EXPLORING THE LEARNING PATHS OF ACADEMIC DEPARTMENT CHAIRS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate School
of The Ohio State University

By

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* * * *

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ABSTRACT

Complex challenges face higher education today, including a public call to reform. Most change efforts within institutions of higher education occur at the department level, requiring academic department chairs to lead change. While department chairs have a significant impact on the future of higher education, their positions and roles are misunderstood, training and development processes for department chairs are inconsistent, and how department chairs learn to lead is unknown. The purpose of this study was to explore the informal and formal learning paths of academic department chairs. Of particular interest in this study were the learning methods of department chairs who reported engaging in behaviors associated with transformational leadership. The results of this correlational study were that leadership is affected by accumulated life experiences or incidental learning; informal learning more than formal learning contributes to transformational leadership; and learning from work experiences in the context of the work, rather than learning away from work, is the best mechanism for developing academic leaders in higher education today.
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CHAPTER 1

INTRODUCTION

Budget constraints, changing student clientele, new teaching and learning approaches such as community-service learning, diversity concerns, assessment, accountability, and dramatic technological changes are some of the many challenges facing higher education (Hickok, 2006; Kezar, 2001). Similar to the corporate world, long-term competitiveness and the implementation of strategic priorities in higher education require leaders who are able to effect change (Hickok, 2006; Newman, Couturier, & Sessa, 2001). The uniqueness of the academic environment presents significant challenges to those in leadership positions in that historically, change in higher education has been slow, laborious and incremental (Gioia & Thomas, 1996; Lucas, 2000a). Some academic department chairs are more successful than others in facilitating organizational change in this challenging environment. It has been proposed that those who are transformational leaders are the most successful at implementing change in academic departments (Brown & Moshavi, 2002; Lucas, 1994; Lucas, 2000a; Ramsden, 1998).

Transformational leadership has been described as adaptive leadership (Bass, Jung, Avolio, & Berson, 2003) and one of the mechanisms necessary for organizational change (Pawar & Eastman, 1997). Transformational leaders identify themselves as
change agents (Tichy & Devanna, 1986), enabling change through the use of strategies such as motivation, education, and persuasion. They effect change by articulating a vision, and gain commitment to the vision by encouraging others to transcend their own self interests for the sake of the organization (Antonakis, Avolio, & Sivasubramaniam, 2003). Transformational department chairs, according to Lucas (1994), serve as a catalyst to enhance the departmental culture, tap into the talents of faculty, believe in participative decision making, and facilitate discussions to devise departmental goals and establish new directions.

The changes academic department chairs must facilitate are often in response to institutional directives and national trends (Ferren & Mussell, 2000). Curricular changes at the department level have included the integration of technology, the creation of new majors to match employment and economic demands, and responses to mandates from state governments (Ferren & Mussell, 2000). While chairs are expected to guide and implement changes, oftentimes the changes are externally imposed. It is trustee boards and higher level administrators such as the university president and provost who are ultimately responsible for the quality of education, yet it is the department chair who must effect change. Effecting change requires engaging the faculty in problem solving and creating meaning out of change imposed by others (Lucas, 2000b). Academic freedom and individual autonomy are at risk when responding to the demands and interests of external stakeholders (Ferren & Mussell, 2000).
Given that transformational leaders are described as achieving significant changes that reflect shared interests (Bennis & Nanus, 1997), and as moral agents who use nontraditional sources of power to move groups toward accomplishing their vision (Avolio, 1999), transformational leadership may be essential for influencing change in academic departments. Academic departments are comprised of faculty and the work of faculty traditionally emphasizes individualism, with little importance placed on the collective (Wergin, 2005; Zemsky, 1996). In addition to the faculty make-up of departments, department chairs have limited position power associated with their role, requiring a stronger reliance on personal credibility to effect change (Dressel, 1987; Hecht, Higgerson, Gmelch & Tucker, 1999; Hickok, 2006). The need to build commitment to external mandates by problem solving with the faculty, the emphasis of individualism by faculty, and the relatively limited position power associated with the chair role, suggest that transformational leadership may be necessary to influence change in academic departments. If transformational leadership at the department level might be valuable in effecting change, how department chairs learn to lead in transformational ways becomes an important line of inquiry.

Department chair training is one tool colleges and universities commonly use to prepare academic leaders. Oftentimes the chair training is narrowly focused on fiscal and reporting responsibilities (Montez, Wolverton, & Gmelch, 2002) or campus policies and regulations (Hecht, Higgerson, Gmelch & Tucker, 1999). Academic leadership is more than department action planning and operational decision-making (Gmelch & Miskin,
1993) and to lead, department chairs likely require more than learning about administrative tasks. Leadership is about change, not about maintaining the status quo (Kouzes & Posner, 2003; Zenger, Ulrich, & Smallwood, 2000). If transformational leadership is potentially an important ingredient in effecting change in higher education, and if the traditional classroom training methods for developing academic leaders focus on administrative and fiscal responsibilities, then there is a need to explore alternative strategies for learning, and in particular, learning how to lead.

To summarize, there is a need for leaders to tackle the complex challenges facing higher education today (Hoff, 1999), but little research has been done to examine the ways in which department chairs learn to lead (Hirst, Mann, Bain, Pirola-Merlo, & Richver, 2004). Leadership development in general is a gap in the scholarly literature (Avolio, Sosik, Jung, & Berson, 2003; Conger, 1999; Day, 2001). Understanding leadership development for department chairs must take into account the unique culture, values, and history of higher education (Zenger, Ulrich, & Smallwood, 2000).

This study explored the learning paths of a population of academic department chairs. Given that it is unknown how department chairs learn to lead, this study focused on identifying learning experiences associated with transformational leadership.

Background of the Problem

Within institutions of higher education, change efforts that directly impact students’ educational experiences occur at the department level. Changes in disciplinary focus, curriculum, research emphases, teaching quality, and student-
faculty relationships are just a few of the changes that occur as a result of efforts led by department chairs (Lucas, 2000a). According to Hecht, Higgerson, Gmelch and Tucker (1999) the need for leadership at the department level is essential because 80% of decisions in universities take place within the department. Even though department chairs have a significant impact on higher education’s current and future state, they “may be the least studied and most misunderstood management position anywhere in the world” (Gmelch, 2002a, p. 1).

Great variability exists from one institution to another in how the department chair role is defined and in how department chairs are selected. There is even variability within the same institution (Lucas, 2000b). In some departments, chairs are rotated every two, three or four years, while chairs in other departments have remained in their position for dozens of years (Lucas, 2000b). Chairs who take a turn in a rotation know that they will be faculty again in a few years, inevitably influencing their interest and willingness to advance unpopular change initiatives (Lucas, 2000b). Bennett (1989) refers to a department chair that is rotated in as a transient, and characterizes transients as “just serving their time.”

In summary, change efforts that directly impact students’ educational experiences occur at the department level yet the selection of department chairs is haphazard. In addition to unreliable selection processes, preparation for the role
is relatively nonexistent (Wilson, 1999). The training that does exist tends to be oriented only toward understanding administrative procedures (Hecht, Higgerson, Gmelch & Tucker, 1999; Seagren, Creswell & Wheeler, 1993). According to a study conducted by Smith and Stewart (1999), informal and discovery or self-directed learning are the more frequently used methods of learning by department chairs. Better understanding of informal learning and the extent to which leaders learn through informal mechanisms might shed light on how department chairs learn to lead.

Watkins and Marsick (1992) provide a theory of informal learning, and provide distinctions between formal and informal learning. Formal training occurs in the absence of action; learners are removed from the day to day work to engage in lectures, discussions, simulations, role plays and other instructional activities. Informal learning occurs in the presence of both action and reflection and includes self-directed learning, networking, coaching, mentoring, performance planning, and trial-and-error (Watkins & Marsick, 1992). Determining the role of informal learning in the development of transformational department chairs is currently unexplored.

Problem Statement

Unchecked price increases, an inability to demonstrate value-added, and lack of accountability have contributed to extraordinary public scrutiny of higher education (Engelkemeyer, 2004; Gumport, 2000). Departments and department
chairs are in many ways the locus of institutional change, and chairs must become leaders of that change (Hecht, Higgerson, Gmelch & Tucker, 1999; Lucas, 2000a). The challenge to lead change is intensified by the higher education environment in which conflicting interests of constituents, a three-fold mission (teaching, research and service), and unclear decision-making authority exist (Hoff, 1999).

Department chair training across university campuses is not comprehensive and that which does exist is mostly traditional, lecture-based, classroom training (Montez, Wolverton, & Gmelch, 2002). Examining leadership development efforts across organizational environments, Day (2001) suggests that this type of classroom training is ineffective at preparing leaders for 21st century problems. In addition to the traditional format, the content of most training programs for department chairs focuses on administrative responsibilities such as budgets, scheduling, and campus policies (Hecht, Higgerson, Gmelch & Tucker, 1999).

Given that our institutions of higher education require leadership at the department level, and given that strong support exists for the effectiveness of transformational leaders at effecting change, understanding the ways in which department chairs learn to be transformational leaders is essential. To survive and meet the demands of the public, higher education must expand the capacity of department chairs to transform (Gmelch, 2002b). Existing research suggests that managers learn best from experience (Van Velsor & McCauley, 2004); it is unclear if this is true for department
Nor is it known which learning experiences relate to department chairs who are transformational leaders. Identifying the learning experiences of department chairs that positively relate to transformational leadership may provide important information to institutions of higher education attempting to carry out the reforms demanded by the public.

Purpose Statement

The purposes of this study were to explore the learning paths of a population of department chairs, and to determine the relationship between learning methods and transformational leadership. Under investigation were the predominant and preferred learning methods of ninety-seven department chairs from a large, Midwest research university. The relationship between their self-reported learning methods and transformational leadership was examined. Formal learning methods including classroom training and participation in a formal mentor program were related to transformational leadership, as well as informal learning methods including engaging in an informal mentor relationship, job assignments, and networking with others. In summary, the relationship of informal and formal learning methods to transformational department chairs was explored.
Conceptual Framework

This study draws upon two theoretical sources: transformational leadership and informal learning theory. The specific context for examining the relationship between these constructs was a population of academic department chairs in an institution of higher education.

Elements of transformational leadership include: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Avolio, 1999). The research supporting transformational leadership is discussed in Chapter 2, and definitions of these leadership components are specified in Chapter 3, of this study. Transformational leaders motivate others by raising awareness for and focusing on collective interests (Antonakis, Avolio, & Sivasubramaniam, 2003). They set challenging expectations and empower others to achieve levels of performance originally thought impossible (Avolio & Bass, 1998). Transformational leaders develop exemplary followers who trust their leaders, who question their leaders, and who focus on continuous improvement and development for themselves as well as their colleagues (Avolio, 1999). Research has supported that, on average, transformational leadership is more effective than transactional or laissez-faire leadership in impacting higher levels of extra effort, commitment, performance, and satisfaction of those led (Barling, Weber & Kelloway, 1996; Bommer, Rich & Rubin, 2005; Dumdum, Lowe & Avolio, 2002; Howell & Avolio, 1993; Lowe, Kroeck, & Sivasubramaniam, 1996).
The second theory upon which this research was based is informal learning theory. Informal learning is learning from experience that takes place outside of formal, institutionally-sponsored, classroom-based activities (Watkins & Marsick, 1992). Strategies for informal learning include: self-directed learning, networking, coaching, mentoring, performance planning systems that are used for developmental purposes, and trial and error (Watkins & Marsick, 1992). This type of informal learning is different than the learning most common in academic institutions: reading and listening to lectures (Van Velsor, Moxley, & Bunker, 2004). Research from the Center for Creative Leadership suggests that the majority of learning over the course of a person’s career happens on the job or from life experience outside of the classroom (Douglas, 2003; Van Velsor & McCauley, 2004). Reflecting on one’s experience is the component necessary for learning from experience (Van Velsor, Moxley & Bunker, 2004; Watkins & Marsick, 1992).

Informal learning mechanisms have been recommended for developing leaders for some time. The role of classroom-based training has diminished while the inclusion of challenging job assignments, multiple sources of feedback and developmental relationships have gained in momentum (Day, 2001; Van Velsor, Moxley & Bunker, 2004). Despite these recommendations, formal classroom training continues to be the most frequently cited mode of developing department chairs. It is unknown the extent to which developmental experiences outside of classroom training impact department chair leadership.
Figure 1.1 is a hypothesized model of informal and formal learning for explaining department chairs’ transformational leadership. Given that some department chairs take a turn in rotation and this transient status will influence their interest and willingness to advance unpopular change initiatives (Bennett, 1989; Lucas, 2000b), the amount of time in the position and the anticipated amount of time in the position, are included in the model.

![Figure 1.1: Learning, Time and Transformational Leadership](image-url)
Research Questions

The present study addressed this broad research question: To what extent is variability in department chairs’ self-reported transformational leadership explained by informal and formal learning methods? Given that the amount of time a department chair has been in his/her role and the amount of time he/she anticipates being in the chair role may affect transformational leadership, these were additional independent variables. The specific research questions, looking at the relationships between each independent variable and the dependent variable, and combinations of independent variables and the dependent variable, included:

1. What is the relationship between learning predominately from structured classroom instruction and transformational leadership?
2. What is the relationship between learning predominately from a formal mentor and transformational leadership?
3. What is the relationship between learning predominately from an informal mentor/predecessor and transformational leadership?
4. What is the relationship between learning from job assignment and transformational leadership?
5. What is the relationship between networking and transformational leadership?
6. What is the relationship between number of years in the department chair role and transformational leadership?
7. What is the relationship between number of years anticipated in the role and transformational leadership?

8. What combined learning experiences have the most power to explain department chairs who are self-reported transformational leaders?

9. What combined learning experiences and variables of time in position and anticipated time in position have the most power to explain department chairs who are self-reported transformational leaders?

10. Which learning experience has the most power to explain department chairs who are self-reported transformational leaders?

Significance of the Study

Leadership development, in general, is an underrepresented area of scholarly study (Day, 2001; Gmelch, 2002a). Little is known about how traditional training interventions and planned and unplanned life experiences affect the development of leaders (Avolio, Sosik, Jung, & Berson, 2003).

The development of department chairs has been comprised of mostly traditional classroom training. This study built on the Smith and Stewart (1999) research in which informal and discovery or self-directed learning were cited as the most frequently used methods of learning by department chairs. This study contributed to the research of leadership development in a broad sense, and specifically to the development of department chairs as leaders.
Additionally, studying transformational leadership within the context of higher education is an extension of the existing leadership literature. Research by Antonakis, Avolio, and Sivasubramaniam (2003) questions the relationship of context to leader effectiveness. They assert that contextual factors should be explicitly considered in research design. While at least two empirical studies about transformational leadership in higher education exist (see Brown & Moshavi, 2002, and Ramsden, 1998), there is much room for growth in this area of scholarship.

Beyond the scholarly interests of this study, the intent of this research was to provide clearer learning paths for faculty aspiring to positions of department chair and direction to individuals and institutions in positions to informally nurture and formally develop academic leaders. For those concerned about the current crises facing higher education, this study examined some of the learning experiences related to the development of department chairs as transformational leaders. It is believed this enhanced understanding will assist in increasing the capacity of higher education to effect change and tackle the crises before it. Ultimately, colleges and universities committed to reform efforts will better understand approaches for helping their leaders learn to lead.

Definition of Terms

Following are the conceptual and operational definition of terms used throughout this study:
Department Chair (or Chair)

Conceptual definition. A faculty member appointed by a Dean to oversee, manage and lead an academic department.

Operational definition. A faculty member with the title of “Chair” or “School Director” on the “Heads of Tenure Initiating Units” list maintained and published by the Office of Academic Affairs.

Transformational Leadership

Conceptual definition. Transformational leadership is a label for a set of behaviors. Transformational leaders emphasize longer-term and vision-based motivation processes by raising awareness for, and focusing on, collective interests (Antonakis, Avolio, & Sivasubramaniam, 2003). Those who are transformational leaders set challenging expectations and empower others to achieve high levels of performance (Avolio & Bass, 1998).

Operational definition. A perception of leadership behaviors measured by the aggregate, self-reported score of the five transformational leadership factor scales of the Multifactor Leadership Questionnaire (MLQ) Form 5X- Short (Avolio & Bass, 2004): Idealized Attributes, Idealized Behaviors, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration.
Formal Learning

*Conceptual definition.* Learning that occurs as a result of institutionally-sponsored, -structured and -directed development activity.

*Operational definition.* Self-reported learning that is the aggregate score of classroom instruction learning method and formal mentor learning method.

- *Classroom instruction learning method* – Total number of times classroom instruction was selected as the predominant learning experience for twenty department chair tasks on the Learning Methods Questionnaire. The range of possible scores was 0 to 20 with 0 being the lowest and 20 the highest.

- *Formal mentor learning method* – Total number of times formal mentor was selected as the predominant learning experience for twenty department chair tasks on the Learning Methods Questionnaire. The range of possible scores was 0 to 20 with 0 being the lowest and 20 the highest.

Informal Learning

*Conceptual definition.* Learning that is unstructured, learner-directed, and learner-initiated, and that takes place outside of an educational setting.

*Operational definition.* Self-reported learning that was the aggregate score of informal mentor/predecessor learning method, job assignment learning method, and informal networking learning method.

- *Informal mentor/predecessor learning method* – Total number of times informal mentor/predecessor was selected as the predominant learning
experience for twenty department chair tasks on the Learning Methods Questionnaire. The range of possible scores was 0 to 20 with 0 being the lowest and 20 the highest.

- **Job assignments learning method** – Total number of times job assignment was selected as the predominant learning experience for twenty department chair tasks on the Learning Methods Questionnaire. The range of possible scores was 0 to 20 with 0 being the lowest and 20 the highest.

- **Networking learning method** – Total number of times networking was selected as the predominant learning experience for twenty department chair tasks on the Learning Methods Questionnaire. The range of possible scores was 0 to 20 with 0 being the lowest and 20 the highest.

**Time in Position**

*Conceptual definition* – The length of time a department chair has held this role.

*Operational definition* – The self-reported number of years the department chair has been in the role of a department chair (including positions at another university).

**Anticipated Time in Position**

*Conceptual definition* – The length of time a department chair anticipates holding this role.
Operational definition – The self-reported number of years the department chair expects to remain in the role of department chair.

Limitations

There were two limitations in this study. MLQ Leader Forms were used providing self-reported data only. The second limitation was the size of the population.

All of the data was self-reported. Rater Forms completed by subordinates, supervisors, or other colleagues would have provided third-party reports of leadership and would have helped to substantiate the relationships between types of learning and transformational leadership. Barling, Weber and Kelloway (1996) argue that behavior noticed by subordinates is the most important variable in any leadership study; leader behavior not acknowledged by subordinates will not affect their attitudes or their performance.

Secondly, the population size (ninety-seven department chairs) is small. This was the population of department chairs at the institution where this research was conducted. Given that one population at one academic institution was under study, results are generalizeable to this population only.

Assumptions

The first assumption of this study is that increasing one’s ability to lead and one’s effectiveness as a leader can be learned. People can learn, grow, and change and this
learning and personal growth can enhance success as a leader (Van Velsor & McCauley, 2004). Transformational leadership can be learned (Kirby, Paradis, & King, 1992). The nature versus nurture argument is not debated here. The assumption is that learning to lead is possible, and it is this assumption that gives credibility and value to studying the development or learning paths of leaders.

The second assumption of this study is that self-reported data is true and reflects the candid perceptions of those in the study. It was expected that those completing the Leader Forms provided honest and accurate data with no interest in exaggerating or misrepresenting their transformational leadership or learning methods.

Organization of the Study

This study is organized into five chapters. Chapter 1 is an introduction to the study and the research problem, and states the significant contributions made by the study. Chapter 2 is a review of the literature related to the research problem. The literature review includes sections on: the crises in higher education, leadership theories, leadership in higher education, leadership development and informal learning theory. The research design and methodology is discussed in Chapter 3. Chapter 4 provides the results of the study, and Chapter 5 offers conclusions, practical implications, and recommendations for future research. References and appendices of the materials used in this study are included at the end of the document.
CHAPTER 2

REVIEW OF THE LITERATURE

This study explored the learning paths of department chairs who are self-reported transformational leaders. This literature review includes sections on: the crises in higher education, charismatic and transformational leadership theories, leadership in higher education, leadership development, and informal learning theory. The quest for relevant literature was conducted by searching the following Internet databases: Academic Search Premier, Business Source Complete, Education Research Complete, EBSCO Host, ERIC, PsychINFO and ProQuest. Citations from reviewed articles and texts were also explored. Years included in the search were 1980 to the present, although emphasis was placed on the most current publications. Key word search terms included department chairs, department heads, higher education, leadership, transformational leadership, leadership development, and informal learning.

This study was based on an interest in better understanding how department chairs learn, and the learning paths of academic department chairs who are transformational leaders. Institutions of higher education require leadership at the department level, and strong support exists for the effectiveness of transformational leaders at effecting change. Higher education must expand its capacity to transform yet existing research does not tell us how department chairs learn. Understanding how self-reported transformational
department chairs learn may contribute to the understanding of how institutions of higher education execute change. A brief overview of the crises facing higher education is addressed in the next section.

Crises in Higher Education

Academic and popular articles pronouncing the crises of higher education are in abundance (Gumport, 2000; Hickok, 2006; Newman, Couturier, & Sessa, 2001; Symonds, 2003; Yankelovish, 2005). The challenges that comprise these crises can be categorized as: improving access, increasing the retention and graduation rates of those who enter college, enhancing quality, reducing costs, and responding to increased demands for accountability (Gumport, 2000; Hickok, 2006; Newman, Couturier, & Sessa, 2001; Symonds, 2003). The need to integrate technology into education and the changing demographics of students are additional issues demanding attention beyond those related to financial and accountability challenges (Newman, Couturier, & Sessa, 2001; Wolverton, Ackerman, & Holt, 2005).

Unchecked price increases and the demand for quality education (Engelkemeyer, 2004) have influenced the public’s perception of higher education as an industry, and colleges and universities as “quasi-corporate entities producing a wide range of goods and services in a competitive marketplace” (Gumport, 2000, p. 71). As unsettling as it is for some to conceptualize higher education using a production metaphor (Gumport, 2000), it is necessary given the crises it faces. Market forces, students’ consumerism
mentality (Gumport, 2000), and pressures for accountability at the state and federal level (Wergin, 2005) have prompted higher education to shift into a corporate mode.

With the move to a corporate mindset, and if higher education must transform itself to survive, it is said that strong leadership is required (Hickok, 2006; Newman, Couturier, & Sessa, 2001). Gmelch (2002b), Hoff (1999), and Lucas (2000a) argue that leadership is required for change in higher education, and that department chairs must become the leaders of change. Zemsky (1996) describes the need for “leadership of a purposeful chair” (p. 9.) Given the call for leadership at the academic department level, comprehending how department chairs learn to lead becomes critical. The purpose of this study was to investigate the formal and informal learning activities in which department chairs have engaged that explain transformational leadership.

The next section of this literature review describes charismatic and transformational leadership theories and how they evolved in response to the changing global economy. Based on the empirical literature, transformational leadership is offered as a key ingredient for effecting change in higher education. Following the discussion on leadership and change, the context of higher education is examined. The role of the academic department and department chairs in impacting change is discussed.

Charismatic and Transformational Leadership Theories

Since the 1980’s the most prominent theories in leadership research are charismatic leadership theory (Conger & Kanungo, 1987; House, 1977) and
transformational leadership theory (Burns, 1978; Bass, 1985). Charismatic leadership theory suggests that charismatic leaders transform the needs, values and aspirations of their followers (Conger & Kanungo, 1987). Charisma is an attribute followers assign to their leaders based on observed behaviors. Behaviors that support charismatic leadership include articulating a strategic vision, being sensitive to followers’ needs, being sensitive to the environment, engaging in unconventional behaviors, taking personal risks, and making self-sacrifices to commit to the organization’s vision (Conger & Kanungo, 1987). Charismatic leaders are often described as innovative entrepreneurs because of their ability to discover and take advantages of deficiencies in the marketplace (Conger, 1999).

Transformational leadership theory describes transformational leaders as those who engage the emotional involvement of their followers to build identification and commitment to the leader (Bass, 1985). Transformational leaders enhance the development of followers, challenging them to think in new ways, encouraging them to commit to results never before achieved, and inspiring them to do so by connecting the results to higher moral standards and values (Bass, 1985). Avolio and Bass (2004) developed four constructs to define transformational leaders:

- Idealized influence – leaders are respected, admired and trusted.

  Transformational leaders consider the needs of others over their own personal needs, and sacrifice personal gain for the sake of others (Avolio, 1999). They use power only to move groups toward accomplishing their mission (Avolio, 1999).
This is the emotional component of leadership which shifts followers’ self interests toward a collective interest (Antonakis & House, 2002; House, 1977).

- Inspirational motivation – leaders share vision, optimism and excitement; they involve followers in thinking about various future scenarios and creating attractive alternatives (Avolio, 1999). Transformational leaders inspire others by what they say and what they do (Avolio, 1999), communicating confidence in reaching what appear to be unattainable goals (Antonakis & House, 2002).

- Individualized consideration – leaders identify needs of individual followers and work to develop and coach them. New learning opportunities are sought and created, along with a supportive climate for learning (Avolio, 1999). Interactions with subordinates are personalized so that each person receives special, individualized attention (Avolio, 1999).

- Intellectual stimulation – leaders challenge followers to think in new ways, reframe old problems and question assumptions. Creativity is highly encouraged and challenging the leader’s thinking or approach is strongly promoted (Avolio, 1999).

Charismatic leadership theory and transformational leadership theory have many similarities. Charisma is an element of transformational leadership theory, embedded in idealized influence and inspirational motivation. Transformational leadership extends charismatic leadership theory by including individualized consideration and intellectual stimulation (Lowe, Kroeck, & Sivasubramaniam, 1996). Many who study leadership,
reference the two theories in tandem, and blend them into one, referencing a “new leadership paradigm” (Avolio & Bass, 2004) or “neo-charismatic approaches” (Lowe & Gardner, 2000). Transformational leadership theory defines a wide range of leadership behaviors relevant to influencing change. It was explicitly defined around the concept of change (Bommer, Rich & Rubin, 2005) and is seen as a significant element of effective organizational change.

Transformational Leadership Theory and Change

Beginning in the 1980’s, competition in the global economy became a reality, and the relative stability of many U.S. corporations diminished. With the new reality, organizations needed to recreate themselves and they were in need of successful leadership to engineer the transformation (Conger, 1999).

During the same time period, corporate downsizing was necessary, negatively impacting employee morale. What was known as a social contract between employer and employee no longer existed (Lowe & Gardner, 2000). Long term employment in exchange for employee loyalty was no longer relevant.

During this time of turbulence, change, and employee dissatisfaction, a need arose to help employees make meaning from work and commit to new ways of work (Conger, 1999; Hunt, 1999; Lowe & Gardner, 2000). The leadership theories prevalent before the late 1980’s (trait approaches, situational leadership, contingency theory, etc.) were grounded in cognitive and behavioral perspectives of leadership. The neo-charismatic approaches included an affective dimension to leadership (Acruri, 2002) and were more
relevant to addressing the needs of the workforce brought about by global competition and corporate downsizing. Transformational leaders were effective at transforming the business by appealing to the emotions and inspirations of employees (Antonakis & House, 2002). Transformational leadership facilitates a “qualitative change by radically shifting the viewpoint of associates concerning what they consider meaningful in their jobs” (Avolio & Bass, 2004, p. 19). Transformational leaders help followers transcend their own immediate self-interests and assist them in increasing their awareness of larger issues (Bass & Riggio, 2006).

Given that scholars argue for the effectiveness of transformational leaders in effecting change, it is important to scan the empirical research related to transformational leadership. Selected studies will provide an overview of what is known about transformational leadership and positive change.

**Transformational Leadership Research**

Research over the last decade consistently illustrates the positive effects of transformational leadership. The Multifactor Leadership Questionnaire (MLQ) was developed to measure a range of leader behaviors, including laissez-faire leadership, transactional leadership, and transformational leadership (Avolio & Bass, 2004). Laissez-faire leaders tend to react only after problems are serious and avoid making decisions (Avolio & Bass, 2004). Transactional leaders exchange rewards and promises of rewards for levels of performance; they respond to associates’ interests as long as the job gets done (Avolio & Bass, 2004). Transformational leaders, as previously described,
encourage performance above expected achievements. Associates see transformational leaders making sacrifices to achieve a mission, they identify with the mission and their leader, and the result is a willingness to accept greater challenges (Antonakis & House, 2002; Avolio & Bass, 2004).

Lowe, Kroeck, and Sivasubramaniam (1996) conducted a meta-analysis of research studies using the MLQ. This meta-analysis demonstrates that transformational leadership has a stronger and more positive impact than transactional and laissez-faire leadership, regardless of the leader’s level in the organization (Lowe, Kroeck, Sivasubramaniam, 1996). A second, more recent meta-analysis conducted by Dumdum, Lowe and Avolio (2002) confirms the results found by Lowe, Kroeck, and Sivasubramaniam in 1996. To elucidate the relationship between transformational leadership and positive individual and organizational outcomes, seven studies are discussed below. Relevancy to the present study is offered for each of the studies reviewed, as well as methodological strengths and limitations.

Bommer, Rich, and Rubin (2005) studied managers in three different manufacturing firms to determine the relationship between transformational leadership and cynicism about organizational change. Transformational leader behaviors were associated with lower employee cynicism about organizational change. In addition, the direction of causality supported the notion that transformational leader behaviors reduce employee cynicism (Bommer, Rich & Rubin, 2005). To connect to the present study, it is suggested that reducing employee cynicism and increasing organizational commitment
may help department chairs gain commitment from faculty when chairs attempt to effect change.

Methodological strengths of the Bommer, Rich, and Rubin (2005) study include a longitudinal design and samples obtained from three different organizations. A criticism of this study is that the three manufacturing firms from which the sample was drawn were not actively engaged in defined, large-scale changes. The effect of transformational leader behaviors on employee cynicism when the leader is directing a significant organizational change remains unknown. Organizational stability versus organizational crises is an important contextual variable in the following study by Bass, Jung, Avolio and Berson (2003).

Questioning the strength of transformational leadership to predict unit performance during times of crises and high stress, Bass, Jung, Avolio, and Berson (2003) studied platoon leaders. The results of this study indicated a need for both transactional and transformational leadership during high stress, turbulent times. The transactional leadership behaviors were required to set clear performance expectations and establish a base level of trust. The transformational leadership behaviors were necessary to build allegiance and inspire followers to take on extraordinary feats (Bass Jung, Avolio, & Berson, 2003). Transformational leadership augments transactional leadership in achieving the goals of the group (Bass & Avolio, 2004). These results are applicable to this study as higher education is in crises and might be described as in a period of high stress and turbulence. The next study highlighted, by Brown and Moshavi
Brown and Moshavi (2002) studied 440 university faculty in 70 different academic departments. They questioned the relationship between transformational and contingent reward leadership behaviors by department chairs and three outcomes: faculty satisfaction with supervision, faculty’s willingness to expend extra effort, and perception of organizational effectiveness. The results of this study demonstrate that transformational leadership is positively associated with all three outcomes. Brown and Moshavi (2002) conclude their findings with a strong statement: “It seems clear that while idealized influence plays a generally significant role in effective leadership, it is particularly important in the case of academic department chairs” (p. 3).

In the Brown and Moshavi (2002) study, all three measures are obtained from the MLQ. The results of this study would be stronger if independent measures of organizational effectiveness were obtained. In the next study reviewed (Barling, Weber and Kelloway, 1996), financial performance is an outcome measure. Financial performance is an example of a stand-alone criterion outcome.

In 1996, Barling, Weber and Kelloway conducted a field experiment in a bank branch with one group of managers participating in transformational leadership training, and another group of managers (the control group) receiving no training. Three levels of measures were used to assess the impact of the training: subordinates’ perception of their leaders, subordinates’ organizational commitment, and financial performance of the
managers’ banks. All three measures supported the positive impact of transformational leadership behaviors (Barling, Weber & Kelloway, 1996). Enhancing organizational commitment is relevant to the proposed study in that faculty tend to emphasize individual interests over collective interests (Wergin, 2005; Zemsky, 1996). If transformational leadership can positively impact subordinates’ organizational commitment, then perhaps academic department chairs who are transformational leaders might be better equipped to focus faculty’s attention and efforts on the department as a collective.

The significant value of the Barling, Weber and Kelloway (1996) study is its experimental nature and three sources of outcome measures. The limitation of this study is the small samples: the training group contained nine managers and the control group contained eleven.

In a study of Canadian bank managers, transformational leadership behaviors were shown to directly and positively predict unit performance over a year’s time (Howell & Avolio, 1993). Leaders who displayed more individualized consideration, more intellectual stimulation and more charisma positively contributed to business goals (Howell & Avolio, 1993). Unit performance data was collected one year after managers and their raters completed leadership survey instruments, minimizing common method bias (Howell & Avolio, 1993). Given that change in higher education tends to be slow (Gioia & Thomas, 1996), leadership that is shown to have a positive affect on unit performance over time, is important.
The drawback of the Howell and Avolio (1993) study is a lack of information on prior unit performance. It is possible that the ratings of leaders were high because of attributions made about prior performance, and the high ratings were undeserved at the time of data collection (Howell & Avolio, 1993).

In a sixth study examining the effects of different types of leadership, transformational leadership was found to significantly and positively relate to organizational innovation in thirty-two Taiwanese electronics/telecommunications companies (Jung, Chow & Wu, 2003). Given that academic departments are evaluated on outcomes that rely on innovation such as grant funding and the number and quality of scholarly publications, it could be said that organizational innovation is an important outcome in higher education. The limitations of the Jung, Chow and Wu (2003) investigation are the use of single raters, and the uncertainty of accurately and fully measuring organizational innovation, the dependent variable.

The final transformational leadership study discussed here is by Ramsden (1998) and is situated in the context of higher education, with student learning as the dependent variable. While Ramsden did not use the MLQ to measure transformational leadership, he did find that transformational leadership in an academic department results in stronger instructor commitment to student-focused learning than other forms of leadership. Student-focused learning was contrasted with information transmission (Ramsden, 1998).

In summary, the seven studies highlighted here are examples of the positive impact of transformational leadership. As illustrated, evidence exists to support greater
individual and unit-level performance under transformational leadership than under laissez-faire or transactional forms of leadership. Based on the Brown and Moshavi (2002) study, the Ramsden (1998) research, as well as the positive effects of transformational leadership in other contexts, transformational leadership in academic departments is seen as a factor in effecting change in higher education. What remains unknown is how academic department chairs learn to lead in transformational ways.

Before discussing leadership in the context of higher education, and formal and informal methods of learning, limitations of transformational leadership research are offered.

Limitations of Transformational Leadership Research

Transformational leadership research conducted to date has several limitations. The limitations described in the above studies include small samples, the use of single raters, failure to account for stable versus change-driven contexts, and common method bias. Additional research limitations in studies of transformational leadership include unclear definitions, a focus on dyadic relationships rather than the relationship of a leader to his/her team, inadequate research on the development of leaders, and finally, context is missing in many leadership studies (Yukl, 1999; Conger, 1999; Hunt, 1999; Lowe & Gardner, 2000). Each of these limitations is discussed in turn.

Lack of clarity related to the definition of “leadership” is a significant concern. In many studies, a leader is a supervisor or manager. In other studies, leadership refers to executive leaders and top management teams. All of these groups have been studied, and at times, inappropriately compared to each other. Leader development and
leadership development are terms also used interchangeably when in fact they should be examined as different constructs. Leader development is about enhancing the development of a person. Leadership development is an organizational construct and embeds the leader in the context of his/her environment (Conger, 1999).

The second deficiency in current leadership research is an almost exclusive focus on the individual leader or the relationship between a manager and his/her employee (a dyad). Studying leadership from multiple levels is desired: the individual, the dyad, the group or team, and the organization (Lowe & Gardner, 2000).

Leadership development is a topic often seen in bookstores, and discussed by practitioners. Empirical studies, however, are lacking (Day, 2001). Lowe and Gardner (2000) insinuate organizations can gain a competitive advantage through leadership development. How to go about developing leaders, the components of the developmental processes, and how to influence retention of the learning outcomes are largely unknown.

The last area identified as neglected in transformational leadership research is a stronger focus on context (Lowe & Gardner, 2000). Some of the interesting questions about context relate to profit versus non-profit corporations. There are uncertainties about the relevance of business models of leadership to educational systems (Gumport, 2000). Gregory (1996) asserts “the specific context within which education institutions operate will undoubtedly fashion the shape and nature of leadership exercised” (p. 48).
Summary of Transformational Leadership Research

To summarize the scholarship on transformational leadership, two meta-analyses provide significant evidence that transformational leadership has a stronger and more positive impact than laissez-faire or transactional leadership, regardless of the leader’s level in the organization (Dumdum, Lowe & Avolio, 2002; Lowe, Kroeck, and Sivasubramaniam, 1996). Transformational leadership is at the most effective end of a range of leadership behaviors; it augments transactional leadership in achieving the goals of the group (Bass & Avolio, 2004). Despite limitations, research does support the positive effect of transformational leadership on individual and unit performance.

This study built on the existing literature and addressed two limitations discussed above. Leadership development processes and the context of higher education were examined in this study. This literature review now turns to the uniqueness of the academic culture and the challenges associated with leading in higher education. Higher education, academic departments and department chairs are discussed in the next section of this literature review.

Leadership in Higher Education

Some of the distinctive features of academia include shared governance, goal ambiguity, and multiple power and authority structures (Kezar, 2001). Hoff (1999) views the players in shared governance as trustees, the president and vice presidents, faculty, administrators and students. Goal ambiguity arises out of the
three-fold mission of higher education: teaching, research and service (Hoff, 1999).

Kezar (2005) makes reference to higher education institutions as loosely coupled and suggests this characteristic significantly impacts change. “Loosely coupled systems are uncoordinated and have greater differentiation among components, high degrees of specialization among workers and low predictability of future action, including change” (Weick, 1976, as cited in Kezar, 2001). Radical change in loosely coupled organizations is highly unlikely; change is apt to be ongoing, small-scale, and improvisational (Kezar, 2005).

Departments

There are over four thousand institutions of higher education reported in the Chronicle of Higher Education Almanac (Dyer & Miller, 1999). Within those thousands of institutions, eighty percent of all decisions take place at the department level (Dyer & Miller, 1999; Hecht, Higgerson, Gmelch, & Tucker, 1999; Wolverton, Gmelch & Sorenson, 1998). According to Lucas (2000a), the “department is where the rubber meets the road. It is where change is generated, where change initiatives from above are translated into what is good --- and realistic --- for the discipline, and where the way to implement such change is determined” (p. 3).

Academic departments are known more for the unique contributions of individuals than for their team orientations. Autonomous faculty (Lucas, 2000a; Wergin, 2005; Zemsky, 1996), affiliated with multiple subspecialties loosely connected to a
discipline (Hecht, Higgerson, Gmelch, & Tucker, 1999) tend to divide rather than unite academic departments. In addition, tenure and promotion practices typically reward individual research and teaching efforts (Hecht, Higgerson, Gmelch, & Tucker, 1999) which reinforce a singular rather than collective focus. “Subcultures built on traditions of autonomy, independence, and individual rewards render the building of a departmental collectivity difficult, if not impossible” (Hecht, Higgerson, Gmelch, & Tucker, 1999, p. 118).

Department Chairs

The managers of these unique departments are department chairs who at different times are considered administrators, faculty and leaders (Gillet-Karam, 1999). Hoyt (2005) collected data from 231 department chairs in 43 colleges and universities to create a typology of department chair responsibilities. His conceptualization identifies six categories of responsibilities: general management of the department, planning, enhancing reputation, building faculty commitment, maximizing faculty strengths, and supporting educational programs (Hoyt, 2005).

Hoyt (2005) is not the first to classify department chair responsibilities. More than a decade ago, Tucker (1992) suggested departmental governance, faculty recruitment and selection, student recruitment and selection, preparation of budgets, preparation of external communication, and professional development were the significant tasks of department chairs. McLaughlin, Montgomery, and Malpass (1975) defined three prominent roles of the chair: academic, administrative, and leadership. In
the McLaughlin, Montgomery and Malpass (1975) schema, academic duties included teaching, advising, encouraging research and developing curriculum; administrative roles included maintaining the budget, keeping records, managing staff, and representing the department; and leadership responsibilities included supporting, motivating and developing faculty.

In many ways, the responsibilities of the department chair from 1975 to 2005 have remained the same. The distinctions between the three lists mentioned above are minimal. What is growing is the view of the department chair as an academic leader, more than a manager of personnel, budgets and curriculum. Lucas (2000b) claims institutions that traditionally used chairs to perform “perfunctory tasks are now viewing chairs as having important leadership roles” (p. 12).

In addition to research on the multiple roles or duties of the department chair, there has also been examination of the ambiguity and conflict inherent in the position of department chair. The chair is often referred to as being caught in the middle between upper-level administrators and faculty (Dyer & Miller, 1999). The chair has the responsibility of conveying upper-level administrative decisions to faculty while at the same time conveying faculty concerns to senior administrators. According to Wilson (1999) the chair is often between the proverbial rock and a hard place because of the need to straddle the managerial role of academic administrator and the faculty role of the teacher and researcher. “Leading from the middle” is the phrase used by Lindholm
(1999) to describe the difficult challenge of interacting with, and responding to, students, faculty and other college administrators.

In addition to “leading from the middle” (Lindholm, 1999), department chairs must also learn to lead with limited power and authority. “Formal position endows chairs with very limited power… Their ability to lead effectively, therefore, must derive from sources other than that of positional authority” (Hecht, Higgerson, Gmelch, & Tucker, 1999, p. 6).

In summary, department chairs operate in the unique context and culture of higher education. They have the difficult job of managing a group of independent entrepreneurs (Lucas, 2000a). They are middle managers who have little position-related authority, and they are expected to lead change. “The department chair position has been characterized as having no parallel in business or industry” (Gmelch, 2002a, p. 5). Given the difficult context in which chairs operate and the challenges associated with their positions, understanding how to best prepare those assuming department chair roles, and developing those already in the role, is critical. This literature review now turns to the development of department chairs. Following the review of academic leader development, leadership development practices outside of academia are then discussed.

Leadership Development

Common among all studies of department chairs is the noticeable lack of attention paid to the development of chairs. There is little or no preparation for the average department chair (Gmelch, 2002a; Wilson, 1999). They assume their roles with limited
administrative experience and without realizing the complexity of “leading from the middle” (Gmelch, 2002a). By and large, department chairs come directly from the faculty, where they have emphasized skills in pedagogy and research rather than administration (Gmelch, 2002a; Knight & Holen, 1985). Wolverton, Ackerman and Holt (2005) point out that research activities are typically carried out in isolation or with small groups of like-minded colleagues, while managing and leading departments is a communal affair.

Most universities do not provide developmental experiences for department chairs. When such training is offered, it is usually limited to instruction on campus policies and regulations. “Seldom does on-campus chair training include professional skill development in such important leadership tasks as managing conflict, team building, or implementing change” (Hecht, Higgerson, Gmelch, & Tucker, 1999, p. 27). Gmelch (2002b) suggests the development of academic leaders is a long and complex process. Institutions of higher education cannot “create an academic leader in a weekend seminar” (Gmelch, 2002b, p. 3). How to train for this position, and discern measurable outcomes, is a gap in practice and in the scholarly literature (Dyer, & Miller, 1999). A few scholars have proposed developmental programs; two are described below.

Wolverton, Ackerman, and Holt (2005) identified learning needs of academic leaders and based on those needs, piloted a preparation program to address conceptual understanding, skill development and reflective practice. Conceptual understanding focused on comprehending the roles of department chairs within the unique and
challenging context of higher education (Wolverton, Ackerman, & Holt, 2005). As previously mentioned, academic leaders have unique challenges not typical of leaders in other organizations (Gmelch, 2002a). Academic leadership needs to be defined in terms of what it means to build a community in higher education, how to empower others who are peers, and how to set direction for a department when varying constituent opinions exist (Gmelch, 2002a). Cognitive or conceptual understanding must be accompanied by skill development and reflective practice (Gmelch, 2002a; Wolverton, Ackerman, & Holt, 2005).

Skill development emphasizes acquiring the necessary skills to achieve desired results (Wolverton, Ackerman & Holt, 2005). Some of the skills seen as necessary for academic leaders include communication, performance coaching, conflict resolution, negotiations, and resource deployment (Gmelch, 2002a). Skills can be formally learned through workshops and then practiced through case studies, role plays, and action planning (Gmelch, 2002a).

Reflective practice “refers to learning how to learn from past experiences and perfect the art of leadership through reflection” (Wolverton, Ackerman, & Holt, 2005, p. 234). Discovering one’s own guiding beliefs and assumptions about leadership is at the heart of reflection (Gmelch, 2002a). Reflective practice was built into the program designed by Wolverton, Ackerman, and Holt (2005) by engaging program participants in personal assessment activities, persuading participants to practice reflective journaling, and encouraging participants to meet outside of structured seminars. The most important
point emphasized by Wolverton, Ackerman, and Holt (2005) is the distinction between a task-specific workshop and an ongoing professional development program. In task-specific workshops, administrative work strategies are conveyed. In professional development, “opportunities for debate, dialogue and reflection play integral roles” (Wolverton, Ackerman, & Holt, 2005, p. 235).

A second developmental program for department chairs is proposed by Pettit (1999). Pettit (1999) used survey data from community college department chairs to propose a training design that is situated in the “context and experiences of the chair and that is problem solving in nature” (p. 62). Pettit (1999) contrasts situated learning with traditional classroom learning. He suggests that chairs cannot master the skills they need if they are disconnected from the elements that interact in their jobs, such as the political nature of their jobs, and their relationships with administration and other departments (Pettit, 1999). The training priorities identified by the surveyed department chairs indicated a desire for problem solving, and according to Pettit (1999), that can only occur by connecting training to real, specific situations. The training formats Pettit (1999) suggests that connect chairs to their reality are mentoring, action-learning projects, and reality-based case methods.

Given the limited information about department chair development, turning to the literature that describes leadership development outside of academia might be fruitful. Some research on leadership development in business and military settings does exist. Although the department chair position has been characterized as having no parallel in
business or industry (Gmelch, 2002a), research on leadership development in corporate and military settings might inform the development of department chairs.

**Leadership Development Outside of Higher Education**

Conger (1992) identified four types of traditional leadership development programs: personal growth, conceptual growth, feedback, and skill building. Each of these programs is discussed in turn, including uncertainties about the effectiveness of each.

**Personal Growth Programs**

The aim of personal growth programs is for participants to become more aware of their talents and abilities through outdoor adventures that involve risk taking and a sense of personal mastery (Conger, 1992). There is skepticism about the value of this approach because of the difficulty of applying the new personal awareness to the work environment (Csoka, 1996). One investigation of an Outward Bound Professional Development Program failed to show significant positive change in leadership skills for the group of participants (Stolz, 1992). Results of a meta-analysis (Hattie, Marsh, Neill, & Richards, 1997) indicate that adventure programs can obtain significant outcomes and have strong, long-lasting effects. Hattie, Marsh, Neill, and Richards (1997) are careful to state that some programs are more effective than others. The greatest effect, across programs reviewed, is in providing participants with a sense of self control (Hattie, Marsh, Neill, & Richards, 1997).
**Conceptual Growth Programs**

Conceptual growth approaches to leadership development intend to create an awareness of key leadership ideas. Models and case studies are used to explain what it is that leaders do. “These programs—typically found on university campuses—emphasize the importance of a cognitive understanding of leadership: if you know the concept, you can act on it” (Csoka, 1996, p. 31). The benefit of this type of program is that participants gain an understanding of what leadership really is and gain interest in becoming a leader. The uncertainty about the effectiveness of conceptual growth approaches is that typically “individuals require an emotional experience to shift an idea from the intellectual level to a deeper understanding and then into action” (Conger, 1992, p. 169).

**Feedback Programs**

Feedback approaches to leadership development postulate that through effective feedback individuals can identify their personal strengths and weaknesses, develop their weaker skills, and/or acquire absent ones (Conger, 1992). Assessment data provide a benchmark for future development. They also help leaders to see themselves in a broader perspective, incorporating others’ perceptions (Guthrie & King, 2004).

According to Guthrie and King (2004) there are five potential areas for growth as a result of participating in a feedback program. The five areas are: knowledge acquisition, self-awareness, transformational perspective change, goal attainment and reframing, and behavior change. Transformational perspective change refers to a new
understanding about others, the challenges people face, or other significant aspects of the world of work (Guthrie & King, 2004). The greatest chance for growth in these five areas occurs when discussion, coaching, and ongoing developmental planning takes place after the program participant returns to the work place (Guthrie & King, 2004).

**Skill Building Programs**

The fourth type of leadership education identified by Conger (1992) is development through skill building. In this approach, program designers identify what they perceive to be key leadership skills that can be taught. These are formulated into modules that include exercises and simulations (Conger, 1992; Csoka, 1996). One such skill is visioning. Thoms and Greenberger (1998) found that it may be possible to increase visioning ability. Two reservations about the skill building approaches are: the financial cost association with the amount of time required to learn a new skill, and transference of skill to the workplace (Conger, 1992).

**Comparison and Summary of Leadership Development Programs**

A comparison of training workshops to individual assessment sessions was conducted by Kelloway, Barling, and Helleur (2000). In a field study of nursing supervisors they found that training workshops, and individual counseling sessions where subordinate feedback data was shared, were equally effective in increasing leaders’ transformational behaviors. Both forms of intervention included goal setting. Kelloway, Barling, and Helleur (2000) advocate for group-based training given the
results of this study and given the high costs associated with survey administration, compiling feedback, and holding individual counseling sessions.

Each of the four types of development programs described above has its advantages and disadvantages. Conger (1992) argues that to be effective, leadership training must incorporate elements of all four approaches: personal growth experiences, conceptual development, feedback, and skill building. McCall, Lombardo, and Morrison (1988) strongly suggest that corporate classroom is not where real learning takes place. They and others (e.g., Day, 2001; Kouzes & Posner, 2003; Ohlott, 2004) recommend looking beyond development “programs” to find less structured developmental opportunities. “Leadership development in practice today means helping people learn from their work rather than taking them away from their work to learn” (Day, 2001, p. 586). McCauley (2001) advocates for better understanding of how people learn within their work context to be more effective leaders. On-the-job developmental experiences include special assignments, surviving hardships, engaging in developmental relationships, and networking (Day, 2001; McCauley, 2001).

Unstructured Developmental Experiences

Job Assignments

Job challenge and difficult assignments are seen as excellent teachers for executives. In job assignments, leaders work on real problems, are forced to take action, and must live with the consequences of their actions (McCauley, 2001). In research conducted by McCall, Lombardo, and Morrison (1988) four core elements were
identified that add more “developmental wallop than others” (p. 5). The elements are: being forced to learn new skills while maintaining everyday business, risking high profit and loss stakes, working with people in direct conflict with the leader, and handling the physical and emotional strain of a difficult assignment.

Ohlott (2004) identified job assignments as the oldest and most potent forms of leadership development. A developmental job assignment in Ohlott’s perspective is one that stretches people, pushes them out of their comfort zones and requires them to think and act differently. The key element from this viewpoint is challenge. Kouzes and Posner (2003) echo these thoughts with: “The quest for change is an adventure. It tests our skills and abilities. It brings forth talents that have been dormant. It’s the training ground for leadership” (p. 184).

Hardships

A second unstructured developmental experience is living through a hardship. Hardships differ from job challenge and difficult assignments in that they are about unplanned things happening personally to a leader, or things a leader did, or failed to do. Examples of hardships include: personal trauma, career setbacks, changing jobs, business mistakes and failures, problem employees, and downsizing (Moxley & Pulley, 2004). A turning inward for reflection and self-examination often accompanies hardships (McCaulley, 2001). Recognition of limits and blind spots, sensitivity and compassion, coping with circumstances beyond one’s control, balance, and flexibility (Moxley & Pauley, 2004) are some of the lessons leaders learn from hardships.
Developmental Relationships

Engaging in a developmental relationship is a third unstructured developmental experience. Developmental relationships are those that make a significant impact. They involve people “who, because of their position, or what they stood for, or what they did, left a vivid and lasting mark on the developing executive” (McCall, Lombardo, & Morrison 1988). These relationships might be with mentors, subordinates, peers or supervisors. They might be intentional developmental relationships, such as mentors or executive coaches, or they may be relationships that happen serendipitously because of job assignments.

A mentoring relationship is defined as “a committed, long-term relationship in which a senior person (mentor) supports the personal and professional development of a junior person (protégé)” (McCauley & Douglas, 2004, p. 92). Mentors provide coaching and counseling as well as career connections and visibility within a given field (McCauley, 2001). In a formal mentoring program, the company intentionally matches a senior leader with a new leader (McCauley, 2001). In informal mentoring, the relationship occurs spontaneously, arising from a mutual attraction and interpersonal comfort (Ragins & Cotton, 1999). An informal mentor-protégé relationship is not created by the organization and is not administered by it (Day, 2001).

Ragins and Cotton (1999) compared the benefits of formal mentoring relationships to the benefits of informal mentoring relationships. Protégés in informal mentoring relationships received significantly greater career and psychosocial
development benefits and earned significantly more compensation than protégés in formal mentoring relationships (Ragins & Cotton, 1999).

In a study of aspiring Singaporean principals, Lim (2002) investigated sources of learning beyond mentoring. Mentoring is a traditional strategy employed in Singapore. Lim discovered that informal support or networking groups were important sources of learning, beyond the structured mentoring programs provided (Lim, 2002).

**Networking**

Networking is a fourth type of informal, developmental experience. Networking gives leaders peer problem-solving resources (Day, 2001). The value of networking lies in exposure to others’ thinking which can challenge basic assumptions of the learner (Day, 2001). Ruderman (2004) creates distinctions between formal and informal networks. Formal networking comes from structured work-related relationships including supervisor-employee dyads, work groups, and project teams (Ruderman, 2004). Informal networks arise naturally and include relationships beyond those at work (Ruderman, 2004). Informal networks “produce expressive relationships in addition to instrumental ones” (Ruderman, 2004, p. 296) in that they provide friendship and social support as well as career development connections.

In a study seeking to understand how women executives learn and develop in corporate culture, Bierema (1999) identified relationships as very important throughout the executives’ careers. Mentors and women’s networks were mentioned as significant
relationships in all career stages. Bierema (1999) suggests that career encouragement is provided through these essential relationships.

Summary of Unstructured Developmental Experiences

In summary, the literature on leadership development supports the value of unstructured experiences including special job assignments, surviving hardships, engaging in informal mentoring, and networking. On the job developmental experiences with less formality and less structure than classroom training leads to an exploration of learning theory. How do leaders, and specifically department chairs, learn? What are the learning experiences of leaders and to what extent do they provide opportunities for formal learning versus informal learning?

Informal Learning Theory

In its broadest sense, informal learning is unstructured, and does not take place in an educational institution (Burns & Schaefer, 2003). Informal learning is that which occurs outside of formally structured, institutionally sponsored, classroom-based education or training (Marsick & Watkins, 1990).

Learning considered to be informal is most easily described by contrasting it with formal learning (Watkins & Marsick, 1992). Informal learning is predominately experiential and non-institutional (Marsick & Watkins, 1990). Marsick and Watkins (1990) suggest informal learning differs from formal learning by degree of control exercised by the learner, location (not classroom situated) and the certainty of specific outcomes. Colley, Hodkinson, and Malcolm (2003) identify four dimensions of
informality/formality that describe a learning situation. The four dimensions they name are process, location and setting, purpose, and content. Both conceptualizations of informal learning share characteristics that distinguish informal from formal learning.

Dimensions of Informal Learning

Colley, Hodkinson and Malcolm (2003) define process as engagement in everyday activities leading to informal learning, versus engagement in tasks structured by a teacher for the express purpose of learning. Learning from experience is a central tenet of the Marsick and Watkins (1990) informal learning theory. Specifically, they reference learning from experience as “the way in which people make sense of situations they encounter in their daily lives” (Marsick & Watkins, 1990, p. 15). The learning that occurs informally is unintentional and unplanned (Marsick & Watkins, 1990).

The physical location of a classroom creates the condition for more formal learning while the workplace or the home implies a setting for informal learning. Defined time-related parameters for the learning extend from open-ended with unspecified learning outcomes to prescribed curricula taught in a time constrained period (e.g. a semester) with very specific learning outcomes (Colley, Hodkinson, & Malcolm, 2003).

In agreement with Colley, Hodkinson and Malcolm’s location and setting dimension, Marsick and Watkins (1990) suggest that informal learning occurs through mentoring, coaching, and career planning that take place naturally in the course of human interaction. A mentoring program, sponsored by an institution, with predetermined
meeting times scheduled by the organization and not the learner, is institutionally structured and driven, and is therefore designated as a formal learning opportunity.

The degree to which an activity has learning as the primary purpose is the third aspect of informality/formality described by Colley, Hodkinson, and Malcolm (2003). Learning in the workplace typically has increased productivity, increased efficiency or some other business goal as its underlying purpose, with learning an unintended outcome of the activity. Classroom education or training identifies learning as a primary focus, thereby fitting the formal aspect of learning (Colley, Hodkinson, and Malcolm, 2003).

Content is the last aspect of informality/formality that Colley, Hodkinson, and Malcolm (2003) characterize. What is learned during the activity is in question. Is the content the acquisition of expert knowledge (formal) or the creation of some new meaning or understanding on behalf of the learner (informal)? Marsick and Watkins (1990) strongly propose that the most effective workplace learning comes from focusing on real life experiences rather than on “prescriptions, examples and simulations” (p. 4).

Taking the notion of learning content one step further, the difference between received knowing and constructed knowing can be considered when assessing the formality or informality of a learning situation. In received knowing, students receive knowledge from an expert or authority figure; it is detached from the lives of the learners (Kaagan, 1998; Merriam & Caffarella, 1999). Constructed knowing is when students actively engage in the learning, creating meaning by integrating new information with
their past experiences. Students revise and reinterpret old information to reconcile it with the new (Merriam & Caffarella, 1999).

Research related to Informal Learning

Johnson (2002) interviewed ‘manager-academics’ from United Kingdom universities. ‘Manager-academics’ are defined as Heads of Departments (Johnson, 2002) and can be roughly equated with department chairs in the United States. Johnson (2002) reported that manager-academics appreciated contact with institutional experts but claimed cognitive competence as inadequate (Johnson, 2002). Formal learning, according to Johnson’s findings is “insufficiently owned and inflexible, and is not subject to continual interrogation, refinement and use by the learner across organizational or occupational contexts” (Johnson, 2002, p. 42).

Smith and Stewart (1999) studied the workplace socialization of department chairs in Texas community colleges. Both those preparing to assume a chair position and those in chair positions reported informal and discovery or self-directed learning as their most frequent learning methods. New and more seasoned chairs learned “by doing,” serving on committees, reading books and journals, and observing role models or consulting with someone they admired (Smith & Stewart, 1999).

Examining the role of informal learning, Burns and Schaefer (2003) asked Trade and Industrial teachers enrolled in a teacher certification program, to write memos of survival advice to inexperienced teachers. The purpose of writing memos was to invoke critical reflection of past experiences. Burns and Schaefer (2003) conclude that informal
learning played an important role in the lives of new teachers. They add that “knowledge and assumptions gained through informal learning should be questioned and investigated” (Burns & Schaefer, 2003, p. 19) because the learning gained may be invalid.

A study outside of academia supports the informal learning of managerial skills. In a study of eighty-four managers from a Fortune 100 insurance company, Enos, Kehrhahn, and Bell (2003) found that managers consistently reported learning managerial skills mostly from informal learning activities. The managers were asked to report the specific learning activities that most assisted them in learning managerial skills. The authors report that 70% of the activities related to informal learning and 30% related to formal training. Of the informal learning activities, 63% concerned interaction with others, 23% pertained to job experience, 12% related to watching others, and 2% pertained to reflection (Enos, Kehrhahn, & Bell, 2003).

In Eraut (2004) several research studies are reviewed and linked to examine learning in the workplace. New and experienced employees, as well as employees from different professions were subjects in Eraut’s studies. Eraut (2004) concludes that the majority of learning in the workplace was informal and “involved a combination of learning from other people and learning from personal experience, often both together” (Eraut, 2004, p. 248). The role of the manager in supporting the learning of employees and creating a climate that fosters informal learning was emphasized (Eraut, 2004).
Literature Review Summary

Higher education is faced with crises prompting a call for change. Leading change in this unique environment presents many challenges. Transformational leadership may be the most effective leadership style to address the higher education crises given its history and the empirical evidence associated with it. Research over the last two decades has shown the positive impact transformational leadership can have on individual and organizational outcomes, including reducing employee cynicism and increasing employee’s organizational commitment.

Within higher education, academic departments are seen as the focal point for change. Department chairs, however, are provided limited developmental opportunities. Wolverton, Ackerman and Holt (2005) and Pettit (1999) advocate for opportunities for debate, dialogue and reflection about real circumstances situated in the context of the academic department.

Leadership development scholars advise us to look beyond the classroom and development “programs” to less structured learning opportunities such as challenging job assignments, hardships, developmental relationships and networking (Avolio, 1999; Day, 2001; Kouzes & Posner, 1995; McCall, Lombardo & Morrison, 1988). Those who have studied learning in the workplace (Enos, Kehrhahn, & Bell, 2003; Eraut, 2004; Johnson, 2002; Smith & Stewart, 1999) have suggested that the majority of workplace learning is informal.
Tying together these different research threads led to an investigation of the formal and informal learning experiences of department chairs in higher education. Understanding the relationship between learning experiences and department chairs who engage in transformational leader behaviors might enhance our understanding of the learning paths of department chairs, thereby contributing to how chairs learn to effect change, and ultimately factoring in to the transformation of higher education.
The purpose of this study was to explore the learning paths of department chairs whose self-reported behaviors are associated with transformational leadership. This chapter describes the methodology that was used to conduct the study. It is organized by the following sections: a) introduction which includes the research question, b) research design, c) participants and their context, d) measures, e) data collection procedures, f) data analysis procedures, and g) assumptions of multiple regression.

Introduction

To survive and meet the demands of the public, higher education must expand the capacity of department chairs to transform (Gmelch, 2002b). Existing research suggests that managers learn best from experience (Van Velsor & McCauley, 2004). Given the uniqueness of the academic department chair position and the uniqueness of the higher education environment, it is unknown if academic department chairs learn best from experience. Nor is it known what types of learning experiences relate to department chairs who engage in transformational leader behaviors. Understanding some of the ways in which transformational department chairs learn may provide information to
institutions of higher education attempting to carry out the reforms demanded by the public.

The primary purpose of this study was to explore the learning paths of academic department chairs who engage in behaviors associated with transformational leadership. The broad research question addressed by the present study is: To what extent is variability in department chairs’ self-reported transformational leadership explained by informal and formal learning experiences? The dependent variable was transformational leadership and the types of learning experiences were: classroom instruction, formal mentor, informal mentor, job assignment, and networking. Each of these variables is defined in the measures section of this chapter. Given the multiple, metric independent variables, and given the statistical relationship between the learning experiences and transformational leadership, multiple regression was the statistical technique used to analyze the relationships.

Additional independent variables in this study were time in position and anticipated time in position. These variables were included because the actual time an academic department chair has been in the position, and the length of time he or she expects to be in the position, may affect the extent to which department chairs engage in various leader behaviors.
Research Design

Correlational research was the methodology used in this investigation. A purpose of correlational research is to enhance the understanding of constructs through the naming of relationships between variables (Fraenkel & Wallen, 2000). In this study, the primary relationship explored was learning experiences and department chairs who are self-reported transformational leaders. The length of time a department chair has been in the position, and anticipates being in the position, may affect transformational leadership, and were therefore included. The independent variables: types of learning experiences, time in the position, and anticipated time in the position, were not manipulated.

Participants and their Context

The context of this study was a large Midwestern research university with approximately 50,000 students enrolled in the 2006-2007 academic year. The population of Heads of Tenure Initiating Units who hold position titles of Department Chair or (School) Director (N = 97) was studied. Permission to access and use the list of Heads of Tenure Initiating Units was obtained from the Executive Vice President and Provost on December 7, 2006. Documentation of this approval can be found in Appendix A.

Measures

Transformational Leadership

The Multifactor Leadership Questionnaire (MLQ 5X-Short) (Avolio & Bass, 2004) was used to measure the dependent variable, transformational leadership.
Participants used the Leader Form to rate perceptions of their own behaviors on a five-point frequency scale where four is the highest anchor as follows:

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>Once in awhile</td>
<td>Sometimes</td>
<td>Fairly often</td>
<td>Frequently, if not always</td>
</tr>
</tbody>
</table>

The MLQ 5X-Short contains 45 items. Thirty-two items focus on perceptions of behavior. Four items are ratings of attributions (Avolio & Bass, 2004). Nine items are related to outcomes including satisfaction, effectiveness, and extra effort. As a whole, the MLQ captures a range of leadership behaviors and styles (Avolio & Bass, 2004).

Transformational leadership is at the effective end of the range of styles and has been conceptually described as adaptive leadership (Bass, Jung, Avolio, & Berson, 2003) and one of the mechanisms necessary for organizational change (Pawar & Eastman, 1997). Burns (1978) characterized transformational leaders as raising employees’ awareness about the importance and value of organizational outcomes and the means to achieve the outcomes. Most importantly, transformational leaders motivate employees to go beyond their immediate self interests for the sake of the organization (Burns, 1978).

The enhanced motivation of employees is empirically derived from five transformational leadership factors: idealized attributes (IA), idealized behaviors (IB), inspirational motivation (IM), intellectual stimulation (IS), and individual consideration (IC) (Bass & Avolio, 2004). The definition of each of the five transformational leadership factors and the items of the MLQ-5X Short that relate to each factor scale are shown in Table 3.1.
Idealized Attributes (IA) | Items 10, 18, 21, and 25 | Leaders instill pride in others, and act in ways that build others’ respect. Leaders go beyond self interest for the good of the group.

Idealized Behaviors (IB) | Items 6, 14, 23, and 34 | Leaders talk about values and beliefs and consider ethical consequences of decisions. Leaders emphasize a strong purpose and a collective sense of mission.

Inspirational Motivation (IM) | Items 9, 13, 26 and 36 | Leaders provide visions of what is possible and how to attain them. Leaders display enthusiasm, optimism and confidence that goals will be achieved.

Intellectual Stimulation (IS) | Items 2, 8, 30 and 32 | Leaders encourage innovation and creativity by questioning assumptions, reframing problems, and approaching old situations in new ways.

Individualized Consideration (IC) | Items 15, 19, 29, and 31 | Leaders pay attention to each individual’s need for achievement and growth. New learning opportunities are created in a supportive climate. Developing followers’ full potential is emphasized.

Table 3.1

Transformational Leadership Factors, MLQ-5X Short Items, and Definitions

Each of the five transformational leadership factors is measured by four highly inter-correlated items (Avolio & Bass, 2004), for a total of twenty items. The dependent variable in this research was transformational leadership, or the combined scores of the
five transformational leadership factor scales. The overall construct of transformational leadership, rather than each leadership factor, was of interest in this study.

Transformational leadership is a continuous variable and was operationally defined as the aggregate score of the five transformational leadership factor scales of the MLQ-5X Short: Idealized Attributes, Idealized Behaviors, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration. To determine a transformational leadership score, responses to the twenty individual items were totaled and then divided by four. (Unanswered items were not included in this computation.)

The range of scores for transformational leadership is 0 to 20 with 0 being the lowest and 20 being the highest. The higher the transformational leadership score the more frequently the participant reported to acting in ways empirically defined as transformational leadership.

Validity and Reliability of the MLQ

The MLQ has been used extensively in public and private organizations, and in field and laboratory research (Bass & Avolio, 2004). The MLQ-5X Short has been used internationally in approximately 300 research programs, doctoral dissertations and masters’ theses (Bass & Avolio, 2004). The reliabilities of each of the leadership factor scales range from .64 to .92. As previously mentioned, meta-analyses of research using the MLQ (Dumdum, Lowe & Avolio, 2002; Lowe, Kroeck, & Sivasubramaniam, 1996) demonstrate that transformational leadership has a stronger and more positive impact than transactional or laissez-faire forms of leadership. The results of a study by
Antonakis, Avolio, and Sivasubramaniam (2003) in which validity of the measurement model and factor structure of the MLQ-5X were examined, demonstrate support for the leadership model.

Given that reliability of a measure is specific to a group, the internal consistency of transformational leadership scores within this sample was desired. A post-analysis Cronbach’s Alpha test was run on the twenty items of the MLQ 5X-Short. The result of the post-analysis Cronbach’s Alpha test was .77 which matches the reliability studies of the MLQ conducted with other samples. The interpretation of this reliability coefficient is that 77% of the variance in scores is due to true variance in transformational leadership, with 23% due to error.

Learning Experiences

A questionnaire to describe department chairs’ learning experiences was constructed specifically for this study. The “Learning Methods Questionnaire” included twenty department chair tasks. These tasks were derived from Hoyt (2005). Hoyt (2005) collected data from 231 departments in 43 colleges and universities, between 1999 and 2003. Chairs were asked to rate the importance of responsibilities while faculty were asked to rate the chair’s effectiveness in performing each (Hoyt, 2005). Hoyt conducted three statistical analyses. First, a factor analysis of the chairs’ ratings of importance was implemented (Hoyt, 2005). Then a second factor analysis of average faculty ratings of effectiveness was undertaken (Hoyt, 2005). Lastly, a series of stepwise multiple
regression analyses were made in which effectiveness ratings were predicted from scales describing the chair’s administrative style and personal characteristics (Hoyt, 2005). Results from all three analyses produced a “relatively coherent pattern of responsibilities” (Hoyt, 2005, p. 12).

The researcher for this study slightly modified Hoyt’s (2005) list of responsibilities to match language used at the researcher’s institution, and to create brief, non-evaluative, and consistently-stated items for the instrument. As an example, Hoyt’s list contained the tasks: “Guide the development of sound procedures for assessing faculty performance” and “Takes the lead in recruiting promising faculty.” These were revised to read: “Assess faculty performance” and “Recruit faculty.”

After adapting the items in Hoyt’s (2005) typology, the list of department chair tasks was shared with three experts for purposes of assessing content validity. The three experts were: the Provost, the Vice Provost for Academic Policy and Faculty Resources who previously served as a department chair at this same institution, and a current department chair. These three experts were asked: “How well does the list of department chair tasks named in the Learning Methods Questionnaire accurately reflect the tasks department chairs assume at this institution?” The three experts identified the tasks as relevant for department chairs at this institution. Additional tasks were suggested by the experts. For reasons of brevity, and to hold true to Hoyt’s typology, the recommended tasks were not added.
For each department chair task, research participants were asked to indicate if they know how to do the task by circling “yes” or “no.” In addition, for each department chair task, research participants were asked to identify the predominant type of learning method used to learn the task (if they already know how to do the task) or the preferred type of learning method (if they do not know how to do the task). The types of learning methods from which participants were asked to choose are defined in Table 3.2. They are listed from most formal (classroom instruction) to most informal (networking).

<table>
<thead>
<tr>
<th>Type</th>
<th>Constitutive Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom instruction</td>
<td>Learning from a teacher with a prescribed agenda/curriculum, in a structured setting.</td>
</tr>
<tr>
<td>Formal mentor</td>
<td>Learning from an institutionally-sponsored, one-on-one relationship in which a senior leader is paired with a new leader.</td>
</tr>
<tr>
<td>Informal mentor/Predecessor</td>
<td>Learning from a spontaneous, informal, self-identified one-on-one relationship, including a predecessor.</td>
</tr>
<tr>
<td>Job assignment</td>
<td>Learning from engagement in a job responsibility.</td>
</tr>
<tr>
<td>Networking</td>
<td>Learning from interaction, collaborative problem-solving, and sharing resources with others.</td>
</tr>
</tbody>
</table>

Table 3.2: Types of Learning Methods
For each department chair task, research participants were asked to select one predominant type of learning method. The score for each type of learning method was the total number of times that learning experience was identified as the predominant learning experience. Classroom instruction was operationally defined as the total number of times classroom instruction was selected as the predominant learning experience for twenty department chair tasks. Scores ranged from 0 to 20 with 0 being the lowest and 20 the highest. A score of 0 indicates the research participant did not predominately use (or preferred not to use) classroom instruction to learn how to do the named department chair tasks. A score of 20 indicates that the research participant predominately used (or preferred to predominately use) classroom instruction to learn how to do the named department chair tasks.

Formal mentor was operationally defined as the total number of times formal mentor was selected as the predominant learning experience for twenty department chair tasks. Scores ranged from 0 to 20 with 0 being the lowest and 20 the highest. A score of 0 indicates the research participant did not predominately use (or preferred not to use) a formal mentor to learn how to do the named department chair tasks. A score of 20 indicates that the research participant predominately used (or preferred to predominately use) a formal mentor to learn how to do the named department chair tasks.

The combination of classroom instruction and formal mentor learning experiences were considered formal learning. Formal learning was operationally defined as the self-
reported learning that is the aggregate score of classroom instruction and formal mentor
learning methods.

Informal mentor/predecessor was operationally defined as the total number of
times informal mentor/predecessor was selected as the predominant learning experience
for twenty department chair tasks. Scores ranged from 0 to 20 with 0 being the lowest
and 20 the highest. A score of 0 indicates the research participant did not predominately
use (or preferred not to use) an informal mentor/predecessor to learn how to do the
named department chair tasks. A score of 20 indicates that the research participant
predominately used (or preferred to predominately use) an informal mentor/predecessor
to learn how to do the named department chair tasks.

Job assignment was operationally defined as the total number of times job
assignment was selected as the predominant learning experience for twenty department
chair tasks. Scores ranged from 0 to 20 with 0 being the lowest and 20 the highest. A
score of 0 indicates the research participant did not predominately use (or preferred not to
use) a job assignment to learn how to do the named department chair tasks. A score of 20
indicates that the research participant predominately used (or preferred to predominately
use) a job assignment to learn how to do the named department chair tasks.

Networking was operationally defined as the total number of times networking
was selected as the predominant learning experience for twenty department chair tasks.
Scores ranged from 0 to 20 with 0 being the lowest and 20 the highest. A score of 0
indicates the research participant did not predominately used (or preferred not to use)
networking to learn how to do the named department chair tasks. A score of 20 indicates that research participant predominately used (or preferred to predominately use) networking to learn how to do the named department chair tasks.

The combination of informal mentor, job assignment, and networking learning experiences were considered informal learning. Informal learning was operationally defined as the self-reported learning that is the aggregate score of informal mentor, job assignment, and networking learning methods.

Two data rules applied to the Learning Methods Questionnaire. The first related to unanswered items. If more than ten items were unanswered, the case was eliminated. In one case, eleven items were unanswered (the second page of the questionnaire). This case was eliminated from the sample. The second data rule applied to cases when more than one type of learning method was selected. Although the instructions asked respondents to “check one,” in six cases respondents checked more than one learning method. In these cases, the more formal learning method was included in the analysis. In order, the most formal to the least formal learning methods were: classroom instruction, formal mentor, informal mentor, job assignment and networking.

Time in Position and Anticipated Total Time in Position

The number of years a department chair has been in the position and the number of years he/she anticipates being in the position may affect his or her leadership. It is hypothesized that someone acting as an interim chair and who expects to be replaced
within a year, or someone “taking a turn” in a rotation among all department faculty, will be less transformational. Bennett (1989) refers to a department chair that is rotated in as a transient, and characterizes transients as “just serving their time.” Given that the actual and anticipated term variables may affect leadership, they were included. Research participants were asked to respond to two items: Counting the current year, how many years have you served as a Department Chair/School Director? Counting the current year, how many total years do you anticipate being a Department Chair/School Director?

Time in position was operationally defined as the self-reported number of years the department chair has been in the role of a department chair (including positions at another university). Participants were instructed to round down, so that someone in the role for less than one year responded with zero. Anticipated total time in position was operationally defined as the self-reported number of years the department chair expects to remain in the role of department chair.

Data Collection

Members of the population were sent a three-part questionnaire along with a cover letter requesting participation. The three parts of the questionnaire related to: a) demographic data including time in position and anticipated time in position, gender, and college; b) MLQ 5X-Short; and c) the Learning Methods Questionnaire. See Appendix B for a copy of the cover letter and Appendix C for a copy of the three-part questionnaire. (Due to copyright restrictions, only sample items of the MLQ 5X-Short are included.) The invitation to participate and the questionnaire were sent via campus mail. The
questionnaires were numerically coded to assist with identification of non-respondents. An addressed campus mail envelope was included in the mailing for ease of returning the questionnaire to the researcher.

To control for non-response error, an e-mail reminder was sent to those who did not return the questionnaire by the due date. One week following the e-mail reminder, a second mailing, similar to the first mailing, was sent to non-respondents.

Studies of department chairs using survey research yield response rates between 30% (Seagren & Miller, 1994) and 70% (Gmelch & Burns, 1993). Acruri’s (2002) masters’ thesis yielded a 38% response rate from department chairs. Based on this information, the researcher planned to telephone non-respondents if 50% of the population had not returned the questionnaire by the due date identified in the second mailing. Given a 60% response rate on the due date, telephone calls were not made.

Data Analysis

All data was analyzed using SPSS (Statistical Software for the Social Sciences, Version 15.0). Statistical analysis included descriptive statistics, correlations and multiple regression. Correlational coefficients were calculated to describe the following relationships:

- Type of learning experience and transformational leadership style,
- Time in position and transformational leadership style, and
- Total anticipated time in position and transformational leadership style.
The magnitude of associations were interpreted according to Cohen (1988) as illustrated in Table 3.3.

<table>
<thead>
<tr>
<th>Correlation Coefficient (r)</th>
<th>Interpretation of Magnitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Perfect</td>
</tr>
<tr>
<td>0.70-0.99</td>
<td>Very high</td>
</tr>
<tr>
<td>0.50-0.69</td>
<td>High</td>
</tr>
<tr>
<td>0.30-0.49</td>
<td>Moderate</td>
</tr>
<tr>
<td>0.10-0.29</td>
<td>Low</td>
</tr>
<tr>
<td>0.01-0.09</td>
<td>Negligible</td>
</tr>
</tbody>
</table>

Table 3.3: Interpretations of Correlation Coefficients

Multiple regression was used to analyze the relationship between transformational leadership and the linear combination of time in position, total anticipated time in position, informal mentor, job assignment, networking, classroom instruction, and formal mentor. Multiple regression analysis is a method of examining and explaining the variability of a dependent variability such as transformational leadership by using information related to independent variables such as type of learning experience, and actual time, and anticipated time in position (Gliem, 2004).

The regression equation for the full model was: $Y^1 = b_o + b_1(\text{time in position}) + b_2(\text{anticipated time in position}) + b_3(\text{informal mentor}) + b_4(\text{job assignment}) +$
b_5( networking ) + b_6( classroom instruction ) + b_7( formal mentor ). Y^1 was the estimated value for transformational leadership. b_0 was the intercept or estimated value of transformational leadership when each independent variable is zero. b_1 through b_7 were partial regression coefficients indicating the expected change in transformational leadership with one unit change in an independent variable when the other independent variables remain constant.

The independent variables were entered into the regression equation in three hierarchical steps. In the first step, time in position and anticipated time in position were entered simultaneously. In the second step, the three informal learning experiences (informal mentor, job assignment, and networking) were entered. In the third step, the two formal learning experiences (classroom instruction and formal mentor) were entered. They were entered in this way based on the assumption that the time variables carried the greatest explanatory power, the informal learning methods the next greatest explanatory power, and the formal learning methods the least explanatory power.

In multiple regression, the coefficient of determination, or R^2, is used to describe the estimated proportion of variance of the dependent variable explained by the combination of the independent variables (Gliem, 2004). The higher the value of R^2, the greater the explanatory power of the regression equation (Hair, Anderson, Tatham, & Black, 1998). In this study, both the combined and individual contributions of the independent variables were of interest.
Standardized partial regression coefficients were used to assess the relative importance of individual independent variables. Examining the standardized partial regression coefficients allowed the researcher to answer, what type of learning experience best explains the variance in department chairs who are self-reported transformational leaders?

Assumptions of Multiple Regression Analysis

There are four assumptions that must be met to appropriately use multiple regression analysis. Violation of one or more of the assumptions results in inaccurate tests of statistical significance.

The first assumption is that there are no specification errors. Specification errors arise when the relationships between the independent and the dependent variables are not linear, when independent variables have been excluded, or when irrelevant dependent variables have been included (Gliem, 2004). The most valuable defense against specification error is a thorough review of the literature (Gliem, 2004). Chapter 2 of this study provides a review of the literature.

The second assumption of multiple regression is that there is no measurement error. Measurement error is the degree to which a variable is an accurate and consistent measure of the construct under study (Hair, Anderson, Tatham, & Black, 1998). Measurement error is controlled by properly constructing and administering questionnaires. The content of the cover letter and the instructions given on each part of the questionnaire can help reduce measurement error. Using instruments with strong
reliability and validity, such as the MLQ 5X-Short, also reduces measurement error. Given that the Learning Methods Questionnaire lacks statistical reliability, some measurement error may have existed in this study.

The third assumption of multiple regression is related to the residuals. A residual is an error in prediction, or the difference between an observed and predicted outcome (Hair, Anderson, Tatham, & Black, 1998). The residuals must be independent, have a mean of zero, be normally distributed, and have constant variance (Gliem, 2004).

The fourth and last assumption of multiple regression is related to the correlations of the independent variables. The independent variables must have variance; they cannot be perfectly correlated. “Multicollinearity refers to the correlation among three or more independent variables” (Hair, Anderson, Tatham, & Black, 1998, p. 156). If multicollinearity exists, there may be a significant $R^2$ with none of the partial regression coefficients significantly different from zero (Gliem, 2004).

In summary, the primary purpose of this study was to explore the learning paths of academic department chairs who engaged in behaviors associated with transformational leadership. The broad research question addressed by the present study was: To what extent is variability in department chairs’ self-reported transformational leadership explained by informal and formal learning experiences? Multiple regression was the statistical technique used. Testing for the assumptions of multiple regression was included in the analysis.
CHAPTER 4

RESULTS

The primary purpose of this study was to explore the learning paths of academic department chairs who engage in behaviors associated with transformational leadership. The broad research question addressed by the present study is: To what extent is variability in department chairs’ self-reported transformational leadership explained by informal and formal learning experiences? The dependent variable was transformational leadership and the independent variables were types of learning methods, including: classroom instruction, formal mentor, informal mentor, job assignment, and networking. The purpose of this chapter is to present the results of the data that were obtained and analyzed. The three sections of this chapter are descriptive statistics, correlations, and multiple regression.

Descriptive Statistics

The context of this study was a large Midwestern research university with approximately 50,000 students enrolled in the 2006-2007 academic year. Research participants were Heads of Tenure Initiating Units who hold position titles of Department Chair or (School) Director. Ninety-seven Department Chairs/School Directors comprise the population at this university. Sixty-four members of the population (66%) responded
to the request to participate in this study. One response was eliminated due to eleven missing answers on the Learning Methods Questionnaire, resulting in 63 (65%) usable responses.

Gender composition of the sample was 15 females (23.8%) and 48 males (76.2%). This is representative of the population, given that 23% of the population is female. Descriptive statistics of the sample for the variables of time in position, and anticipated total time in position, are presented in Table 4.1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years in department chair role</td>
<td>4.3</td>
<td>3.86</td>
<td>N = 61</td>
</tr>
<tr>
<td>Anticipated total years in department chair role</td>
<td>9.5</td>
<td>4.82</td>
<td>N = 56</td>
</tr>
</tbody>
</table>

Table 4.1: Time in Position, and Anticipated Total Time in Position for Sample

Survey respondents represent all of the colleges that have department chairs as Tenure Initiating Unit Heads at the researched institution. Table 4.2 presents the percentage of survey respondents from each college, in relation to percentage of department chairs in each college in the population. This descriptive statistic is a second illustration that the sample is representative of the population.
Table 4.2: Respondents’ College

In summary, the typical respondent for this study was a male department chair who has been in the role for approximately four years and who anticipates staying in the position for another five or six years. The respondents were from all of the Colleges at
the University that have department chairs, with the largest percentage of respondents (22%) coming from the College of Medicine.

The Multifactor Leadership Questionnaire (MLQ 5X-Short) (Avolio & Bass, 2004) was completed by research participants to measure transformational leadership, the dependent variable. The respondents completed the MLQ as a self rating. Transformational leadership is a continuous variable and was operationally defined as the aggregate score of the five transformational leadership factor scales of the MLQ-5X Short: Idealized Attributes, Idealized Behaviors, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration.

The responses on the MLQ evaluated how frequently, or to what degree, the respondents believed they engaged in transformational leadership behaviors. The range of possible scores for transformational leadership was 0 to 20 with 0 being the lowest and 20 being the highest. The higher the transformational leadership score the more frequently the participant reported to acting in ways empirically defined as transformational leadership.

Transformational leadership scores for study participants ranged from 12.25 to 19.25 with a mean of 15.87 and a standard deviation of 1.62. Survey respondents, therefore, rated themselves as frequently engaging in transformational leadership behaviors.

For each of the twenty tasks listed on the Learning Methods Questionnaire, research participants were asked to respond to the question: “Do you know how to do
Almost half (47.6%) of the survey respondents replied they know how to do all twenty tasks. All respondents reported knowing how to do at least fourteen of the twenty tasks. “Guide the development of an organizational plan” was the item most frequently marked “no,” with 19% of respondents reporting they do not know how to guide the development of an organizational plan. Tasks that were marked “no (I do not know how to do this task)” by six (10%) or more respondents are presented in Table 4.3.

<table>
<thead>
<tr>
<th>Learning Methods Questionnaire Tasks</th>
<th>Frequency of “No” Responses</th>
<th>Percentage of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide the development of an organizational plan</td>
<td>12</td>
<td>19%</td>
</tr>
<tr>
<td>Improve the department’s image and reputation with off-campus constituencies</td>
<td>8</td>
<td>13%</td>
</tr>
<tr>
<td>Improve the department’s image and reputation in the campus community</td>
<td>7</td>
<td>11%</td>
</tr>
<tr>
<td>Encourage an appropriate balance among academic specializations within the department</td>
<td>7</td>
<td>11%</td>
</tr>
<tr>
<td>Facilitate obtaining grants/contracts</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>Stimulate faculty vitality/enhusiasm</td>
<td>6</td>
<td>10%</td>
</tr>
</tbody>
</table>

Table 4.3: Frequency of Tasks Marked “No” on Learning Methods Questionnaire
For each of the twenty tasks listed on the Learning Methods Questionnaire, research participants were asked to respond to: “For those tasks you have learned, what is the predominant method you used to learn the task? For those tasks you have not learned, what method do you prefer to use?” Respondents identified their predominant/preferred learning method for twenty tasks, resulting in a score of 0-20 for each learning method. If classroom instruction was never selected as a predominant or preferred learning method, it was scored “0.” If classroom instruction was the predominant or preferred learning method for all twenty tasks, it was scored “20.” Frequency of scores for the five learning methods is presented in Table 4.4.
As illustrated in Table 4.4, job assignment was identified as the predominant/preferred learning method for at least one task by 92.1% of the sample. Job assignment was identified as the predominant/preferred learning method for five or more tasks by 28.6% of the sample.

Table 4.4: Frequency of Scores for Learning Methods

<table>
<thead>
<tr>
<th></th>
<th>Classroom Instruction</th>
<th>Formal Mentor</th>
<th>Informal Mentor/Predecessor</th>
<th>Job Assignment</th>
<th>Informal Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq</td>
<td>%</td>
<td>Freq</td>
<td>%</td>
<td>Freq</td>
</tr>
<tr>
<td>0</td>
<td>44</td>
<td>69.8</td>
<td>42</td>
<td>66.7</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>15.9</td>
<td>8</td>
<td>12.7</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3.2</td>
<td>5</td>
<td>7.9</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3.2</td>
<td>4</td>
<td>6.3</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>3.2</td>
<td>1</td>
<td>1.6</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>3.2</td>
<td>3</td>
<td>4.8</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1.6</td>
<td>7</td>
<td>11.1</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>3.2</td>
<td>4</td>
<td>6.3</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td>2</td>
<td>3.2</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td>3</td>
<td>4.8</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>1</td>
<td>1.6</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>2</td>
<td>3.2</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td>4</td>
<td>6.3</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>2</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td>5</td>
<td>7.9</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td>1</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td>1</td>
<td>1.6</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td>2</td>
<td>3.2</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td></td>
<td></td>
<td>63</td>
<td>100</td>
<td>63</td>
</tr>
</tbody>
</table>

As illustrated in Table 4.4, job assignment was identified as the predominant/preferred learning method for at least one task by 92.1% of the sample. Job assignment was identified as the predominant/preferred learning method for five or more tasks by 28.6% of the sample.
tasks (one fourth of the named tasks) by 76.1% of the sample. Informal mentor/predecessor was the next most frequently identified predominant learning method, with 84.1% of the sample reporting it as a predominant/preferred method for at least one task. Informal mentor/predecessor was identified as the predominant/preferred learning method for five or more tasks by 50.8% of the sample.

Classroom instruction and formal mentor were identified as the least predominant/preferred learning methods, with 69.8% of research participants reporting they do not use or prefer not to use classroom instruction to learn how to do the named tasks, and 66.7% of the sample not using or preferring not to use a formal mentor to learn. Classroom instruction was identified as the predominant/preferred learning method for five or more tasks by 8.0% of the sample. Formal mentor was identified as the predominant/preferred learning method for five tasks (the maximum) by 4.8% of the sample.

In summary, department chairs in this sample, have learned, and prefer to learn how to do the tasks associated with their positions through job assignment and engaging with an informal mentor/predecessor. Learning from a job assignment and learning from engagement with an informal mentor are informal learning methods. The least predominant/preferred learning methods for this sample are the more formal learning methods of classroom instruction and engaging with a formal mentor.
Correlations

Identifying associations between the independent variables (learning methods, time in position, and anticipated time in position) and the dependent variable (transformational leadership) was necessary to answer the following research questions:

1. What is the relationship between learning predominately from structured classroom instruction and transformational leadership style?

2. What is the relationship between learning predominately from a formal mentor and transformational leadership style?

3. What is the relationship between learning predominately from an informal mentor/predecessor and transformational leadership style?

4. What is the relationship between learning from job assignment and transformational leadership style?

5. What is the relationship between networking and transformational leadership style?

6. What is the relationship between number of years in the department chair role and transformational leadership?

7. What is the relationship between number of years anticipated in the role and transformational leadership?

Table 4.5 is a correlation matrix of the learning methods independent variables and the dependent variable named in questions one through five above. Table 4.6 is a correlation
matrix of the time variables and the dependent variable named in questions six and seven above.

<table>
<thead>
<tr>
<th></th>
<th>Transformational Leadership</th>
<th>Classroom Instruction</th>
<th>Formal Mentor</th>
<th>Informal Mentor/Predecessor</th>
<th>Job Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Instruction</td>
<td>-.032</td>
<td>1</td>
<td>.178</td>
<td>-.073</td>
<td>-.183</td>
</tr>
<tr>
<td>Formal Mentor</td>
<td>-.149</td>
<td>.178</td>
<td>1</td>
<td>.065</td>
<td>-.278</td>
</tr>
<tr>
<td>Informal Mentor/Predecessor</td>
<td>.096</td>
<td>-.073</td>
<td>.065</td>
<td>1</td>
<td>-.517</td>
</tr>
<tr>
<td>Job Assignment</td>
<td>.082</td>
<td>-.183</td>
<td>-.278</td>
<td>-.517</td>
<td>1</td>
</tr>
<tr>
<td>Informal Networking</td>
<td>-.087</td>
<td>-.117</td>
<td>-.129</td>
<td>-.298</td>
<td>-.523</td>
</tr>
</tbody>
</table>

Table 4.5: Pearson Product Moment Correlations of Learning Methods and Transformational Leadership
Two variables are correlated if changes in one variable are associated with changes in another variable (Hair, Anderson, Tatham, & Black, 1998). The value of correlations can range from -1 to +1, with +1 indicating a perfect positive relationship, 0 indicating no relationship, and -1 indicating a perfect negative relationship (Hair, Anderson, Tatham, & Black, 1998). As depicted in Table 4.5, the relationships between learning methods and transformational leadership are negligible (< .09) and low (between .10 and .29) for this sample. In addition, the relationships between the number of years in the department chair role and transformational leadership, and the number of total years anticipated in the role and transformational leadership, are both low for this sample (between .10 and .29) as illustrated in Table 4.6.
Correlations coefficients such as these indicate that little to no relationship exists between the identified learning methods and transformational leadership, number of years in the department chair role and transformational leadership, and total number of years anticipated in the role and transformational leadership. These negligible and low correlations also indicate that such relationships have almost no value in a predictive sense (Fraenkel & Wallen, 2000).

Job assignment is negatively correlated with formal mentor (-.28), informal mentor (-.52), and informal networking (-.52). Informal mentor is negatively correlated with informal networking (-.30). Years in the Department Chair role is positively correlated with the total number of years anticipated in the role (+.54). A negative correlation indicates that as one variable grows larger, the second variable decreases. A positive correlation indicates that the variables grow together in the same direction.

Interpreting the correlations mentioned above, for each task research participants preferred to learn by job assignment, there was a reduction in tasks they preferred to learn from formal mentors, informal mentors and informal networking. For each task department chairs in this sample preferred to learn from an informal mentor, there was a reduction in tasks they preferred to learn from informal networking. Lastly, for each year a department chair in this sample had been in the position, there was an increase in the number of years they anticipated staying in the position.
Multiple Regression

Multiple regression is a method of examining and explaining the variability of a dependent variable by using information related to independent variables (Hair, Anderson, Tatham, & Black, 1998). Regression analysis was used to answer the question: What values in the dependent variable can be expected, given certain values of the independent variables? Specifically, multiple regression was used to define the extent to which variance in transformational leadership could be explained by type of learning experience, actual time in the position, and anticipated time in position. The following research questions were answered via multiple regression analysis:

1. What combined learning experiences have the most power to explain department chairs who are self-reported transformational leaders?

2. What combined learning experiences and variables of time in position and anticipated time in position have the most power to explain department chairs who are self-reported transformational leaders?

3. Which learning experience has the most power to explain department chairs who are self-reported transformational leaders?

The independent variables were entered into the regression equation in three hierarchical steps. In the first step, time in position and anticipated time in position were entered simultaneously. In the second step, the three informal learning experiences (informal mentor, job assignment, and networking) were entered. In the third step, the
two formal learning experiences (classroom instruction and formal mentor) were entered simultaneously. The multiple regression model summary is depicted in Table 4.7.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Standard Error of the Estimate</th>
<th>R² Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.434(a)</td>
<td>.188</td>
<td>.156</td>
<td>1.57596</td>
<td>.188</td>
</tr>
<tr>
<td>2</td>
<td>.555(b)</td>
<td>.308</td>
<td>.236</td>
<td>1.50005</td>
<td>.12</td>
</tr>
<tr>
<td>3</td>
<td>.564(c)</td>
<td>.318</td>
<td>.215</td>
<td>1.52059</td>
<td>.010</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Total Number of Years Anticipated in Department Chair Role, Number of Years in Department Chair Role

b Predictors: (Constant), Total Number of Years Anticipated in Department Chair Role, Number of Years in Department Chair Role, Informal Mentor/Predecessor, Informal Networking, Job Assignment

c Predictors: (Constant), Total Number of Years Anticipated in Department Chair Role, Number of Years in Department Chair Role, Informal Mentor/Predecessor, Informal Networking, Job Assignment, Formal Mentor, Classroom Instruction

Table 4.7: Model Summary for Time and Learning Variables

The coefficient of determination, R², describes variability explained. As presented in Table 4.7, R² is .32 for the full model. This indicates 32% of transformational leadership is explained by the linear combination of independent variables in this model. The two time variables account for 19%, informal learning methods account for 12%, and formal learning methods account for 1% of the variability in transformational leadership scores.
Beta coefficients use standardized data and allow for a direct comparison between coefficients as to their relative explanatory power of the dependent variables (Hair, Anderson, Tatham, & Black, 1998). Beta coefficients for the full model are presented in Table 4.8. Job assignment is the type of learning experience with the largest Beta coefficient (.88), followed by informal mentor (.58) and informal networking (.49).

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Constant</td>
<td>10.480</td>
<td>3.454</td>
</tr>
<tr>
<td>Number of Years in Department Chair Role</td>
<td>-.234</td>
<td>.068</td>
</tr>
<tr>
<td>Total Number of Years in Department Chair Role</td>
<td>.211</td>
<td>.058</td>
</tr>
<tr>
<td>Informal Mentor/Predecessor</td>
<td>.223</td>
<td>.179</td>
</tr>
<tr>
<td>Informal Networking</td>
<td>.177</td>
<td>.183</td>
</tr>
<tr>
<td>Job Assignment</td>
<td>.284</td>
<td>.187</td>
</tr>
<tr>
<td>Classroom Instruction</td>
<td>.016</td>
<td>.209</td>
</tr>
<tr>
<td>Formal Mentor</td>
<td>.223</td>
<td>.284</td>
</tr>
</tbody>
</table>

*Dependent Variable: Transformational leadership*

Table 4.8: Unstandardized and Standardized Coefficients for the Full Regression Model
As mentioned in Chapter 3, multiple regression analysis relies on a set of assumptions. An examination of the residuals for this study showed no violation of the assumptions of multiple regression.

While Table 4.4 illustrates that study participants preferred informal learning methods over formal learning methods, variance in transformational leadership is not largely explained by type of learning method. Investigating these results further, the researcher reviewed the sample size. According to Hair, Anderson, Tatham and Black (1998), the minimum acceptable ratio is five observations for each one independent variable. The desired level is between fifteen and twenty observations for each independent variable. With 63 observations and seven variables, the ratio is 9:1, which is above the minimum, but below the desired level as defined by Hair, Anderson, Tatham and Black (1998). Attempting to get closer to the desired level, the researcher transformed the three informal learning method variables into one variable and named it informal learning, and then transformed the two formal learning method variables into one variable and named it formal learning. This transformation process resulted in four independent variables rather than seven and a ratio of 15:1. The results, however, remained the same, confirming that 13% of the variance in transformational leadership is explained by type of learning method in this sample.
This study explored the informal and formal learning paths of academic department chairs in a large, Midwestern research university. Informal learning occurs outside of formally structured, institutionally sponsored, classroom-based education or training (Marsick & Watkins, 1990). The informal learning methods investigated included informal mentoring, job assignments and networking. The formal learning methods included in the study were classroom instruction and formal mentoring.

Understanding the learning paths of department chairs is an important line of inquiry given that 80% of decisions in universities take place within departments (Hecht, Higgerson, Gmelch & Tucker, 1999), and given that the department chair role may be the “least studied and most misunderstood position anywhere in the world” (Gmelch, 2002a, p. 1). The quantity and scope of decisions made in academic departments speak to the importance of leadership development for academic department chairs. Looking beyond the classroom and structured development “programs,” the role of informal learning in the development of academic leaders is brought into question.

Current research has suggested that managers learn best from experience (Enos, Kehrhahn, & Bell, 2003; Eraut, 2004; Van Velsor & McCauley, 2004); it is unclear if this is true for department chairs. Of particular interest in this study were the predominant
and preferred learning methods of department chairs who reported engaging in behaviors associated with transformational leadership. Transformational leaders are described as achieving significant changes that reflect shared interests (Bennis & Nanus, 1997). According to Brown and Moshavi (2002), important outcomes occur when academic departments are led by transformational department chairs. Department chairs who engage in a high frequency of transformational leader behaviors are positively associated with faculty satisfaction of chair supervision, faculty perception of organizational effectiveness, and faculty willingness to expend extra effort (Brown & Moshavi, 2002).

Beyond describing the preferred and predominate learning methods of department chairs, this study explored the relationship of informal and formal learning methods to transformational leadership. How do the learning paths of transformational department chairs differ from department chairs who are not transformational leaders? A multiple regression model was used to explain variability in transformational leadership by the learning methods of department chairs, and by how long they had served in the position and intended to serve in the position.

Research Questions

The fundamental research question brought to light in this study was: To what extent is variability in department chairs’ self-reported leadership style explained by informal and formal learning methods? The purpose of raising this question was to
strengthen higher education’s capacity to effect change by understanding the learning methods of academic department chairs who engage in transformational behaviors.

The additional research questions, looking at the relationships between each independent variable and the dependent variable, and combinations of independent variables and the dependent variable, included:

1. What is the relationship between learning predominately from structured classroom instruction and transformational leadership?
2. What is the relationship between learning predominately from a formal mentor and transformational leadership?
3. What is the relationship between learning predominately from an informal mentor/predecessor and transformational leadership?
4. What is the relationship between learning from job assignment and transformational leadership?
5. What is the relationship between networking and transformational leadership?
6. What is the relationship between number of years in the department chair role and transformational leadership?
7. What is the relationship between number of years anticipated in the role and transformational leadership?
8. What combined learning experiences have the most power to explain department chairs who are self-reported transformational leaders?
9. What combined learning experiences and variables of time in position and anticipated time in position have the most power to explain department chairs who are self-reported transformational leaders?

10. Which learning experience has the most power to explain department chairs who are self-reported transformational leaders?

Research Design

Population and Sample

To meet the purpose of this study, a population of ninety-seven department chairs from one large, Midwestern research university was surveyed. Given that the entire population was invited to participate in the research, this was a census.

A useable response rate of 65% yielded a sample of mostly male department chairs (76%) who had served in the chair role for four years (mean = 4.3 years), and who were expecting to remain in the role for an additional five or six years (mean = 9.5 total years anticipated in the role). The sample consisted of department chairs from all disciplines, with the largest percentage (22%) coming from the College of Medicine. The sample was representative of the population in gender and academic discipline composition.

Instrumentation

Members of the population were asked to complete a three-part questionnaire. The first segment of the questionnaire was related to demographic data. The second
portion of the questionnaire was the Multifactor Leadership Questionnaire (MLQ 5X-Short) Leader Form (Avolio & Bass, 2004). The MLQ 5X-Short Leader Form is a self-rating of how frequently, or to what degree, the respondents believe they engage in various leadership behaviors. Sample items of the MLQ 5X-Short that relate to transformational leadership included: “I go beyond self-interest for the good of the group” and “I articulate a compelling vision of the future.” Survey participants responded using a five-point frequency scale from “not at all” to “frequently, if not always.”

The third part of the questionnaire was related to Learning Methods. Twenty tasks associated with the department chair role were included in the Learning Methods Questionnaire. For each of the tasks, research participants were asked to respond to the questions: “Do you know how to do this task? For those tasks you have learned, what is the predominant method you used to learn the task? For those tasks you have not learned, what method do you prefer to use?” The formal learning methods on the Learning Methods Questionnaire were classroom instruction and formal mentor. The informal learning methods were informal mentor, job assignment, and informal networking.

Findings

An overview of the findings of this study is presented below. These results are only generalizable to the Heads of Tenure Initiating Units with titles of Department Chair or School Director at the institution where the research was conducted.
• Respondents see themselves as transformational leaders; they rated themselves as frequently engaging in transformational leadership behaviors (mean = 15.9).

• Nearly half (47.6%) of the survey respondents reported they know how to do all twenty department chair tasks.

• All respondents reported knowing how to do at least 70% of the tasks.

• 19% of survey respondents reported they do not know how to “guide the development of an organizational plan.”

• 13% and 11% respectively, reported they do not know how to “improve the department’s image and reputation with off-campus constituencies” and they do not know how to “improve the department’s image and reputation within the campus community.”

• Job assignment was identified as the predominant/preferred learning method for one fourth of the named tasks by 76% of the respondents.

• Informal mentor/predecessor was identified as the predominant/preferred learning method for one fourth of the named tasks by 51% of the respondents.

• Classroom instruction and formal mentor were identified as the predominant/preferred learning method for one fourth of the named tasks by 8% and 5% of the sample, respectively.

• The correlations between the independent variables and the dependent variable are presented in Figure 5.1. An explanation of Figure 5.1 follows it.
• The multiple regression analysis indicated that 32% of transformational leadership in this sample is explained by the linear combination of independent variables. The two variables related to time account for 19%, informal learning methods account for 12%, and formal learning methods account for 1% of the variability in transformational leadership.
Independent Variables: Learning Methods and Time

Formal Learning:
- Classroom Instruction
- Formal Mentor

Informal Learning:
- Informal Mentor
- Job Assignment
- Informal Networking

Incidental Learning:
- Time in Position
- Anticipated Time in Position

Dependent Variable:
- Transformational Leadership

Figure 5.1: Correlations between Learning Methods, Time and Transformational Leadership
Explanation of Figure 5.1

The associations between learning methods and transformational leadership are negligible (<.09) and low (between .10 and .29), indicating hardly any relationship between the two. Likewise, learning methods (informal and formal) account for only 13% of the variance of transformational leadership in the multiple regression model. Clearly, understanding the paths it takes to develop as a transformational leader is a complex undertaking, and this model only skims the surface.

Classroom instruction has the weakest relationship with transformational leadership, and it is a negative relationship. The relationship between formal mentor and transformational leadership is slightly stronger and it too is negative. This means that as transformational leadership scores increased, there was a decrease in the scores of both formal learning methods under investigation. Conceptually, the more department chairs engaged in behaviors associated with transformational leadership, the less likely they were to have engaged in formal learning methods.

The total number of years department chairs anticipate being in the role and the number of years department chairs have been in the role have the strongest associations with transformational leadership. Incidental learning, a type of informal learning, may account for these relationships, and has been added to the original model. Incidental learning is “the acquisition of knowledge independently of conscious attempts to learn and in the absence of explicit knowledge about what was learned” (Eraut, 2004, p. 250). More about incidental learning is discussed in the first conclusion below.
Conclusions

The empirical data presented in the study’s findings lead to the following four conclusions for this population:

1. Leadership is affected by accumulated life experience, or incidental learning.
2. Informal learning more than formal learning contributes to transformational leadership.
3. Learning from work experiences in the context of the work, rather than learning away from work, may be the most accepted mechanism for developing leaders in higher education today.
4. The role of department chairs has evolved from manager, to leader and change agent.

Discussion of the above four conclusions, and integration of these conclusions with current scholarship, are presented next.

Leadership is affected by accumulated life experience, or incidental learning.

Length of time in the position and the total anticipated length of time in the position accounted for more variance in transformational leadership, than informal or formal learning methods. With the passage of time comes the accumulation of life experiences, successes and failures. With life experiences comes incidental learning, a type of informal learning that occurs without intention. Engaging in a job assignment, or a relationship with an informal mentor, or networking with peers, requires some level of
intentionality. Incidental learning occurs without a deliberate attempt to learn, or acknowledgement of the learning that has occurred.

Time may be the greatest explanation for transformational leadership because of the quantity and quality of incidental learning that occurs as one accumulates years, and subsequently experiences, on the job. Gmelch (2002b) contends that the “metamorphosis from professor to academic leader takes time and dedication” (p. 6). Learning incidentally through trial and error, mistakes, and inadvertently observing and judging others’ actions is believed to be a necessary part of this lengthy metamorphosis. Essentially, “leaders learn as they expand their experiences over time” (Van Velsor & McCauley, 2004, p. 22).

*Informal learning more than formal learning contributes to transformational leadership.*

While a full understanding of how individuals expand their capacities to become transformational leaders is not clear, it is apparent that informal learning, more than formal learning, is part of the phenomena. The greatest learning occurs through informal development activities. This assertion is supported by the data in the current study and in findings from past research. Informal learning methods are the preferred and predominant forms of learning for this population of department chairs who report frequently engaging in transformational leader behaviors. In addition, informal learning methods explain 12% of transformational leadership while formal learning methods explain 1%. Consistent with past research, the value of informal and unstructured learning experiences was found in studies of managers (Eraut, 2004; Van Velsor &
McCaulley, 2004), academic department chairs (Johnson, 2002; Smith & Stewart, 1999) and teachers (Burns & Schaefer, 2003).

Learning from work experiences in the context of the work, rather than learning away from work, may be the most accepted mechanism for developing leaders in higher education today.

The empirical data indicates that department chairs learn through job assignments, more than any other method of learning. Learning by engaging in the job of department chair may be the only way to truly comprehend this unique position and the context in which it is situated. Perhaps learning is inseparable from the role and its environment. Helping leaders learn from the experiences in which they are engaged every day, may make the greatest difference in the leaders’ development.

The preference for informal learning that was identified in this study, and particularly for learning through job assignments, matches the training program for department chairs proposed by Pettit in 1999. Pettit (1999) suggested that department chairs cannot master required skills if they are disconnected from the environmental demands that influence their jobs. He advocated for situating training for department chairs in the “context and experiences of the chair” (p. 62). The context of the chair is “leading from the middle” between faculty and administrators (Lindholm, 1999), and the experiences of chairs is managing a group of independent entrepreneurs (Lucas, 2000a) through limited formal power and authority (Hecht, Higgerson, Gmelch & Tucker, 1999).
The results of this study are partially consistent with the research conducted by Enos, Kehrhahn, and Bell (2003). They reported that insurance company managers learned managerial skills from informal learning activities. In addition, Enos, Kehrhahn, and Bell (2003) found that 63% of the informal learning activities concerned interaction with others, and 23% related to job experience. They concluded that learning is a social process dependent on social interaction. The findings of this study support learning predominantly from informal learning methods, however job experience was more frequently identified (76%) than engaging with an informal mentor (50%) or networking with others (30%). The difference in these research findings may be due to the individualized nature of teaching and research which are the primary emphases of faculty work, and which are traditionally carried out in isolation, or with small groups of similarly-minded colleagues (Gmelch, 2002b; Wolverton & Ackerman, 2006). Learning may be more of an individual affair than a communal affair for academic leaders because of their careers as faculty members conducting specialized research and teaching alone.

The distinctions between a corporate environment and a higher education environment might also account for the discrepancy in findings between this study and the Enos, Kehrhahn, and Bell study (2003). According to Wergin (2003), “colleges and universities are designed in ways that seem almost guaranteed to reduce interaction among the faculty” (p. 53). Weick (1976) referenced educational systems as loosely coupled structures which are uncoordinated and have greater differentiation among components. One translation of Weick’s reference is independently functioning
academic departments. In a corporate setting which is more tightly coupled, one department relies on other departments to “get the job done.” The intersections between departments in a corporate environment might create greater opportunities for interaction, and might account for the managers in the Enos, Kehrhahn, and Bell study (2003) learning more from interactions with others than the department chairs in this study.

Engaging in the tasks and assignments of the job, learning from observing and problem solving with an informal mentor, and dialoguing with others about work challenges, all take place in the context of the job. An organization that emphasizes and supports these informal learning activities may have the greatest impact on growing leaders in today’s higher education environment.

*The role of department chairs has evolved from manager, to leader and change agent.*

Survey respondents reported frequently engaging in behaviors that are empirically descriptive of transformational leadership. This supports the evolution of the department chair role from manager to leader over the last three decades. Lucas (2000b) often references this change in the department chair role. She asserts that institutions that traditionally used chairs to perform “perfunctory tasks are now viewing them as having important leadership roles” (Lucas, 2000b, p. 12). Given the results of this study, it is appropriate to conclude that department chairs in this population have accepted this role change.

It may be that department chairs have been thrust into leadership roles because of the crises facing higher education. Given that higher education must transform itself to
survive and given that departments are the locus of institutional change (Hecht, Higgerson, Gmelch & Tucker, 1990), it may be out of necessity that department chairs are leading in transformational ways. Department chairs in this population have “responded to the call to leadership in higher education” (Gmelch, 2002a).

It is proposed that transformational leadership is the most suitable form of leadership for the challenges inherent in academic environments, including external change mandates, a tendency toward an individualistic rather than collective consciousness (Wergin, 2005; Zemsky, 1996), and the constrained power of department chairs (Dressel, 1987; Hecht, Higgerson, Gmelch & Tucker, 1999; Hickok, 2006). Given the self-reported high transformational leadership scores in this population, transformational leadership must be a plausible, if not effective, mechanism for shifting faculty’s perspective from individual teaching and research agendas to a focus and commitment on the collective direction and transformation of an academic department.

Implications and Recommendations

Leadership Development for Department Chairs

There is an ongoing need to provide developmental support for faculty in academic department chair roles. The job of a department chair is unique and challenging, and requires skills that are not typically embedded in the career lives of faculty. Given the need for developing academic department chairs, the focus of department chair training should be on building the skills and behaviors of
transformational leadership, including how to engage faculty peers in transformational change. If department chairs see themselves as leaders and if departments are the locus of change in higher education, then building and refining the skills to effect change are critical. For new department chairs, the need to understand institutional policies, processes, and governance will remain because faculty do not have a reason to attend to these issues until they are in the chair role. An emphasis on learning to lead should occur in tandem with the more technical and administrative aspects of the job.

There are two paths higher education can take to address the demand for leadership development for department chairs. One path is to shift the format and the formality of department chair training to reflect this study’s findings related to informal learning. This path is referenced below as “Enhancing Academic Leadership through Accepted, Informal Learning Approaches.” The second path is to enhance the perception of leadership in higher education and create a comprehensive, systems approach to leadership development. This second path is referenced below as “Elevating Leadership and Leadership Development in Higher Education.” The second path will require a major culture change and is addressed following a discussion of the first path.

*Enhancing Academic Leadership through Accepted, Informal Learning Approaches*

One path higher education can take to address the demand for leadership development for department chairs is to shift the format and the formality of department chair training to reflect this study’s findings related to informal learning. Learning to
lead should be embedded in the real work of the department chairs. This strategy is based on the assumption that knowledge is dependent on the situation, being in part a product of the activity, context and culture in which it is acquired (Lankard, 1995). One mechanism for doing this is to encourage faculty interested in the chair position to “test out” and “try on” the role by shadowing an incumbent or assuming chair tasks. Through these brief experiences, situated, contextual learning can occur.

A second informal mechanism for learning to lead while in a leadership role is reflection on job successes and job struggles. If learning is occurring naturally through job assignments, and if institutions of higher education want to support those in chair positions, then creating opportunities for reflection and dialogue about job assignments is in the best interest of the individuals and the institutions.

Focusing on deans’ leadership journeys, Gmelch (2002a) references the necessity of “self-knowledge, personal awareness and corrective feedback” (p. 6). Applying this to chairs, one-on-one coaching and small peer networks can help an individual department chair reflect on his/her experience, action taken, results, etc. Making sense of job assignments, the options to act within those assignments, and reflecting on the outcomes is known as “reflective practice” (Schon, 1983) and may be the most beneficial form of learning for any department chair.

According to Van Velsor, Moxley and Bunker (2004), learning from experience requires a level of support many people do not have in their workplaces. They define the desired support as “processes and relationships that help people receive and hear the
information they need to hear, understand the meaning of that information, devise
development plans… and have the courage to change outmoded behaviors and attitudes”
(Van Velsor, Moxley & Bunker, 2004, p. 217). If these types of processes and
relationships are put in place in higher education, the predominant form of learning of
department chairs, i.e. learning from job assignments, will be maximally tapped.

*Elevating Leadership and Leadership Development in Higher Education*

The second path higher education can take to address the demand for leadership
development for department chairs is to change the perception of leadership, and the
importance placed on leadership development. The results of this study and others
(Johnson, 2002; Smith & Stewart, 1999) indicate that informal learning is the preferred
and predominant form of learning of academic department chairs. The reasons behind
these findings are unknown, and the possible reasons are many. Is it that department
chairs are unfamiliar with the more formal learning opportunities available to them? Is it
that the workshops and seminars available to academic leaders are lecture-based and
structured for passive, received knowing rather than structured to actively engage the
learners in constructing new knowledge (Merriam & Caffarella, 1999)? Is it that
department chairs believe they innately know how to lead and do not need leadership
development? Is it that competing interests of department chairs, including demanding
administrative responsibilities and research and teaching loads, prohibit the chairs from
actively seeking out formal learning opportunities? Perhaps it is a common thread that
runs through these questions. It is proposed that the common thread is the insignificance
assigned to leadership and the lack of investment in the development of leaders, in the higher education culture.

It may be time for institutions of higher education to invest in comprehensive and strategic leadership development programs blending formal and informal learning experiences. A combination of leadership training and experience and support for learning from experience will strengthen leadership in higher education. Organizations outside of higher education are using leadership development as a source of competitive advantage (Hirst, Mann, Bain, Piroloa-Merlo, & Richver, 2004). Perhaps the best response to the crises in higher education is to elevate the significance of leadership and give leadership development high priority status. It is well understood that “new challenges change the demands on people who lead organizations” (Zenger, Ulrich, & Smallwood, 2000).

Given budget constraints, changing student clientele, assessment, accountability, technological changes, and a host of other challenges facing higher education, chair training focused on fiscal and reporting responsibilities (Montez, Wolverton, & Gmelch, 2002) and chair selection comprised of two-, three- or four-year rotations (Lucas, 2000b) are no longer acceptable. Building leadership capacity in higher education is necessary to transform universities (Gmelch, 2002b). It is time for a radical culture change in higher education which allows for a comprehensive systems approach to leadership development. A systems approach begins with identifying critical competencies for
academic leaders, includes selection and hiring criteria based on the competencies, and incorporates formal and informal developmental opportunities, and succession planning.

Selection of Department Chairs

The selection of department chairs is a second implication that emerges from the conclusions of this study. If department chairs are leaders leading change, then skill sets different from those required for managing personnel, budgets and curriculum are necessary. Assuming that transformational leadership is necessary for effecting change in academic departments, a focus on the selection of department chairs, may be equally as important as the training and development offered to those who are selected. Brown and Moshavi (2002) suggest that universities “consider selecting department chairs on the basis of their transformational leadership behaviors” (p. 83).

Future Research

Department Chair Selection

A fruitful line of research inquiry may be related to the most effective selection methods and processes for identifying transformational leaders among faculty. The existing literature on department chair selection suggests it is as unplanned and unexamined as the training of department chairs. According to Wolverton and Ackerman (2006), “departments select their leaders by reaching into their faculty pools and, with little or no forethought or planning, plucking some unsuspecting soul who is then unceremoniously dumped into the foray” (p. 14). Selections methods vary by institution
and even within institutions. In some departments, the chair role is rotated among the existing faculty, while in other departments, extensive searches are conducted (Lucas, 2000b).

The necessity of engaging in transformational leader behaviors as a criterion of success for department chairs, and the most useful process for selecting department chairs who are transformational leaders, can both be explored through the lens and methods of personnel selection research. Detailed job analyses often include collecting critical performance incidents that describe effective, average, and ineffective performance which can be used as predictor and criterion measures (Schmitt & Chan, 1998). Likewise, with a detailed job analyses, selection procedures can be defined for getting the candidate most closely aligned with the knowledge, skills and abilities required for the job.

**Department Chairs’ Learning Paths**

To continue exploring the learning paths of academic leaders, investigating the qualities of their learning experiences and the contexts in which they occur may be a fruitful line of research. In the present study the type of learning experience or method was investigated, yet the Center for Creative Leadership suggests that some experiences are “more powerful than others” (Van Velsor & McCauley, 2004, p. 3). The factors that contribute to a powerful experience for academic leaders are unknown. Might classroom training be as developmental as a job assignment if the right elements exist in the training? What might enhance a job assignment to maximize the learning gained from it?
Integrating one-on-one coaching, debriefing with a small group of peers, and/or reflective journaling into the ongoing routine of those in the role of department chair may be the elements that give job assignment maximum learning power.

To continue exploring the learning paths of academic leaders, experimental research designs may be worth pursuing. If three or more groups of department chairs were engaged in different learning interventions, and if specific outcomes of the interventions were identified, then effective and ineffective learning methods might become evident. Four groups in an experimental study might be exposed to four different levels of training interventions: formal classroom training, informal job assignments, a blend of formal and informal, and a control group. This type of research is likely to help higher education move toward developing strategic learning experiences that result in important outcomes.

Using case study and interview methodology might contribute to understanding how department chairs learn to lead. Department chairs directing similar change initiatives might be studied to identify the leadership and other factors that influence successful change efforts. Defining a successful change effort with concrete performance measures such as rankings, placement rates, and scholarly publications would add significantly to the leadership and change management literature. How academic leaders learn to lead successful change efforts can be investigated through qualitative interviews. Formal, informal, and incidental learning can possibly be identified through this methodology.
Limitations

Given that one population at one institution was investigated, the results of this study are generalizeable to this population only. Additional limitations of this study relate to the sole use of the MLQ Leader Form, and the Learning Methods Questionnaire. Each of these limitations is addressed in this section.

A limitation associated with using the MLQ 5X-Short is that the transformational leadership score used in the data analysis was based on self-report information only. The Leader Form, a self-rating instrument, was used alone. Rater forms completed by subordinates, supervisors, or other colleagues would provide third-party reports of leadership behaviors that could substantiate the transformational leadership score. Barling, Weber and Kelloway (1996) argue that behavior noticed by subordinates is the most important variable in any leadership study. This study relied solely on the leader’s perception of his or her behavior.

The Learning Methods Questionnaire was designed specifically for this study. One current department chair and several members of the Provost’s Office piloted the Learning Methods Questionnaire. A miss, however, was the definition of classroom instruction. The definition of classroom instruction was “learning from a teacher with a prescribed agenda/curriculum, in a structured setting.” Use of the word “teacher” may have implied instruction for academic credit, excluding seminar and workshop instruction. Including “workshop instructor/facilitator” along with “teacher,” or in substitution for “teacher,” may have assisted respondents in accurately and consistently
responding. The researcher was made aware of this oversight by two research participants who asked about learning from conference and workshop settings and did not perceive these situations as included in the “classroom instruction” option. This issue was raised after the questionnaires were distributed.

The flaw in the Learning Methods Questionnaire and the sole use of the MLQ 5X-Short Rater Form for department chairs may have violated the multiple regression assumption of no measurement error. Measurement error is the degree to which a variable is an accurate and consistent measure of the construct under study (Hair, Anderson, Tatham, & Black, 1998). Transformational leadership scores may have been inflated by self-report data only, and classroom instruction may have been inaccurately measured given its definition.

In summary, the findings of this study are generalizeable to the population investigated only. There are two additional limitations of this study. Using self-reported data may have exaggerated the transformational leadership scores. Definitions on the Learning Methods Questionnaire may not have been as clear as is necessary for accurate and reliable measures. The limitations of this research study may have contributed to the weak relationships between formal learning and transformational leadership, and informal learning and transformational leadership.
Summary

This study confirmed that like other workers, department chairs learn through informal mechanisms, including incidental learning. Incidental learning which is unintentional and occurs as a function of accumulated life experiences, contributes more to transformational academic leadership, than other types of learning. Formal classroom training and formal mentor relationships have the least influence on developing transformational department chairs.

Given that higher education remains in crises, faced with public scrutiny and pressure to transform, and given that department chairs see themselves as leaders of change, it’s time to stop commenting on the lack of department chair training and time to start innovating development strategies. These strategies should focus on enhancing the existence of transformational leadership in higher education. Supporting and implementing informal learning opportunities that occur in the work environment of the department chair, and that provide for personal reflection about job experiences, is one answer to developing transformational leaders in higher education. Given the existing culture of higher education, informal, unstructured developmental experiences may be the most powerful tool higher education has in transforming itself to survive.

A second answer to developing transformational leaders in higher education may be to invest in comprehensive and strategic leadership development programs that offer a blend of formal and informal learning experiences. To support this type of investment, the perception of leadership in higher education will have to shift from a position of
insignificance to one of importance and value and necessity. A combination of leadership training and experience and support for learning from experience will strengthen leadership in higher education. Organizations outside of higher education are using leadership development as a source of competitive advantage (Hirst, Mann, Bain, Piroloa-Merlo, & Richver, 2004). Perhaps the best response to the crises in higher education is to elevate the significance of leadership and give leadership development high priority status. Higher education should act on the knowledge that “new challenges change the demands on people who lead” (Zenger, Ulrich, & Smallwood, 2000).
LIST OF REFERENCES


APPENDIX A

LETTER FROM PROVOST SNYDER
December 7, 2006

Anne Massaro  
Organization and HR Consulting  
Organization Development Consultant  
1590 North High Street  
Suite 300  
CAMPUS

Dear Anne,

You have requested access to the list of Department Chairs and School Directors maintained and published by my office. That list can be found at: Chairlists.admin.ohio-state.edu. I understand that you will use that list to contact Department Chairs and School Directors for participation in your dissertation research. You have my full approval to use the list and I look forward to seeing the results of your research.

Good luck!

Sincerely,

Barbara R. Snyder  
Executive Vice President and Provost
APPENDIX B

COVER LETTER TO RESEARCH PARTICIPANTS
Dear

I am a graduate student at The Ohio State University in the College of Education and Human Ecology. I am interested in understanding how department chairs learn the tasks associated with the chair role and the relationship between learning method and leadership style. Results from this research may aid faculty in learning how to lead, and may assist institutions of higher education in providing the most relevant development opportunities for department chairs.

I recognize your time is extremely valuable. If you agree to participate in this study, completing the enclosed questionnaires should not take longer than 25 minutes. Your responses are confidential in that your name will not be identified with your responses. The code number on the questionnaires will be used only to follow-up with non-respondents. Aggregate data, and not individual data, will be reported.

Your participation is completely voluntary. If you chose to participate, you can also refuse to answer questions that you do not wish to answer, and you can withdraw at any time without penalty.

If you have any questions regarding the questionnaires or the research, please contact me at 688-8638, during the day or 261-4579 in the evenings. I can also be reached at Massaro.11@osu.edu. Please complete the questionnaires and return them to me no later than March 12, 2007. An addressed campus mail envelope is included to facilitate the return of the questionnaires.

Thank you for agreeing to participate. If you are interested in receiving the results of this study, please make a request via e-mail to me. I will send you the findings this summer.

Sincerely,

Anne Massaro
1590 N. High Street, Suite 300
Columbus, OH 43201

cc: Dr. David Stein, Dissertation Committee Chair
APPENDIX C

THREE-PART QUESTIONNAIRE

Note: Based on copyright regulations of Mind Garden, Inc., sample items of the MLQ are included rather than the entire questionnaire.
Learning to Lead

Thank you for participating in this research. The purpose of this research is to explore learning methods of leaders in academic institutions. There are 3 sections for you to complete: (1) demographics; (2) Multifactor Leadership Questionnaire; and (3) learning methods. It will take you no longer than 25 minutes to complete all three sections.

Section 1: Demographics

What is your gender? _____ Male _____ Female

Counting the current year, how many years have you served as a Department Chair/School Director? Please include the years you have been a Department Chair/School Director at other institutions. Those who have been in this role for less than one year will answer 1 and those who are in their second year will answer 2.

_____ Counting the current year, how many total years do you anticipate being a Department Chair/School Director? Please give your best estimate.

_____ Your department/school is in which college? (Please check one.)

_____ Arts _____ Humanities

_____ Biological Sciences _____ Mathematical and Physical Sciences

_____ Business

_____ Education and Human Ecology

_____ Engineering

_____ Food, Agricultural and Environmental Sciences

_____ Social and Behavioral Sciences

_____ Veterinary Medicine
Multifactor Leadership Questionnaire (Avolio & Bass, 2004) Sample Items

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Item</th>
</tr>
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<tbody>
<tr>
<td>2</td>
<td>I re-examine critical assumptions to question whether they are appropriate.</td>
</tr>
<tr>
<td>6</td>
<td>I talk about my most important values and beliefs.</td>
</tr>
<tr>
<td>18</td>
<td>I go beyond self-interest for the good of the group.</td>
</tr>
<tr>
<td>26</td>
<td>I articulate a compelling vision of the future.</td>
</tr>
<tr>
<td>31</td>
<td>I help others develop their strengths.</td>
</tr>
</tbody>
</table>
### Section 3: Learning Methods

<table>
<thead>
<tr>
<th>Instructions</th>
<th>Teacher Burden</th>
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<tbody>
<tr>
<td>These tasks are derived from research conducted by Hoy (2005).</td>
<td></td>
</tr>
</tbody>
</table>
| NO | YES | 20. Add curriculum development
| NO | YES | 19. Foster good teaching in the department
| NO | YES | 18. Recognize and reward faculty in accordance with their contributions to the department
| NO | YES | 17. Enforce an appropriate balance among academic specialties within the department
| NO | YES | 16. Focus on an appropriate balance among academic specialties or interests
| NO | YES | 15. Establish new fellowship in the faculty
| NO | YES | 14. Stimulate faculty vitality and enthusiasm
| NO | YES | 13. Develop colleague/cooperation among department members
| NO | YES | 12. Improve the department's image and reputation within the campus community
| NO | YES | 11. Strengthen scholarly activity in the department
| NO | YES | 9. Recognize outstanding graduate/undergraduate

Department chairman's comments:

Do you know how to do this?**

For those you have learned, when in the educational model you would like to focus on the department chair takes control.
Date: August 3, 2007

To whom it may concern,

This letter is to grant permission for: Anne Massaro

to use the following copyright material:

Instrument: Multifactor Leadership Questionnaire

Author: Bruce J. Avolio and Bernard M. Bass

Copyright: 1995, 2000, 2004 by Bernard Bass and Bruce Avolio

for her/his thesis research as described in her/his purchase of February 2, 2007, Sale No. 3694 (copy attached).

In addition, five (5) sample items from the instrument may be reproduced for inclusion in a proposal, thesis or dissertation.

The entire measure may not at any time be included or reproduced in other published material.

Sincerely,

[Signature]

Vickie Jaimez
Director of Operations

Mind Garden, Inc.
855 Oak Grove Ave.
Suite 215
Menlo Park, CA 94025