (1987) and Bennis and Nanus (1995) conducted their own research to uncover and describe effective leadership behaviors. In 1983, Kouzes and Posner began distilling personal best experiences from 550 middle-level to senior-level, private and public sector managers using 37 open-ended questions (Conger, 1992). The Kouzes and Posner approach was very similar to the strategy used by the researchers in the Ohio State University studies because "both focused on what the leaders did most of the time or on average rather than on the context of the behavior" (Vroom & Jago, 2007, p. 17). A shorter version of the questionnaire was administered to an additional 450 managers, and 42 in-depth interviews were also conducted (Kouzes & Posner, 1995). The results were content analyzed by the authors and then validated by two outside readers. Their findings revealed a conceptual framework with five common leadership practices that accounted for more than 70% of the behaviors described in the case studies (Kouzes & Posner, 1987). The five leadership practices are as follows: (a) challenging the process; (b) inspiring a shared vision; (c) enabling others to act; (d) modeling the way; and, (e) encouraging the heart (Kouzes & Posner, 1987).

Based on these results, Posner and Kouzes (1987) ran a factor analysis on numerous sets of behavioral statements and then assigned a five-point Likert scale to each in order to develop an instrument that would measure what leaders do. The instrument was called the Leadership Practices Inventory (LPI), and it was piloted using 120 graduate students. The outcome of these procedures resulted in two, 30-statement

questionnaires called the LPI-Self and LPI-Other. The two forms differ only in whether the behavior described is that of the respondent or that of a subordinate or supervisor rating the respondent. This early version of the instrument was administered to more than 2,100 managers and their subordinates for the purpose of determining internal reliability and to construct validation analysis (Posner & Kouzes, 1988). Internal reliability scores on the LPI range between .81 and .91 (Kouzes & Posner, 1995, p. 343). In terms of validity, a factor analysis revealed that the LPI contains five factors, and the items within each factor corresponded more to themselves than they did to the other factors. In a different validity check, Kouzes and Posner examined the relationship between the leaders' effectiveness and their leadership practices using just the LPI-Other responses. The regression equation was highly significant, with $F = 318.88$ and a $p < .0001$ (Kouzes & Posner, 1995).

In just over a decade, Kouzes and Posner (1993) had expanded their research to include LPI data from over 60,000 respondents and written case studies totaling over 300 subjects. The ways that leaders explained in the case studies how they learned to lead included "trial and error, observation and education" (Kouzes & Posner, 1995, p. 325). The "results are so similar that we conclude experience is by far the most important opportunity for learning" (Kouzes & Posner, 1995, p. 326). This observation is relevant to the current study because it supports a deeper investigation into the content or description of specific leadership experiences and their relationship with effective leadership behaviors.

Kouzes and Posner (1993) continued to assess the LPI's psychometric properties, this time using a database of over 100,000 respondents to make more refinements to the

instrument. In this most recent version of the LPI the 5 point scale was replaced by a more sensitive 10 point Likert scale, and the subordinate and supervisor inventory title was changed from "LPI-Other" to "LPI-Observer" (Kouzes & Posner, 2002). On-going data analysis by Posner (2010a) concluded that the LPI-Self remains valid and reliable.

Using a parallel method to study leadership, Bennis and Nanus (1985) spent two years interviewing a total of 90 leaders about their strengths and weaknesses, past events affecting their leadership approach, and critical points in their career. From their notes they were able to identify four common competencies which all interviewees embodied: (a) clear vision; (b) social architects; (c) creation of trust; and, (d) creative deployment of self. They concluded that "leadership seems to be a marshaling of skills possessed by the majority but used by the minority" (Bennis & Nanus, 1985, p. 25). Although their findings were not empirically tested, their conclusion supports this study's purpose of searching for those out-of-classroom experiences that may be associated with the development and practice of effective leadership behaviors.

After collecting 20 years of data on individual competencies from a wide range of clients, the Forum Company decided to launch a research study into effective leadership practices. The study included 93 managers and 492 associates or observers from seven major corporations (Conger, 1992). Following some of the same themes as Kouzes and Posner (1987), the Forum Company identified four steps in effective leadership, each of which has a set of correlated behaviors: (a) interpreting the environment; (b) shaping the vision; (c) mobilizing followers; and, (d) inspiring the followers (Conger, 1992). The Forum Company's research process differed from other studies (Bennis & Nanus, 1985; Kouzes & Posner, 1987) in the manner in which the data was derived. The Forum

Company utilized observer or associate reports rather than self-reports, while the former researchers used self-report data. Additionally, instruments such as the LBDQ-XII (Stogdill, 1963) and the LPI (Kouzes & Posner, 1987) can use a combination of inputs from self-report, subordinate observation, and supervisor observation for collecting data on leadership behavior. Both the LBDQ-XII and the LPI ask participants to rate how frequently the leader engaged in certain types of behaviors. Since frequency measures speak to the amount of time and energy invested in performing a behavior, a higher frequency rating may suggest a transition from isolated into habitual behaviors.

Two studies conducted in the business world shed light on the value of experiences for stimulating the practice of effective leadership behavior. The first study, conducted by Lindsey, Homes, and McCall (1987), was completed over a period of five years and was actually a series of four sequential research projects. The premise for their research was that leadership development "depends on the experiences one has and what one does with them" (McCall, Lombardo, & Morrison, 1988, p. 5). During the course of the Lindsey, et al. (1987) study, the researchers interviewed 191 executives and managers from six major corporations in an effort to uncover the experiences which contributed to their success (McCall, et al., 1988). The work by Lindsey et al. resulted in 616 events and 1,547 lessons or assignments, which after coding were grouped into five themes: (a) agenda setting and implementing; (b) relationship management; (c) basic values; (d) executive temperament; and, (e) personal awareness (McCall, et al., 1988). The study's subjects were identified as successful; this researcher may only assume that also meant effective.

In the second study from the business world, Jon Kotter's (1990) investigation of leadership development led him to survey several hundred executives from a group of diverse corporations. After analyzing the results of his interview notes and in some cases a 10 page questionnaire, Kotter (1990) identified 8 important developmental experiences: (a) challenging assignments; (b) visible good/bad role models; (c) assignments that broadened knowledge; (d) mentoring or coaching; (e) task force assignments; (f) special projects; (g) formal training; and, (h) inclusion in meetings outside their core job responsibilities. This study only sampled those executives who demonstrated effectiveness according to the survey instrument chosen by Kotter (1990).

Many cases studies of skill development have sought to understand how performance improves as people practice certain tasks over time (Mumford, Marks, Connelly, Zaccaro, & Reiter-Palmon, 2000). For example, the work of Fleishman and his colleagues (Fleishman & Hempel, 1955; Fleishman & Mumford, 1989) on skill acquisition exposed participants to a series of tests which measured their speed of manual response to visual stimuli. Certain abilities such as verbal comprehension were found to be related to the level of performance during early stages of practice. On the other hand, abilities like reaction time were most related to level of performance in the latter stages of practice. These researchers (Fleishman & Hempel, 1955; Fleishman & Mumford,1989) concluded that overall performance improves with practice and that the factors contributing to performance of complex skills vary depending on the subject's stage of overall development. In an extension of that research, Ackerman's (1990) research study collected the performance data of college students on a simulated air traffic controller task to determine the influence of ability variables that could serve as predictors of the

successful acquisition of a complex skill. The study results suggested that skill acquisition proceeds through three stages: (a) understanding the task requirement; (b) comparing that which is presented with what is remembered; and, (c) performing a task automatically. These findings highlight skill development as a result of practice through simulated experiences.

A principal goal of Mumford, et al. (2000) was to demonstrate that leadership ability increases as a function of experience. In their research study, a sample of Army officers were asked to complete measures that assessed (a) key leadership skills, (b) career achievement, (c) problem solving, and (d) best performances. In addition to these skill and leadership measures, the officers were asked to complete two inventories intended to assess career development experiences and job assignments over the previous five years. Mumford, et al. found that certain assignments correlated with improved leadership skill levels at certain points in a leader's career. "Assignments, such as: (a) problems with multiple components; (b) long-term planning; (c) novel ill-defined problems; (d) diverse experiences; (e) autonomy; and, (f) boundary spanning" (p. 106) were found to be effective at improving leadership behaviors early in a career. In one of their conclusions, Mumford, et al. pointed out that making broad statements about which types of assignments are most likely to contribute to leader development are possible once the structure of leadership skill acquisition is understood. The findings from this study (Mumford, et al., 2000) suggest that a researcher can make advanced predictions that certain well-designed situations create experiences which lead to leadership behavior development. These types of experiences are precisely what the current study is designed to uncover.

Contingency Period

By the late 1960s, the contingency period of leadership theory had begun and was based on the belief that one's leadership behavior needed to be appropriate to the situation or task (Conger, 1992). Fiedler (1964, 1967, 1971) was one of the first to experiment with a model that included leader traits and situational variables. Fiedler (1967) studied the effectiveness of relationship-motivated and task-motivated leaders in eight different situations. The leader's effectiveness was defined by each group's performance on an assigned task (Fiedler, 1964). Based on his findings, Fiedler (1967) argued that leadership motivation is an innate characteristic and therefore more closely aligned to trait theory than behavioral theory, and he inferred that a leader should be placed into a situation that is favorable to his or her style.

Other contingency theory researchers attempted to match leader style to a particular context. Two such studies (Vroom, 2000; Vroom & Jago, 1988) support this premise using a model that guides leader behavior, in this case decision-making, according to the situation. This approach represented a narrow focus based on the degree to which a leader involves subordinates in decision-making based on two main factors: significance of the decision and importance of subordinate group support for the decision. A normative model originating with Vroom and Yetton's (1973) research, defined five different decision-making procedures that directed leaders to the *best or most appropriate method*, ranging from totally autocratic to very participatory, for making a decision. These researchers continued to collect examples of unsuccessful and successful decisions in six different studies over 25 years and from more than 100,000 managers in order to: (a) better understand the situational factors that affect behavior; and, (b) create a model

that would maximize successful decisions (Vroom, 2000). A significant conclusion of this research showed that decisions made using the Vroom and Yetton (1973) model were twice as likely to succeed.

Still other researchers developed approaches based on or related to contingency theory, such as the contrasting models of transactional and transformation leadership first described by Burns (1978) and later refined by Bass (1990). Transactional leadership involves the exchange of a reward or punishment contingent on performance while transformational leadership relies on the leader's ability to inspire followers to perform by appealing to their ideals and moral values. These two approaches differ on the process used by the leader to motivate followers and on the type of goals set (Hater & Bass, 1988).

Transactional and transformational leadership have been a curiosity for many researchers in the contemporary era and as a result the theories have continued to be modified based on this additional research. Two such developments included the notation by Bass, et al. (1987) and Waldman, Bass, and Yammarino (1990) that transformational leadership was an extension of transactional leadership and expansion of the model from five to nine confirmed leadership factors (Antonakis, et al., 2003; Avolio, et al., 1999; Bass, et al., 1999; Den Hartog, et al., 1997; Goodwin, Wofford, & Whittington, 2001; Hater & Bass, 1988; Howell & Avolio, 1993; Yammarino & Bass, 1990). The contingency-related theories impact this study to the extent that they provide empirically based examples of leadership styles associated with effective leadership for a given context.

Different perspectives on leadership theory and development continued to evolve in an effort to define leadership and unravel the mystery of how people become effective leaders. Rather than studying leadership in terms of inherent personal characteristics (i.e., traits theory) or styles that are dependent on the situation at hand (i.e., contingency theory), this study assumes that the relationship between the leader and group members (i.e., behavioral theory) is the key to effective leadership because it presumes that a set of identifiable behaviors are what set a leader apart from the rest of the group. It is that premise, combined with the concept that time on task (i.e., practice) contributes to development success, which serves as the theoretical basis of this study's approach to the stated problem.

Student Leadership

Although institutions of higher education have placed an emphasis on leadership as a desired outcome of college (Astin & Astin, 2000), there remains some question about how successful institutions have been at fulfilling this aspiration. The results of an in-depth, corporate-perspective study (Casner-Lotto & Barrington, 2006) on the preparedness of young people for the workplace indicates that employers were disappointed in a deficiency of applied skills seen in new workforce entrants. Eighty-one percent of employers rated leadership as a very important applied skill for new employees with a four-year degree. When their study delineated the skill deficiencies by level of educational attainment among four-year college graduates, leadership was the second most frequently rated applied skill deficiency (Casner-Lotto & Barrington, 2006).

In contrast, one of many self-reported, identifiable effects college has on students is an increased confidence in their own leadership abilities (Pascarella & Terenzini,

2005). An example is illustrated in the conclusions drawn from the Astin's longitudinal study of 27,847 undergraduates using the CIRP in the first year and again in the senior year (Astin, 1993). This study differs from his previous work in that it includes additional environmental measures not available when his previous study (Astin, 1977) was conducted. His purpose was to show how students are affected by various college environmental characteristics and experiences. Based on his analysis, Astin consistently found that students reported leadership skills improvement during their time in college and in ways not statistically related to a set of pre-college characteristics (e.g., race-ethnicity, sex, socioeconomic status). Astin (1993) also found that age was not a statistically significant contributing factor to the change in leadership abilities; however, the number of years in college demonstrated a positive relationship. Using a different sample, Astin and Cress (1998) confirmed these conclusions about leadership skill increases being a consistent net effect of college. Much of this research suggests that the experiences students have while enrolled in college are the most powerful predictors of leadership development in college.

Studies have shown that students in leadership positions do develop desirable self-regulatory skills. Cooper, Healy, and Simpson (1994) conducted a longitudinal study with 1,193 undergraduate students. The study utilized the Student Developmental Task and Lifestyle Inventory (SDTLI) (Winston, Miller, & Prince, 1987) which is an evaluation tool based on the psychosocial development theory of Chickering (1969). Based on the participants' involvement in student organizations and leadership, Cooper, et al. (1994) found a connection between involvement in leadership positions and student development outcomes in two groups: (a) freshmen undergraduate leaders and non-

leaders; and, (b) and individual student leaders comparing their first year to their third year. Cooper, et al. also found that freshman students holding leadership positions in student organizations scored significantly higher than non-leaders on the following SDTLI dimensions: (a) developing purpose; (b) educational involvement; (c) career planning; (d) lifestyle planning; and, (e) life management. Student leaders showed significant growth over a three-year period in each above-mentioned dimensions plus cultural participation.

There is also an abundance of empirical evidence solidly attributing specific leadership skill development in college students to involvement in various student leadership activities (Cooper, et al., 1994; Cress, et al., 2001; Kezar & Moriarty, 2000; Kuh, 1995; Pace, 1984; Pascarella, Ethington, & Smart, 1988; Shuh & Laverty, 1983; Whitt, 1994). Leadership skills, such as decision-making ability, willingness to take risks, tolerance for ambiguity and complexity, improved conflict resolution skills, and program implementation, develop reliably for those students involved in formal leadership classes, educational programs and activities, and leadership positions. Student leadership positions do encourage and in many cases require students to develop competency in leadership skills, such as decision making, group process, teamwork, and critical thinking, all of which are needed for them to be successful in the workplace (Tucker, 1992). When Cress, et al. (2001) examined the impact of student leadership activities on 875 undergraduate leaders, they found a positive association between leadership activity participation and leadership skill, values, and cognitive understanding (i.e., conflict resolution, clarity of personal values, and understanding of leadership theories). Based on the data, the researchers were able to discern three common elements

that had direct impact on leadership development: (a) opportunity for service; (b) experiential activities; and, (c) active learning through collaboration. This study found no significant differences in leadership development based on the gender of program participants. Interestingly, when Whitt (1994) researched women and leadership, she focused on the environmental factors that influenced leadership development. After interviewing 200 students, faculty, staff, and alumnae at three, four-year women's colleges about how they learned to lead, she found among other things, that high expectations and the specific job responsibilities they had in their leadership positions were very influential (Whitt, 1994).

Kezar and Moriarty (2000) focused on differences by race in their study of environmental factors which influence student leadership development. Using CIRP self-reported data of the same undergraduates from 1987 and then again in 1991, researchers (Kezar & Moriarty, 2000) found certain variables to be strong predictors of leadership ability. For example, being elected to office was the strongest predictor of leadership ability for Caucasian men. Not as strong, but labeled as significant predictors with the same population, were (a) being a part of ROTC, (b) holding a resident advisor position, and (c) participating in an internship. In contrast, for African-American male student leaders, volunteer work was the strongest predictor followed by the significant factors of class projects and cultural awareness workshops.

Using the Student Leadership Skills Inventory (Crowder, 2001) as the evaluation tool, Hall-Yanessa and Forrester (2004) examined the differences in reported leadership skills before and immediately following a one-year leadership role as a sports club officer. The researchers set out to identify leadership skills that were gained from the

leadership experience and found that the top five skills identified by the leaders were not the focus of any meeting or workshop provided by student affairs personnel during the year. It appears that the leaders were indicating that the skills developed were based on their leadership experiences, not a structured training session. The top five student leadership skills identified as growth areas were (a) respecting the rights of others, (b) being sensitive toward people who are different from themselves, (c) understanding the consequences of their own actions, (d) relating well to the opposite gender in work-type situations, and (e) identifying their own personal values.

The findings of Cooper, et al., (1994), Cress et al., (2001), Hall and Forrester (2004), and Kezar and Moriarty (2000) support that even in cases where formal leadership classes or programs are limited or nonexistent, traditional student leadership opportunities are effective catalysts for student leadership development. At institutions relying predominantly on out-of-classroom leadership opportunities as the primary means of developing leadership skills, it would be useful to have an instrument designed specifically to measure leadership effectiveness in undergraduates.

After reviewing the leadership literature, Brodsky (1988) noticed a lack of valid instruments for measuring leadership development in college-age students. Posner and Brodsky (1992) added, "the assessment techniques [that were] used have generally been borrowed from non-college environments" (p. 231). Therefore, to close the gap Brodsky (1988) used the same case study approach as Kouzes and Posner to adapt the LPI (Kouzes & Posner, 1987) for use with college student leaders. The study's interview data were content-analyzed, and the resulting 264 responses were coded into the five leadership behavior themes used in the original version of the LPI (Posner & Brodsky,

1992). The leadership behaviors measured in the Student LPI include: (a) challenging the process; (b) inspiring a shared vision; (c) enabling others to act; (d) modeling the way; and, (e) encouraging the heart. Posner and Brodsky modified 23 of the 30 questions to obtain more appropriate language and context for the pilot version of the Student LPI. Following the pilot, 83% of the questions were considered clear and understandable. Based on respondent recommendations, the unclear statements were rewritten. During the field study Posner and Brodsky sampled fraternity officers on 100 college campuses using a self-report Student LPI and an observer-report Student LPI to measure the leadership behaviors (Posner & Brodsky, 1992). Leadership effectiveness was measured using 10 questions posed to the observers only. A regression analysis, using the leadership practices as the independent variable along with correlations, confirmed that "effective versus less effective student leaders vary in their leadership practices as measured by the Student LPI" (Posner & Brodsky, 1992, p. 236). This means that those students viewed by observers as most effective were the same leaders who measured higher on the frequency of practice scales. Effective leadership scores are those in the 70th percentile and higher, and those scores at or below the 30th percentile are considered low (i.e., less effective). Interestingly, a finding not consistent with other studies using the LPI was that self-perceptions were not significantly different from those of observers, like a subordinate. In other words, when compared to the LPI used with post-graduate populations, the Student LPI's ability to measure self-perceptions of leadership effectiveness appears to be a valid metric regardless of whether observer reports are utilized.

The Student LPI (Kouzes & Posner, 2006) was later used to evaluate practical behaviors and actions of resident advisors (Posner & Brodsky, 1993), sorority chapter leaders (Posner & Brodsky, 1994), and orientation leaders (Posner & Rosenberger, 1997). Results from each of these studies also support the original findings that effective leaders are seen, by the leaders themselves and subordinates, as engaging in the leadership behaviors more frequently than less effective leaders. Another study (Posner & Rosenberger, 1998) revealed that compensated versus volunteer status and elected versus non-hierarchical statuses do not generally affect leadership practices. Based on the strong validity of the Student LPI with effectiveness measures, a normative statement can be made that students who score high are more likely to be effective leaders, and as they increase their behaviors along each of the themes, they become more effective leaders (Kouzes & Posner, 1998). This instrument was selected for use in the current study for its direct applicability to undergraduate student leaders and its strong psychometric properties.

Considering that both higher education and the business world place value on effective leadership, there is reason to examine further those student experiences which stimulate leadership skill development. Involvement in student leadership positions is one such example of experiences that contribute to leadership skill development. Since research has shown that ability improves with practice, this study uses frequency ratings on five empirically-based effective leadership behaviors and the experiences which student leaders identify as contributing to leadership development to attempt to uncover the most practice-dense experiences for leadership development.

Perspectives on Methodology

According to Tashakkori and Teddlie (2003) a mixed-method design would include both quantitative and qualitative data collection and analysis techniques in each phase of the study. The researcher selected a mixed-method approach conducted in sequential stages for the purpose of answering distinctly different research questions within a single study. The usefulness of this approach is in its function to make inferences at the conclusion of phase one, which leads to the design of the second phase (Green, Caracelli, & Graham, 1989).

The mixed-method typology utilized for this study was supported by the classifications of Creswell's (2002) *sequential exploratory* and of McMillan and Schumacher's (2001) *developmental*, where one phase precedes and depends on the other. As prescribed, this study began with qualitative data collection and analysis followed by a separate quantitative data collection and analysis. In the behavioral and social sciences, this design approach is "often discussed as the design used when a researcher develops and tests an instrument" (Tashakkori & Teddlie, 2003, p. 227).

Exploratory studies of leadership conducted by Kuhnert and Russell (1990) and Wiater (2001) applied a mixed-method approach to study the relationship between biographical experiences and leadership behaviors. These studies are briefly summarized in the next section.

Use of Biographical Data

Biographical information (biodata), such as previous life or work experiences, has been used to make personnel selection decisions for hundreds of years (Owens, 1976). Numerous studies have examined the use of biographical data for selecting personnel for

leadership positions in the business sector. Selecting personnel typically relied on comparisons of knowledge and skills required for job performance, not how previous experiences related to future tasks (McCormick, 1976). When compared to other broadly utilized selection techniques, including cognitive tests, the personnel selection literature reveals biodata to be ranked very high in predictive power on work-related criteria (Kuhnert & Russell, 1990).

Biodata has been shown to capture systematic and continuing differences between subgroups of people, which can then be used to yield factors over time and across samples (Davis, 1984; Eberhardt & Muchinsky, 1982, 1984; Neiner & Owens, 1985). Biodata instruments are consistent in their ability to predict criteria like "job choice, vocational preferences, job turnover, and job performance" (Russell, Mattson, Devlin, & Atwater, 1990, p. 569). Biodata items can represent a previous event outcome, which in turn can be used to predict future event outcomes, even though the causal influences relating the two are unknown (Kuhnert & Russell, 1990). For instance, a study by Guion (1965) found that the biodata item, "Did you ever build a model airplane as a child that flew?" was the best predictor of performance in World War II flight school.

Owens (1976) developed a biodata collection instrument called the Biographical Questionnaire (BQ). The original BQ was a 659-item instrument which was later factor analyzed to a 118-item questionnaire which covered experiences such as family life, school-related activities, religious activities, and sports participation (Eberhardt & Muchinsky, 1982). The BQ represented an early model for interpreting meaningful life experiences in a self-report questionnaire format. Over time, the BQ was factor analyzed

for item stability (Eberhardt & Muchinsky, 1982; Owens & Schoenfeldt, 1979) with positive results.

Using biodata to collect experiences is one way to investigate leadership development (Kuhnert & Russell, 1990; Mumford, Stokes & Owens, 1990; Southwick, 1998; Wiater, 2001). In the study by Kuhnert and Russell (1990), the researchers attempted to link personnel selection and leadership development by using a selection procedure of known predictive power (i.e., biodata). They were looking for experiences that elicited a variety of behaviors which might show how a person relates to others in his/her role as leader. Kuhnert and Russell (1990) asked leaders to identify both positive and negative experiences which were critical to their development. The next step was to explore why the experiences were important, what was learned, and what was not learned. The integration of biodata research with constructive developmental theory was based on two premises: (a) that prior life experiences influence current behavior; and, (b) the meaning leaders draw from prior experience influences subsequent behaviors and reactions to situations (Kuhnert & Russell, 1990). Kuhnert and Russell's study sheds light on how experiences predict future performance. The value in applying their strategy to leadership development programs lies in the ability to identify experiences that contribute to the future performance of the leader.

Wiater (2001), in examining how transformational leaders make meaning from life experiences, used the Kuhnert and Russell (1990) research to design her mixed-method study. Wiater used two quantitative surveys, the Multifactor Leadership Questionnaire (MLQ) (Avolio & Bass, 1995) and a modified Life Experiences Questionnaire (LEQM) to collect data. The LEQM is a revised version of the LEQ

(Southwick, 1998). The language within the LEQ questions was changed to target more recent life experiences, such as those at work and in college, in order to produce constructs more closely related to leadership. As a follow-up to the questionnaires, Wiater (2001) conducted structured interviews with 15 doctorate of ministry students in order to help explain the meaning leaders assigned to their experiences. Wiater found that some experience themes emerged that were consistent with the dimensions of transformational leadership. Wiater's research has value to this study because she was able to identify high impact life experiences that resulted in a greater understanding about leaders' ability to make meaning from their experiences.

Use of Focus Groups

The structured focus group interview had its "origins in market research but is now widely used in education and social science research" (Witkin & Altschuld, 1995, p. 32). The purpose of gathering biographical data in a focus group format is to uncover experiences and consider the meaning that participants make of their experiences. For this reason, focus groups are an ideal method of identifying the experiences that student leaders attribute to their own leadership development. The use of focus group participants with prior relationships with one another (i.e., they hold the same type of student leadership role) will be utilized in this study. This strategy is appealing for maximizing the opportunity for focus group participants to engage in active, open discussions of their experiences (Johnson & Christensen, 2000, 2004; Morgan, 1998).

Focus groups rely on the strengths of qualitative methodology (e.g., exploration) to understand constructs in depth and in context. In order to gain that type of understanding, Tashakkori and Teddlie (2003) recommend that a study which follows a

focus group format which is purely qualitative use a series of five to ten open-ended questions. A number of scholars, such as Lengua, et al. (1992), Johnson and Christensen (2000, 2004), and Morgan (1998) suggest that maintaining a range of 6 to 12 participants per focus group allows opportunity for ample dialogue that remains focused on the research topic. The instrument used to guide focus groups, for the purposes of consistency and future comparison of the data between groups, is called a protocol (Roberts, 2009). Krueger and Casey (2000) provide the following guidelines upon which to build a solid protocol:

1. Determine questions to be asked that are conversational, easy for the moderator to pronounce, familiar to participants, open-ended, and normally one dimensional.
2. Sequence the questions in a manner that puts the easiest questions at the beginning and flows from general to more specific questions.
3. Categorize questions by purpose and place them into opening, introductory, transitional, and ending question types.

The final format for the focus group protocol may range from a structured script that is read by the moderator to a simple list of questions. A more formal and structured narrative protocol is often used to maintain consistency for a novice moderator.

Use of Questionnaires

Questionnaires are valuable to social scientists in collecting large amounts of data nearly simultaneously about people's behaviors while keeping participants' identities confidential. This approach also allows the researcher to discover relationships across a particular sample population. Another advantage to questionnaire research is that the

participant responses result in data that is easy to analyze, especially when participant choices are rating scales (Patten, 2001) rather than open-ended questions.

Well-known and respected national research studies on student behavior, such as The Cooperative Institutional Research Program Freshman Survey (Sax, Astin, Korn, & Mahoney, 1997) and the Core Alcohol and Drug Survey (Presley, Meilman, & Cashin, 1996), use the self-report questionnaire format. Studies (Syndodinos & Brennan, 1988; Waterton & Duffy, 1984) that have addressed the candor of self-report data, especially on sensitive topics, found that responses were less inhibited on electronically administered questionnaires when compared to interviews or interviewer-administered paper and pencil ones. Ultimately, the credibility of self-report data is dependent on the clarity of the questions, whether the respondents have a good base of reference for the answers they provide, and whether the respondents regard the questions as worthy of a thoughtful response (Pace, 1984).

Survey research has clear and comprehensive guidelines which, when followed closely, produce valid and readily interpretable data (Pinsonneault & Kraemer, 1992). Adhering to established guidelines combats a common criticism about careless and inadequate design (Gay & Airasian, 2000). Several broadly accepted principles for constructing a questionnaire are as follows:

1. Ensure that questionnaire items match the study's objectives (Gay, Mills, & Airasian, 2009; Johnson & Christensen, 2004).
2. Use language that is familiar to the participants (Johnson & Christensen, 2004).
3. Create questions that are clear, precise, and relatively short (Gay, et al., 2009; Johnson & Christensen, 2004).

4. Avoid leading or loaded questions (Gay et al., 2009; Johnson & Christensen, 2004).
5. Do not use double-barreled or compound questions (Johnson & Christensen, 2004; Patten, 2001).
6. Do not use double negatives (Johnson & Christensen, 2004; Patten, 2001).
7. Choose mutually exclusive and exhaustive response categories (Johnson & Christensen, 2004; Patten, 2001).
8. Create a questionnaire that the participant can use with ease (Johnson & Christensen, 2004).
9. Always pilot test your questionnaire (Gay et al., 2009; Johnson & Christensen, 2004).

In a study where questionnaire data is collected in a self-report format, a cross-sectional survey technique that accounts for data at a single point in time for the sample population, is "routinely used to assess the frequency with which people perform certain behaviors" (Visser, Krosnik, & Lavrakas, 2000, p. 225).

The use of questionnaires which are relevant to the study's research questions and specific to the constructs being studied is also important. The Student LPI (Kouzes & Posner, 2006) was specifically created to fill a void that existed for measuring leadership development in undergraduates with valid instrumentation. The five leadership behaviors that emerged in the Brodsky study matched those substantiated in the original LPI (Kouzes & Posner, 1987). The effective leadership behavioral practices are: (a) challenging the process; (b) inspiring a shared vision; (c) enabling others to act; (d) modeling the way; and, (e) encouraging the heart.

The LPI (Kouzes & Posner, 1987) and the Student LPI (Kouzes & Posner, 2006) are behaviorally-based in that two leadership behaviors are embedded within each of the five practices providing a means for learning to lead. Each leadership practice along with the corresponding leadership behaviors, referred to as commitments, is shown in Table 1.

The Student LPI (see Appendix A) was selected as the instrument to use because of its direct applicability to undergraduate student leaders, its strong psychometric properties, and its relationship to the behavioral theory of leadership upon which this study relies. A summary of the research methodology and statistical analysis used by Brodsky (1988) and then Posner and Brodsky (1992) was included earlier in this chapter.

A number of studies that used the Student LPI (Kouzes & Posner, 2006) reported that gender, age, ethnicity, GPA, year in school, or academic major (Endress, 2000; Posner, 2004; Posner & Brodsky, 1993, 1994; Posner & Rosenberger, 1997; Pugh, 2000; Wilcox, 2004) did not explain differences in leadership behaviors or differences in response to leadership development programs. In fact, the Student LPI appears to "demonstrate relative independence" from these demographic factors (Posner, 2009, p. 555).

Table 1

The Five Practices and Ten Commitments of Exemplary Student Leadership

Leadership Practice	Leadership Behaviors
Challenging the process	1. Search out challenging opportunities to change, grow, innovate, and improve. 2. Experiment, take risks, and learn from the accompanying mistakes.
Inspiring a shared vision	1. Envision an uplifting and ennobling future. 2. Enlist others in a common vision by appealing to their values, interests, hopes, and dreams.
Enabling other to act	1. Foster collaboration by promoting cooperative goals and building trust. 2. Strengthen people by giving power away, providing choice, developing competence, assigning critical tasks, and offering visible support.
Modeling the way	1. Set the example by behaving in ways that are consistent with shared values. 2. Achieve small wins that promote consistent progress and build commitment.
Encouraging the heart	1. Recognize individual contributions to the success of every project. 2. Celebrate team accomplishments regularly.

Note: From *The Leadership Challenge* (p. 301), by J. M. Kouzes and B. Z. Posner, 1987.

Summary

The literature review has clearly established that *involvement, quality of effort*, and *out-of-classroom experience* are fundamental to the developmental process of undergraduates. In addition, the conclusions reached in the research of Astin (1976, 1977, 1993), Kuh (1981, 1985, 1994), Kuh, Krehbiel, and MacKay (1988), Kuh, et al. (1991), and Pace (1979a, 1982, 1984) demonstrate strong support for the argument that student learning is enhanced by involvement in out-of-classroom experiences.

Review of the leadership development literature also yielded several categories of leadership behaviors consistently used in the design of assessment instruments or for the development of leadership theories. Research on college students shows that participation in out-of-classroom activities results in important leadership development in skills such as teamwork, decision making, and planning (Shuh & Laverty, 1983). In addition, the studies (Kuhnert & Russell, 1990; Mumford, Stokes, & Owens, 1990; Southwick, 1998; Wiater, 2001) examined provide a foundation for studying student leadership behaviors using biographical data (i.e., out-of-classroom student leadership experiences).

There is little doubt that undergraduates can gain a conceptual understanding of effective leadership behaviors through many sources, but it is often left to student affairs personnel to shape the out-of-classroom opportunities where students can practice various leadership behaviors. There is more to understand about the impact of leadership experiences on leadership behavior development. Even with the variety of large scale studies conducted in a higher education setting (Howe, 1996; Roberts, 1981; Spitzberg, 1986; Welch, 2000), researchers have not explicitly explored the relationship between the

specific experiences students have in leadership positions and the practice of effective leadership behaviors. Except for several single-institution studies (Baxter-Magolda, 1992; Whitely, & Associates, 1982; Wilson, 1966), there is little evidence showing reliable links between specific out-of-the-classroom student leader experiences and a desired outcome. Studies that attempt to link leadership positions, "such as student government, volunteerism or certain on-campus jobs to specific outcomes would be useful to institutional decision-makers responsible for weighing the merits of allocating resources to such activities" (Kuh, 1994, p. 293). Toward that end, the researcher chose a mixed-methods approach to explore the possible links between various experiences students have in leadership positions and the practice of effective leadership behaviors. In a qualitative phase, the researcher the used focus groups as the technique best suited to reveal the types of out-of-classroom experiences that student leaders attribute to their leadership development. Data analysis from the first phase informed the second phase by providing the content necessary to build a locally designed biographical questionnaire. The administration of descriptive surveys in the second phase allowed the researcher to examine the existence, direction, and strength of the any relationships between the designated variables: (a) leadership experiences; and, (b) leadership behaviors. It also provided data for exploring experience differentiation between less effective and more effective student leaders.

CHAPTER 3

METHODOLOGY

The purpose of this study was to explore out-of-classroom student leadership experiences and to then discuss the nature of any relationships between those experiences and the practice of five effective leadership behaviors. A sequential mixed-method design was used to answer three research questions. The methodology included a qualitative technique to identify the independent variables (i.e., out-of-classroom student leadership experiences) and then a quantitative approach was employed to search for any associations linking the leadership experiences to known, empirically established dependent variables (i.e., effective student leadership behaviors).

During the qualitative phase of the study, a series of focus group sessions were conducted to identify the out-of-the-classroom experiences that student leaders believed contributed to their leadership development. The quantitative phase of the research consisted of a field study using two descriptive questionnaires: (a) a biographical data questionnaire (LBQ) derived from the results of the qualitative phase; and, (b) the Student LPI (Kouzes & Posner, 2006) that emerged from the literature review. Due to the nature of the study and because the data was derived from human subjects, approval to conduct the research was secured in January 2011 from the Institutional Review Board of East Stroudsburg University, the Institutional Review Board of Indiana University of Pennsylvania, and the undergraduate institution where the research took place.

The use of two different instruments in the second phase made it possible for the researcher to describe the nature of any relationships between the student leaders' experiences and the leadership behaviors measured in the Student LPI (Kouzes & Posner,

2006). Understanding which experiences are influential in producing effective leadership behaviors could be useful to student affairs personnel when designing student leader job descriptions, responsibilities, and training programs.

Population

The population being studied consisted of undergraduate student leaders at a four-year, private, liberal arts college in the Northeastern United States with a total enrollment of 2,400 students. A student leader was defined as a student holding one of the highest posts within his/her student organization or club (i.e., president, vice president, treasurer, secretary) or having direct responsibility for managing other individuals (e.g., program or team leader, committee chair, supervisor, residence advisor). The participant sample for all phases of the study also met the following criteria: (a) full-time status; and, (b) at least two semesters of experience in the same student leadership position. Based on these parameters, 213 student leaders at the institution were identified as being eligible for participation in the study.

Research Questions

Three questions guided the researcher in an attempt to improve the understanding of any relationships that may exist between the experiences of undergraduate student leaders and the practice of effective leadership behaviors. The research questions were as follows:

1. To what out-of-classroom student leadership experiences do students attribute the development of their leadership behaviors?

2a. Is there an association between certain out-of-classroom student leader experiences and the five leadership behaviors measured in the Student Leadership Practices Inventory?

2b. What is the strength of any associations that do exist?

3. Is there a difference between the out-of-classroom student leader experiences of less effective leaders and more effective leaders?

Outline of Method

A sequential mixed-method approach based on construct validation of an instrument was used. The study was conducted in two distinct phases. Phase one was qualitative and included the following steps:

1. Address the first research question by exploring biographical data (e.g., out-of-classroom student leadership experiences) through the use of focus groups;
2. Process the biodata to reveal themes and compile a refined list of experiences; and,
3. Convert the experiences into statements and combine them with a Likert scale to form an instrument called the Leadership Biographical Questionnaire (LBQ).

Phase two was quantitative and included following steps:

1. Conduct the field study with the LBQ and the Student LPI;
2. Use statistical analyses to search for associations between variables and answer the second and third research questions.

An overview of the research methodology is illustrated in Figure 1.

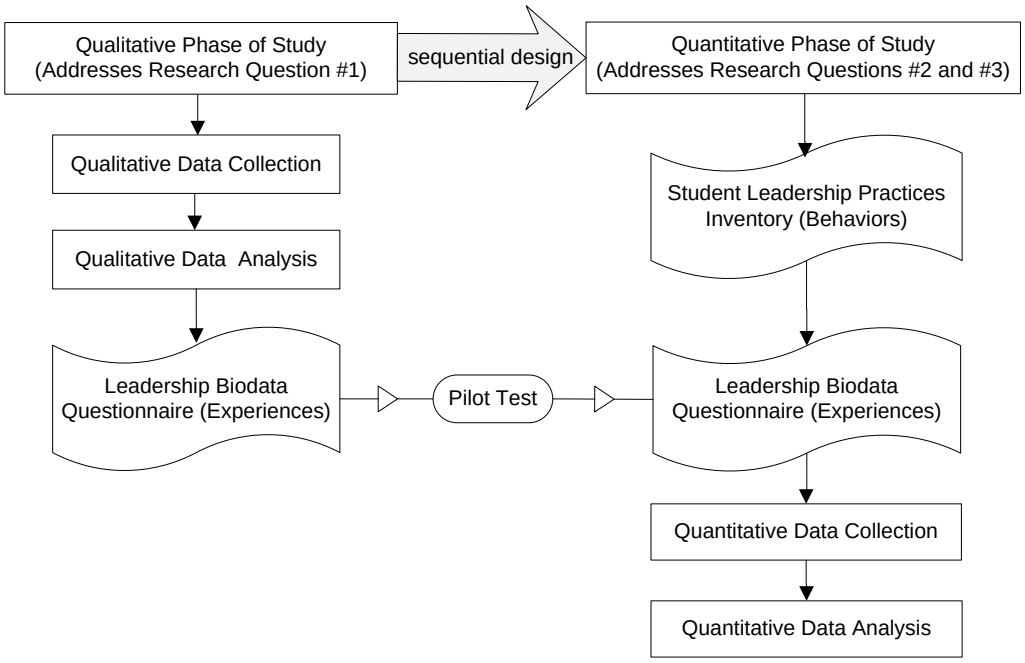

Figure 1. A methodology flow chart showing both phases of the study including the primary steps involved within each phase.

Phase One: Qualitative

Participant Sample

Six focus groups, each consisting of five to eight undergraduate student leaders from the population being studied, were established by the researcher. Each focus group consisted exclusively of student leaders from traditional student leadership areas: (a) resident advisors; (b) community outreach; (c) student government; (d) programming board; (e) Greek organizations (i.e., fraternities and sororities); and, (e) student clubs. In an effort to reduce participant bias, the researcher used a systematic random sampling technique to recruit participants for the focus groups, residence advisors and student clubs, which had large eligible populations. The entire eligible population was invited for those focus groups whose total population number was small: (a) community outreach; (b) Greek organizations; (c) programming board; and, (d) student government in order to secure the targeted number of participants for each focus group. All focus

group participants signed a consent form explicitly stating that their participation was voluntary and that confidentiality would be maintained throughout the study.

Data Collection

In September 2010, the researcher began identifying the experiences that student leaders attribute to their own leadership development by conducting 90-minute focus group sessions, each consisting of participants from the same leadership area. The use of focus group participants holding the same type of student leadership role maximized the opportunity for participants to engage in active, open discussions of their experiences (Johnson & Christensen, 2000, 2004; Morgan, 1998).

The researcher moderated each focus group with the assistance of a transcriber. To insure that all comments were captured, each focus group was digitally recorded. All focus groups were held in the same centrally located, campus conference room over a period spanning four weeks. Complimentary food and refreshments were served at each session, and each focus group participant received a campus bookstore gift card worth five dollars at the conclusion of the session.

Prior to the focus group sessions, each participant was provided with a preliminary packet (see Appendix B for the Focus Group Participant Invitation Letter and Appendix C for the Focus Group Participant Consent Form) of materials that was delivered through campus e-mail. This preliminary information was intended to prepare participants for their focus group session. Each focus group session was guided by the researcher through a formally structured, narrative protocol (Appendix D) that included several parts: (a) registration of participants; (b) introduction and overview; (c) ground rules; (d) structured questions; and, (e) summary and closing. During the introduction

and overview, all participants were asked to introduce themselves using first name only or a pseudonym. The introduction and overview included (a) a review of the preliminary packet, (b) behavioral descriptions for each of the five leadership practices (Table 1), and (c) assurance of confidentiality throughout the study. An overview showing how each portion of the focus group protocol contributed to building a single focus group session is illustrated in Figure 2.

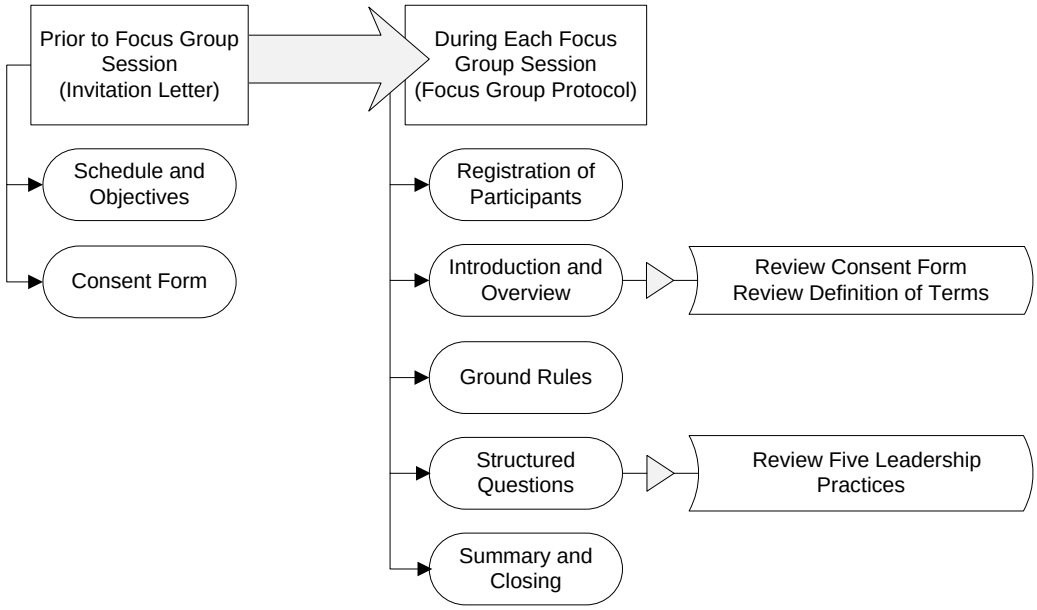

Figure 2. A flow chart showing the focus group session components and progression.

To generate the biographical data necessary to produce the LBQ, the researcher used sequential questioning to encourage participants to reflect on their meaningful leadership experiences. Seven open-ended questions were developed by the researcher and revised after feedback from an expert panel consisting of two undergraduates, both of whom matched the profile for participation in the study, and one focus group expert. While only the introduction and questions were shared with the two potential undergraduate participants, the focus group expert reviewed the researcher's entire focus group protocol. The questions used are listed in order.

Q1. What leadership position(s) have you held in college?

Q2. Describe the responsibilities that your leadership position(s) includes.

Q3. Describe the experiences you have had when fulfilling those responsibilities.

Q4. What were the benefits of holding the leadership position(s)?

Q5. Which of the experiences mentioned were the most influential in your leadership development?

Q6. What unexpected experiences did you have that contributed to your leadership development?

Q7. Tell me about any experiences you wanted to have as a leader, but for whatever reason did not occur.

Q8. If you were charged with mentoring a new student leader, what types of tasks would you assign (based on your own experiences) in order to maximize his / her leadership development?

Following the first focus group session, question one was eliminated because the researcher observed that it did not yield data that was useful in answering the research question. No other alterations were made to the focus group protocol during this phase.

Data Analysis

Immediately after each focus group met, the researcher and transcriber debriefed and double-checked that each focus group participant was coded properly to maintain confidentiality. Coding of the transcripts for key experiences was done by the researcher within 72 hours following each focus group. In a systematic analysis, the researcher looked for patterns in the common experiences identified by the participants within each focus group and across all focus groups. The resulting compilation of biographical data

(Appendix E), labeled "Preliminary List of Student Leader Biographical Data," was further analyzed, with attention given to three measures: (a) frequency (i.e., how often it was mentioned overall); (b) extensiveness (i.e., how many focus groups mentioned it); and, (c) intensity (i.e. how often it was mentioned within a given group) of the experience (Appendix F). Attention given to each of these measures during the analysis helped to reduce researcher bias and prevented the researcher from being unduly influenced by a single statement (Krueger, 1998; Krueger & Casey, 2002).

During this part of the content analysis, the researcher applied two rules for counting: (a) If a word or phrase appeared in the transcript but was not within the context of the overarching experience, it was not counted; and, (b) if a word or phrase was repeated by the same participant within the same question response, it was counted only once. After the biographical data was coupled with the frequency (see Appendix F, Table F1), extensiveness (see Appendix F, Table F2), and intensity (see Appendix F, Table F3) metrics, the researcher applied three new parameters to reduce the list further. An experience was included if it met at least two of the following criteria:

1. It occurred at a rate equal to or above the mode value of all occurrences (i.e., frequency).
2. It represented a pattern by appearing in the responses from three or more different focus groups (i.e., extensiveness).
3. It was mentioned three or more times by the same focus group (i.e., intensity).

At the conclusion of the content analysis, the researcher had filtered the focus group data into a list of 20 out-of-classroom leadership experiences. Each of these leadership experiences was grouped with one of two overarching themes. The two

themes were referred to as (a) *experiences beyond the organization* and (b) *experiences within the organization*. The researcher then collapsed a total of 10 redundant experiences into four separate statements. For example, the following experiences (a) trained members, (b) coordinated efforts, (c) recruited members or peers to attend or participate in an activity, and (d) motivated the membership were merged into the resulting statement: *mobilize the membership to participate in or attend an event*.

A closer look at the relationship between the remaining 14 experiences revealed a clustering around four additional underlying themes. The four new themes acted as sub-sets of the two themes originally identified. The experiences beyond the classroom were regrouped into two of the new themes and given a unique code that represented both the theme and the experience (Table 2). The experiences within the organization were similarly regrouped into two themes and coded in the same way (Table 3).

Table 2

Experiences and Sub-theme Groupings for "Experiences beyond the Organization"

Experience No.	Experience
	Theme A: Experience building relationships outside the organization
A1.	Facilitating communication between the membership and the college or other organizations.
A2.	Attending regular meetings with the same administrator.
A3.	Seeking out campus resources in order to complete responsibilities.
	Theme B: Experience representing the organization
B1.	Serving on a college committee where you are one of only a few student members.
B2.	Completing monthly reports for an employer or a governing organization.
B3.	Being the primary decision maker for the organization.

Table 3

Experiences and Sub-theme Groupings for "Experiences within the Organization"

Experience No.	Experience
	Theme C: Experience communicating with the membership
C1.	Helping the organization accept change.
C2.	Setting an agenda for use in running membership meetings.
C3.	Acting as resource for advice in order to train others within the organization.
C4.	Involving the membership in decision making with the use of voting.
	Theme D: Experience activating the membership
D1.	Working alone or as part of a team to coordinate projects.
D2.	Sharing control of a budget with other leaders within the organization.
D3.	Coordinating members by delegating responsibilities.
D4.	Mobilizing the membership to participate or attend an event.

The researcher carefully chose several quotations from the transcripts to illustrate each of the four themes. The transcript page number, line number, and focus group number of each quote was documented for later identification (Appendix G). Additional description of the themes and experiences which emerged during this final analysis is presented in the study's results for the first research question.

Instrument Development

The refined list of experiences (i.e., items) was converted into statements that could be coherently combined with the same five-point frequency scale used in the Student LPI (Kouzes & Posner, 2006). This scale was represented by the following choices for describing how often the student leader had each experience: 1 *(rarely or seldom)*; 2 *(once in a while)*; 3 *(sometimes)*; 4 *(often)*; and, 5 *(very frequently or almost always)*. Each item remained aligned with one of the four themes (i.e., factors) established in the data analysis. The resulting 14-item instrument, called the Leadership Biodata Questionnaire (LBQ), is grounded in the views and experiences of the study's participants (see Appendix H for the first draft of the LBQ).

Content and Construct Validity

Construct validity was established for the LBQ by asking a panel of experts to review the content for item alignment with the factors, appropriateness of the factors identified, as well as clarity of each statement. The instrument's content validity was also addressed by asking the panel to comment on whether the items were a representative sample of the construct (i.e., out-of-classroom undergraduate student leadership experiences) being measured. The use of the expert panel helped the researcher

determine how suitable the LBQ is for measuring what it purports to measure and how comprehensive the instrument seems in terms of item inclusiveness for the construct.

Panel of experts. The criteria for selecting the panel of experts included: (a) a doctorate degree; and, (b) a minimum of 10 years experience working in college or university student affairs. The panel consisted of three full-time professionals, two females and one male, each of whom were currently working at a four-year institution. Each member of the panel held the position of vice president for student affairs or assistant vice president for student affairs during the time the study was conducted.

This process included the initial invitation to secure members for the expert panel and then two rounds of solicited feedback. Each panel member was sent (a) a copy of the LBQ in its first draft form, and (b) instructions and a feedback sheet (Appendix I). Each panel member was asked to rate and comment on (a) item alignment with each factor, (b) item appropriateness to measure the construct, (c) item clarity, and (d) item inclusiveness.

After the initial feedback was received on the first draft, changes were made to 9 out of the 14 items in regard to clarity and language. However, all experts arrived at consensus with regard to alignment, appropriateness, and inclusiveness. A second draft was mailed to the panel members, who recommended no further changes. The LBQ was considered ready for the pilot test, since the entire panel of experts had now arrived at a consensus on all four areas they were asked to examine.

Pilot test. The LBQ was piloted using a small random sample, stratified by leadership group, of participants from the total eligible population. Twenty-four individuals participated in the pilot test. There was representation within those responses

from all six student leadership groups included in the study, of both genders, and from all class years of the population being studied.

The pilot test was administered electronically and consisted of (a) the consent form, (b) the second draft of the LBQ, and (c) open-ended questions about the language, wording, or any other confusion experienced by respondents. The open-ended questions were as follows:

1. Are the instructions clear? If unclear, please explain.
2. Please examine each statement in terms of its wording and language. Indicate whether it is clear or unclear.
3. For any question rated unclear, please indicate the statement number and why.
4. Did you experience any confusion, not noted in your previous answers, with either the instructions or the statements?

The pilot test results produced no changes to the instructions, but minor changes were made to the word choice within two items. This final version of the LBQ (Appendix J) was used in the field study to collect biographical data from the population being studied.

The use of a pilot study helped the researcher improve the instrument's clarity to improve reliability and helped to establish content validity. However, the participant response rate was not suitable for statistical analysis during the pilot study. Tests of the LBQ's internal reliability were run using the final data set from the field study. These findings are addressed in the study's discussion.

Phase Two: Quantitative

Participant Sample

Using the definition of a student leader found in Chapter 1, the researcher sampled the entire student leader population at a private undergraduate institution in the Northeastern United States. All participants held leadership positions in one of six traditional student leadership areas: (a) resident advisors; (b) community outreach; (c) student government; (d) student programming board; (e) Greek organization (i.e., fraternities and sororities); and, (f) student clubs. Participants also met the following criteria: (a) full-time status; and, (b) at least two semesters of experience in the same student leadership position. Based on these parameters, a total of 213 student leaders were identified as being eligible and were therefore invited to participate in the field study.

Data Collection

The field study was conducted by administrating two descriptive questionnaires: (a) the newly created LBQ; and, (b) the Student LPI. The first instrument was a product of the study's focus group analysis and pilot test. It represented the out-of-classroom experiences of undergraduate student leaders at the institution where the study was conducted. It was designed to measure how often the participant had the designated experience while fulfilling his or her responsibilities. The scale used to indicate frequency was a five-point Likert scale ranging from 1 *(rarely or seldom)* to 5 *(very frequently or almost always)*. The second instrument represented a measure of leadership behavior outcomes. It was selected for use because of its (a) use of concise behavioral statements, (b) longevity and extensive use with student populations, and (c) solid

psychometric properties (Brodsky, 1988; Kouzes & Posner, 1998, 2006; Posner, 2010b; Posner & Brodsky, 1992). The Student LPI consists of five overarching leadership practices that are measured using 30 leadership behavior questions. The five behaviors measured in the Student LPI developed by Brodsky (Kouzes & Posner, 2006) but originally distilled in the Kouzes and Posner (1987) research are (a) challenging the process, (b) inspiring a shared vision, (c) enabling others to act, (d) modeling the way, and (e) encouraging the heart. The instrument measures the frequency with which a participant engages in each leadership behavior with a five-point Likert scale ranging from 1 *(rarely or seldom)* to 5 *(very frequently or almost always)*.

Participant scores from the Student LPI instrument had two purposes: (a) to establish and examine associations with the leadership experiences in the LBQ; and, (b) to measure leadership effectiveness of the participation in each behavior so that the researcher could make comparisons between the out-of-classroom experiences of less effective and more effective leaders.

Electronic mailing addresses for the sample population were obtained from the student affairs personnel at the institution where the study took place. In February 2011, the survey materials were sent electronically using web-based survey software called *Opinio* (ObjectPlanet, 1998). Each participant received the electronic invitation (see Appendix K), which included an embedded link to the field study. The materials included in the field study were: (a) the consent form (see Appendix L); (b) the LBQ; and, (c) the Student LPI. The consent form explicitly stated that participation was voluntary and that confidentiality would be assured throughout the study. To improve the

return rate (Crawford, Couper, & Lamias., 2001; Sheehan & Hoy, 1999; Smith, 1997), a total of three reminders were sent to non-responders every third day over a 12 day period.

Data Analysis

All data collected in the field study was exported to a spreadsheet using the web-based software and then formatted for use in statistical analysis software. During the preliminary analysis, it was not necessary to test validity or reliability on the Student LPI (Kouzes & Posner, 2006), since its psychometric properties have been strongly established by other studies (Brodsky, 1988; Kouzes & Posner, 1998, 2006; Posner & Brodsky, 1992). Instead, the researcher analyzed the data to determine (a) the nature (i.e., strength and direction) of any relationships which might exist between the out-of-classroom student leadership experiences and specific leadership behaviors and (b) any significance of the experiences in relation to effective or less effective leadership behaviors.

The field study data were analyzed to answer the second and third research questions as shown in Table 4. All statistical procedures, both descriptive and inferential, in this phase of the study were completed using version 18 of *Predictive Analytics Software* (PASW) (SPSS, 2010).

Table 4

Underlying Methodology Used to Address the Second and Third Research Questions.

Research Question	Methodology
Q2a. Is there an association between certain out-of-classroom student leader experiences and the five leadership behaviors measured in the Student Leadership Practices Inventory?	Correlational analysis on the field study data confirmed any associations between the independent variables (i.e., experience factors) and the dependent variables, (i.e., behavior factors). Where associations existed, each of the five behaviors was analyzed for a direct or indirect association.
Q2b.What is the strength of any associations that exist?	Where associations existed, a correlational analysis determined the strength of each.
Q3. Is there a difference between the out-of-classroom student leader experiences of less effective leaders and more effective leaders?	Correlational analysis determined the independence of the dependent variables (i.e., experiences factors). Where no correlations were found, a *t*-test was run on each dependent variable to determine the effect of the independent grouping variables (i.e., less effective and more effective leadership behaviors). Where correlations were found, a multivariate analysis was run for overall model significance before the *t*-tests were applied.

Variables. The independent variables used to answer the second research question were the student leadership experience themes (i.e., a product of the first research question) that could also be referred to as the predictor variables. The dependent variables were the five student leadership behaviors on the Student LPI that could also be thought of as the outcome variables. A multivariate analysis was used to determine significance to compensate for Type I error rate inflation.

In order to answer the third research question, the variables were reversed. The independent variable, considered a grouping variable, was the more effective and less effective leadership behavioral outcomes. These grouping variables were constructed by using the summed total of each participant's score on each of the five factors (i.e., behaviors) on the Student LPI. Based on past research, using data from over 1,200 participants, Student LPI percentile scores of 70% or higher on each behavior were considered effective and scores below 30% were considered less effective (Kouzes & Posner, 1998). The dependent variables were the experience factors, and they too were calculated as a summed score for each participant on each of the experience factors.

Internal and external validity. The researcher attempted to establish the internal validity of the LBQ by (a) using a panel of experts who analyzed the content, construction, and factor alignment of the items within the questionnaire, and (b) by conducting a pilot study. Prior to any statistical analysis of the second and third research question, a factor analysis was done to confirm the alignment of items and to identify any new factors that may exist. These tests helped to establish construct validity of the LBQ. Several confounding variables, such as (a) participant history and (b) participant maturity, could have had a negative impact on the study's internal validity.

In terms of external validity, the ability to generalize the research findings was compromised because of (a) the small sample size and (b) the use of a population from a single institution. While the sample was limited to a single institution, it is possible that the results could be applied to institutions with similar characteristics.

Assumptions. The study relied on two assumptions: (a) students are able to make the connection between their experiences and their own learning; and, (b) student self-reporting is both honest and accurate.

Limitations. The study was restricted to collecting data from full-time undergraduates attending a four-year, private, liberal arts college in the Northeastern United States who hold one of the highest student leader posts within their organizations or clubs. The researcher concedes the following limitations to the study: (a) the data were be collected from a single institution; (b) the sample size was relatively small; and, (c) the focus-group responses reflected only what the participants were willing to share and what they could recall at the time.

Delimitations. Neither during the design nor the analysis phase did the researcher attempt to address confounding variables surrounding the research problem, such as (a) differences in student motivation, (b) differences in student openness to learning, (c) variance in student response to the same experiences, and (d) leadership experience prior to the student's college experience. Student affairs personnel might correctly assume that student leaders possess motivation and openness to learning, but as Pascarella and Terenzini (1991) note, "not all students benefit equally from the same experiences" (p. 634). To minimize the effects of the confounding variables, the researcher used randomized and complete samples, stratified by leadership position for

both the focus groups and pilot study. The researcher sampled all qualified participants during the field study.

There were a number of other research questions that could have been asked but were not pursued, such as, "Was gender a factor in any differences discovered?" or "Did class year have an effect on leadership behavior scores?" These questions were not addressed by research questions because (a) the focus of the inquiry was on uncovering experiences with significant associations to behavioral outcomes, not who they belonged to, and (b) the inclusion of these questions, while interesting, would probably not yield valid data, given the limited size of the sample. Since this study was designed to be exploratory in nature, there was never any intention to make predictions or to imply causal relationships between the variables.

CHAPTER 4

RESULTS

The purpose of this study was twofold. First, the researcher sought to identify experiences which undergraduate student leaders believe contributed to their own leadership development. Second, the researcher examined the relationship between those student-identified experiences and the practice of five leadership behaviors measured using the Student LPI (Kouzes & Posner, 2006). An analysis of the raw data and general observations about that data are presented in this chapter. The researcher used both descriptive and inferential statistics to address each research question. The chapter is organized chronologically, with the results of each phase of the study described alongside the relevant research question within both phases of the study.

Qualitative Phase Analysis of the Focus Group Data

As detailed in Chapter 3, data generated by five focus groups were analyzed and refined in order to create the LBQ. The experience themes which emerged during that process were described by the researcher using the participants' own experiences, supplemented by quotations to further illustrate each theme.

Description of Sample

Thirty-three students participated in focus groups composed of student leaders from the following areas: (a) resident advisors; (b) community outreach board; (c) student government; (d) Greek organizations; and, (e) student clubs. The programming board session was canceled due to insufficient attendance. The majority of participants were female (61%) and members of the senior class (51%). Only 9% of the participants

were sophomores. Table 5 gives more details of the participant demographics by focus group.

Table 5

Focus Group (FG) Participant Demographics (N = 33)

Focus group	Student leadership area	*n*	Gender		Class year		
			Male	female	2011	2012	2013
FG1	Resident advisors	6	3	3	2	4	0
FG2	Community outreach	6	1	5	1	2	3
FG3	Student government	5	3	2	3	2	0
FG5	Greek organizations	8	3	5	6	2	0
FG6	Student clubs	8	3	5	5	3	0

Note. FG4 (Programming board) was canceled due to insufficient attendance.

Research Question Number 1

During phase 1 of the study, the researcher sought to answer the following question: *To what out-of-classroom experiences do student leaders attribute their leadership development?* An initial list of 37 out-of-classroom student leadership experiences, generated through the focus group sessions (Appendix E), was further analyzed with consideration given to frequency, extensiveness, and intensity. Those experiences which did not meet the researcher's criteria for frequency, extensiveness, and intensity were eliminated; redundant experience statements were collapsed to form new ones. The results of this analysis process produced 14 recognizable experiences that participants specified as contributors to their leadership development.

Each of the 14 experiences was first classified by the researcher into one of two main types. The first type, labeled *Experiences beyond the Organization,* included experiences involving interactions between the student leader and those outside the organizational membership. These experiences were: (a) facilitate communication between the members and the college or other organizations; (b) attend regular meetings with the same administrator; (c) seek out campus resources in order to complete responsibilities; (d) serve on a college committee as one of only a few student members, (e) complete monthly reports for an employer or a governing organization; and, (f) act as the primary decision maker for the organization.

The second type, labeled *Experiences within the Organization,* included those experiences between the student leaders and the members of the organizations they lead. These experiences were: (a) help the organization accept change; (b) set an agenda for use when running membership meetings; (c) act as a resource dispensing advice to train others within the organization; (d) involve the membership in decision making with the use of voting; (e) work alone or as part of a team to coordinate projects and events; (f) share control of a budget with other leaders within the organization; (g) coordinate members and delegate responsibilities; and, (h) mobilize the membership to participate in or attend an event.

Description of Factors and Items

The 14 experiences (i.e., items) that had been identified in the content analysis were grouped into four different themes (i.e., factors). Each factor has a cluster of three to four items that are intended to collectively represent that factor. The researcher-identified factors were: (a) building relationships outside the organization; (b)

representing the organization; (c) communicating with the membership; and, (d) activating the membership. The name of each factor was edited slightly to improve readability for table-format reporting. Figure 3 diagrams the structure in which the experiences were grouped for the purposes of further analysis. (Refer Table 2 and Table 3 for a full statement of the precise wording used for *Items A1 to D4*.)

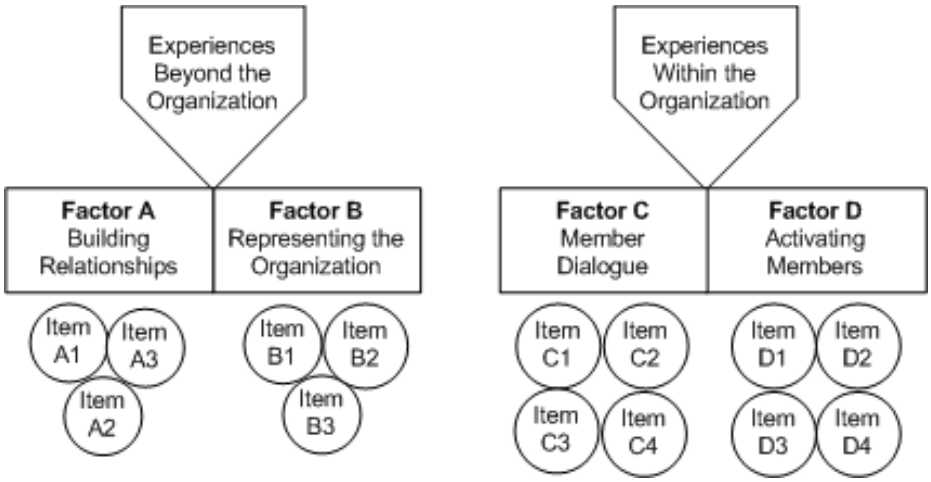

Figure 3. Diagram showing the *a priori* grouping structure of experiences.

The number of items representing experiences which occurred beyond the organization was fewer than those items representing experiences within the organization. Participants from all five focus groups mentioned experiences associated with all four factors.

Factor A: Building Relationships

Participants described experiences where they were facilitating conversation with other organizations and the college (*Item A1*), attending meetings with an advisor or administrator (*Item A2*), and seeking out campus resources (*Item A3*). A statement by one participant provided an example: "Aside from my primary responsibilities as president, I meet with the Associate Dean of Students and with the Dean of Students on a weekly basis and with the President on a monthly basis" (Appendix G).

These experiences, *Item A1 to A3*, were similarly grouped together because they involved developing a rapport with those beyond the organizational membership. The items which help describe this factor reflect 11% of all experiences mentioned by the focus groups (Appendix F). Another participant's comment expresses this factor as follows:

> Getting any leadership position within the chapter really bridges the gap between knowing the fraternity as a campus organization and a national organization which supports the chapter on campus. Over [the] summer I went to our national conference and met people from all over the United States . . . people who have the same affiliation that I do, but who I've never met before. (Appendix G)

Factor B: Representing the Organization

Experiences which describe how individual actions and written or spoken words are reflective of the organization as a whole were grouped together. One participant's comment illustrates the breadth of this factor: "I'm a student leader, and I'm not only a student leader when I sit in the student leader room. I'm always a representative of student government, so I should behave myself and also be a very informative resource" (Appendix G).

These experiences, such as serving on a college committee (*Item B1*), furnishing reports for a governing agency (*Item B2*), and being the primary decision maker for the organization (*Item B3*) were representative of experiences identified by all five focus groups, but most frequently by Greek leaders (Appendix F). The experiences, *Item B1 to B3*, which contribute to this factor make up 11% of the experiences specified by participants (Appendix F). This factor is described further in this participant's quotation:

"We all have higher groups that we have to answer to. I have monthly reports that are due to international each month. The Compass Report is something that you have to do for the school" (Appendix G).

Factor C: Member Dialogue

When participants spoke about their experiences involving communication between themselves and the membership, they described situations where being prepared, and in some cases persuasive, were essential to helping the organization accept change (*Item C1*). For example, one participant commented:

> You must be able to stand up in front of your organization and if someone questions you then defend why you believe in it. Talking to the members, being respectful, and also demanding a certain level of respect in this position must be worked through. (Appendix G)

Additional experiences, such as preparing an agenda for meetings (*Item C2*), dispensing advice (*Item C3*), and involving the members in decisions (*Item C4*) were grouped under this factor. One experience, involving the membership in decision making with the use of voting (*Item C4)*, was mentioned just half as often as all other experiences in this factor. One participant's experience highlights the value placed on proactive dialogue:

> There was no talk of cost at the end of one treasurer's term, and the next treasurer did not mention cost either [to all new members]. The first thing I did as treasurer is try to let the new members know what it was going to cost right at the beginning so that they don't go through the process, join, and then have a jaw-dropping experience when they open the first bill. In fact, I made a presentation

and let them know what they can expect in terms of cost and where they can regain that money by being a member, such as through scholarships and jobs. (Appendix G)

The experiences which make up this factor, *Item C1 to C4*, represent 24% of the experiences captured through the focus groups and were most frequently identified by the Greek leaders and student club leaders (Appendix F).

Factor D: Activating Members

The mostly widely shared experiences uncovered in the study were those in which student leaders needed to ask their members to support, plan, or attend an event. Participants reported how they coordinated projects (*Item D1*), shared control of a budget (*Item D2*), delegated responsibilities (*Item D3*), and found ways to mobilize the members (*Item D4*). The experiences described by *Item D1* and *D4* were mentioned two to three times more often than the other items in this factor. The words of one participant reveal how these experiences manifest themselves:

> When I first became president . . . I was like, oh, I have something to do and it's easier if I just do it. Then, when all those things piled up I realized that I have a few other members on the board, and I began to say you organize this, and I'd spread it out so that everyone got something to do. (Appendix G)

This group of experiences represents a factor about mobilizing the membership. A quotation from one participant demonstrates this:

> I think the basic boiling point of what all of us do as leaders of organizations is to convince fifty 18 to 22 year olds to do what you want because it's the right thing to do or it is what needs to be done. (Appendix G)

The experiences, *Item D1 to D4*, in this factor represent 54% of the experiences specified (see Appendix F1) by the focus group participants. This single factor was mentioned with the most intensity across all participant groups but notably less by the student government leaders (see Appendix F2 and F3).

Figure 4 provides a graphic representation of the how frequently the items within each factor were identified by the focus group participants. This summary clearly shows that items involved with Factor D *(Activating Members)* represent more than half of all experiences that participants identified. The type of experiences which occurred beyond the membership--those which make up factor A *(Building Relationships)* and Factor B *(Representing the Organization)*--represent just 22% of all experiences mentioned. The type of experiences mentioned 78% of the time by participants were those experiences which occurred within the organization or between the leaders and the membership (i.e., Factor C and Factor D).

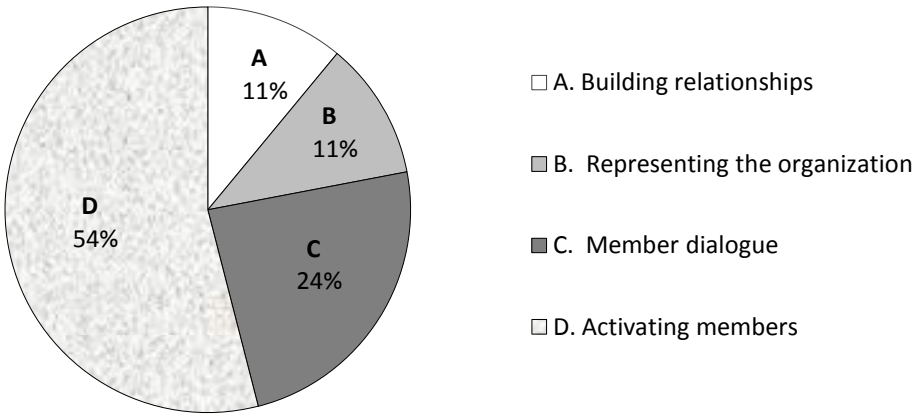

Figure 4. Percentage of experiences represented within each factor.

Quantitative Phase Analysis of the Survey Data

Statistical procedures, including both descriptive and inferential statistics, were used to analyze the raw data. Means, standard deviations, confidence intervals,

correlations, and frequency tables provided the descriptive statistics, while multivariate *t*-tests were used to conduct inferential statistical analyses. The level of significance, *a*, was initially set at .05 but was adjusted according to the number of statistical tests conducted and is listed with each table. The researcher recalculated significance in this manner to compensate for Type I error rate inflation (Field, 2009).

Description of Sample

Of the 213 eligible participants who were invited to participate in the survey portion of the study, a total of 149 responded to the request. Data from eight surveys were removed from the dataset because they were incomplete in some way. The response rate was 66% ($N = 141$) for the field study. As was the case with the focus group participants, most were members of the senior class (52%), but responses by gender were evenly distributed except from within the programming board and community outreach leader groups. Table 6 shows a summary of the participants by the student leadership area represented.

Table 6

Field Study Participant Demographics by Leadership Area (N = 141)

Student	Total	Gender		Class year		
leadership area	*n*	Male	Female	2011	2012	2013
Resident advisors	32	16	16	22	10	0
Community outreach	9	3	6	3	4	2
Student government	7	4	3	3	4	0
Greek organizations	7	3	4	4	2	0
Student clubs	81	41	40	39	39	3
Programming board	5	4	1	3	2	0

Research Question Number 1 Reconsidered

Experience Descriptives

As already discussed, this study generated a qualitative response to the first research question*: To what out-of-classroom student leadership experiences do students attribute the development of their leadership behaviors*? In an attempt to support the original finding reached in the qualitative data analysis, the researcher expanded the analysis using descriptive statistics from the LBQ data collected in the field study.

Each item was rated by participants using a Likert-type scale. The scale included the following choices to the question of how often the student leader had each experience: 1 *(rarely or seldom)*; 2 *(once in a while)*; 3 *(sometimes)*; 4 *(often)*; and, 5 *(very frequently or almost always).* The mean values of the ratings affirm the initial finding that, on average, each of the 14 experiences occurred at least *once in a while* and 12 of the 14 experiences (86%) occurred at least *sometimes* for participants holding

student leadership positions in the areas examined. The experiences represented by *Item B1* (i.e., serve on a college committee where I am one of only a few student members) and *B2* (i.e., complete monthly reports for an employer, an advisor, or a governing organization) have means that appear to be the smallest in relation to all of the others. On the other hand, experiences represented by *Item D1* (i.e., plan events and coordinate projects for the organization) and *D4* (i.e., mobilize the members to participate in or attend an event) look distinctly larger than all of the others. (Refer to Appendix M for a table listing each experience with its mean, standard deviation, and 95% confidence interval.)

In terms of how frequently participants reported certain experiences, the researcher segmented the data into experiences which were reported to have occurred hardly ever (i.e., 1 (*rarely or seldom)* or 2 *(once in a while)* and those that occurred repeatedly (i.e., 4 (*often)* or 5 *(very frequently or almost always)* by combining the less frequent ratings and the most frequent ratings. Table 7 shows the results of this frequency analysis. *Item B1* was the least frequently occurring experience, with 55% of the sample reporting it occurred no more often than *once in a while.* In contrast, *Item D4* reportedly occurred *often or almost always* for 83% of the sample. Except for the experiences identified by *B1* and *B2*, all of the other experiences occurred *often or almost always* for at least 44% of the study's participants. These percentages were obtained by using the frequency counts in Table 7 divided by the sample size and then multiplied by 100.

Table 7

Abridged Frequency Table of Each Experience (N = 141)

Item and description	Frequency	
	Rarely or Once in a while	Often or Almost always
A1. Facilitate communication between the members and the college or other organizations.	16	93
A2. Participate in scheduled meetings with the same administrator or an advisor.	29	94
A3. Seek out campus resources in order to complete my responsibilities.	16	91
B1. Serve on a College committee where I am one of only a few student members.	77	44
B2. Complete monthly reports for an employer, an advisor or a governing organization.	64	54
B3. Serve as the primary decision maker for the organization.	38	72
C1. Help the organization accept change.	24	75
C2. Create an agenda for use when running membership meetings.	40	79
C3. Act as a resource dispensing advice to others within the organization.	13	102
C4. Present issues to the membership that will be decided upon through a vote.	37	62

Table 7 (continued)

Abridged Frequency Table of Each Experience (N = 141)

Item and description	Frequency	
	Rarely or Once in a while	Often or Almost always
D1. Plan events and coordinate projects for the organization.	9	108
D2. Share control of a budget with other leaders within the organization.	26	94
D3. Delegate responsibilities to the membership.	25	84
D4. Mobilize the members to participate in or attend an event.	7	117

Note: Frequency data with a rating of *sometimes* were removed.

Factor Descriptives

When the experiences were analyzed in their *a priori* clusters, referred to as factors, there were three examples of independence between the factors. This was determined though the examination of the confidence intervals. Experience Factor B *(Representing the Organization)* mean was significantly smaller than each of the means of all other Factors A (*Building Relationships),* C (*Member Dialogue),* and D (*Activating Members)* because there was no overlap between the 95% confidence interval. This also indicated that there was a statistically significant difference between Factor B and all other factors. Factor C and Factor D were also significantly different from one another, but the confidence interval of Factor A showed an overlap with Factor C and Factor D. See Table 8 for a summary of this analysis. Based on the means alone, Factors A, C, and

D were reported to have occurred, on average, at least *sometimes* for the study's participants.

Table 8

Factor Scores Listed by Mean, Standard Deviation and 95% Confidence Intervals

			95% Confidence Interval	
Factor	*M*	*SD*	Lower	Upper
A. Building relationships	3.74	.86	3.60	3.89
B. Representing the organization	2.90	1.01	2.73	3.07
C. Member dialogue	3.54	.92	3.39	3.69
D. Activating members	3.89	.76	3.76	4.02

Note: Factor scores were defined as the average of all items within the factor per participant.

The frequency data for each factor indicates how often the field study participants reported having the experiences clustered within each factor. Factor B occurred the least frequently for the field study participants with nearly half (48%) reporting this experience just *rarely* or *once in a while*. Factor A occurred *often* or *almost always* for 52% of the participants while Factor D occurred *often* or *almost always* for 54% of the participants in the field study. The data on Factor D frequency supports the focus group results in terms of being the most frequently mentioned and most frequently occurring group of experiences for participants. The data on Factor C indicated that 75% of participants experienced this factor at least *sometimes*. See Table 9 for a summary of the frequency data calculated for each factor.

Table 9

Frequency Table of Each Factor (N = 141)

	Frequency				
Factor	Rarely	Once in a while	Sometimes	Often	Very frequently
A	1	24	42	62	12
B	25	43	44	26	3
C	8	26	51	49	7
D	2	14	49	60	16

Experience Factor and Item Alignment

A concurrent aim of phase one was to identify independent variables (i.e., experiences) which could later be analyzed along with the dependent variables (i.e., student leadership behaviors) in order to answer the second and third research questions. Using the raw data, collected on the 14 experience variables (i.e., items), the researcher calculated the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy to determine the factorability of the dataset. The KMO value on the experience variables was .835. According to Hutcheson and Sofroniou (1999), values between 0.8 and 0.9 have great reliability; therefore, it was concluded that the experience variables were very stable and deemed suitable for further exploratory analysis.

The next step taken was the determination of how many experience themes (i.e., factors) to extract from the dataset. Initially, the researcher ran principal components analysis using a 4-factor solution because the LBQ was designed with four experience factors in mind. In reviewing the output, the researcher utilized three different criteria to determine how many factors were meaningful: (a) scree plot; (b) initial eigenvalues; and,

(c) cumulative percentage. The scree plot in Figure 5 reveals two important factors within the dataset if only the factors to the left of the inflection point are extracted (Cattell, 1966).

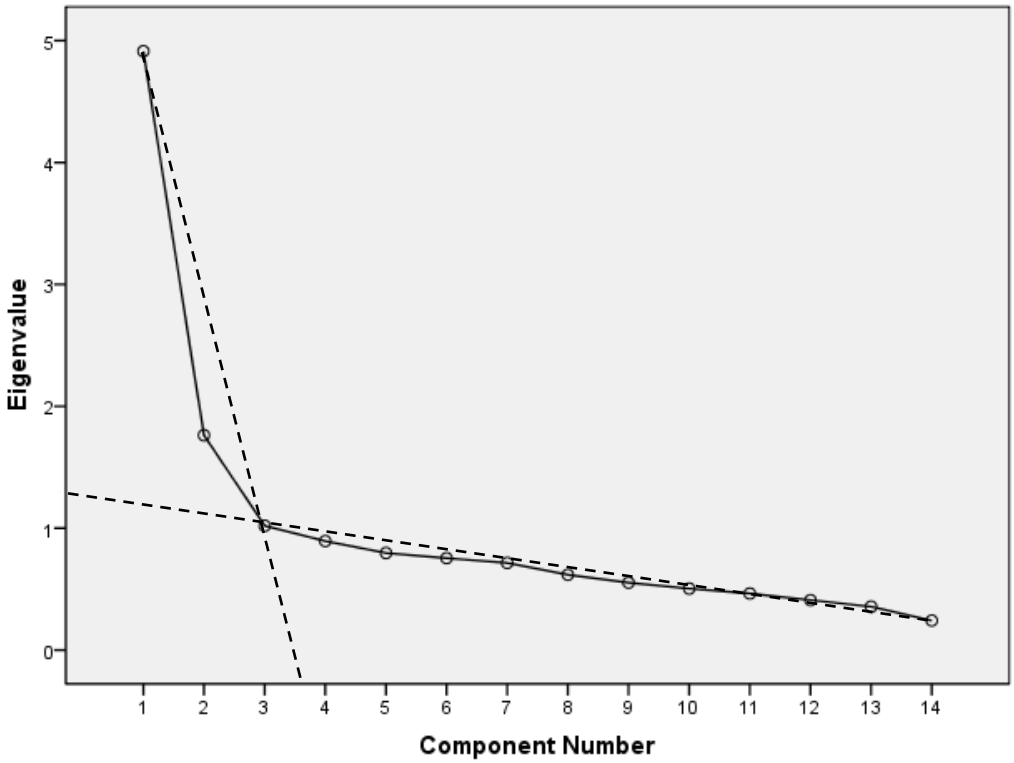

Figure 5. Scree plot for experience variables.

When this result was compared to the initial eigenvalues on the same variables, the researcher was inclined to extract three factors on the basis of Kaiser's criterion (1960) which recommends retaining factors with eigenvalues at least equal to one (see Table 10). However, the fourth factor at .89 also appeared to be quite useful since it accounts for another 6% of total variance. In looking at cumulative percentages, 61% of the total variance could be explained in the first four factors.

Table 10

Total Variance Explained

Component	Initial Eigenvalues		
no.	Total	% of Variance	Cumulative
1	4.91	35.09	35.09
2	1.76	12.59	47.68
3	1.02	7.28	54.96
4	.89	6.38	61.35
5	.79	5.68	67.03
6	.75	5.38	72.42
7	.71	5.10	77.52
8	.61	4.41	81.94
9	.55	3.94	85.89
10	.50	3.60	89.49
11	.46	3.31	92.80
12	.41	2.92	95.73
13	.35	2.54	98.27
14	.24	1.72	100.00

Note. Extraction method was principal component analysis.

Based on these two tests, the researcher found that the sample was most suitable for further exploration and summarization of the underlying item correlations using three factors. However, a varimax rotated factor analysis with a 4-factor and 3-factor solution was explored to determine the most comprehensible factor structure. Ultimately, the 4-factor solution was used to determine item realignment because this solution was the

most interpretable (i.e., the items clustered reliably around at least three to four items per factor). (Refer to Table 11 for the 4-factor solution rotated component matrix. The factor loadings in the 3-factor solution were fair to good, clustered around just two factors and only one factor reliably.)

Table 11

Principal Component Analysis of Experiences

	Component			
Experience	1	2	3	4
A1. Facilitate communication between …	.36	.67	.13	.12
A2. Participate in scheduled meetings …	.01	.76	-.06	.19
A3. Seek out campus resources …	.44	.54	-.00	.27
B1. Serve on a College committee …	.01	.26	.15	.85
B2. Complete monthly reports …	-.14	.75	.33	-.06
B3. Serve as the primary decision maker …	.38	.11	.72	-.02
C1. Help the organization accept change.	.59	.25	.35	.07
C2. Create an agenda for use when …	.56	.09	.43	-.06
C3. Act as a resource dispensing advice …	.61	.37	.18	-.25
C4. Present issues to the membership …	.77	-.06	.16	.34
D1. Plan events and coordinate projects …	.16	.30	.71	.10
D2. Share control of a budget …	.24	-.12	.64	.20
D3. Delegate responsibilities to the …	.65	-.03	.30	-.06
D4. Mobilize the members to participate …	.40	.40	.45	-.18

Note: The rotation method was a Varimax with Kaiser Normalization.

The researcher used the rotated component matrix (see Table 11) to make decisions about eliminating redundant, unclear, or irrelevant variables and to finalize the item alignment. According to guidelines provided by Stevens (1992), only items loading at .4 or greater should be used for factor interpretation and loadings above .434 are considered statistically significant (Stevens, 1992). All items in this study loaded at .45 or higher with 64% of the items loading between .64 and .85.

Most items loaded in clusters very close to the *a priori* groupings created during the development of the LBQ. Only *Item D4*, by aligning with three different factors at .4 or greater, loaded with some ambiguity. In fact, the analysis in Table 12 shows that 11 of 14 items corroborate 80% of the items loaded with the original factor assignments. A graphic representation of the most reliable factor solution with item loadings is shown in Figure 6.

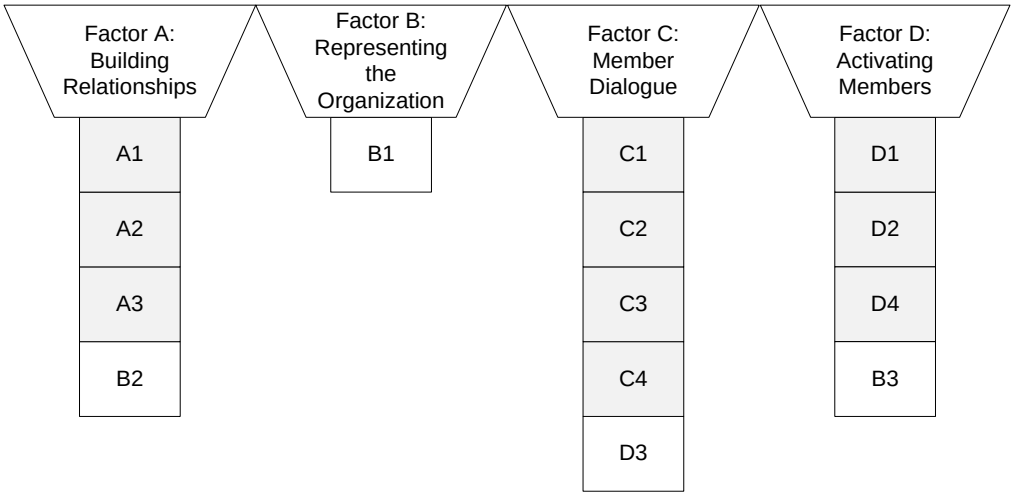

Figure 6. Revised item loadings resulting from 4-factor solution.

Table 12

Revised Factor Structure with Re-aligned Items

Experience no.	Experience
	Theme A: Experience building relationships outside the organization
A1.	I facilitate communication between the membership and the college or other organizations.
A2.	I attend regular meetings with the same administrator.
A3.	I seek out campus resources in order to complete responsibilities.
A4.	I complete monthly reports for an employer or a governing organization.
	Theme C: Experience communicating with the membership
C1.	I help the organization accept change.
C2.	I set an agenda for use running membership meetings.
C3.	I act as resource for advice in order to train others within the organization.
C4.	I involve the membership in decision making with the use of voting.
C5.	I coordinate members by delegating responsibilities.
	Theme D: Experience activating the membership
D1.	I work alone or as part of a team to coordinate projects.
D2.	I share control of a budget with other leaders within the organization.
D3.	I am the primary decision maker for the organization.
D4.	I mobilize the membership to participate or attend an event.

If a factor has four or more loadings greater than 0.6 then it is considered reliable, regardless of sample size, and loadings in the range of .5 are good enough provided there are relatively few factors each with a small number of variables (Field, 2009). As shown

in Figure 6 above, each factor extracted for the final analysis will have four or more reliable loadings.

As mentioned, a fourth factor was not retained because *Item B1* (i.e., serving on a college committee where you are one of only a few student members) was the only item which loaded under it. Although it had a high magnitude loading, *Item B1* was discarded from the dataset because it aligned alone under a single factor and had no significant correlation with any other item. Despite loadings with some ambiguity (see Table 11), *Item D4* was retained because it had significant correlations with 75% of the items in its natural cluster (i.e., factor C). Other revisions to the dataset, illustrated in Figure 5 and based on item loadings, included the following: (a) *Item B2* was re-labeled as *A4*; (b) *Item D3* was re-labeled as *C5*; and, (c) *Item B3* was re-labeled to replace the item formerly labeled *D3*. The revised dataset is shown in Table 12. (Refer to Table 2 and Table 3 in Chapter 3 for the original factor and item alignment.)

Research Question Number 2a

The researcher sought to answer two research questions in phase 2 of the study, beginning with: *Is there an association between certain out-of-classroom student leader experiences and the five leadership behaviors measured in the Student Leadership Practices Inventory?* In addressing the second research question, 15 sub-questions were considered. A correlation analysis was performed on the revised dataset to test for any associations between the three independent variables (i.e., experience factors sums) and the five dependent variables, (i.e., behavior factors sums).

Since these variables were expressed as ratio data, the Pearson *r* was the statistical method selected for computing the correlation coefficient. See Table 13 for this output.

The level of significance, *a*, was set at .003 to compensate for possible Type I error rate inflation. This alpha level was determined using the Bonferroni correction (Field, 2009). Thirteen of 15 (87%) associations show positive, significant correlations at values lower than this alpha level. The adjusted significance standard reduces the probability that these associations were due to chance. All associations found were highly significant at a *p*-value of .000, except for *Experience A* with *Behavior V* and *Behavior P* which correlated significantly at a *p*-value of .001. As Table 13 shows, no significant association was found between *Experience A* and *Behavior E* ($p = .06$) or *Experience A* and *Behavior H* ($p = .01$).

Table 13

Correlation Table between Experience and Behavior Factors (N = 141)

	Experience		
Behavior	A: Building relationships	C: Member dialogue	D: Activating members
M: Model the way	.41*	.49*	.46*
V: Inspire a shared vision	.28*	.58*	.53*
P: Challenge the process	.28*	.53*	.50*
E: Enable others to act	.16	.32*	.37*
H: Encourage the heart	.23	.44*	.41*

Note. *$p < .003$.

Research Question Number 2b

The next step of the analysis was designed to provide a response to the following research question: *What is the strength of any associations that do exist?* The Pearson *r* was the statistical method selected for analyzing the strength of the associations found. According to parameters found in Field (2009), *r* values of ±.1 represent a small effect (i.e., weak), values ±.3 a medium effect (i.e., moderate), and ±.5 a large effect (i.e., strong). These effect-size criteria were used to examine the 13 cases of significant correlation between the experience factors and the behavior factors.

The correlational analysis (refer to Table 13) showed that in 11 of the 13 cases (85%) there is at least a medium effect between the experiences and the behaviors studied. Two of the experience factors, *Member Dialogue* and *Activating Members,* have a medium or large effect on all five leadership behaviors, with the largest effect existing with the behaviors *Inspire a Shared Vision* and *Challenge the Process*. These are genuine associations, with *r* values ranging from .50 to .58.

The experience *Building Relationships* only correlated with three behaviors: *Model the Way, Inspire a Shared Vision,* and *Challenge the Process.* The only medium size effect for the experience *Building Relationships* was with the behavior *Model the Way*. The remaining two associations, *Inspire a Shared Vision* and *Challenge the Process*, while significant, represent a small effect ($r = .28$) and may not be meaningful. *Model the Way* is the only behavior where all three experiences provided a medium effect, with the r values ranging from .41 to .49. Figure 7 is a graphic representation of the five behavior factors with their associated experiences.

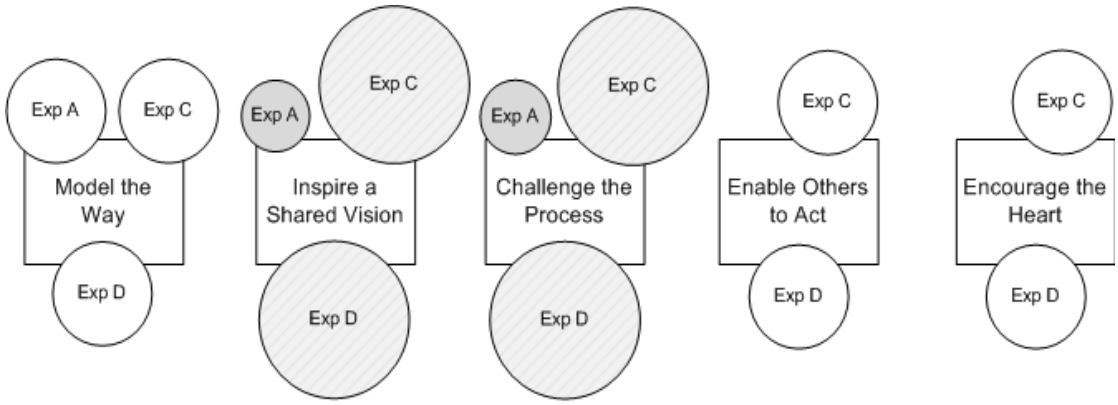

Figure 7. Diagram showing each of the behavior factors with the associated experiences.

Note. Exp A is *Building Relationships*, Exp C is *Member Dialogue*, and Exp D is *Activating Members*. The circle size is a graphic representation of the effect size (i.e., small circles represent small effect and large circles large effect) of each experience on each behavior.

Research Question Number 3

A group of statistical models, classified as General Linear Models, were used to address the third research question: *Is there a difference between the out-of-classroom student leader experiences of less effective leaders and more effective leaders?* The researcher used *PASW 18* (SPSS, 2010) to run five multivariate analysis tests using the experiences as the dependent variables and the behaviors as the independent grouping variables. The grouping variables were classified into more effective and less effective leaders. To justify a multivariate analysis, the researcher conducted a correlation analysis on all of the experience factors. The resulting output, displayed in Table 14, shows that all experience factors are correlated and highly significant at a *p*-value of .000.

Table 14

Correlation Table between Experience Factors (N = 141)

	Experience		
Experience	A: Building relationships	C: Member dialogue	D: Activating members
A: Building relationships	-	.37**	.39**
C: Member dialogue	-	-	.68**
D: Activating members	-	-	-

Note. **p <.001.

Since the absence of independence of the dependent variables was substantiated, a multivariate analysis was run for overall model significance using the behaviors. Before examining the results of the multivariate analysis for each behavior, the researcher first noted each Box's Test for non-significance (p >.05) to ensure the assumption of homogeneity of the covariance matrix was met. An important assumption for validity of a multivariate analysis is that there is equality of the covariance matrices. This assumption is tested with Box's Test. The researcher noted that four of the five models, *Model the Way, Inspire a Shared Vision, Challenge the Process,* and *Enable Others to Act*, supported the assumptions necessary to proceed. The fifth model, *Encourage the Heart,* was significant at a p-value of .04.

The Wilks' Lambda (Λ) multivariate criterion was used to assess overall model significance, and the F-score provided the measure of overall fit for each of the behavior models. The level of significance, α, was set at .01 to compensate for possible Type I error rate inflation. This alpha level was determined using the Bonferroni correction

(Field, 2009). As shown in Table 15, significance occurred in all of the behavior models examined; each model was highly significant at a *p*-value of .000. Where significance occurs, the subsequent individual *t*-test scores for each of the three experiences were examined to determine if significant differences exist within the model. The independent *t*-tests were comparing the grouping variable for leadership effectiveness on two levels: (a) less effective; and, (b) more effective. The grouping variables were constructed using a filter that equaled the summed total of each participant's score on each of the five behaviors. The summed score was then assigned a categorical label of more effective (ME) for behavior scores that were in the 70th or higher percentile and less effective (LE) for behavior scores below the 30^{th} percentile as defined by previous Kouzes and Posner research (1998). A summary of this multivariate analysis for the experience variables was also given in Table 15.

Based on the calculated *t*-scores for each behavior model, significance was found for 13 of the 15 experiences. All experiences in the *Model the Way, Inspire a Shared Vision,* and *Challenge the Process* models were significantly different on the grouping variable for leadership effectiveness. However, the experience *Building Relationships* was not significant in either the *Enable Others to Act* or *Encourage the Heart* model.

Table 15

Multivariate Test and t-test Results of Experiences for Each Behavioral Model

Factor	*Λ*	*F-score*	*t-score*
Behavior: Model the way	.63	17.83**	-
Exp A: Building relationships	-	-	5.31**
Exp C: Member dialogue	-	-	6.01**
Exp D: Activating members	-	-	5.15**
Behavior: Inspire a shared vision	.61	16.77**	-
Exp A: Building relationships	-	-	3.31*
Exp C: Member dialogue	-	-	6.41**
Exp D: Activating members	-	-	6.02**
Behavior: Challenge the process	.72	10.80**	-
Exp A: Building relationships	-	-	3.32*
Exp C: Member dialogue	-	-	5.24**
Exp D: Activating members	-	-	4.81**
Behavior: Enable others to act	.79	6.74**	-
Exp A: Building relationships	-	-	1.60
Exp C: Member dialogue	-	-	3.61**
Exp D: Activating members	-	-	4.45**

Table 15 (continued)

Multivariate Test and t-test Results of Experiences for Each Behavioral Model

Factor	Λ	*F-score*	*t-score*
Behavior: Encourage the heart	.76	9.81**	-
Exp A: Building relationships	-	-	2.60
Exp C: Member dialogue	-	-	4.81**
Exp D: Activating members	-	-	4.95**

Note: Λ = Wilks' Lambda statistic, *$p < .01$, **$p < .001$.

Descriptive statistics for each behavior model were generated in order to compare the means between the two grouping variables, less effective (LE) and more effective leaders (ME). Mean scores (*M*), standard deviation (*SD*), and 95% confidence intervals for grouping variable were provided in Appendix N, Tables 1 through 5. In all models, each of the pairs (i.e., LE and ME) of mean values was significantly different at a p-value of .001 or lower except *Building Relationships* for the *Enable Others to Act* and *Encourage the Heart* models. For each of the 13 pairs of significant means compared, in each case the ME value was greater than the LE value. Viewed as a whole, these findings provided the answer to the third research question; the statistical analysis indicates that in three of the five models, the experiences of LE and ME leaders were significantly different. These comparisons of grouping variable means for each of the behaviors are shown in Figures 8 through 12.

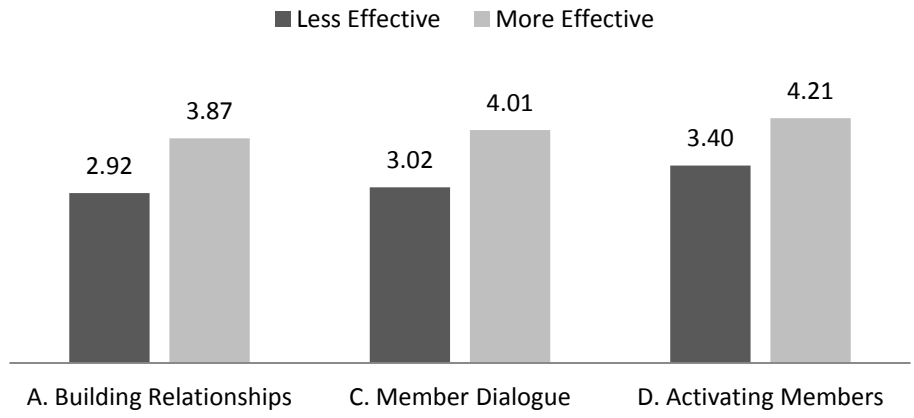

Figure 8. Comparison of means for *Model the Way*.

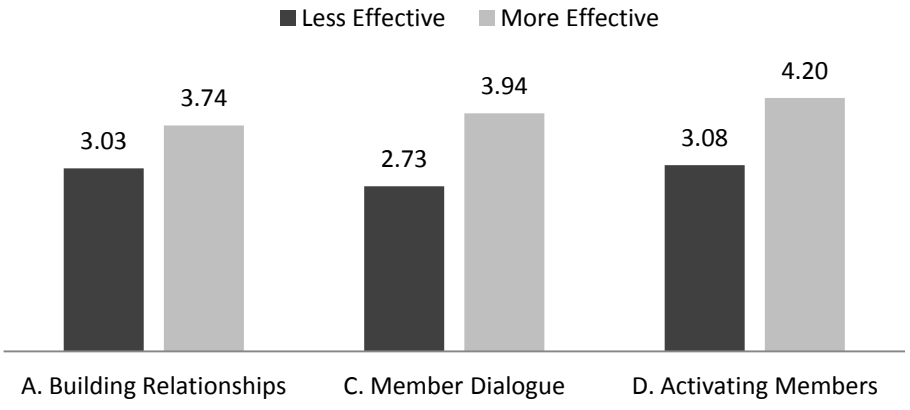

Figure 9. Comparison of means for *Inspire a Shared Vision*.

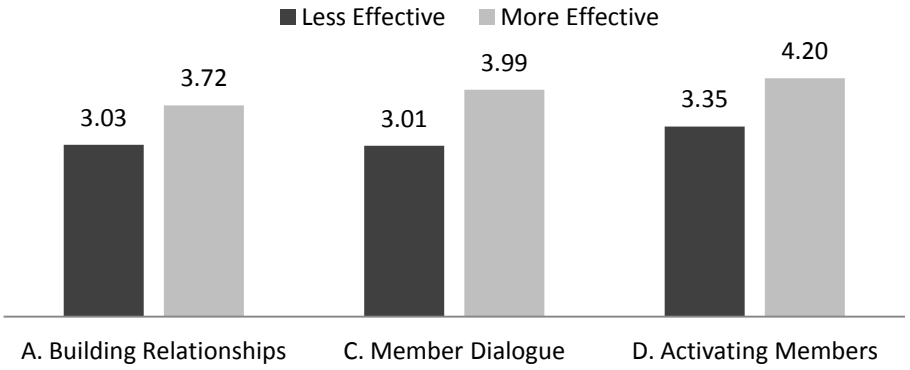

Figure 10. Comparison of means for *Challenge the Process*.

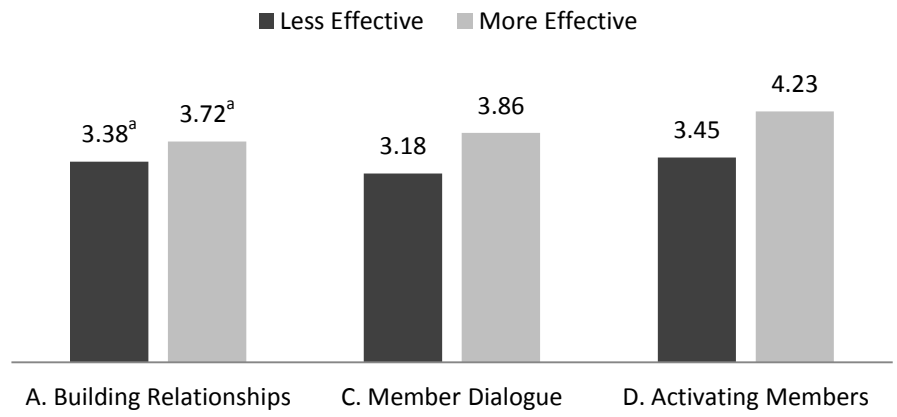

Figure 11. Comparison of means for *Enable Others to Act.*

[a] The difference in means is not significant for this experience.

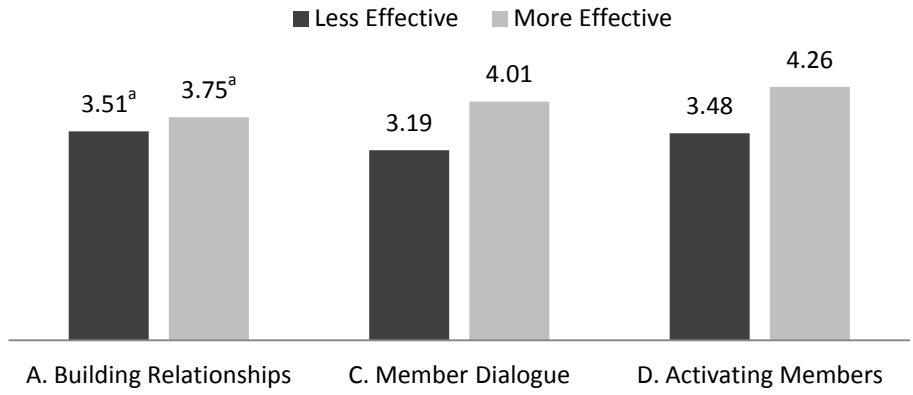

Figure 12. Comparison of means for *Encourage the Heart.*

[a] The difference in means is not significant for this experience.

Summary

This chapter has been confined to presenting and analyzing the data without drawing conclusions or inferences. Each research question was addressed in detail using both descriptive and inferential statistics with tests ranging from factor analyses to *t*-tests.

To answer the first research question, the researcher analyzed data generated by focus groups to identify a list of experiences that might contribute to the leadership development of undergraduate student leaders. The researcher's analysis resulted in 14

recognizable experiences that study participants specified as contributors to their own leadership development. The experiences were classified by the researcher into two main types: (a) experience involving interactions between the student leader and those outside the organizational membership; and, (b) those experiences between the student leaders and the members of the organizations they lead. The second type of experience represented 78% of all those identified by participants. This frequency was supported by field study data which showed that 62% of participants had these experiences *often* or *almost always.* The experience factor *Activating Members* occurred with the greatest frequency, with 54% of participants reported having these experiences *often* or *almost always*. The experience factor *Representing the Organization* occurred the least frequently for the field study participants with nearly half (48%) reporting this experience just *rarely* or *once in a while*. This finding signaled what was later discovered in the final factor loadings: the items representing the experience factor *Representing the Organization* did not load together under their *a priori* factor structure; therefore, the factor was discarded from the final dataset.

The remaining research questions required the researcher to examine the data for any associations between the experiences and the practice of the five leadership behaviors measured in the Student LPI (Kouzes & Posner, 2006). A correlation analysis showed that 13 of 15 associations (i.e., between three experiences and five behaviors) had significant ($p < .003$) correlations. In 85% of the cases there was at least a medium effect of the experiences on the behaviors studied. Two of the experience factors, *Member Dialogue* and *Activating Members*, had a medium or large effect on all five leadership behaviors. The largest effect exists with the behaviors *Inspire a Shared Vision* and

Challenge the Process. Based on the criteria used, these are considered very meaningful findings. The experience *Building Relationships* had the weakest associations with the behaviors being studied and, just like the experience *Representing the Organization*, belongs to the experience type involving interactions between the student leader and those outside the organizational membership.

Once independence was examined for the experience variables, the researcher moved forward to examine each behavior model for significance. Overall model significance existed for all five behavior models. Additionally, each behavior model had a large *F*-score, which improves predictability for the outcome variables (i.e., less effective leaders and more effective leaders). The results showed that the experiences of less effective and more effective leaders were significantly different in three of the five behavior models: *Model the Way; Inspire a Shared Vision;* and, *Challenge the Process*. Overall, this was true for 13 of the 15 experience cases examined. Two of the experiences, *Member Dialogue* and *Activating Members*, were significant in behavior models *Enable Others to Act* and *Encourage the Heart*. In addition, the mean values definitely differentiated between LE and ME leaders in all but two of the 15 cases examined in the study.

It is important to note that although there was significance found for *Encourage the Heart*, the model did not meet the primary assumptions for a multivariate analysis. Therefore, while it was initially reported in the results (i.e., Table 15 and Figure 12), it was not included in any further discussion in order to prevent any overstatement of the study's findings.

The research-based connections between undergraduate student participation in out-of-classroom activities and the development of leadership skills were outlined in the literature review in Chapter 2. This study was designed to explore a particular type of out-of-classroom participation (i.e., experiences in student leadership positions) and the relationship those experiences may have with the development of effective leadership behaviors. Although the out-of-class leadership experiences remained an unknown until phase one of the study was complete, the effective leadership behaviors were derived from an empirically-based instrument called the Student LPI (Kouzes & Posner, 2006). The Student LPI measures leadership effectiveness according to five practices: (a) modeling the way; (b) inspiring a shared vision; (c) challenging the process; (d) enabling others to act; and, (e) encouraging the heart (Kouzes & Posner, 1987).

To answer the study's research questions, the researcher applied a sequential mixed-method approach that utilized two technique types to gather data: (a) focus groups; and, (b) descriptive questionnaires. The two phases, the second dependent on data from the first, allowed the researcher to explore the possibility that certain out-of-classroom leadership experiences are characteristic of effective leadership behavior in undergraduate student leaders at a four-year, private college in the Northeastern United States.

CHAPTER 5

DISCUSSION

The primary purpose of this mixed-method study was to explore the relationship between undergraduate student leadership experiences and the practice of effective leadership behaviors. Many researchers have established that undergraduates holding a leadership position in out-of-classroom activities such as student government, programming boards, resident advising, and other student organizations results in the development of leadership skills (Kuh, 1995; Pascarella, Ethington, & Smart, 1998; Shuh & Laverty, 1993). However, it is not clear what specific aspects of these leadership positions (i.e., experiences) contribute to the development of the leadership behaviors. Indeed, Kuh's (1994) recommendation that various experiences be linked to specific outcomes served as inspiration for the current study. A review of the literature revealed that research in this area was limited; therefore, the researcher concluded that such a study was warranted.

The sample for this study consisted of undergraduate student leaders at a four-year, private, liberal arts college in the Northeastern United States who held at least one of the following leadership positions: (a) resident advisor; (b) community outreach board member; (c) student government member; (d) Greek organization officer; (e) student programming board; or, (f) student club officer. Originally, leaders from the student programming board were to be included in the focus groups, but due to a low response rate their focus group session was canceled and therefore not included in the qualitative phase of the study. However, leaders from the student programming board were included in the field study sample. The participant sample for all phases of the study also met the

following criteria: (a) full-time status; and, (b) at least two semesters of experience in the same student leadership position. Based on these parameters, 213 student leaders at the institution were identified as being eligible for participation in the study; a total of 141 student leaders, a 66% response rate, participated in the field study.

The research study began with a series of focus groups consisting of student leaders who met the criteria for eligibility defined by the researcher. The goal of these sessions was to identify those student leadership experiences which students attributed to their own leadership development. Once identified, the experiences were used to design an instrument for measuring experience frequency; the instrument is referred to as the Leadership Biodata Questionnaire (LBQ). The LBQ was piloted with a small sample before it was partnered with the Student Leadership Practices Inventory (Kouzes & Posner, 2006) in the field study. The purpose of the field study was to examine any relationships between the student leader experiences and the practice of five leadership behaviors. The experiences measured in the LBQ include: (a) building relationships; (b) representing the organization; (c) member dialogue; and, (d) activating members. The behavioral practices measured in the Student LPI include: (a) challenging the process; (b) inspiring a shared vision; (c) enabling others to act; (d) modeling the way; and, (e) encouraging the heart (Kouzes & Posner, 1987).

This chapter is organized by the findings and follows the flow of the study's methodology. While there is a relative chronology, the primary focus is on highlighting eight key findings identified by the researcher. Within the discussion of each noteworthy finding, a reference is made to the research question from which the initial finding is built, but conclusions are drawn by comparing results from all sections of the study.

Key Findings

Finding 1: Fourteen Out-of-Classroom Leadership Experiences Identified

The conclusions drawn from the first research question during the qualitative phase of the study provide insight into the out-of-classroom experiences of undergraduate student leaders which occur while they are fulfilling their leadership responsibilities. The study's participants identified 14 different experiences that contributed to their leadership development. Based on the field study data, participants had 86% of those experiences as a part of their leadership biography *at least sometimes.* This finding suggests that the researcher's exploration was successful on several levels: (a) The experiences are grounded in the views and voices of student leaders; (b) they are the product of a systematic research-based analysis; and, (c) they are substantiated by the field study data which showed them as an actual reality for the vast majority of student leaders. Each experience was classified by the researcher into two main types and four subgroups called factors.

The classification of experiences into various groupings provided a foundation for building a locally-developed instrument (i.e., the Leadership Biodata Questionnaire) for measuring student leader experiences during the field study. (Refer to Appendix O for a list of all experiences grouped by factor and type.) The first type included all those experiences which occurred between the student leader and those outside the organizations they led. The factors which were grouped with this type of experience were referred to as *Building Relationships* and *Representing the Organization*. The second type included those experiences which occur between the student leaders and members of the organization they led. The factors which defined this type of experience

were referred to as *Member Dialogue* and *Activating Members*. The second type of experience represented 78% of all experiences identified by participants. Based on this finding, there appears to be an imbalance, with more experiences involving interactions within the organization. While this may be a necessity in order to accomplish the responsibilities of the position, student affairs personnel who advise these leaders may want to find ways to offer these leaders more opportunities to represent the organization beyond the membership because it encourages leaders to have inter-organizational dialogue.

Although the experiences identified in this study were based on data from a single institution, they could represent a starting point for institutions to begin to develop a planned training sequence with appropriate resources to help student leaders become more effective in their leadership positions. For example, since recruiting members to participate in events was the most frequently mentioned and broadly expressed experience, student affairs personnel could focus training programs on interpersonal skill topics such as persuasion and how to motivate or influence others. Although there is nothing unexpected or surprising about the experiences identified in this study, the finding does represent a distinct contribution to the research on undergraduate student leadership by creating the list of experiences using a structured and empirically-based process.

Finding 2: Certain Experiences Are More Prevalent

Overall, what was learned by answering the first research question went beyond the 14 leadership experiences identified by participants to finding that the most widely held experiences were those where student leaders coordinated, motivated, and mobilized

their peers. These experience items collectively described by the experience factor *Activating Members* appear to be how a majority of undergraduate student leaders accumulate their leadership experience. Of the leadership experiences identified, those grouped into Factor D *(Activating Members)* were the most frequently occurring experiences (i.e., *occur often* or a*lmost always)*, involving 69% of the participants. These findings were consistent based on the results derived from qualitative exploration and the quantitative analysis of the field study data. Experiences represented by *Item D1* (i.e., plan events and coordinate projects for the organization) and *D4* (i.e., mobilize the members to participate in or attend an event) were the most prevalent overall.

In contrast, *Item D3* (i.e., I am the primary decision maker for the organization) was one of the least common experiences. Although the researcher has no way of knowing for sure, it is suspected that *Item D3* is an outlier within its own factor *(Activating Members)* because the experience of being the primary decision maker is normally reserved for the highest ranking position within the leadership area. Since there is generally just one of these positions per organization the frequency results may have been affected by this inherently biased experience. Another explanation may be that an organization's decisions are made by the officers jointly or by a broader group consensus. (Refer to Appendix P for a full summary of the experience list by the frequency percentage.) The researcher sees a similarity between the experiences involved in *Activating Members* with a pattern called *initiation of structure* identified by Hemphill (1949) in his leadership research. This particular pattern "referred to the extent to which a leader initiated activity in the group, organized it, and defined the way work was to be done" (Bass, 1981, p. 358). The symmetry between the experiences defined by

Activating Members and those referred to by Hemphill (1949) as *initiation of structure* may signal that these experiences truly represent how leaders—effective or not—spend much of their time when fulfilling leadership roles. If this is so, then it suggests that those who are seeking to become leaders should have a penchant for organizing people and motivating them to action.

Finding 3: A Confirmed Factor Structure for the Leadership Biodata Questionnaire

The LBQ was originally designed with four experience factors. Rather than assume the *a priori* experience item groupings remained intact in the field study data, the researcher conducted a factor analysis to examine which experience factors were meaningful enough to include in the next set of statistical tests: These tests provided the data necessary to answer the second and third research questions. Two important findings resulted from this analysis: (a) the researcher discovered that 80% of the items aligned with their original factor assignments; and, (b) a 3-factor model was the most comprehensible factor structure in terms of how the items clustered reliably. Once the dataset was revised to match the new model, three factors (i.e., *Building Relationships, Member Dialogue, and Activating Members*) and 13 items were retained for further analysis. Notably, Factor B (*Representing the Organization*) had the lowest mean score in the field study data, indicating that participants had far fewer of these experiences. Consequently, it made sense that during the factor analysis items which defined *Factor B* were either discarded, like *Item B1* (i.e., serving on a college committee) or absorbed by *Factor A* and *Factor D*, as described in Chapter 4. Using the current methodology, *Factor B* was not useful in examining effective student leadership behavior, but it raises a

question about whether its absence may be a product of the student leader having too little time or too little opportunity. Before either student affairs practitioners or student leaders react to this finding more focused research is necessary. Factor B (*Representing the Organization*) experiences should be examined further using a different undergraduate population and a larger sample size before being removed in its current form from the LBQ.

Finding 4: Many Positive and Highly Significant Correlations

This study, like some conducted in the business world, found that experiences were indeed linked to leadership ability. Mumford, et al. (2000) found that certain assignments or experiences, such as problems with multiple components, boundary-spanning, and long-term planning, were positively correlated with improved leadership skills. In a second study conducted by Lindsey, et al. (1987), the researchers also uncovered experiences which contributed to business executives' effectiveness. Their work resulted in a list of events and assignments, such as relationship management and agenda setting and implementing. In the current study, when addressing the answer to the second research question, the researcher found that 13 of the 15 associations between the three student leader experiences measured in the LBQ and the five leadership behaviors measured in the Student LPI were positive and highly significant ($p < .003$). (Refer to Chapter 4, Table 13 for these correlation results.)

There was no association found between experience *Factor A* (*Building Relationships*) and two of the leadership behaviors: *Enabling Others to Act* and *Encourage the Heart.* This seems to make some sense, since the items in this factor describe experiences that occur beyond the organization. It is possible that this

experience occurs with people who are beyond the student leader's locus of control (e.g., member of another student organization) or with people where there is a distinct power differential (i.e., an advisor or supervisor). In these cases, the situation does not readily lend itself to practicing these two leadership behaviors. Based on this finding, one practical interpretation may be to de-emphasize these kinds of experiences for student leaders, since their correlation on even the three leadership behaviors where an association does exist is relatively weak. A second option might be to place a renewed emphasis on making these experiences (i.e., attending meetings with the same administrator, seeking out campus resources, facilitating communication between the membership and the college) meaningful and as easy to accomplish as possible for student leaders.

Finding 5: Two Experiences Add Value to All Five Behaviors

Aside from finding significance between the leadership experiences and specific leadership behaviors, the researcher also sought to determine the strength of any associations that were found. In 85% of the cases, there was at least a medium effect of the experiences on the behaviors studied. *Member Dialogue* and *Activating Members* were experiences that showed a medium or large effect size for all five leadership behaviors and were the only experiences to contribute a large effect in the overall analysis. These two experiences (i.e., *Member Dialogue* and *Activating Members)* were found to add the greatest value to the behaviors *Inspire a Shared Vision* and *Challenge the Process.* Based on the criteria used, these large effects are considered very meaningful findings. *Member Dialogue* and *Activating Members* offer an opportunity for student leaders to practice all five effective leadership behaviors, and this is clearly

indicated by their strong correlation and sizable effect. The researcher recommends that, in an environment that values the leadership model developed by Kouzes and Posner (1987), student affairs practitioners encourage more frequent *Member Dialogue* and *Activating Members* experiences across a broad range of student leader positions. This might be accomplished by being more purposeful in the creation of student leader job responsibilities. Specifically, student affairs professional should include opportunities for each of the experiences described by these two factors to occur often. An advisor might also provide training for student leaders aimed at helping leaders successfully execute these kinds of responsibilities. When this finding was coupled with Finding 2 and Finding 4, *Activating Members* emerged as a plentiful and powerful experience for the majority of student leaders included in this study. Perhaps this is an area where student affairs professionals could influence student leader effectiveness by ensuring solid support for these types of rich learning opportunities. The combined findings may also imply that when student affairs professionals are nominating or selecting students for leadership positions, previous experience, such as the ones defined by *Activating Members*, may be indicators to consider.

Finding 6: Experiences of Less Effective and More Effective Leaders Vary Significantly

In answering the third research question, the researcher looked for any differences that might exist between the experiences of less effective leaders (LE) and more effective (ME) leaders. For the purposes of this study, effective leadership was determined using the percentile score of each participant on each behavior of the Student LPI. In other words, participants were scored five times each and were placed into 1 of 3 categories:

(a) more effective; (b) less effective; or, (c) neither. During a review of each significant behavior model (i.e., *Model the Way, Inspire a Shared Vision, Challenge the Process,* and *Enable Others to Act*), the *t*-scores for each of the experience grouping variables revealed that experiences of LE and ME leaders were significantly ($p < .01$) different in 11 of the 12 cases examined. Two of the experiences, *Member Dialogue* and *Activating Members*, were significant in all four behavior models. When these experiences were examined further, this time analyzing the experience factor mean values and filtered by more effective (ME) and less effective (LE) leaders, disparity was found between all experiences for each behavior model examined: *Model the Way, Inspire a Shared Vision, Challenge the Process,* and *Enable Others to Act*. In every case the experience factor mean value for ME leaders appeared to be larger than for LE leaders, and as previously noted, the *t*-scores indicated these differences are, in fact, real. Therefore, those student leaders with the more effective leadership behavior scores have engaged on a more frequent basis in almost every experience measured in the LBQ when compared to their less effective peers. This finding allows the researcher to conclude that the *Member Dialogue* and *Activating Members* experience frequency scores can be used to differentiate between ME and LE leaders with four of the behaviors measured in the Student LPI. Armed with this information, student leader effectiveness could improve if leaders take advantage of opportunities which provide these kinds of experiences in higher volume. The only exception to these findings is *Building Relationships*, which was significant in three behavior models, but not with *Enable Others to Act.* More discussion about this experience occurs in Finding 8.

Mumford, et, al. (2000) had comparable findings to this study. In a research study conducted with Army officers, Mumford, et al. (2000) demonstrated that leadership improves as a function of experience. Similarly, Astin's (1993) involvement theory supports this study's finding that expected student development to occur with increased involvement.

Finding 7: Experiences Involving Member Dialogue Were Not Prevalent

The items that define Factor C *(Member Dialogue)* were among the least frequently occurring experiences examined in the study. However, this factor had a positive correlation and a large effect size with both *Inspire a Shared Vision* and *Challenge the Process* behaviors. In addition, this factor was shown to differentiate effective leaders from less effective leaders in three of the behavior models. It is reasonable then to conclude that in order to improve effectiveness for *Inspire a Shared Vision* and *Challenge the Process*, higher scores are needed on the *Member Dialogue* experience factor. Based on this data, student affairs professionals should consider how to incorporate more opportunities for *Member Dialogue* experiences in the undergraduate student leadership roles which exist. For example, this might begin to be accomplished by conducting an inventory of responsibilities for each leader and then making modifications based on this finding. Support for this suggestion comes from the research findings of Whitt (1994) who examined the environmental factors influencing undergraduate leadership development. Whitt discovered that high expectations and the specific job responsibilities students had in their leadership positions were very influential in the leadership development process.

Finding 8: Experiences Involving Building Relationships Have Little Effect

The experience *Building Relationships* belongs to the type involving interactions between the student leader and those outside the organizational membership he or she leads. *Building Relationships* was the only experience that did not have significance with all five behaviors. Although it did correlate with three behaviors and provided at least a small effect for each, there was no association found between it and the behaviors *Enabling Others to Act* and *Encourage the Heart.* This absence of significance also occurred when the *t*-score was examined for the leadership effectiveness grouping variables (i.e., less effective and more effective) in both of these behavior models: *Enabling Others to Act* and *Encourage the Heart*. Based on this study, *Building Relationships* had no discernible connection or value to *Enable Others to Act* or *Encourage the Heart* and had just a small to moderate effect on the other three behavior models examined. As a result of these combined findings, there is little reason to believe that even if a student leader were to have these experiences more frequently it would result in higher effectiveness scores for *Enable Others to Act or Encourage the Heart.* The researcher suspects that the lack of association could be, in part, due to limited scrutiny from within or from outside the organization in regard to a leader's success fostering collaboration and sharing power (i.e., *Enable Others to Act*) and showing appreciation or celebrating common values (i.e., *Encourage the Heart*). In the absence of more value being placed on these types of leadership behaviors, albeit from the students, the organizations, or the institution, more experience will not likely lead to improved performance. From a practical standpoint, student affairs personal could experiment with tangible rewards, challenges combined with incentives, or visible recognition which

encourages more effective leadership in these two behaviors and also serves as the impetus for higher quality *Building Relationship* experiences.

Psychometric Properties of the Leadership Biodata Questionnaire

Content and construct validity were established with the Leadership Biodata Questionnaire (LBQ) prior to the field study and were further supported with an analysis of the factor structure using the field study data. Therefore, while the sample was limited to a single institution, it is possible that the results can be applied to institutions with similar characteristics. (See Appendix Q for more information regarding instrument validity.)

An underlying goal in designing the LBQ was to produce a reliable instrument where the scores on similar items are related (i.e., internally consistent) but also for each item to contribute some unique information as well. An appealing outcome of the study was the creation of a student leadership experiences measure which is arguably reliable with the undergraduate population being studied. (See Appendix Q for statistical evidence of the instrument's good reliability.) Despite being a new and locally-designed instrument, the LBQ offers a viable measure of undergraduate out-of-classroom leadership experiences that can be of use to other practitioners when partnered with a valid leadership metric.

Limitations

As with any research study, there are limits to this study's findings. For example, the researcher's ability to generalize the findings across institutions is limited by a relatively small sample size and the use of data which were collected at a single institution. In addition, no causal conclusions can be drawn from the study's

correlational findings because there is the possibility, even the likelihood, that some other variables influenced the findings.

Suggestions for Further Research

Replication Possibilities

If this study were to be repeated, the researcher may consider gathering data on a similar population (i.e., undergraduate students) at institutions with similar characteristics, but with attention in the analysis given to any associations with variables such as leadership role or gender. Establishing which leader roles provide which kinds of experiences could be of great value to those interested in student leadership development. It would also be valuable to conduct the study at a variety of institutions with more diverse student leader populations even though previous studies using the Student LPI (Endress, 2000; Posner, 2004; Posner & Brodsky, 1993, 1994; Posner & Rosenberger, 1997; Pugh, 2000; Wilcox, 2004) found little to no difference in leadership effectiveness based on demographic variables, such as gender, age, ethnicity, GPA, year in school, or academic major. A study with a larger and more diverse sample would allow researchers to examine whether leadership experiences correlated with effective leadership behaviors differ based on demographics. An examination of student leadership development where variations in out-of-classroom student leader experiences are found to be based on demographic variables is very intriguing.

Additionally, the leadership measure could be strengthened through triangulation. The Student LPI has two versions (i.e., self and observer), and this approach would require that one version be completed by the participant and two more by observers, most likely one peer or subordinate and one supervisor or advisor of the primary participant.

While this method could risk lowering the response rate, the researcher deems it a viable strategy for improving validity for the more effective and less effective leadership scores. Furthermore, since the third experience factor of the LBQ was marginal for being retained, the researcher wonders what would happen if it were removed. In this case, the field study could be replicated but with a modified LBQ that includes just two factors. If this is undertaken, each of the other recommendations already listed would still be attractive approaches for other researchers to follow.

Another variation to consider is to repeat the focus groups each time the study is conducted on a different campus. In particular, participants could be asked to identify less routine experiences and also negative experiences which they feel contributed to their leadership development during their leadership tenure. The researcher believes that many of the LBQ items are virtually universal, but this modification may advance the instrument as a whole since leadership experiences on each campus probably vary based on student interests, the demographics of the student body, and available resources.

Extension Possibilities

This study has laid the groundwork for a prediction study using the existing data set or better yet, an expanded sample. Taking the analysis a step further with a regression analysis could provide a much stronger argument for channeling resources toward, or away from for that matter, the development of specific experiences or leadership roles. A researcher might also consider administering case studies to determine whether what participants report to be regularly practiced leadership behaviors are actually exhibited in high pressure situations. The use of such situations in post-testing would address whether student leaders respond to more stressful conditions in ways that are consistent with the

leadership behaviors they previously affirmed. Another suggestion would be to expand the current study by applying an experimental research design which attempts to account for a variety of confounding variables. This would permit the exploration of possible causal relationships between the predictor variables (i.e., leadership experiences) and the outcome variables (i.e., leadership behaviors).

Summary

The purpose of this study was to identify the experiences which student leaders attribute to their own leadership development and to then examine the relationship between those experiences and the practice of five leadership behaviors measured in the Student LPI. The behavioral practices measured in the Student LPI are grouped into five themes: (a) modeling the way; (b) inspiring a shared vision; (c) challenging the process; (d) enabling others to act; and, (e) encouraging the heart (Kouzes & Posner, 1987).

During the literature review, connections were found between student development, including leadership development, and traditional student leadership positions. One such example is seen in the research of Kezar and Moriarty (2000) who found that holding a position as resident advisor, involvement in ROTC, or having an internship were strong predictors of leadership ability. However, these predictor variables do not help practitioners understand what it is about the experience that leads to improved leadership ability. There was an absence of research examining the relationship between the experiences that occurred while holding formal student leadership positions (e.g., managing a budget, meeting with administrators, preparing a meeting agenda, conducting a fundraising event) and effective leadership behavioral outcomes unless the business world was examined. In his work with business executives,

Kotter (1990) found that experiences such as (a) challenging assignments, (b) mentoring or coaching, (c) special projects, (d) formal training, and (e) inclusion in meetings outside their core job responsibilities contributed to leadership development. Therefore, this study adds to the research literature by identifying specific experiences of undergraduate student leaders and describing the relationships between those experiences and the five leadership behaviors measured in the Student LPI.

The research findings of this study are important for the following reasons:

1. The study advances knowledge in the field by first identifying, and then substantiating, the existence of 14 out-of-classroom experiences which occur while holding formal student leadership positions.

2. The results fill a gap in the existing literature by showing that certain out-of-classroom undergraduate student leadership experiences can be used to differentiate between more effective and less effective leadership.

3. The findings represent a very good estimate of the entire population at the institution involved in this study and might translate to institutions with similar attributes and student characteristics.

4. The practice of student affairs personnel is impacted by providing a simple, empirically-based model for building leadership capacity.

5. The methodology used for measuring the relationship between experiences and specific leadership behaviors has been proven useful.

Knowing that leadership development is a valued goal of colleges and universities (Astin & Astin, 2000) and that prospective employers rate leadership as the third most valued *deficit* skill of four-year-college graduates (Casner-Lotto & Barrington, 2006),

those who are most connected to student leaders should take a vested interest in any research that links specific experiences to effective leadership behaviors. Based on this study's findings, student affairs practitioners now have an empirically-based list of experiences which have positive correlations of varying effect-sizes on the five effective leadership behaviors measured in the Student LPI. Furthermore, this study has shown that the experiences measured in the LBQ can differentiate between those leaders who are more effective and less effective in each of four behaviors measured in the Student LPI.

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APPENDICES

Appendix A

Student Leadership Practices Inventory – Self

Self

STUDENT LEADERSHIP PRACTICES INVENTORY – SELF

Your Name: _____

Instructions

On the next two pages are thirty statements describing various leadership behaviors. Please read each statement carefully. Then rate *yourself* in terms of *how frequently* you engage in the behavior described. *This is not a test* (there are no right or wrong answers). The usefulness of the feedback from this inventory will depend on how honest you are with yourself and how frequently you *actually* engage in each of these behaviors.

Consider each statement in the context of one student organization with which you are now (or have been most) involved with. This organization could be a club, team, chapter, group, unit, hall, program, project, and the like. As you respond to each statement, maintain a consistent perspective to your particular organization. The rating scale provides five choices. Circle the number that best applies to each statement:

(1) If you RARELY or SELDOM do what is described
(2) If you do what is described ONCE IN A WHILE
(3) If you SOMETIMES do what is described
(4) If you OFTEN do what is described
(5) If you VERY FREQUENTLY or ALMOST ALWAYS do what is described

In selecting the response, be realistic about the extent to which you *actually* engage in the behavior. Do *not* answer in terms of how you would like to see yourself or in terms of what you should be doing. Answer in terms of how you *typically* behave.

For example, the first statement is "I set a personal example of what I expect from other people." If you believe you do this *once in a while*, circle the number 2. If you believe you do this *often*, circle the number 4. Select and circle only one option (response number) for each statement.

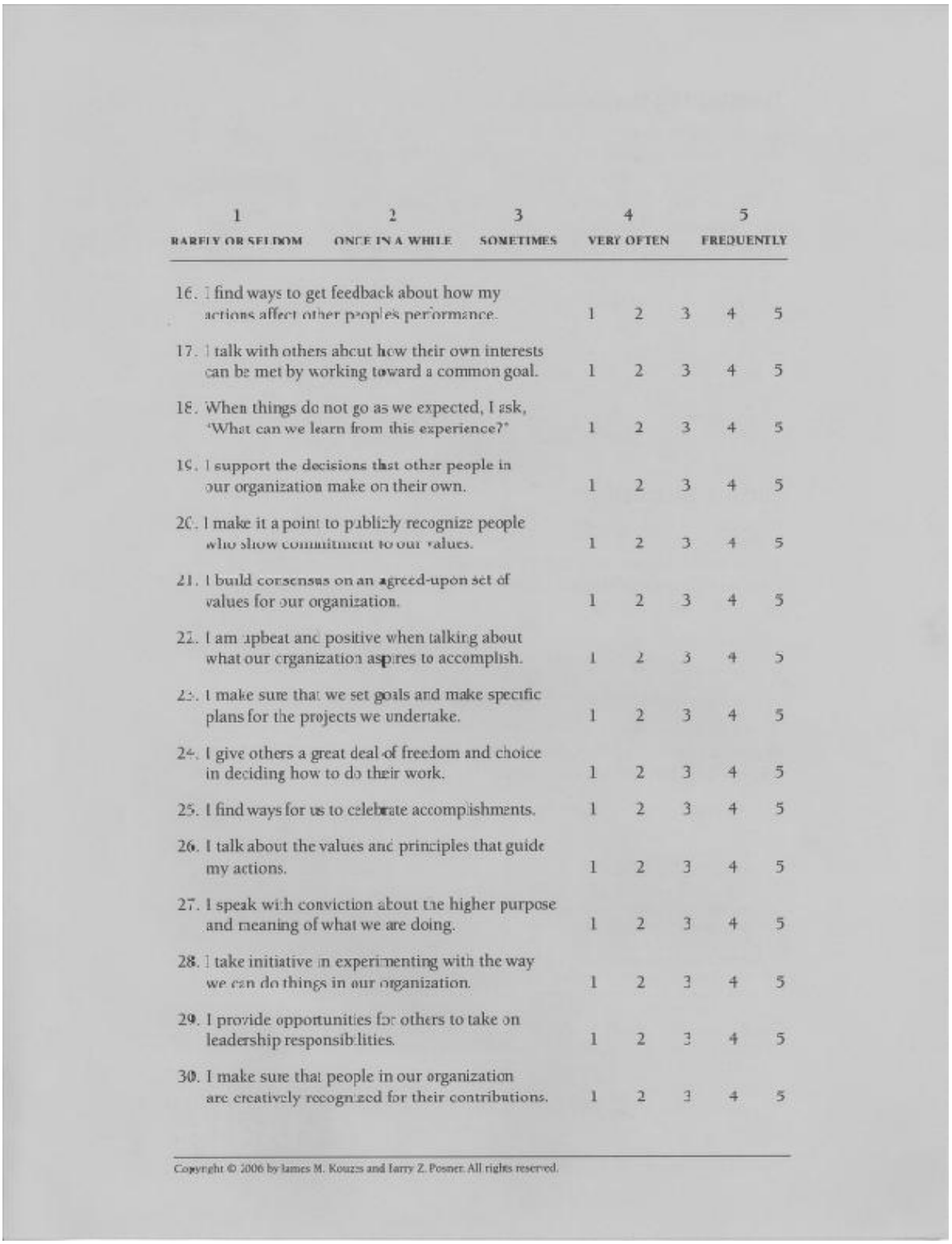
Please respond to every statement. If you can't respond to a statement (or feel that it doesn't apply), circle a 1. When you have responded to all thirty statements, please turn to the response sheet on the back page and transfer your responses as instructed.

STUDENT LEADERSHIP PRACTICES INVENTORY – SELF

How frequently do you *typically* engage in the following behaviors and actions? *Circle* the number to the right of each statement, using the scale below, that best applies.

1	2	3	4	5
RARELY OR SELDOM	ONCE IN A WHILE	SOMETIMES	VERY OFTEN	FREQUENTLY

1. I set a personal example of what I expect from other people.	1	2	3	4	5
2. I look ahead and communicate about what I believe will affect us in the future.	1	2	3	4	5
3. I look around for ways to develop and challenge my skills and abilities.	1	2	3	4	5
4. I foster cooperative rather than competitive relationships among people I work with.	1	2	3	4	5
5. I praise people for a job well done.	1	2	3	4	5
6. I spend time and energy making sure that people in our organization adhere to the principles and standards we have agreed upon.	1	2	3	4	5
7. I describe to others in our organization what we should be capable of accomplishing.	1	2	3	4	5
8. I look for ways that others can try out new ideas and methods.	1	2	3	4	5
9. I actively listen to diverse points of view.	1	2	3	4	5
10. I encourage others as they work on activities and programs in our organization.	1	2	3	4	5
11. I follow through on the promises and commitments I make in this organization.	1	2	3	4	5
12. I talk with others about sharing a vision of how much better the organization could be in the future.	1	2	3	4	5
13. I keep current on events and activities that might affect our organization.	1	2	3	4	5
14. I treat others with dignity and respect.	1	2	3	4	5
15. I give people in our organization support and express appreciation for their contributions.	1	2	3	4	5



1 RARELY OR SELDOM	2 ONCE IN A WHILE	3 SOMETIMES	4 VERY OFTEN	5 FREQUENTLY
16. I find ways to get feedback about how my actions affect other people's performance.	1	2	3	4 5
17. I talk with others about how their own interests can be met by working toward a common goal.	1	2	3	4 5
18. When things do not go as we expected, I ask, "What can we learn from this experience?"	1	2	3	4 5
19. I support the decisions that other people in our organization make on their own.	1	2	3	4 5
20. I make it a point to publicly recognize people who show commitment to our values.	1	2	3	4 5
21. I build consensus on an agreed-upon set of values for our organization.	1	2	3	4 5
22. I am upbeat and positive when talking about what our organization aspires to accomplish.	1	2	3	4 5
23. I make sure that we set goals and make specific plans for the projects we undertake.	1	2	3	4 5
24. I give others a great deal of freedom and choice in deciding how to do their work.	1	2	3	4 5
25. I find ways for us to celebrate accomplishments.	1	2	3	4 5
26. I talk about the values and principles that guide my actions.	1	2	3	4 5
27. I speak with conviction about the higher purpose and meaning of what we are doing.	1	2	3	4 5
28. I take initiative in experimenting with the way we can do things in our organization.	1	2	3	4 5
29. I provide opportunities for others to take on leadership responsibilities.	1	2	3	4 5
30. I make sure that people in our organization are creatively recognized for their contributions.	1	2	3	4 5

Note: Permission for instrument use was granted by Pfeiffer/Wiley Publishing in August of 2009.

Appendix B

Focus Group Participant Invitation Letter

Dear [insert student leader first name],

I am a doctoral candidate in the Indiana University of Pennsylvania / East Stroudsburg University doctoral partnership program. I will be conducting a research study as a part of my degree requirements in Educational Leadership, and I would like to invite you to participate.

If you decide to participate, your involvement will include joining a group of your student leader peers in an hour and a half focus group discussion. Specifically, you will be asked questions about the types of out-of-classroom leadership experiences you have had while acting as a student leader at Lafayette.

I am studying undergraduate student leadership from a behaviorist perspective, which postulates that leadership skill develops through the practice of identifiable behaviors. Your participation in this focus group will enable me to explore the types of out-of-classroom student leader experiences that occur on Lafayette's campus. This information could be useful to you and student life personnel especially if the data shows that certain experiences are more characteristic than others of effective leadership.

Light refreshments and snacks will be available at the focus group session and for your participation you will receive a campus bookstore gift card worth five dollars.

The focus group session that you are invited to attend is scheduled for [insert day, date, time] in [insert room and building].

I have attached a copy of the Focus Group Participant Consent Form that will need to be signed by each volunteer participant. The form outlines my purpose, procedures, risks and benefits of participation, confidentiality, and participant rights. You should read this attachment before you confirm your desire to participate.

Focus group size is limited so please RSVP no later than [insert date] using this link [insert link to interest survey] if you wish to be included as a participant in this research study. I look forward to having you join me in this exploration.

Sincerely,

Jodie A. Frey

Primary Investigator, Candidate for Doctorate of Education, East Stroudsburg University
freyj@lafayette.edu or 610-330-5772

Appendix C

Focus Group Participant Consent Form

Research Participant Informed Consent Form: Focus Groups

INVESTIGATOR: Jodie A. Frey, Candidate for Doctorate of Education, East Stroudsburg University

PURPOSE: To explore out-of-classroom student leader experiences and describe any relationships that may exist between those experiences and effective leadership behaviors. This information would be useful to student life personnel when designing student leadership positions descriptions, responsibilities or assignments if the data shows certain experiences are more characteristic than others of effective leadership behaviors.

PROCEDURES: With your permission, we would like you to participate in a focus group with some of your peers. In the focus group, you will be asked to talk about your activities and experiences related to your leadership position(s). At a later time, after all focus groups are complete, the researcher will administer two descriptive questionnaires to a wider group of student leaders on campus: all of whom participated in the focus groups and many of whom did not. This study does not involve any treatment; just the collection and study of data.

RISKS AND BENEFITS: There are no anticipated risks associated with participation in this study. The researcher cannot guarantee or promise that you will receive any benefits from this study. However, your participation may contribute to the research literature on student leadership development as was described in the purpose above.

TIME INVOLVEMENT: Your commitment would mean participating in one 90-minute focus group.

CONFIDENTIALITY: At no time during the focus groups will data be connected to anything more than a first name. For all written reporting, names will be replaced with a coded letter and number that only the researcher could decipher. All electronic data will be stored on a password-protected protected computer. Unless it is actively being used by the transcriber, the recording device and all recordings will be locked in a drawer within the work office of the primary rescuer in room 237 Kirby Sports Center. The study results may be published or presented, but the identities of research participants will remain completely anonymous.

COMPENSATION: All focus group participants will have access to light refreshments and snacks during the focus group session and will each receive a campus bookstore gift card worth five dollars off your next purchase. No one will receive any direct payment for participation in this study.

PARTICIPANT'S RIGHTS TO PARTICIPATE, DECLINE OR WITHDRAW: Your decision whether or not to participate in this study will not affect your status as a

student or student leader at Lafayette College. If you have read this form and have decided to participate in this study, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. On-campus counseling or psychological support services are available to participants who have reason for assistance. Call (610) 330-5005 to meet with a counselor. If you wish to withdraw at any time, write or call the researcher using the contact information below.

CONTACT INFORMATION: If you have any questions about this research study, its procedures, risks or benefits, you should contact the researcher: Jodie Frey at 610-330-5772 or freyj@lafayettte.edu or East Stroudsburg University, Committee Chair, Dr. Patricia Smeaton at psmeaton@po-box.esu.edu. If at any time, you feel you have been hurt by being a part of this study or are not satisfied with how this study is being conducted, or your rights as a research participant, please contact: **East Stroudsburg University, IRB Chair, Dr. Shala Davis at (570) 422-3336 or electronically at** sdavis@po-box.esu.edu to East Stroudsburg Committee Chair, Dr. Patricia Smeaton at ,

Signature of Participant: _____ Date: _____

Witness Signature: _____ Date: _____

THIS PROJECT HAS BEEN APPROVED BY THE EAST STROUDSBURG UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS.

Appendix D

Focus Group Protocol

Participant Registration

Step 1. Welcome and thank you for coming. My name is Jodie Frey and I will be serving as the focus group moderator today. This is Cindy Liparini and she will serve as our note taker and transcriber.

Introductions

Step 2. You have been invited to participate in a research study on college student leadership. Before we get started, there are a couple of things that we need to do including explaining how we will conduct the focus group. First, we are going to review the consent form which provides you with an overview of the study's purpose, the procedures used and a descriptions of your role as a voluntary participant. I will need your signature on the form where it states that you are consenting to participate in the research project. If anyone has a question, stop me at any time.

Review Consent Form

Step 3. If you are all still interested in participating, please sign the consent form, keep the bottom copy for yourself and pass the top copy to Cindy. Next, we should review the definition of terms so that we are working with a common vocabulary.

Review Definition of Terms

Step 4. Does anyone have questions? If there are no further questions, we will prepare to begin by first stating a few ground rules. We should all agree that the stories and insights shared today will remain private and are provided by each of you strictly for the purpose of scientific inquiry. The questions I will ask are open ended and aimed at the entire group, and we hope that everyone will try to actively participate. Please share only what is comfortable for you. You may leave at anytime if you wish. I would like to ask that you view this as a discussion and I hope you will feel free to respond to one another's stories and answers. It is important that everyone feels that they are respected and that everyone gets a chance to speak throughout the session. Does anyone have any questions or concerns?

Address Questions or Concerns

Step 5. Before we begin with the questions, I would like to find out who you are, so let's go around the table and have each person introduce themselves using first names only. In addition, then tell us a little something about yourself.

Introductions are complete

Thank you, I am now going to start the tape recorder and begin the questions.

Turn tape recorder on

Q1. What out-of-classroom leadership position(s) have you held in college?
Q2. Describe the responsibilities your leadership position(s) includes.
Q3. Describe the experiences you have had when fulfilling those responsibilities.

Q4. What were the benefits of holding the leadership position(s)?

We should pause the discussion for a moment to review the behaviors that will define effective leadership in my study. These behaviors provide you with a context for the questions in the second part of our discussion.

Review the Five Leadership Practices and Corresponding Behaviors (see Chapter 2, Table 1)

Does anyone have a question before we proceed?

Address Questions or Concerns

Q5. Which of the experiences mentioned were the most influential in your leadership development?

Q6. What unexpected experiences did you have that contributed to your leadership development?

Q7. Tell me about any experiences you wanted to have as a leader, but for whatever reason did not occur.

Q8. If you were charged with mentoring a new student leader, what types of tasks would you assign (based on your own experiences) in order to maximize their leadership development?

Step 6. That was our final question. Is there anything else that anyone would like to add or are there any more questions about what we discussed today?

Allow time for comments

Step 7. This concludes the focus group. Thank you very much for taking the time to participate. You will be receiving an electronic message of the analyzed transcript asking you for any comments on the accuracy of my conclusions. As I mentioned before, the data will be synthesized for use in a questionnaire which will be sent out later this semester to all student leaders who meet the criteria outlined earlier. If you have any questions at any time please contact me using the information on your copy of the consent form. Enjoy the rest of your afternoon.

Appendix E

Preliminary List of Student Leader Biographical Data

Number	Experience
1	Recruited members or peers to attend and/or participate in something
2	Planned events
3	Helped the organization accept change
4	Worked as part of a team or coordinator of projects
5	Motivated the membership
6	Set an agenda and run membership meetings
7	Coordinated efforts and delegated
8	Shared control of a budget with other leaders within the organization
9	Facilitated communication between members and college or other organizations
10	Served on a College committee (with few student members)
11	Designated the final decision maker for organization and membership
12	Shared advice or experiences as resource
13	Sought campus resources in order to complete responsibilities
14	Asked membership to support you, the organization or an event
15	Incorporated members into decisions with voting
16	Completed monthly reports to governing organization
17	Attended regular meeting w/same administrator
18	Mobilized members to attend events
19	Organized events and/or people
20	Trained members
21	Ensured the organization continues beyond your tenure; leave legacy
22	Convinced members to do what needs to be done
23	Negotiated and collaborated with leaders from other organizations
24	Presented and defended your ideas in front of the entire membership
25	Found yourself out of your comfort zone
26	Raised money
27	Sacrificed for the sake of the organization
28	Found a way to show membership tangible result of efforts
29	Persuaded and motivated members
30	Maintained a united front with other leaders within the membership
31	Provided follow-up on requests or after delegating
32	Was supportive of a specific member
33	Held members accountable for actions detrimental to the organization
34	Served as mediator to help find a common ground
35	Supervised others and provided follow-up
36	Observed predecessor or others
37	Ensured that your membership was cooperating

Appendix F

Refined List of Student Leader Biographical Data with Analysis Metrics

Table F1. Experiences with Frequency Metric Equal to or Above the Mode.

Experiences	Frequency Overall
(D) Recruit members or peers to attend and/or participate in something	12
(D) Plan events	11
(C) Help the organization accept change	10
(D) Working as part of a team or coordinator of projects	9
(D) Motivating membership	8
(C) Set agenda and run membership meetings	7
(D) Coordinate efforts and delegate	7
(D) Sharing control of a budget with other leaders within the organization	7
(A) Facilitate communication b/w member and college or other organizations	5
(B) Serving on a College committee (with few student members)	5
(B) Being the final decision maker for organization and membership	5
(C) Sharing advice or experiences as resource	5
(A) Seek campus resources in order to complete responsibilities	5
(D) Asking membership to support you, the organization or an event	4
(C) Incorporate members into decisions with voting	4
(B) Complete monthly reports to governing organization	3
(A) Regular meeting w/same administrator	3
(D) Mobilize members to attend events	3
(D) Organize events/people	3
(C) Train members	3

Note. The capital letter preceding each experience statement represents the original theme in which the item was grouped during the focus group data analysis. A = *Building Relationships*, B = *Representing the Organization*, C = *Member Dialogue*, and D = *Activating Members*.

Appendix F

Refined List of Student Leader Biographical Data with Analysis Metrics

Table F2. Experiences with Extensiveness Metric Listed by Focus Group.

Experience	Extensiveness				
	FG1	FG2	FG3	FG5	FG6
(D) Recruit members or peers to attend and/or participate in something		5		7	
(D) Plan events			1	7	3
(C) Help the organization accept change		1	1	5	3
(D) Working as part of a team or coordinator of projects	2	3		1	3
(D) Motivating membership	2	2		3	1
(C) Set agenda and run membership meetings				3	4
(D) Coordinate efforts and delegate			3		4
(D) Sharing control of a budget with other leaders within the organization		1	3	2	1
(A) Facilitate communication b/w member and college or other organizations		1	3		1
(B) Serving on a College committee (with few student members)		1	4		
(B) Being the final decision maker for organization and membership				5	
(C) Sharing advice or experiences as resource	3	1	1		
(A) Seek campus resources in order to complete responsibilities	2			3	
(D) Asking membership to support you, the organization or an event	1			3	
(C) Incorporate members into decisions with voting				3	1
(B) Complete monthly reports to governing organization	1			1	1
(A) Regular meeting w/same administrator		1	1		1
(D) Mobilize members to attend events				3	
(D) Organize events/people		1	1	1	
(C) Train members		1		1	1

Note. FG1 = Resident Advisors, FG2 = Community Outreach, FG3 = Student Government, FG5 = Greek Leaders, FG6 = Student Clubs. FG4 (Programming Board) did not occur due to low attendance numbers. The capital letter preceding each experience statement represents the original theme in which the item was grouped during the focus group data analysis. A = *Building Relationships*, B = *Representing the Organization*, C = *Member Dialogue*, and D = *Activating Members*.

Appendix F

Refined List of Student Leader Biographical Data with Analysis Metrics

Table F3. Experiences with Intensity Metric.

Experiences	Intensity by individual[a]
(D) Recruit members or peers to attend and/or participate in something	202 203 204 501 501 508 501 503 201 505 508 206
(D) Plan events	504 607 303 503 504 503 507 510 502 502 604 602
(C) Help the organization accept change	503 507 507 206 509 602 605 503 301 606
(D) Working as part of a team or coordinator of projects	202 601 606 505 104 201 601 204 607
(D) Motivating membership	103 105 302 509 504 506 606 301
(C) Set agenda and run membership meetings	607 607 503 607 506 503 601
(D) Coordinate efforts and delegate	303 604 601 304 605 607 303
(D) Sharing control of a budget with other leaders within the organization	304 303 304 506 503 602 203
(A) Facilitate communication b/w member and college or other organizations	203 304 602 305 302
(B) Serving on a College committee (with few student members)	304 304 205 302 303
(B) Being the final decision maker for organization and membership	507 505 509 501 507
(C) Sharing advice or experiences as resource	102 303 103 202 102
(A) Seek campus resources in order to complete responsibilities	103 105 507 507
(D) Asking membership to support you, the organization or an event	501 101 505 505
(C) Incorporate members into decisions with voting	501 503 505 605
(B) Complete monthly reports to governing organization	505 603 102
(A) Regular meeting w/same administrator	202 303 601
(D) Mobilize members to attend events	509 501 509
(D) Organize events/people	201 303 510
(C) Train members	203 606 510

[a]The numbers in this column represent a participant code. The first digit indicates the focus group number and the second two digits are the individual participant number. The capital letter preceding each experience statement represents the original theme in which the item was grouped during the focus group data analysis. A = *Building Relationships,* B = *Representing the Organization,* C = *Member Dialogue,* and D = *Activating Members*.

Appendix G

Supporting Quotations and Source Detail

Theme A - Experiences beyond the organization: "Building Relationships"

Page 2, Line 52, FG303: "Aside from my primary responsibilities as president, I meet with the Associate Dean of Students and with Dean of Students on a weekly basis and with the President on a monthly basis".

Page 6, Line 222, FG606: "As President of the Rugby Club, you're basically the liaison between the school and the team".

Page 25, Line 966, FG510: "Getting any leadership position within the chapter really bridges the gap between knowing the fraternity as a campus organization and a national organization which supports the chapter on campus. Over [the] summer I went to our national conference and met people from all over the United States . . . people who have the same affiliation that I do, but who I've never met before".

Page 49, Line 1921, FG507: "Start by figuring out your resources. The main idea is to know everyone within your chapter and how they're going to respond to what you're saying . . . whether it's your executive board, an alum, or someone in the administration. You should use them to your full advantage because it makes your job easier".

Theme B - Experiences beyond the organization: "Representing the Organization"

Page 5, Line 159, FG505: "We all have higher groups that we have to answer to. I have monthly reports that are due to international each month. The Compass Report is something that you have to do for the school".

Page 12, Line 470, FG304: "I'm a student leader and I'm not only a student leader when I sit in the student leader room. I'm always a representative of student government so I should behave myself and also be a very informative resource".

Theme C - Experiences within the organization: "Member Dialogue"

Page 14, Line 557, FG503: "One thing we do within our chapter is written communication between the outgoing and incoming officers. The officer who holds the position before you writes a letter saying this is what works and this is what doesn't work. They record everything".

Page 14, Line 567, FG510: "There was no talk of cost at the end of one treasurer's term and the next treasurer did not mention cost either [to all new members]. The first thing I did as treasurer is try to let the new members know what it was going to cost right at the beginning so that they don't go through the process, join and then have a jaw dropping

experience when they open the first bill. In fact, I made a presentation and let them know what they can expect in terms of cost and where they can regain that money by being a member, such as through scholarships and jobs".

Page 16, Line 610, FG509: "Holding people accountable when they mess up and putting aside your personal feelings is tough. One of the things I'll tell people at my house is that I'm talking to you as VP right now not as your brother or best friend. Separating it is very difficult sometimes".

Page 49, Line 1908, FG509: "You must be able to stand up in front of your organization and if someone questions you then defend why you believe in it. Talking to the members, being respectful, and also demanding a certain level of respect in this position must be worked through".

Theme D - Experiences within the organization: "Activate Members"

Page 4, Line 133, FG505: "I think the basic boiling point of what all of us do as leaders of organizations is to convince fifty 18 to 22 year olds to do what you want because it's the right thing to do or it is what needs to be done".

Page 7, Line 245, FG105: "When we had 1,000 nights, I had to motivate the freshman guys on my floor because they are too timid or shy to go. I had to talk up the event and lend out a lot of dress clothes. Then I felt like a parent when I made them stand outside to get a picture of them all dressed up".

Page 32, Line 1266, FG606: "When I first became President of Rugby I was like oh, I have something to do and it's easier if I just do it. Then, when all those things pile up I realized that I have a few other members on the board and I began to say you organize this and I'd spread it out so that everyone got something to do".

Note: The FG numbers a code for each participant. The first digit is indicates the focus group number and the second two digits are the individual participant number.

Appendix H

First Draft of Leadership Biodata Questionnaire

BIODATA QUESTIONAIRE: Student Leadership Experiences Survey

Instructions to the Student Leader
In the first portion of this survey, there are 14 statements that describe experiences that could be part of holding a student leadership position. The usefulness of the feedback you provide will depend on how honestly you respond to each question. Please read each statement carefully and then indicate how often you have had the stated experience as a part of your student leadership position. You should answer each statement within the context of a single student leadership position in which you been involved for at least two semesters -- including the fall 2010. The "organization" referred to in the statements below could be a club, chapter, residence hall floor, or program. The "members" referred to in the statements could be volunteers, residents, or participants. Please select a response to each statement based on the five choices on the following scale:

(1) Rarely or Seldom
(2) Once in a while
(3) Sometimes
(4) Often
(5) Very frequently or Almost always

Indicate how often you have the following experiences when you are carrying out your responsibilities in your leadership position. If you can't respond to a particular statement because you feel that it doesn't apply, select 1.

While carrying out my leadership responsibilities ….	1	2	3	4	5
I facilitate communication between the members and the college or other organizations.					
I attend regular meetings with the same administrator.					
I seek out campus resources in order to complete my responsibilities.					
I serve on a College committee where I am one of only a few student members.					
I complete monthly reports for an employer or a governing organization.					
I am the primary decision maker for the organization.					
I help the organization accept change.					
I set an agenda for use when running membership meetings.					
I act as a resource dispensing advice to train others within the organization.					
I involve the membership in decision making with the use of voting.					
I work alone or as part of a team to coordinate projects and events.					
I share control of a budget with other leaders within the organization.					
I coordinate members and delegate responsibilities.					
I mobilize the membership to participate in or attend an event.					

Appendix I

Panel of Experts Instructions and Feedback Sheet

Dear Expert Panel Member –

Thank you for agreeing to participate in this research study as member of my panel of experts! The role of the panel is to help establish content and construct validity of a researcher-created instrument.

Before you proceed, it might be useful to know a bit more about my study. My study uses a mixed method approach to explore the relationship between college student leadership experiences and the practice of effective leadership behaviors. The first phase of the study included a series of focus groups designed to uncover which out-of-classroom experiences student leaders believe contributed to their development of effective leadership behaviors. The second phase consists of a field study using two descriptive questionnaires: (a) a researcher-designed questionnaire derived from the analysis of focus group data; and (b) an established instrument called the Student Leadership Practices Inventory (Student LPI). The blend of two different instruments in the second phase will make it possible for me to describe the nature of any relationships between student leaders' experiences and leadership behaviors measured in the Student LPI. The participant sample is limited to undergraduate student leaders with at least two semesters of experience in a leadership position with a student organization, living group or student board (e.g., student government, sport clubs or community outreach).

After I completed the coding and analysis of the focus group data, four experience themes with 3-4 experience statements per theme emerged. The resulting fourteen statement, researcher-designed questionnaire is supposed to measure how often a student leader has had a particular experience along a 5-point scale *(1= Rarely or Seldom, 2 = Once in a while, 3 = Sometimes, 4 = Often, and 5 = Very frequently or Almost always).* Please note that I will also be conducting a pilot study with a group of student leaders who will provide additional feedback on the clarity of the statements as well as the questionnaire instructions ("Student Leadership Experiences Questionnaire" attachment).

It is at this point that I need your expertise to examine: (1) the alignment of statements with each of the themes, (2) the appropriateness of the statements to measure what the researcher intends, (3) the clarity of each statement, and (4) the comprehensiveness of the experiences as an inclusive representation of out-of-classroom undergraduate student leadership experiences. Please respond to each of these questions on the "Questions to Experts" attachment and then return it to me at your earliest convenience. After making changes, based on your feedback, I will send it out once more for a final consensus. Thank you very much!

Sincerely,

Jodie Frey

Questions for the Expert Panel

(1) ALIGNMENT: If you agree with my alignment, please place an X under "Agree". If an item would be better aligned under a different theme, please indicate the theme letter under "New Theme".

In carrying out my leadership responsibilities ….	Agree	New Theme
THEME A: Experience building relationships outside the organization.		
I facilitate communication between the members and the college or other organizations.		
I attend regular meetings with the same administrator.		
I seek out campus resources in order to complete my responsibilities.		
THEME B: Experience representing the organization.		
I serve on a College committee where I am one of only a few student members.		
I complete monthly reports for an employer or a governing organization.		
I am the primary decision maker for the organization.		
THEME C: Experience communicating with the membership.		
I help the organization accept change.		
I set an agenda for use when running membership meetings.		
I act as resource dispensing advice to train others within the organization.		
I involve the membership in decision making with the use of voting		
THEME D: Experience activating the membership.		
I work alone or as part of a team to coordinate projects and events.		
I share control of a budget with other leaders within the organization.		
I coordinate members and delegate responsibilities.		
I mobilize the membership to participate in or attend an event.		

(2) APPROPRIATE: If you believe the statement is appropriate and useful for measuring the construct (i.e., experiences of student leaders), please place an X under "Useful". If it is not appropriate and should be excluded from the instrument, please place an X under "Remove".

In carrying out my leadership responsibilities ….	Useful	Remove
I facilitate communication between the members and the college or other organizations.		
I attend regular meetings with the same administrator.		
I seek out campus resources in order to complete my		

responsibilities.		
I serve on a College committee where I am one of only a few student members.		
I complete monthly reports for an employer or a governing organization.		
I am the primary decision maker for the organization.		
I help the organization accept change.		
I set an agenda for use when running membership meetings.		
I act as resource dispensing advice to train others within the organization.		
I involve the membership in decision making with the use of voting		
I work alone or as part of a team to coordinate projects and events.		
I share control of a budget with other leaders within the organization.		
I coordinate members and delegate responsibilities.		
I mobilize the membership to participate in or attend an event.		

(3) CLARITY: Please indicate with an X if you believe the statement is either clear or not clear. If you have a suggestion to improve clarity, please type your thoughts directly into the space provided.

While carrying out my leadership responsibilities ….	Clear	Not Clear
I facilitate communication between the members and the college or other organizations.		
I attend regular meetings with the same administrator.		
I seek out campus resources in order to complete my responsibilities.		
I serve on a College committee where I am one of only a few student members.		
I complete monthly reports for an employer or a governing organization.		
I am the primary decision maker for the organization.		
I help the organization accept change.		
I set an agenda for use when running membership meetings.		

I act as a resource dispensing advice to train others within the organization.		
I involve the membership in decision making with the use of voting		
I work alone or as part of a team to coordinate projects and events.		
I share control of a budget with other leaders within the organization.		
I coordinate members and delegate responsibilities.		
I mobilize the membership to participate in or attend an event.		

(4) INCLUSIVENESS: Please indicate, either Yes or No, to the question of whether the experiences proposed in the instrument are a representative sample of out-of-classroom undergraduate student leadership experiences. If you believe there is something missing, please type your thoughts below in the space provided.

[ ] Yes, the experiences identified appear to be a representative sample of the construct being measured.
[ ] No, the experiences identified appear to be lacking and my thoughts are inserted below.

Appendix J

Leadership Biodata Questionnaire – Final Version

BIODATA QUESTIONAIRE: Student Leadership Experiences Survey

Instructions to the Student Leader

In the first portion of this survey, there are 14 statements that describe experiences that could be part of holding a student leadership position. The usefulness of the feedback you provide will depend on how honestly you respond to each question. **Please read each statement carefully and then indicate how often you have had the stated experience as a part of your student leadership position.** You should answer each statement within the context of a single student leadership position in which you been involved for at least two semesters -- including the fall 2010. The "organization" referred to in the statements below could be a club, chapter, residence hall floor, or program. The "members" referred to in the statements could be volunteers, residents, or participants.

Please select a response to each statement based on the five choices on the following scale:

(1) Rarely or Seldom
(2) Once in a while
(3) Sometimes
(4) Often
(5) Very frequently or Almost always

Indicate how often you have the following experiences when you are carrying out your responsibilities in your leadership position. If you can't respond to a particular statement because you feel that it doesn't apply, select 1.

While carrying out my leadership responsibilities ….	1	2	3	4	5
I facilitate communication between the members and the college or other organizations.					
I participate in scheduled meetings with the same administrator or an advisor.					
I seek out campus resources in order to complete my responsibilities.					
I serve on a College committee where I am one of only a few student members.					
I complete monthly reports for an employer, an advisor or a governing organization.					
I serve as the primary decision maker for the organization.					
I help the organization accept change.					
I create an agenda for use when running membership meetings					
I act as a resource dispensing advice to others within the organization.					
I present issues to the membership that will be decided upon through a					

vote.					
I plan events and coordinate projects for the organization.					
I share control of a budget with other leaders within the organization.					
I delegate responsibilities to the membership.					
I mobilize the members to participate in or attend an event.					

Appendix K

Field Study Participant Invitation Letter

Dear [insert student leader name],

I am a doctoral candidate in the Indiana University of Pennsylvania / East Stroudsburg University doctoral partnership program. I will be conducting a research study as a part of my degree requirements in Educational Leadership, and I would like to invite you to participate.

If you decide to participate, your involvement will include completing a [insert the number of items] item questionnaire. It should take you approximately 15-20 minutes to respond to the questions by using a numeric rating scale.

I am studying undergraduate student leadership from a behaviorist perspective, which postulates that leadership skill develops through the practice of identifiable behaviors. Your participation in this study will enable me to examine any relationships that may exist between the out-of-classroom student leader experiences that occur on Lafayette's campus and effective leadership behaviors. This information could be useful to student life personnel especially if the data shows that certain experiences are more characteristic than others of effective leadership.

I have attached a copy of the Questionnaire Participant Consent Form which will need to be agreed to if you choose to become a participant. The form outlines my purpose, procedures, risks and benefits of participation, confidentiality, and participant rights. No immediate action is necessary at this point. The questionnaire that you are invited to complete is scheduled to be mailed electronically on [insert day and date]. You will have a twelve day period to complete the questionnaire before it closes. Your responses will be totally anonymous.

However, participants who complete the questionnaire and who also decide to provide a student identification number in the last question of the survey will be placed in a raffle from which ten gift cards, ranging in value from five to fifteen dollars, will be pulled.

Thank you very much for considering becoming a partner with me in this exploration of undergraduate student leadership.

Sincerely,

Jodie A. Frey

Primary Investigator, Candidate for Doctorate of Education, East Stroudsburg University
freyj@lafayette.edu or 610-330-5772

Appendix L

Field Study Participant Consent Form

Research Participant Informed Consent Form: Questionnaire

INVESTIGATOR: Jodie A. Frey, Candidate for Doctorate of Education, East Stroudsburg University

PURPOSE: To explore out-of-classroom student leader experiences and describe any relationships that may exist between those experiences and effective leadership behaviors. This information would be useful to student life personnel when designing student leadership positions descriptions, responsibilities or assignments if the data shows certain experiences are more characteristic than others of effective leadership behaviors.

PROCEDURES: With your permission, we would like you to participate in the study by completing a descriptive questionnaire about your leadership experiences and how often you practice specific leadership behaviors. The study involves a sample of student leaders on Lafayette's campus. This study does not involve any treatment; just the collection and study of data.

RISKS AND BENEFITS: There are no anticipated risks associated with participation in this study. The researcher cannot guarantee or promise that you will receive any benefits from this study. However, your participation may contribute to the literature on student leadership development as was described in the purpose above.

TIME INVOLVEMENT: Ten to fifteen minutes of your time is required to complete the questionnaire.

CONFIDENTIALITY: All questionnaire data will be numerically coded and free of any connection to your name and therefore responses will be completely anonymous. All electronic data will be stored in password-protected protected software and computer to which only the researcher will have access. The identities of research participants will remain anonymous in any in any written material, publications or presentations of work resulting from the study.

COMPENSATION: Participants who complete the questionnaire and who also choose to provide a student identification number in the last question of the survey will be placed in a raffle from which ten gift cards, ranging in value from five to fifteen dollars, will be pulled. No one will receive any direct payment for participation in this study.

PARTICIPANT'S RIGHTS TO PARTICIPATE, DECLINE OR WITHDRAW: Your decision whether or not to participate in this study will not affect your status as a student or student leader at Lafayette College. If you have read this form and have decided to participate in this study, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any

time without penalty or loss of benefits to which you are otherwise entitled. On-campus counseling or psychological support services are available to participants who have reason for assistance. Call (610) 330-5005 to meet with a counselor. If you wish to withdraw at any time, write or call the researcher using the contact information below.

CONTACT INFORMATION: If you have any questions about this research study, its procedures, risks or benefits, you should contact the researcher: Jodie Frey at 610-330-5772 or freyj@lafayettte.edu or East Stroudsburg University, Committee Chair, Dr. Patricia Smeaton at psmeaton@po-box.esu.edu. If at any time, you feel you have been hurt by being a part of this study or are not satisfied with how this study is being conducted, or your rights as a research participant, please contact: **East Stroudsburg University, IRB Chair, Dr. Shala Davis at (570) 422-3336 or electronically at** sdavis@po-box.esu.edu.

Signature of Participant: _____ Date: _____

Witness Signature: _____ Date: _____

THIS PROJECT HAS BEEN APPROVED BY THE EAST STROUDSBURG UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS.

Appendix M

Descriptive Statistics for All Experiences

Table M1. Experiences Listed by Mean, Standard Deviation and 95% Confidence Intervals

Experience	Mean	Standard Deviation	95% Confidence Interval	
			Lower	Upper
A1	3.82	1.05	3.65	4.00
A2	3.70	1.30	3.48	3.92
A3	3.71	1.00	3.54	3.88
B1	2.50	1.47	2.26	2.75
B2	2.83	1.64	2.56	3.10
B3	3.36	1.32	3.14	3.58
C1	3.53	1.15	3.34	3.72
C2	3.45	1.46	3.20	3.69
C3	3.94	1.01	3.77	4.11
C4	3.25	1.22	3.04	3.45
D1	4.11	.976	3.94	4.27
D2	3.69	1.29	3.47	3.90
D3	3.60	1.14	3.41	3.79
D4	4.17	.853	4.03	4.31

Table M2. Experiences Listed by Code and Full Experience Statement

A1	Facilitate communication between the members and the college or other organizations.
A2	Participate in scheduled meetings with the same administrator or an advisor.
A3	Seek out campus resources in order to complete my responsibilities.
B1	Serve on a College committee where I am one of only a few student members.
B2	Complete monthly reports for an employer, an advisor or a governing organization.
B3	Serve as the primary decision maker for the organization.
C1	Help the organization accept change.
C2	Create an agenda for use when running membership meetings
C3	Act as a resource dispensing advice to others within the organization.
C4	Present issues to the membership that will be decided upon through a vote.
D1	Plan events and coordinate projects for the organization.
D2	Share control of a budget with other leaders within the organization.
D3	Delegate responsibilities to the membership.
D4	Mobilize the members to participate in or attend an event.

Note: A is *Building Relationships*, B is *Representing the Organization*, C is *Member Dialogue*, and D is *Activating Members*.

Appendix N

Descriptive Statistics for Experience Factors within Each Behavioral Model

Table N1. Model the Way (*N* = 90)

					95% Confidence Interval	
Experience Factor	Filter	*n*	*M*	*SD*	Lower	Upper
A: Building Relationships						
	LE	35	11.69	3.71	10.60	12.81
	ME	59	15.47	3.10	14.61	16.34
C: Member Dialogue						
	LE	35	15.11	4.54	13.82	16.41
	ME	59	20.05	3.38	19.06	21.05
D: Activating Members						
	LE	35	13.60	3.37	12.61	14.59
	ME	59	16.86	2.68	16.08	17.61

Note. LE = less effective leader grouping variable, ME = more effective leader grouping variable.

Appendix N

Descriptive Statistics for Experience Factors within Each Behavioral Model

Table N2. Inspire a Shared Vision (*N* = 82)

Experience Factor	Filter	*n*	*M*	*SD*	95% Confidence Interval	
					Lower	Upper
A: Building Relationships						
	LE	24	12.13	4.16	10.69	13.56
	ME	58	14.97	3.24	14.04	15.89
C: Member Dialogue						
	LE	24	13.67	4.18	12.09	15.25
	ME	58	19.72	3.77	18.71	20.74
D: Activating Members						
	LE	24	12.33	3.49	11.09	13.57
	ME	58	16.79	2.86	16.00	17.60

Note. LE = less effective leader grouping variable, ME = more effective leader grouping variable.

Appendix N

Descriptive Statistics for Experience Factors within Each Behavioral Model

Table N3. Challenge the Process (*N* = 86)

					95% Confidence Interval	
Experience Factor	Filter	*n*	*M*	*SD*	Lower	Upper
A: Building Relationships						
	LE	28	12.11	403	10.74	13.47
	ME	58	14.88	3.43	13.93	15.83
C: Member Dialogue						
	LE	28	15.04	4.39	13.52	16.57
	ME	58	19.97	3.93	18.90	21.03
D: Activating Members						
	LE	28	13.39	3.54	12.34	14.55
	ME	58	16.79	2.83	15.99	17.60

Note. LE = less effective leader grouping variable, ME = more effective leader grouping variable.

Appendix N

Descriptive Statistics for Experience Factors within Each Behavioral Model

Table N4. Enable Others to Act (N = 80)

					95% Confidence Interval	
Experience Factor	Filter	*n*	*M*	*SD*	Lower	Upper
A: Building Relationships						
	LE	39	13.51	3.76	12.30	14.73
	ME	41	14.88	3.87	13.69	16.07
C: Member Dialogue						
	LE	39	15.90	4.08	14.55	17.25
	ME	41	19.32	4.39	18.00	20.64
D: Activating Members						
	LE	39	13.79	3.09	12.80	14.80
	ME	41	16.90	3.16	15.93	17.87

Note. LE = less effective leader grouping variable, ME = more effective leader grouping variable.

Appendix N

Descriptive Statistics for Experience Factors within Each Behavioral Model

Table N5. Encourage the Heart (*N* = 95)

					95% Confidence Interval	
Experience Factor	Filter	*n*	*M*	*SD*	Lower	Upper
A: Building Relationships						
	LE	39	13.04	4.01	11.99	14.10
	ME	41	14.98	3.23	13.94	16.02
C: Member Dialogue						
	LE	39	15.96	4.38	14.75	17.16
	ME	41	20.06	3.93	18.87	21.25
D: Activating Members						
	LE	39	13.91	3.36	13.03	14.80
	ME	41	17.02	2.73	16.14	17.90

Note. LE = less effective leader grouping variable, ME = more effective leader grouping variable. This model was initially reported in the results, but was not included in the discussion of the findings because it did not meet the assumptions for multivariate analysis (i.e, Box's Test was found significant for this model).

Appendix O

All Experiences Listed by Type and Factor

Type: Experiences beyond the organization	
	Factor A: Building relationships
1.	Facilitating communication between the membership and the college, or other organizations.
2.	Attending regular meetings with the same administrator.
3.	Seeking out campus resources in order to complete responsibilities.
	Factor B: Representing the organization
4.	Serving on a college committee where you are one of only a few student members.
5.	Completing monthly reports for an employer or a governing organization.
6.	Being the primary decision maker for the organization.
Type: Experiences within the Organization	
	Factor C: Member dialogue
7.	Helping the organization accept change.
8.	Setting an agenda for use in running membership meetings.
9.	Acting as resource for advice in order to train others within the organization.
10.	Involving the membership in decision making with the use of voting.
	Theme D: Activating members
11	Working alone or as part of a team to coordinate projects.
12.	Sharing control of a budget with other leaders within the organization.
13.	Coordinating members by delegating responsibilities.
14.	Mobilizing the membership to participate or attend an event.

Appendix P

Experience Items Listed by Frequency Percentage

Item no.	Experience description	%
D4.	I mobilize the membership to participate or attend an event.	83
D1.	I work alone or as part of a team to coordinate projects.	77
C3.	I act as resource for advice in order to train others . . .	72
A2.	I attend regular meetings with the same administrator.	67
D2.	I share control of a budget with other leaders within the organization.	67
A1.	I facilitate communication between the membership and . . .	65
A3.	I seek out campus resources in order to complete responsibilities.	65
C5.	I coordinate members by delegating responsibilities.	60
C2.	I set an agenda for use running membership meetings.	56
C1.	I help the organization accept change.	53
D3.	I am the primary decision maker for the organization.	51
C4.	I involve the membership in decision making with the use of voting.	44
A4.	I complete monthly reports for an employer or a governing . . .	38

Note: The experience number is coded by theme. *A* represents *Building Relationships*, *C* represents *Member Dialogue*, and *D* represents *Activating Members*. Only 13 items are listed because *Item B1* was discarded after the principal components analysis. The percentages were obtained by using the *often* or *almost always* frequency counts (Chapter 4, Table 7) divided by the sample size and then multiplied by one hundred.

Appendix Q

Psychometric Properties of the Leadership Biodata Questionnaire

Instrument Validity: Content and construct validity were established with the Leadership Biodata Questionnaire (LBQ) prior to the field study using (a) a panel of three experts who evaluated item alignment, appropriateness of the factors and statement clarity; and (b) a pilot study asking participants to examine each statement in term of its wording and language clarity. The principal components analysis of the field study LBQ data further established construct validity, indicating that 11 of 14 items aligned with the original factors structure.

Instrument Reliability: Internal reliability of the LBQ was affirmed with Cronbach's Alpha Coefficient using the field study data. This measure was applied to each experience subscale (i.e., *Building Relationships*, *Member Dialogue* and *Activating Members)* to determine the extent to which the items within the factor are consistent amongst one another and also measure what they purport to measure. All subscales of the LBQ had acceptable reliabilities with Cronbach's $\alpha = .7$ or higher (Kline, 1991). All items within each subscale had moderate to strong correlations, ranging from .41 to .59, with their corresponding overall factor score. These values are an indication of how well each item contributes to the overall factor score. (Refer to Table Q1 and Table Q2 for the LBQ reliability measures.) These results show that the LBQ had a well structured item alignment, especially since the sample size was relatively small and there were few items (i.e., four to five) per factor. The LBQ reliability is comparable to the latest research collected on the Student LPI where internal reliability scores ranged from .7 to .8 (Posner, 2010).

Appendix Q

Psychometric Properties of the Leadership Biodata Questionnaire

Table Q1. Overall and Subscale Reliability for the Leadership Biodata Questionnaire *(N = 141)*

Variable	Cronbach's α	No. of items
Experience Factor A: Building Relationships	.70	4
Experience Factor C: Member Dialogue	.77	5
Experience Factor D: Activating Members	.70	4
All Experience Items	.84	13

Table Q2. Item-Total Statistics for the Leadership Biodata Questionnaire *(N = 141)*

Variable	Corrected item-total correlation	Cronbach's α if item deleted
Experience Item A1	.53	.63
Experience Item A2	.51	.62
Experience Item A3	.46	.66
Experience Item A4	.51	.65
Experience Item C1	.57	.72
Experience Item C2	.57	.73
Experience Item C3	.52	.74
Experience Item C4	.56	.72
Experience Item C5	.51	.74
Experience Item D1	.59	.60
Experience Item D2	.41	.71
Experience Item D3	.55	.61
Experience Item D4	.50	.66