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A Study of the Value Added by Transformational Leadership Practices to Teachers' Job Satisfaction and Organizational Commitment

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**A STUDY OF THE VALUE ADDED BY TRANSFORMATIONAL LEADERSHIP
PRACTICES TO TEACHERS' JOB SATISFACTION AND ORGANIZATIONAL
COMMITMENT**

BY

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**Submitted in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education**

**Seton Hall University
March 2012**

SETON HALL UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN SERVICES
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Abstract

Based on Bass and Riggio's (2006) Augmentation Model of Transactional and Transformational Leadership, this quantitative study sought to identify the amount of variance in teacher job satisfaction and organizational commitment that can be explained by principals' transformational leadership behaviors, above and beyond the influence of transactional behaviors. 156 teachers in five Pennsylvania high schools were surveyed about their job satisfaction and organizational commitment, and about the leadership behaviors in which their principals engaged. The researcher then used hierarchical linear modeling to test Bass and Riggio's (2006) Model within this sample group. The results of this study provide researchers with a replicable method with which to examine Bass and Riggio's (2006) Augmentation Model. They also provide practitioners with actionable guidance on leadership behaviors that can positively influence teachers' job satisfaction and organizational commitment.

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Chapter I

INTRODUCTION

A world-class education is also a moral imperative – the key to securing a more equal, fair, and just society. We will not remain true to our highest ideals unless we do a far better job of educating each one of our sons and daughters. We will not be able to keep the American promise of equal opportunity if we fail to provide a world-class education to every child.

This effort will require the skills and talents of many, but especially our nation's teachers, principals, and other school leaders. Our goal must be to have a great teacher in every classroom and a great principal in every school.

-President Barack Obama, Blueprint for Reform (US Department of Education, 2010)

Background

Teachers and administrators in public schools today face unprecedented challenges. A detailed discussion of these challenges will provide a context for this study, which seeks to determine the effect of transformational and transactional leadership practices on teacher job satisfaction and organizational commitment.

In 1983, The National Commission on Excellence in Education produced a report entitled *A Nation At Risk*, a scathing assessment of education in the United States that alarmed practitioners and policymakers and set an educational reform movement in motion. It stated that, "History is not kind to idlers" and raised urgent questions about the rigor of the American school system and the preparedness of its graduates to enter the 20th and 21st century workplaces. Adjustments were made in schools across the country, but improvements did not materialize at the rate expected.

The No Child Left Behind Act of 2001 heralded a new era of increased accountability of schools for student achievement results. The act states, "The purpose of this title is to

ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments.” Eight years later, still pushing for improvement, President Obama and Education Secretary Duncan’s *Blueprint for Reform* (U.S. Department of Education, 2010) outlined the central foci for the reauthorization of the Elementary and Secondary Education Act (ESEA) which included: college and career-ready students; great teachers and leaders in every school; equity and opportunity for all students; raising the bar and rewarding excellence; promoting innovation; and continuous improvement. The administration has also awarded significant financial support through its *Race to the Top* program to schools, districts and states who have committed to significant, large-scale reform which includes (among other initiatives) adoption of the Common Core Academic Standards; reconfiguring the way teachers are recruited, hired, and compensated; and building advanced data systems that measure growth in student achievement over time. Achievement of the worthy and rigorous goals outlined in the *Blueprint* will require significant changes to the way teaching and learning happen in schools. According to the National Academies of Science and Engineering and the Institute of Medicine (as cited in Schlechty, 2006):

Though there has been some wavering...the dominant policy emphasis that has emerged at the start of the 21st century has been to hold all students accountable for achieving high educational standards...focusing especially on reading and math. For this to occur, a much broader range of students must become *engaged* in learning the kind of curricula that, until recently, only students bound for four year colleges were expected to master.

Yet nearly 30 years after *A Nation at Risk* was published, students in the United States continue to lag behind other developed nations in terms of graduation rate, academic preparedness and career readiness-all this at a time when global competitiveness requires that more students be college and career-ready than ever before (Friedman, 2005). At the same time as the expectations for those who run and staff schools continue to rise, financial support to schools has begun to drop off precipitously.

Even though the technical end of the recent “great recession” was in 2009, school districts will not see any budgetary relief until 2013 or 2014 and will not regain their 2008 funding levels until late in the decade. This is the result of reduced local revenues from real estate taxes, spartan state budgets, and reduced federal stimulus funding (Center for Public Education, 2010). At the same time, the recession is taking its toll on many of the young people who come through the schoolhouse gate each day. The 2010 Child and Youth Well-Being Index (CWI) provides data on the well-being of American children from 2008 (the first year of the recession) and offers projections through the year 2012. Its most stark finding is that:

the recession will wipe out virtually all progress made for children in the Family Economic Well-Being Domain since 1975. This domain includes the rate of children living in families beneath the poverty line, median family income, secure parental employment and health insurance coverage. Specifically, the CWI indicates that the rate of children living in poverty in 2010 will be the highest it has been in 20 years. (Foundation for Child Development, 2010, p. 1)

The report also predicted a decrease in community engagement, an increase in number of detached youth (particularly for Latino and African American young men), an increase in

risky behaviors, and a continued rise in childhood obesity. At a time when students will need even more support, school districts are struggling to balance budgets. According to the Center for Public Education (2010),

In 2009 and 2010, many school districts were able to cut their expenditures with minimal impact on students by adjusting thermostats, deferring maintenance and construction projects, laying off central office administrative staff, and eliminating nonessential travel. But for the current school year (2010-11), most districts have had to make cuts that affect students more directly.

Such cuts include laying off teachers (resulting in increased class sizes), as well as cutting extracurricular activities, instructional programs, elective courses, field trips, summer school, and even shortening the school week to 4 days. The impact of the recession on students and on school budgets is likely to have a negative affect on teacher morale, another important factor in this discussion.

Even before the recession began to affect America's schools, the rate of teacher attrition was already high at 13.2 percent, when compared with other professions at 11 percent. Additionally, 29 percent of new teachers leave the field of education at some point during their first 3 years and this number increases to 39 percent at the end of 5 years (NAESP, 2005; Watkins, 2005). According to the National Commission on Teaching and America's Future (2007), "NCTAF's findings are a clear indication that America's teacher dropout program is spiraling out of control. Teacher attrition has grown by 50 percent over the past fifteen years...in some schools and districts [particularly urban, poor, minority districts], the teacher dropout rate is actually higher than the student dropout rate" (p.1). Watkins (as cited in Haycock, 1998) tells us that in

America's urban centers, the teacher turnover problem is especially difficult, where "many poor and minority students are taught throughout their entire school careers by a steady stream of the least qualified and experienced teachers" (p.12). One can only surmise that the addition of recent and impending teacher layoffs, higher class sizes, more students in poverty, and salary/benefits freezes or cuts will not improve these unfortunate statistics.

The issues described above represent the most significant challenges facing American schools today. In such uncertain circumstances, strong leadership becomes increasingly important, particularly at the building level. Most of the research on the subject of leadership in schools tends to conclude that the principal's impact on student achievement is a very important, though indirect, one—that through specific leadership activities that affect school climate, such as: setting direction, focusing on instructional leadership, developing people, and redesigning the organization—a principal can have a significant impact on student achievement [Cotton, 2003; Leithwood, Seashore Lewis, Anderson, & Wahlstrom, 2004; Kelley, Thornton, & Daugherty, 2005; Nettles & Herrington, 2007]. Leithwood et al. (2004) identified principal leadership behaviors as second only to teaching among school-related factors that impact student learning. In addition, a recent meta-analysis of 69 studies between 1978 and 2001 conducted by Marzano, Waters and McNulty (2005) established a direct correlation between principals' leadership behaviors and student achievement (p. 32).

The challenges faced today by those who seek to improve American public schools will require leadership that is able to bring about what Bass (1985) referred to in his seminal text *Leadership and Performance Beyond Expectations* as "second-order

changes:” those changes that go beyond “first-order” changes of degree that “can be handled adequately by the current emphasis on leadership as an exchange process” (p.4) and require a transformation of the environment through new ways of examining old problems. Through his extensive work on leadership theory and behavior, Bass (1985) developed the Full Range of Leadership Model, which includes various behaviors in which leaders engage. These include transformational behaviors, which can help the leader bring about powerful changes in an organization. The model also includes more mundane but no less essential behaviors, called transactional behaviors. Bass’s (1985) theory was that, although leaders regularly engage in most if not all of the Full Range of Leadership behaviors, the most effective leader would practice the transformational behaviors more frequently and the transactional behaviors less frequently. Knowing that both types of behaviors are common and necessary, it is important to examine the relative impact of all of these behaviors in the school context to see which are the most effective in bringing about powerful and sustainable change.

Transformational leadership has undergone testing in a variety of work contexts over the past thirty years, and has been the subject of various studies in educational settings since the early 1990’s. Since then, according to Nguni, Slegers, and Denessen (2006), “a large number of studies have reported evidence of effects of transformational leadership on school organizations, the implementation of large-scale innovations, teachers’ psychological states and attitudes, teachers’ role behavior, and student engagement” (p. 149). The research suggests that transformational school leaders are able to, “alter their environments to meet their desired outcomes...by promoting educational restructuring and innovation, focusing on building vision, encouraging collaborative participation and raising the role of followers to that of leader (Silns, 1994, as cited in Barnett, 2003, p. 3).

According to Leithwood (1992b), “The collective action that comes from transformational leadership empowers those who participate in it. There is hope, optimism, and energy in a kind of leadership that facilitates redefinition of a people's mission and vision, renewal of their commitment, and restructuring of their systems for accomplishing goals” (p. 17).

Statement of the Problem

Bass and Riggio (2006), in their Augmentation Model of Transactional and Transformational Leadership posit that the combination of transactional *and* transformational leadership behaviors results in heightened motivation to designated outcomes (extra effort) on the part of subordinates, leading to performance beyond expectations. Essentially, transactional practices provide the foundation on which transformational behaviors can be added to bring about this exceptional performance. Numerous studies have been conducted to identify, measure and explain the effects of principals' transformational leadership behavior on teacher job satisfaction and/or organizational commitment. However, no research has attempted to use hierarchical linear modeling to test Bass and Riggio's (2006) Augmentation Model and thereby determine whether transformational behaviors have a measurable influence on these outcome variables beyond the influence of the more traditional transactional behaviors.

Purpose of the Study

This study seeks to identify the amount of variance in teacher job satisfaction and organizational commitment that can be explained by principals' transformational leadership behaviors, above and beyond the influence of transactional behaviors. Its

results are intended to provide some limited empirical support for Bass and Riggio's (2006) Augmentation Model in the field of education.

Primary Research Question

Beyond that of transactional leadership practices, what, if any, impact do principals' transformational leadership behaviors have on teachers' job satisfaction and organizational commitment?

Subsidiary Research Questions

1. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of idealized influence as a practice have on high school teachers' job satisfaction and organizational commitment?
2. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of inspirational motivation as a practice have on high school teachers' job satisfaction and organizational commitment?
3. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of intellectual stimulation as a practice have on high school teachers' job satisfaction and organizational commitment?
4. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of individualized consideration as a practice have on high school teachers' job satisfaction and organizational commitment?

Significance of the Study

In light of the results of the study by Marzano et al. (2005) and others like it, leadership makes a difference. Therefore, research and tools to inform principals'

practice and help them create necessary change should be a national priority.

Additionally, according to Leithwood and Jantzi (2006), a great deal of the existing literature that seeks to assess school leader effects is “entirely speculative or theoretical in nature,” and is therefore a “necessary but not sufficient foundation on which to build robust understandings of school leadership.” They call for more sustained research about “the nature and effects of precisely conceptualized and adequately measured forms of school leadership” (p. 201) if educators are to have an adequate base of knowledge on which to build an adequate school reform movement. The results of this study may help principals looking to identify and adopt specific behaviors to help them carry out the important work of school improvement and school reform.

Furthermore, no study to date has used hierarchical linear modeling to measure the added value of transformational leadership behavior above and beyond transactional practices in the field of education. Therefore, the results will be interesting to those who have studied transformational leadership using other methods and those who may be interested in replicating its findings either in or outside the field of education.

Limitations and Delimitations

This study was limited in scope, as it examined data from five participating high schools in eastern Pennsylvania. The sample was small and limited to this geographic area. Therefore, results cannot be generalized beyond the specific population from which the sample was drawn.

Definition of Terms

The following definitions are provided to ensure a common understanding of these terms and their use throughout the study.

Transformational leadership. A concept initiated by Burns (1978) and further developed by Bass (1985). According to Bass (1985), transformational leadership is comprised of the “four I’s”: idealized influence (charisma), individualized consideration, intellectual stimulation, and inspirational motivation. Transformational leadership studies have been conducted in a variety of work environments from corporations to factories to the military and educational settings. Leaders who are transformational are those who exhibit the four I’s and as a result, improve both the capacity and commitment of those they lead.

Transactional leadership. A concept also initiated by Burns (1978) and further developed by Bass (1985). Transactional leadership is composed of three specific behaviors: management by exception (active), management by exception (passive), and contingent reward. Through these behaviors, the leader and subordinates have a relationship characterized by exchange, and followers offer compliance in exchange for specific tangible rewards.

Job satisfaction.

Locke (1976) defined job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one’s job and job experience.” It results from the perception that an employee’s job actually provides what he or she values in the work situation. Following the work of Herzberg, Mausner, and Snyderman (1959), researchers have studied, defined, and measured job satisfaction as a global concept and as a concept with two distinct facets, which include intrinsic (level of satisfaction with features associated with the job itself) and extrinsic

(level of satisfaction with various features associated with the environment in which the work is performed). (Nguni et al., 2006, p. 152)

Organizational commitment. According to Nguni et al. (2006),

Porter, Steers, Mowday, and Boulian (1974) defined organizational commitment as the strength of the individual identification with and involvement in a particular organization...and has three components:

- 1 – belief in and acceptance of the organization's goals and values
- 2 – willingness to exert considerable effort on behalf of the organization
- 3 – a definite desire to maintain organizational membership.” (p. 150)

Organization of the Study

Chapter I included the background and statement of the problem, the purpose of the study, the research question, the significance of the study, limitations/delimitations, and definitions of terms. Chapter II contains a review of the related literature and research related to transformational leadership, job satisfaction, and organizational commitment in schools. Chapter III includes the methodology and procedures that were used to gather data for the study. The findings that emerged from this study are contained in chapter IV. Chapter V includes a summary of the study and its findings, conclusions drawn from the findings, and recommendations for further study.

Chapter II

REVIEW OF THE LITERATURE

The Full Range of Leadership Model: The Development of Theory

The concept of transformational leadership developed over the course of the second half of the twentieth century and continues to evolve today as it is applied and studied in various organizational contexts and associated with variables as diverse as employee creativity, productivity, and organizational commitment. An understanding of the development of transformational leadership theory is necessary to provide an effective context for this study, which seeks to support or refute prior findings regarding the relationship between teachers' perceptions of principals' transformational leadership practices and their job satisfaction and organizational commitment.

In 1976, Robert J. House published *A 1976 Theory of Charismatic Leadership*, a paper which sought to review the traditional scholarship on the concept of charisma and "develop a speculative theoretical explanation of charisma from a psychological perspective" (p. 1) that would provide the basis for future leadership research. He began by referencing the famous sociologist Max Weber's initial introduction of the term charisma and his use of this term to describe some leaders as "mystical," "personally magnetic," and "narcissistic." Weber had proposed that the charismatic leader inspires others to follow him because followers believe that he possesses a unique gift. Weber (as cited in House, 1976) outlined four primary characteristics of charismatic leaders: they are more emotional than calculative, they cause followers to model their thoughts, behaviors and feelings after the leader, they instill self-confidence in the followers, and

they can engender radical change because the beliefs and values are inconsistent with “established order” (p. 6)

House (1976) hypothesized that charismatic leaders have an intrinsic need to influence others. He went on to build upon Weber’s characteristics of charismatic leaders by identifying five specific behaviors of charismatic leaders: role modeling (they behave in ways that they wish to see others behave), personal image building (they take specific actions with the intention of being viewed favorably by followers), goal articulation (they assert an ideological or moral goal that then becomes the basis for follower action), exhibiting high expectations (they have high expectations for their followers, and simultaneously show confidence that the followers can meet them), and motive arousal leader behavior (they communicate messages that cause others to seek accomplishment of a specified mission).

Finally, House (1976) hypothesized that charismatic leaders are different from others because they exhibit some combination of four specific personal characteristics: dominance, self-confidence, need for influence, and strong conviction that his or her beliefs are morally righteous.

House’s work on charismatic leadership provided a partial basis for James MacGregor Burns’s work in the area of leadership studies described in his seminal 1978 book, *Leadership*. Burns is credited with initiating the concept of transformational leadership and contrasting it with what he calls transactional leadership. He proposed that transactional leadership occurs when one person interacts with another with the purpose of exchanging things of value (payment for services rendered, for example), whereas transformational leadership happens when one or more people interact with each other

and increase both their mutual motivation and morality. Another way to view this is to see transactional leadership as emphasizing tasks associated with management, while transformational leadership emphasizes those aspects of leadership that extend beyond management and into the realm of inspirational leadership. Burns (1978) emphasized the importance of moral leadership and connected it to transformational leadership, which in his view, seeks to “raise the level of human conduct and ethical aspiration of both the leader and led, and thus it has a transforming effect on both” (p. 20). Burns’s view of transformational leadership also draws heavily upon Maslow’s hierarchy of needs. Maslow’s hierarchy orders human needs into categories which progress from basic survival needs (for food, shelter, safety) through social and esteem needs into the highest level of need, self-actualization. Burns views transformational leaders as those who are able to raise the consciousness of followers, encouraging them to seek satisfaction of needs that are above those usually stimulated by working under transactional leaders.

The prolific work of Bernard Bass (1985) and his colleagues incorporated the aforementioned work of House (1976) and Burns (1978) and created an operationalized definition of transformational leadership, as well as an instrument with which to measure it, called the Multifactor Leadership Questionnaire (MLQ). Bass’s model contains seven leadership factors. The first four factors are considered the components of transformational leadership, while the next two are considered aspects of transactional leadership and the last considered the absence of any type of leadership. The four components of transformational leadership are as follows: idealized influence (II) (transformational leaders serve as role models for followers and are admired, respected and trusted. They are seen as possessing certain unique qualities), inspirational

motivation (IM) (transformational leaders motivate and inspire their followers by providing them with meaning and with challenging work experiences), intellectual stimulation (IS) (transformational leaders stimulate the thinking of their followers, encouraging innovation and creativity and involving them in the solution of a variety of problems), individualized consideration (IC) (transformational leaders seem to care about followers, providing them with opportunities to grow personally and professionally and acting as a mentor or coach). The two components of transactional leadership are as follows: contingent reward (transactional leaders set goals for followers, and outline specific tangible rewards to be conferred upon achievement of these goals), and management-by-exception (transactional leaders address employee behaviors only when they are identified as in need of specific improvement). Finally, laissez-faire leadership is considered neither transformational nor transactional. Leaders exhibiting this component fail to engage in any identifiable leadership behaviors.

Burns (1978) viewed transactional and transformational leadership as opposite ends of a spectrum; however, Bass (1985) and colleagues saw transformational leadership as a value-added construct, whereby leaders do engage at times in contingent reward and/or management-by-exception behaviors, but those behaviors are used to complement and enhance the transformational behaviors that are at the heart of organizational change. They theorized that first-order changes of degree can be accomplished using transactional behaviors (such as contingent reward), but that higher-order changes required the addition of transformational practice. Figure 1 displays what is known as the Augmentation Model of Transactional and Transformational Leadership, which elucidates the interplay between these two dimensions of leadership practice.

Performance beyond expectations becomes possible one transactional leadership behaviors have led to subordinates achieving expected effort and performance, and are then augmented by the transformational behaviors, leading to heightened motivation and performance beyond expectations. Thus, Bass and Riggio (2006) argue, the full range of leadership potential is ultimately achieved through both, rather than one or the other, of these styles of leadership.

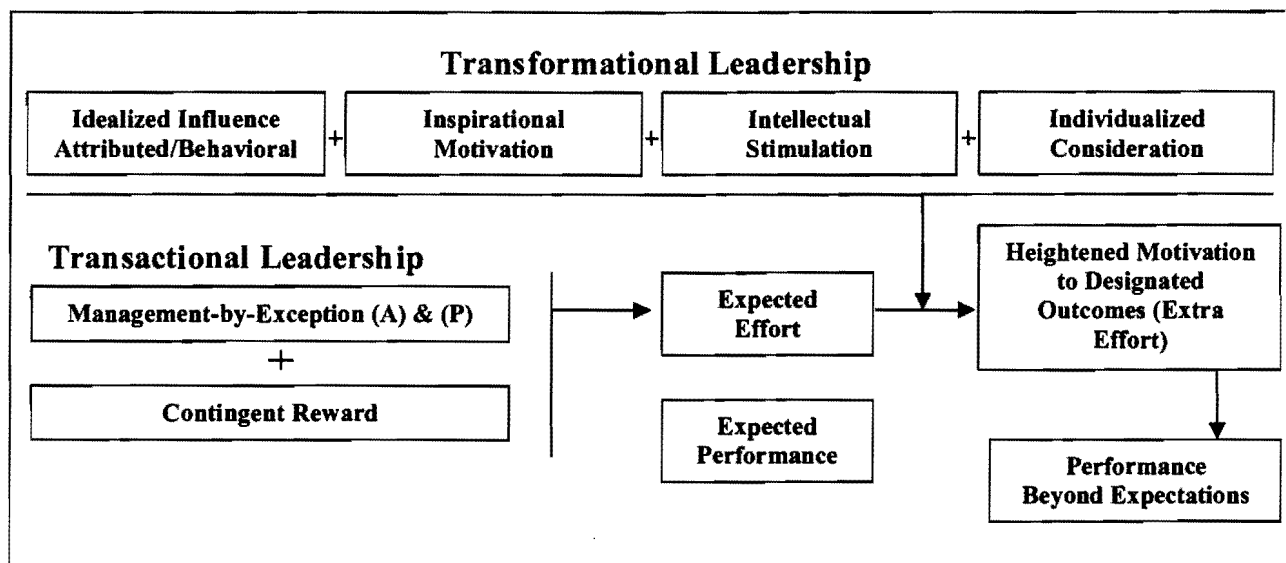


Figure 1. The Augmentation Model of Transactional and Transformational Leadership (Bass & Riggio, 2006).

The Full Range of Leadership Model in Education

Through work that began in the early 1990's, Leithwood (1992a & b, 1993) and his colleagues, notably Doris Jantzi (1999 a & b, 2000, 2001, 2006), with whom he has carried out numerous studies and analyses of existing literature, are credited with translating the work on transformational leadership theory for educational settings. Leithwood (1993) pointed out that:

schools, as members of the category 'professional' or 'semi-professional' organization[s], respond differently than do some other types of organizations

(e.g., military) to transactional leadership. This is partly explained by the largely intrinsic nature of many sources of teachers' motivation and the tight boundaries around school leaders' opportunities to influence extrinsic sources of teacher motivation. As a consequence, the base of leadership in schools may not be transactional leadership but *individual consideration*. (p. 38)

He goes on to state that by itself, individual consideration cannot produce much change but it is absolutely necessary for the anticipated effects of other transformational initiatives to be realized. His research suggests that transformational *school* leaders continuously pursue three goals. The first of these goals is helping staff members develop and maintain a collaborative, professional school culture. These schools can be characterized by a culture of continuous improvement and norms of collective responsibility. Staff members are involved in collaborative goal setting and power and responsibility is shared through delegation teams of teachers engaged in school improvement work. The second goal is fostering teacher development. Teachers are encouraged to adopt a set of internalized goals for professional growth and are involved in establishing a mission for the school to which they feel committed. The principal creates a culture in the school that values continuous professional growth. The third goal is helping teachers solve problems together more effectively. Teachers are stimulated to engage in activities beyond classrooms. They are also guided by their principal to 'work smarter, not harder' by working together to collaboratively solve problems.

Leithwood (1993) also indicated that "these [transformational] leaders shared a genuine belief that their staff members as a group could develop better solutions than the principal could alone, a belief apparently not shared by the non-transformational leaders

in our study” (Leithwood, 1992). Leithwood (1993) identified six sets of transformational leadership behaviors that, he argued, “substantially foster a high degree of staff consensus about the norms, values, beliefs and assumptions that shape professional practices in the school” (p. 27), while acknowledging that “differences in school context require considerable flexibility in the application of practices such as these” (p. 28). These six behaviors are, *strengthening the school culture* through collaborative pursuit of the school’s mission, *using bureaucratic mechanisms to support collaborative work*, *encouraging staff development* that acknowledges what can be learned from one’s colleagues, *direct and frequent communication* used as a tool to bring about organizational change, *sharing power and responsibility with others* by delegating and sometimes giving away sources of positional power, and *using symbols and rituals to express cultural values* and celebrate the work of teachers that support these values.

All of the aforementioned behaviors reinforce the idea that an effective principal is one who seeks through specific behaviors, to influence the culture of the school he or she leads. In support of this idea, Lam (2002) discovered, in a broad, cross-cultural comparison including schools in Hong Kong, Taiwan, Western Australia and Central Canada that an “intricate relationship” existed among transformational leadership, school restructuring, and supportive culture. He found that school culture played a supportive role in organizational learning processes and outcomes. Clearly, for a school organization to improve, it must be one in which members are able to learn together. According to Lam (2002), “This universal phenomenon seems to suggest that group norms and values constitute a critical internal environment for organizational learning to take root” (p.

449). This work provides a strong theoretical basis for the applicability of transformational leadership theory to an educational context.

Leithwood and Jantzi's work in this area has evolved tremendously since their writings in the early 1990's. They used their quantitative and qualitative research on transformational leadership in schools to develop their own model of transformational leadership within the context of educational organizations. A notable difference is the absence of charisma from their model, explained by the fact that transformational leadership behaviors by leaders in schools actually cause leadership to become somewhat distributed throughout the organization. They believe that this necessitates a move away from the view of transformational leadership as a heroic model of leadership. Their revised model, published by the authors in 2006, included three broad categories of leadership practices, which included nine specific dimensions of practice. They are, *setting directions* (building school vision, developing specific goals and priorities, holding high performance expectations), *developing people* (providing intellectual stimulation, offering individualized support, modeling desirable professional practices and values), and *redesigning the organization* (developing a collaborative school culture, creating structures to foster participation in school decisions, and creating productive community relationships).

It is important to note that this model is relatively new and has not been widely tested outside the work of the authors. Researchers tend still to use the Bass (1985) model, as measured by the Multifactor Leadership Questionnaire (MLQ). There are two likely reasons for this, one practical and the other theoretical. First, the MLQ has been employed in a multitude of studies and is a simple and proven reliable instrument for

measuring transformational leadership behaviors. The reliability and universality of this instrument are discussed in further detail in Chapter III of this study. Second, there seems to be a desire on the part of researchers to validate the findings of prior research and to generalize those findings across various organizational settings, including corporations, the military, health/service organizations, and schools: a task that is only possible if similar instrumentation is employed in such studies. For these reasons, this study is based on the Bass (1985) model, as measured by the MLQ.

Bass's concept of *idealized influence*, also referred to as charisma, is an area of the transformational leadership model that has received some criticism within the school context. Lunenberg (2003) conducted a study in which he sought to examine "the extent to which the MLQ measures what it purports to measure in school organizations and to assess the relevance of idealized influence (charisma) in stable school organizations" (p.3). The author found support for three of the behaviorally-oriented dimensions of transformational leadership but, in apparent agreement with Leithwood and Jantzi (2006), suggested it might be time to de-emphasize the importance of charisma as a component of transformational leadership in *stable* school organizations. They argue that a crisis may be necessary for charisma to be an important element of effective school leadership. One could argue that, given the multitude of pressures facing the American school system today, educators *do* find themselves face-to-face with a substantial crisis. Particularly when we examine the interplay between ever-increasing accountability on schools from the federal and state governments, as well as the worsening financial situation in schools, it may be premature to dismiss schools as stable organizations and consequently downgrade the importance of charisma/idealized influence in principals' leadership

behaviors. In fact, contrary to the stance of Leithwood and Jantzi (2006) and Lunenberg (2003), Nguni et al. (2006) recently determined that, “In the case of transformational leadership dimensions, charismatic leadership had shown to have the greatest influence and accounts for a large proportion of variation in value commitment, organizational citizenship behavior and teachers’ job satisfaction” (p. 168), providing further support for the maintenance of charisma as an essential component of transformational leadership in schools and its inclusion in this study.

Within the context of the larger discussion of leadership, it is important to examine the concept of power and the way power is exercised and conferred in organizations with transformational leaders. In their influential text, *Reframing Organizations*, Bolman and Deal (2008) presented the work of a variety of social scientists on the subject of power and provided an exhaustive list of the different sources from which power can emerge in an organization. These sources range from *position power* (exerted by those in formal positions of authority) to *personal power* (exerted by those who are charismatic or socially adept) to *control of meaning and symbols* (exerted by those who have the ability to shape meaning and articulate myths). They cited Kotter (1985), who posited that managers often find themselves facing a “power gap” when they realize that their positional power is not enough in itself to do the work that must be done. This is especially true in schools, where the loosely coupled nature of the organization and the limitations placed on principals’ supervisory authority by teacher tenure laws require them to seek other means of influence. Leithwood (1992b) drew a distinction between what he called Type A and Type Z organizations:

Type A organizations centralize control and maintain differences in status between workers and managers and among levels of management; they also rely on top-down decision processes....In contrast, Type Z organizations rely on strong cultures to influence employees' directions and reduce differences in the status of organizational members, emphasizing participative decision making as much as possible. They are based on a radically different form of power that is "consensual" and "facilitative" in nature-a form of power manifested through other people, not over them. Such power arises, for example, when teachers are helped to find greater meaning in their work, to meet higher-level needs through their work, and to develop enhanced instructional capacities. Facilitative power arises also as school staff members learn how to make the most of their collective capacities in solving school problems. This form of power is unlimited, practically speaking, and substantially enhances the productivity of the school on behalf of its students. While most schools rely on both top-down and facilitative forms of power, finding the right balance is the problem. For schools that are restructuring, moving closer to the facilitative end of the power continuum will usually solve this problem.

Sarason's (1990) view mirrors that of Leithwood. He believes that schools must move away from their emphasis on top-down, positional forms of power in favor of expertise-based and consensual forms. The result of flattening the social structure of the school, he argued, would be the unleashing of staff members' problem-solving capabilities. All of these perspectives harken back to Burns (as cited in Stewart, 2006), who

argues that we have relied on a faulty and overemphasized role of power. As such, we have paid the price for our preoccupation with power and we must now see power and leadership not as things but as relationships...It lies in a more realistic, a more sophisticated understanding of power, and of the often far more consequential exercise of mutual persuasion, exchange, elevation, and transformation, in short, of leadership. (p. 11)

Definition of Job Satisfaction

The first dependent variable that was measured in this study as it relates to principals' transformational leadership behaviors is teacher job satisfaction. The most widely accepted definition of job satisfaction was initiated by Edwin A. Locke as part of his *Range of Affect Theory*. He theorized that job satisfaction is an affective or primarily emotional response based on an overall appraisal of one's work situation. This is based on the extent to which one's work meets expectations and fulfills one's needs or preferences. Teacher job satisfaction is included in this study because it is thought to be particularly important for school improvement. According to Woods and Weasmer (2004),

Shann (1998) maintains that teacher job satisfaction is "a predictor of teacher retention, a determinant of teacher commitment, and, in turn, a contributor to school effectiveness." Teacher satisfaction reduces attrition, enhances collegiality, improves job performance, and has an impact on student outcomes. (p. 118)

Theories of Job Satisfaction

Because this study seeks to identify and examine a relationship between transformational leadership practices with teachers' job satisfaction, it is important to

examine job satisfaction as a concept and to understand why it is worthy of scholarly investigation.

At the beginning of the twentieth century, the world of work in industrial settings was dominated by the ideas of Frederick W. Taylor (1911), whose influential book *The Principles of Scientific Management*, outlined his work in industrial environments to apply the scientific method to the management of workers. Jobs were broken down into a myriad of smaller, routine tasks that could be completed easily and consistently by a series of separate individuals. This approach led to increased worker productivity in many instances, but also resulted in increased monotony for the worker, lack of autonomy, and often demoralization and despair. Because of the negative consequences associated with scientific management, researchers began examining the world of work more closely with attention to workers' feelings and behaviors.

By the 1930's scientific management ("Taylorism" as it is sometimes called) was considered outmoded, and social scientists were examining other ways to increase worker productivity and also improve the work environment. Elton Mayo (1945) and his students at Harvard carried out the Hawthorne Studies, which were influential because they noticed during their research that just simply being observed altered the behavior of the workers. This demonstrated that people work for reasons other than compensation. According to Herzberg, Mausner and Snyderman (1993),

The discovery that the relationships between workers and their supervisors lead to a more potent influence on output than any manipulation of environmental conditions and that the informal associations of a group of men at work act as a potent stabilizer on the level of production were made the basis of a new frame of

reference in industry. To the extent to which this new approach, signified by the somewhat shopworn phrase “human relations,” has led to fruitful research and to changes in industrial practice, this approach has fulfilled the function of theory.

(p. 9)

Additionally, in 1947, Kurt Lewin (as cited in Herzberg et al., 1993) established the Research Center for Group Dynamics (RCGD) at MIT, which later became the Survey Research Center at the University of Michigan, and found that “a supervisor is successful to the degree to which he focuses on the needs of his subordinates as individuals rather than on the goals of production” (p. 10). Also influential was Maslow’s Hierarchy of Needs, discussed previously. Social scientists and psychologists began to incorporate Maslow’s work into their own theoretical constructs. As a result, the conventional wisdom about the world of work began to reflect the following ideas: workers’ needs for esteem and self-actualization are important, jobs that provide workers with such opportunities will generate more fulfillment in the individual worker and increase his or her enjoyment of the work itself, and workers’ satisfaction with the job has the potential to increase productivity.

All of the aforementioned work influenced Herzberg in the development of his still-influential *Two-Factor Theory* in 1959. While developing the theory, Herzberg asked participants (managers in a corporate setting) to describe a time, an incident, when they felt good and a time, or incident, when they felt bad. The results showed that the subjects were made dissatisfied by bad environments, what have been described as the extrinsic aspects of the job (called hygiene). They are rarely made satisfied by improvements in these extrinsics. However, they *are* made satisfied by the intrinsic aspects of the job

(called motivators). According to Herzberg et al. (1993), "The factors that lead to positive job attitudes do so because they satisfy the individual's need for self-actualization in his work" (p. 114), an obvious reference to Maslow's hierarchy. In 1968, Herzberg published an article called "One More Time: How Do You Motivate Your Employees?" in which he summarized 12 replications of his initial study. These studies, along with other subsequent research, confirmed evidence in support of his two-factor theory. Also, Herzberg et al. (1993) were able to identify that, "In spite of cultural differences, workers around the world tend to demonstrate a tendency toward satisfaction with job intrinsics, and dissatisfaction with extrinsics" (p. xvi) and that achievement or quality performance has been the most frequent factor leading to workers' job satisfaction (p. xiv).

Other theories of job satisfaction continued to emerge over the second half of the twentieth century. Though these theories are interesting and worthy of discussion, a full examination of them would extend beyond the scope of this literature review; the current study (and the majority of the research found to support it) draw heavily upon Herzberg's two-factor theory and Maslow's hierarchy.

Job Satisfaction in Schools

Over the past 100 years, a multitude of texts have been written and studies conducted specifically examining the job satisfaction of teachers. Those seminal and/or influential works discussed in this section are limited to those examining the lives and work of American teachers and when possible, those which examine the perceptions and attitudes of secondary school teachers in particular.

The first of these influential works was *The Sociology of Teaching* by noted sociologist Willard Waller, written in 1932. Tyack (1989) called Waller's perspective on

the topic “bleak,” because Waller pointed out the autocratic nature of schools and warned that existing conditions divided schools and the communities they served, with significant negative consequences for the attitudes and behavior of teachers. Many believe Waller’s text was prophetic, noting one of his most valuable insights, that “the reformation of the schools must begin with the teachers, and no program that does not include the personal rehabilitation of teachers can ever overcome the passive resistance of the old order” (p. 458).

An important research study on the job satisfaction of teachers was conducted in 1966 by Thomas J. Sergiovanni, a respected author specializing in school leadership studies. This study, published under the title “Satisfaction and Dissatisfaction of Teachers” focused on 71 teachers in Monroe County, New York. Sergiovanni (1966) found that recognition, achievement, and responsibility were factors that contributed to teachers’ job satisfaction. Of these three factors, the teachers in the study expressed that the most important was achievement. Overall, teachers’ identified satisfaction factors that tended to focus on aspects of the work itself (intrinsic factors, such as working with students and seeing them be successful), while dissatisfaction factors tended to focus on the conditions of work (extrinsic factors, such as pay and benefits).

In 1975, Dan C. Lortie published his influential book *Schoolteacher*, an in-depth examination of the life of American teachers, the profession of teaching, and the dynamics of the school organization. In it, he posited, “The culture of teachers and the structure of rewards do not emphasize the acquisition of extrinsic rewards...the characteristic style in public education is to mute personal ambition” (p. 102). He referred to intrinsic rewards/motivators as “psychic rewards,” stating that “unlike extrinsic and

ancillary rewards, the psychic rewards of teachers fluctuate; the teacher's enjoyment of his work can vary....The structure of teaching rewards, in short, favors emphasis on psychic rewards" (p. 103). Respondents in this study "experienced gratification when they felt they had influenced students" (p. 104) and their answers to specific survey items identified psychic (intrinsic) rewards as their primary source of work satisfaction (76.5 percent, compared with 11.9 percent who selected extrinsic and 11.7 percent who selected ancillary rewards).

A number of studies within the last decade have contributed significantly to the growing body of knowledge about teachers' job satisfaction. Brunetti (2001) "sought to determine the extent to which experienced teachers were satisfied with their work and to identify the principal motivators that induced them to remain in the classroom" (p. 50). His study is particularly relevant here, as this research study was conducted with solely high school teachers. In contrast to Perie and Baker (1997)'s prior finding that only 26.3 percent of public high school teachers identified themselves as satisfied with their jobs, Brunetti (2001) found that 46.4 percent of his respondents strongly agreed with the statement, "I am satisfied with my job." As with Lortie (1975) and Sergiovanni (1966), intrinsic motivators also dominated job satisfaction factors in Brunetti's (2001) study, in which teachers' sense of success was connected to the growth and well-being of their students. Likewise, extrinsic rewards such as pay, benefits, and vacations were rated low on the motivator scale by the teachers. This led Brunetti (2001) to conclude, "There is little question that the experienced teachers' satisfaction in working with adolescent students was the single most powerful motivator underlying their decision to remain in the classroom" (p. 61). The results of all three of these studies, conducted by Sergiovanni

(1966), Lortie (1975) and Brunetti (2001), support the universality of Herzberg's two-factor theory and its relevance in an educational context, as well as its importance to reduce teacher attrition, a significant problem outlined in Chapter I.

A few recent studies have found that teachers desire opportunities for involvement in leadership activities in their schools, opportunities that have the potential to serve as intrinsic motivators and another means of avoiding teacher attrition. A 2001 study by the National Board for Professional Teaching Standards concluded that National Board Certified Teachers' involvement in leadership activities actually led to an increase in their desire to continue teaching and impacted their feelings about their jobs. This finding was supported by Dagenhart, O'Connor, Petty and Day (2005), as well as Berry, Daughtrey, and Wieder (2010), who found that teachers gained satisfaction and motivation from leading and innovating in their schools, which contributed in turn to their retention. However, a dissertation by Grill (1998) that included a small sample of elementary school teachers found no significant correlation between participation in teacher leadership roles and measures of extrinsic, intrinsic, or general job satisfaction. A possible reason for the discrepancy here is that one study focused on teachers who sought special credentials (as NBCTs) and had, therefore, already extended themselves beyond the norm professionally, while Grill (1998) studied a more representative sample of teachers. Also, Grill's study included only elementary teachers. It may be that at other levels (such as middle or high school), leadership opportunities are more important to teachers.

In summation, studies into the lives of teachers and what motivates and inspires them have clearly demonstrated that teachers place a much higher value on intrinsic, as

opposed to extrinsic, rewards [Brunetti, 2001; Lortie, 1975; Sergiovanni, 1966]. They also derive satisfaction from opportunities to serve as leaders and innovators in their schools [Berry et al., 2010; Dagenhart et al., 2005; NBPTS, 2001]. As discussed previously, transformational leadership behaviors are credited with inspiring employees, and increasing their intrinsic motivation. Thus, the research question central to this study seeks to connect the research on transformational leadership with that on teachers' job satisfaction.

Teachers' Job Satisfaction and the Principal

Common sense dictates that in any work environment, a worker's relationship with his or her supervisor can have an impact on his or her job satisfaction. Schools are certainly no exception. Lortie (1975) found that, with regard to the relationship between the principal and teachers, 38 percent of respondents felt that the principal should support their work but their responses overall saw the principal less as an instructional leader or source of expertise and more as a provider of materials/supplies, a buffer between them and parents, and a supervisor of their work. Strikingly, a study conducted by Evans and Johnson (1990) during the 1987-1988 school year led the researchers to conclude, "This finding is consistent with other studies and seems to suggest that principals do not contribute much to the job satisfaction of the teachers." These findings can be explained by a reflection on the structure of schools at that time, when principals served primarily administrative functions. This was prior to and just after *A Nation at Risk* (National Commission on Excellence in Education, 1983) and the modern school reform movement during which the role of the principal has evolved into instructional or transformational

leader, as examined in the aforementioned work of Bass, Avolio, Riggio, Leithwood and others.

Later studies reflect an expanded understanding of the principals' role in the life and work of the teachers whom they supervise, as well as the potential that exists for teachers to be empowered to serve as leaders and innovators in their schools. Dagenhart et al. (2005), like Lortie (1975), found that teachers wanted administrative support in the form of a safe environment, fewer interruptions, adequate materials and supplies, small classes, and support with discipline. But they also found that teachers wanted their principals to provide them with meaningful professional development and opportunities (as mentioned previously) to serve in leadership roles. Graham (1996) reinforced teachers' desire to serve in leadership roles, linking it in her findings to their overall job satisfaction. Likewise, Azumi and Lerman's (1987) study (as cited in Firestone & Pennell, 1993) of teachers in Newark, New Jersey found that selected participation in administrative decision-making and in curriculum development as activities that would provide them with the most job satisfaction, out of a number of possible intrinsic and extrinsic motivators. Interestingly, two empirical studies failed to find a statistically significant relationship between participative decision-making and job satisfaction (Hulpia, Devos & Rosseel, 2009; Taylor & Tashakkori, 1995). Also, when studying urban curriculum programs, Maeroff (1988, as cited in Nguni et al, 2006)) interviewed teachers who said that, although they did not necessarily want to be the decision-makers in their schools, they did want to be heard and respected and wanted their opinions to be considered when school policies were being generated. It is also possible that even if shared decision-making does not have a statistically significant relationship to job

satisfaction, there may exist a relationship between shared decision-making and other positive work-related variables for the teachers, such as organizational commitment, which will be discussed in a later section of this literature review.

Overall, research cited by Nguni et al. (2006) [Bogler, 2001; Dinham & Scott, 2000; Morris & Sherman, 1981; Ostroff, 1992] showed that leader behaviors in general have a profound influence on teachers' job satisfaction. More specifically, research has shown that teachers who report lower stress and higher levels of job satisfaction are those who work for principals who are "high-consideration," meaning that they demonstrate mutual trust, respect and warmth (Lee, 1983; Roberts, 1983, both as cited in Evans & Johnson, 1990). Such qualities are all components of transformational leadership.

Definition of Organizational Commitment

The second dependent variable that will be measured in this research study as it relates to transformational school leadership behaviors is organizational commitment. The most basic definition of organizational commitment was provided by Porter, Steers, Mowday, and Boulian (1974, as cited in Locke & Latham, 1990), who defined it as "the strength of the individual identification with and involvement in a particular organization" and who identified its three components as belief in and acceptance of the organization's goals and values, willingness to exert considerable effort on behalf of the organization, and a definite desire to maintain organizational membership.

Some researchers' definitions of organizational commitment have been similar, and clearly related to, this initial definition. For example, Angle and Perry (1981, as cited in Nguni et al., 2006) called it a concept with two "facets": value commitment and commitment to stay with the organization. Shaw and Reyes (1992) likewise defined

commitment as “an individual, psychological attitude that is shared by organizational members and shaped by cultural values” (p. 297). According to Firestone and Pennell (1993):

Most definitions of commitment focus on an attachment that goes beyond calculative involvement (Etzioni, 1961) – an affectively neutral exchange of services for money – to moral involvement...the common theme in these definitions is a committed person believes strongly in the object’s goals and values, complies with orders and expectations voluntarily, exerts considerable effort beyond minimal expectations for the good of the object, and strongly desires to remain affiliated with the object (Kanter, 1969; Mowday et al., 1982). (pp. 490-491)

Organizational Commitment in Schools

Authors and researchers focused on organizational commitment in schools have drawn heavily upon the Porter et al. (1974) definition, but add some dimensions specific to the educational context. For example, Firestone and Pennell’s (1993) view is that teachers may express commitment to the profession, the school, and/or the students but some mix of all three is necessary for them to have the motivation to “pursue changes in their practice” (p. 493) while Nir (2002) emphasized that commitment indicates the teachers’ sense of loyalty to the school and identification with its values and goals. Graham (1996) stated:

One view is that teacher commitment is the psychological identification of the individual teacher with the school and the subject matter or goals, and the intention of that teacher to maintain organizational membership and become

involved in the job well beyond personal interest. According to this view, the higher the teacher's psychological identification is, the higher his or her sense of commitment will be. (p 45)

Citing Firestone and Pennell (1993) and Smylie (1990), Graham (1996) identified six factors in the workplace that can affect commitment: teacher autonomy and efficacy, participation, feedback, collaboration, learning opportunities, and resources. She concluded that in general, teachers who experience high levels of these six factors demonstrate greater commitment than those who do not experience them. The idea that autonomy is important for organizational commitment is supported by Nir (2002) who stated, "The link between autonomy and commitment is based on the theoretical view that autonomy is central to internal motivation...jobs that allow autonomy require the exercise of judgment and choice and...make people the causal agents in their own performance" (p. 325). The reason organizational commitment is important within the context of educational reform is best stated by York-Barr and Duke (2004), "if the goal is implementation of curricular and instructional reforms at the classroom level, an internalized sense of ownership and commitment among employees who lead at that level – that is, teachers – is essential" (p. 258).

The Influence of Leadership Behaviors on Job Satisfaction and Organizational Commitment

Now that the Full Range of Leadership Model, job satisfaction, and organizational commitment have been defined and examined separately within the context of American schools, an examination of the relevant research on the relationship between them is necessary to provide a sufficient context for the current study.

A number of researchers in both educational and other work contexts have already conducted studies linking transformational leadership behaviors to both employees' job satisfaction and their organizational commitment. Bass and Riggio (2006) asserted:

Follower satisfaction and commitment can be the result of transformational leaders empowering followers. For example, in a study of nurses, follower empowerment moderated the relationship between transformational leadership and job satisfaction (Fuller, Morrison, Jones, Bridger, & Brown, 1999). It can be argued that transformational leaders empower followers to perform their jobs autonomously and creatively and that this empowerment leads followers to feel more efficacious. This in turn leads to both greater follower commitment and to better group performance. (p. 44)

In a similar example, Walumbwa et al. (2004) studied 402 banking leaders in China and India and found that transformational leadership was positively related to organizational commitment and job satisfaction, and negatively related to work withdrawal. Niehoff, Enz, and Grover (1990) studied 862 employees in a Midwestern insurance company, and found that a variety of actions associated with transformational leadership were found to be positively related to both organizational commitment and job satisfaction, namely: inspiring a shared vision (i.e. idealized influence), supporting employee efforts (i.e. individualized consideration), and allowing influence in decision-making (i.e. intellectual stimulation and individualized consideration). They also found that top managers' encouragement of innovativeness (i.e. intellectual stimulation) was positively related to commitment.

Within the school context, Graham (1996) found that teachers who play an active role in pursuing organizational roles (through leaders' use of intellectual stimulation and individual consideration) increased their commitment to the district and enhanced their job satisfaction. Likewise, Nguni et al. (2006) asserted,

These results of our study confirm results obtained in prior studies conducted in both non-educational and educational settings in which it was also found that, although transactional and transformational leadership are strongly related concepts, the group of transformational leadership factors had more stronger positive influence on the outcome variables, including job satisfaction, organization commitment...than the group of transactional leadership factors. (p. 168)

As discussed previously, research suggests that transformational leadership behaviors that stimulate or increase teachers' job satisfaction and/or organizational commitment are important to help principals avoid unnecessary teacher attrition. Locke and Latham (1990) found that teacher attrition was most consistently related to their degree of job satisfaction and also related to their subjective reports of organizational commitment.

Interestingly, research also suggests that there may be a causal connection between job satisfaction and organizational commitment and that this connection has the potential to lead to increased productivity, an important aim in the school improvement process. Nguni et al. (2006) stated that "Although research is not conclusive on the causal order of job satisfaction and organizational commitment...it seems the overwhelming majority of researchers consider job satisfaction as an antecedent to organizational

commitment (Currivan, 1999; Van Scotter, 2000)” (p. 153). Locke and Latham (1990) agreed, finding in a 1990 study that there was a mean correlation in 11 separate studies of .64 between satisfaction and commitment and indicating that remaining in the job was consistently related to the degree of teachers’ job satisfaction. They also argued that their model reveals the reason previous studies have been unable to find a meaningful association between job satisfaction and productivity because improved performance will only result if satisfaction leads to organizational commitment.

Transformational/Transactional Leadership and Job Satisfaction Studies Outside of Education

A multitude of studies have been conducted linking job satisfaction alone to transformational leadership behaviors. An exhaustive analysis of all of them would extend beyond the limits of this study. However, some notable studies conducted over the past 10 years will be discussed to provide appropriate context. Bass and Riggio (2006) cite two meta-analyses conducted by Dum Dum, Lowe, and Avolio (2002) and Lowe (1996), which showed “very high average correlations (ranging from .51 to .81) between all the components of transformational leadership and measures of follower satisfaction, whereas mean correlations of transactional leadership practices are lower or negatively correlated with job satisfaction. Likewise, Nielsen, Yarker, Brenner, Randall, & Borg (2008) studied the importance of transformational leadership for the well-being of employees working with older people. They found that transformational leadership was positively associated with job satisfaction in the staff members they studied. Thirdly, Yang (2009) investigated the effects of transformational leadership on sales and marketing employees’ intrinsic and extrinsic job satisfaction. He concluded that

transformational leadership is valuable because it can enhance job satisfaction by encouraging awareness of the value of task outcome, by activating employees' higher order needs, and by inducing employees transcendence of self-interests for the sake of the organization, and by leading in commitment to change. (p. 1262)

Yang (2009) also cited a study by Yukl (2008) that described transformational leaders as charismatic individuals whose employees identify with them emotionally, stating:

transformational leadership, thus, can create and communicate a vision for the organization, which brings employees together to accomplish goals. Therefore, transformational leadership can logically be associated with satisfaction: the transformational leader can motivate employees to perform beyond general expectations and will also recognize the need for adaptive organizational change. (p. 1262)

These studies all provide support for the idea that transformational leadership practices have a proven, significant effect on employees' job satisfaction in a variety of work environments.

Transformational/Transactional Leadership and Job Satisfaction Studies In Education

Similar to those conducted in other work environments, a number of studies have been conducted within the field of education that demonstrated an association between principals' transformational leadership behaviors and teachers' job satisfaction. For example, Bogler (1999) specifically examined effects of various factors on teacher satisfaction, including principal leadership style (transformational or transactional). His results indicated that teachers' satisfaction increases as they perceive their principals'

leadership style as more transformational and less transactional. An interesting ancillary finding was that females derived more satisfaction than males (who saw their leaders as more transactional than females did). Korkmaz (2007) achieved similar findings, noting that principals' transformational leader behaviors had a "profound" effect on teachers' job satisfaction (p. 22). Similarly, in recent dissertation studies, Amoroso (2002), Carnes (2007) and Mota (2010) found that principals' use of transformational leadership behaviors had a significant positive impact on either teacher job satisfaction, organizational commitment or both. Carnes's (2007) results indicated that this impact was higher than that of transactional practices.

Some dimensions of Bass's (1985) model of transformational leadership have been specifically identified as having a noteworthy impact on teachers' job satisfaction. For example, individual consideration (IC) has emerged in a number of school studies in this regard. Lee (1983, as cited in Evans & Johnson, 1990) found it to be the leadership variable most strongly related to job satisfaction. Likewise, Barnett (2003) focused on two leadership behaviors, dissemination of vision and individualized consideration, finding that individualized consideration has a greater impact on teacher perceptions of overall satisfaction with leadership than did vision (Bass's second of the four dimensions). He concluded, "Individual teachers seem to be motivated more by the care and individualized concern shown to them by their leader rather than by having their aspirations motivated and elevated by a vision" (p. 16). Hulpia et al. (2009) echoed these findings, stating "This implies that teachers and teacher leaders who feel supported will be highly committed towards the school and be very satisfied with their job" (p. 308). Other researchers have identified intellectual stimulation (Amoroso, 2002; Mota, 2010)

and individualized consideration (Amoroso, 2002) as having a positive impact on teacher job satisfaction.

In a very broad study based on data from the 1990 follow-up to the National Educational Longitudinal Study (NELS), which included 10,000 teachers, Taylor and Tashakkori (1995) found that the principal leadership dimension of school climate (arguably influenced by all four dimensions of Bass's model) emerged as having a "noteworthy association with job satisfaction." Also, Shead (2010) found in her dissertation that empowerment of teachers (related to both individual consideration and intellectual stimulation) had the greatest impact on teacher job satisfaction, explaining 21 percent of the variance in teachers' satisfaction of their work on present job.

Some studies have linked other behaviors in the Full Range of Leadership Model with teacher job satisfaction, either positively or negatively. Carnes (2007) found that contingent reward, a dimension of transactional leadership, was also positively associated with job satisfaction. Additionally, Lee (1983) and Carnes (2007) (both as cited in Evans & Jonson, 1990) found that principals exhibiting laissez-faire (low-consideration, low-structure) behaviors experienced lower levels of job satisfaction than those under other leadership styles.

Overall, a number of empirical studies demonstrate that specific dimensions of transformational leadership, specifically individual consideration, intellectual stimulation, and inspirational motivation (leading to empowerment) have a measurable impact on teachers' overall job satisfaction. Likewise, one dimension of transactional leadership (contingent reward) was found to be positively associated with job satisfaction. On the other hand, laissez faire behaviors were associated with lower levels of job satisfaction.

Transformational/Transactional Leadership and Organizational Commitment

Studies Outside of Education

As with job satisfaction, a number of studies have been conducted linking organizational commitment to transformational leadership behaviors. Most of those studies were discussed previously in the section of the review dedicated to research on transformational leadership behaviors and both job satisfaction and organizational commitment. However, one additional notable study outside of the field of education should be included here. This study by Morris and Sherman (2001) of employees in an organization that cares for the developmentally disabled found

that leadership behaviors may constitute an important and under-researched component in the commitment process. There are frequent crises at virtually all levels in the present research settings, and at the same time an ongoing, significant sense of accomplishment from progress in the care and training of residents...it is not surprising, then, that high structure/high consideration behavior mixes on the part of leaders tended to be associated with high levels of commitment among subordinates within this sample. (p. 519)

Transformational/Transactional Leadership and Organizational Commitment

Studies in Education

Organizational commitment alone and its relationship to transformational leadership behaviors has been the subject of a series of recent studies within the field of education. For example, Koh, Steers and Terborg (1995) studied teachers in 100 schools in Singapore. In general, their research indicated that transformational leadership factors had more influence on organizational commitment than transactional factors. The specific

transformational leadership behaviors that had considerable influence on teachers' organizational commitment were charismatic/vision (i.e. idealized influence) and individualized consideration. Shaw and Reyes (1992) found that idealized influence, particularly leaders' behavior in establishing strong value orientation in teachers, had a positive relationship with teachers' organizational commitment, regardless of demographic variables.

A few studies have linked teachers' involvement in the decision-making process, a key element of transformational leadership behavior, with teachers' organizational commitment. Smylie (1992) identified a strong link between the two variables, stating "teacher-principal working relationships exert the greatest significant influence on willingness to participate across decision areas" (p. 56). Likewise, Kushman's (1992) study of urban schools (as cited in Firestone & Pennell, 1993) found that teachers' decision-making power actually predicted their organizational commitment. Additionally, a recent study by Hulpia et al. (2009) also reinforced this finding.

Conclusion

In summation, the development of the Full Range of Leadership model, which includes both transformational and transactional leadership behaviors, evolved through a series of theoretical constructs, beginning with House's (1976) model of charismatic leadership. This was followed shortly by Burns's (1978) work, which borrowed heavily from House (1976) and from Maslow's (1954) hierarchy of needs. Then in 1985, Bass began working independently and with colleagues to create and empirically test his model, which would eventually be called the Full Range of Leadership Model. This model has been studied in all types of work environments, from the military to hospitals

to corporations to schools. Numerous published studies and research projects by a variety of researchers have sought to validate, test, and measure this model. Studies of the impact of this model on everything from corporate productivity to worker job satisfaction have been conducted and the results published. Beginning in the 1990's Leithwood (1992b) and colleagues began testing the Full Range of Leadership Model in school settings (with an emphasis on transformational behaviors), and this led to a flurry of studies both in the United States and in countries as far away as Taiwan.

I was interested in this topic for a few reasons. First, the theoretical basis for the theory was clear, developed, and had already been empirically tested in a variety of settings. Second, it offered an opportunity to validate or refute the findings of prior research studies, based on the current sociological context and the specific schools being studied. Third, the results of the study would be concrete enough to generate useful and timely recommendations for practice that could be useful for principals seeking to increase job satisfaction and organizational commitment in teachers and thereby reduce teacher attrition and increase student achievement in their schools.

Clearly, a strong research base exists in all three areas discussed in this literature review: transformational/transactional leadership, job satisfaction, and organizational commitment. Studies both within and outside of the field of education have supported a link between some aspects of transformational leadership behaviors and job satisfaction, organizational commitment, or both. Few of these studies have investigated secondary school teachers exclusively. In addition, most of the recent published studies (conducted after *No Child Left Behind*), including Lam (2002), Nguni (2006), Korkmaz (2007) and Hulpia et al. (2009), have been conducted in international contexts such as Turkey,

Singapore, Australia, China, Canada, and Belgium. Over the last decade, the context in which those in the field of education in the United States find themselves can be characterized as a crisis, due to increased accountability and the most serious financial downturn since the Great Depression. It is therefore relevant to re-examine and attempt to replicate the research conducted by Leithwood and others during the 1990's, which sought to examine the impact of transformational leadership behavior in schools, within this new context. It is through this lens that the author will seek to examine the results of this study.

Chapter III

METHODOLOGY

Introduction

The study described herein is a quantitative design that seeks to contribute to a growing body of knowledge on the effects of transformational and transactional leadership in the school setting, specifically to identify the amount of variance in teacher job satisfaction and organizational commitment that can be explained by principals' transformational leadership behaviors, above and beyond the influence of transactional behaviors. This chapter describes the sample population, instrumentation, data collection, and analysis methods used in conducting this study.

Primary Research Question

Beyond that of transactional leadership practices, what, if any, impact do principals' transformational leadership behaviors have on teachers' job satisfaction and organizational commitment?

Subsidiary Research Questions

1. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of idealized influence as a practice have on high school teachers' job satisfaction and organizational commitment?
2. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of inspirational motivation as a practice have on high school teachers' job satisfaction and organizational commitment?

3. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of intellectual stimulation as a practice have on high school teachers' job satisfaction and organizational commitment?
4. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of individualized consideration as a practice have on high school teachers' job satisfaction and organizational commitment?

Research Design

This study was based on a quantitative research methodology. According to Gay, Mills and Airasian (2009), "Quantitative research is the collection and analysis of numerical data to describe, explain, predict, or control phenomena of interest" (p. 6). In this case, I conducted correlational research, a form of quantitative investigation that seeks specifically to describe, rather than explain, predict, or control the aforementioned "phenomena of interest." Through this type of research, I collected data in order to identify and/or measure a relationship between two or more variables. The predictor variables in this study are the five transformational dimensions and three transactional dimensions of Bass's (1985) Full Range of Leadership model.

Population and Sampling Procedure

The population for this study was all certificated, instructional staff members in five high schools located in Lehigh, Bucks, Berks, or Northampton County, Pennsylvania. The school districts in this area are notable in their diversity, ranging from quite small (500 students) to very large (3,300 students) and from urban to suburban.

Schools in this area also range from diverse to homogeneous in terms of the socioeconomic and racial diversity of their student populations.

The sample was selected using non-probability, convenience sampling. Also known as accidental sampling or haphazard sampling, convenience sampling allows a researcher to investigate all subjects who are available at the time of the study. Convenience sampling was particularly applicable in this case, for two reasons. First, it allowed all teachers in the population the same opportunity to complete the survey. Second, it was expected to yield higher levels of participation than random or purposeful sampling, since participation was completely optional for all potential participants. The total number of teachers in each school under study varies from 41 to 190 and total number of teachers surveyed/total population (N) was 504.

Instruments

Three separate instruments were administered to participants in this study using *asset*, a web-based survey system created by Bert G. Wachsmuth at Seton Hall University. A brief description of each instrument, including information about validity and reliability, is provided below.

The Multifactor Leadership Questionnaire (MLQ – 5X – Short)

The Multifactor Leadership Questionnaire (MLQ) was developed by Bass and Avolio (1994) as a means of measuring Bass's model of transformational versus transactional leadership. As described in Chapter II of this study, the instrument measures three different types of leadership, each with its own distinct qualities. First, it measures four dimensions of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Second, it

measures three dimensions of transactional leadership: contingent reward and the active and passive forms of management by exception. Third, the instrument measures laissez-faire leadership, which can be described most easily as the absence of any apparent leadership behaviors. Together, the three types of leadership described here comprise what Bass and Riggio (2006) call the Full Range of Leadership (FRL) model. Table 1 details the characteristics of each component of this model.

Table 1

Leadership Styles Measured by the Multifactor Leadership Questionnaire

Leadership Style	Characteristics and Sample Items
Transformational Leadership	
Idealized Influence (II)	The leader serves as a role model for followers and is admired, respected and trusted.
Inspirational Motivation (IM)	The leader motivates and inspires followers by providing meaning and challenge to their work.
Intellectual Stimulation (IS)	The leader stimulates followers' efforts by questioning assumptions, reframing problems, and approaching old situations in innovative ways.
Individualized Consideration (IC)	The leader pays attention to individual followers' needs for achievement and growth, acting as mentor or coach.
Transactional Leadership	
Contingent Reward (CR)	The leader gains agreement from followers about what needs to be done by offering rewards in exchange of satisfactory assignment completion.
Management by Exception – Active (MBE-A)	The leader actively monitors followers' errors or deviance from standards and takes

	corrective action as necessary.
Management by Exception – Passive (MBE-P)	The leader waits passively for errors or deviance from standards and then takes corrective action.
Laissez-Faire Leadership (LF)	The leader avoids exerting leadership or taking action on important issues.

Source: Bass & Riggio, 2006

The rater form of the MLQ includes 45 descriptive statements, which require a response from the participant using a five-point Likert-style scale with the following ratings: (0) *Not at all*; (1) *once in awhile*; (2) *sometimes*; (3) *fairly often*; (4) *frequently, if not always*. Thirty-six items on the rater form measure leadership behaviors, while nine items measure leadership outcomes. Permission to reproduce the instrument was granted by Mind Garden, Inc. in November, 2011 (see Appendix A).

Strong evidence exists to demonstrate the construct validity of the MLQ. Bass and Riggio (2006) asserted that the instrument “has been subjected to extensive factor analyses to examine both the model of transformational leadership, the larger FRL theory (FRLT), as well as the question of whether the MLQ adequately measures these constructs.” Although some researchers have suggested collapsing or combining some of the nine factors, recent research (Antonakis, Avolio, & Sivasubramaniam, 2003) provided support for the multidimensional structure represented by the MLQ. According to Bass and Riggio (2006), “MLQ scales have demonstrated good to excellent internal consistency with alpha coefficients above the .80 level for all MLQ scales, using the most recent version of the MLQ across a large sample.” More than 15,000 respondents have completed the MLQ, and it has been translated into many languages and used by researchers across the globe. Finally, the degree to which an instrument consistently

measures what it was designed to measure (commonly referred to as reliability) is of the utmost importance if the results of a study are to be meaningful. According to Nunnally and Bernstein (1994), reliability coefficient values of .70 are acceptable, while values of .80 and higher are preferable when conducting basic research. I selected the MLQ in part because of its established reliability across both public and private work settings. Table 2 features the reliability scores for this instrument, which vary from .69 to .83.

Table 2

MLQ-5X 2004 Reliability Scores

Scale	Reliability
Transformational Leadership	
Idealized Influence: Attributed	0.75
Idealized Influence: Behaviors	0.70
Inspirational Motivation	0.83
Intellectual Stimulation	0.75
Individualized Consideration	0.77
Transactional Leadership	
Contingent Reward	0.69
Management by Exception: Active	0.75
Management by Exception: Passive	0.70
Laissez-Faire Leadership	0.71

Note: Total Reliability Scores (US) N=27,285

Source: Avolio & Bass, 2004

Organizational Commitment Questionnaire (OCQ)

The OCQ was developed by Mowday et al. (1979) to measure the level and relative strength of individuals' commitment to organizations in which they work. The form features 15 descriptive statements that require the participant to respond using a seven-point Likert-style scale with the following ratings: (1) *strongly disagree*; (2) *moderately disagree*; (3) *slightly disagree*; (4) *neither disagree nor agree*; (5) *slightly agree*; (6) *moderately agree*; and (7) *strongly agree*. Results are then totaled and divided by 15 to arrive at a summary indicator of employee commitment. When the instrument was devised, some items were phrased negatively and reverse scored in order to attempt to reduce response bias (Mowday, Porter & Steers, 1979). In order to validate the instrument, the researchers administered it to 2,563 employees working in a variety of different environments. The coefficient α was found to be consistently high, ranging from .82 to .93 with a median of .90 across all environments. The researchers also determined that each item on the instrument had a positive correlation with the total score for the OCQ and the range of average correlations was from .36 to .72, with a median correlation of .64. In their meta-analysis, Mathieu and Zajac (1990) examined 90 samples, in which 80 ($N= 24,258$) reported an average internal consistency reliability of .882 ($SD=.038$) for the OCQ. The OCQ is in the public domain and therefore I was not required to seek permission to use it in this study.

Minnesota Job Satisfaction Questionnaire (MSQ)

The Minnesota Satisfaction Questionnaire (MSQ) was developed at the University of Minnesota Industrial Relations Center as part of the Work Adjustment Project studies to measure "satisfaction with several specific aspects of work and work

environments” (Weiss, Dawis, England & Lofquist, 1967, p. vi). Both long and short forms are available. This study used the short form, which takes about 5 minutes to complete and consists of 20 items and three scales: intrinsic satisfaction, extrinsic satisfaction, and general satisfaction. Respondents are asked to use a five-item Likert-type scale to respond to each item with one of the following ratings: (1) *very dissatisfied*; (2) *dissatisfied*; (3) *neither satisfied nor dissatisfied*; (4) *satisfied*; (5) *very satisfied*. Scores are determined by adding the weights for the responses chosen by the authors for the items in each scale.

In tests to determine the reliability and validity of the MSQ, Weiss et al. (1967) obtained high reliability coefficients. For the Intrinsic Satisfaction scale, the coefficients ranged from .84 to .91 with a median reliability coefficient of .86. For the Extrinsic Satisfaction scale, they varied from .77 to .82 with a median reliability coefficient of .80. Finally, for the General Satisfaction scale, coefficients ranged from .87 to .92 with a median reliability coefficient of .90. The authors were also able to document support for the validity of the MSQ scales as measures of satisfaction (p. 26). Permission to use the MSQ short form in this research study was granted by the Department of Vocational Psychology Research at the University of Minnesota (see Appendix A).

Demographic Information

The measurement instrument used in this study also included demographic questions about teachers’ building of assignment, age, gender, and years in service.

Data Collection

I gained permission to conduct the study from the superintendents of the five school district, as well as the principals of the five high schools. These letters are not

included in the study appendices in order to protect the confidentiality of subjects and subject schools. Subsequent approval was then gained from the Institutional Review Board (IRB) at Seton Hall University (see Appendix B). All teachers in the sample received an email invitation via the principal to complete an online survey administered via *Assest* within 2 weeks. The email contained a link to the password-protected survey, as well as the approved letter of solicitation (see Appendix C). After the first week had passed, I sent a follow-up email via the principals to all potential participants, thanking those who had already completed the survey and reminding those who had not that the window would be open for an additional week. The principals of all five schools received a different letter of invitation, with a link to a separate password-protected survey for them to complete. Table 3 contains information about the total population, sample, and participation rate for the survey by school.

Table 3

Population and participation rates by school

School	# Teachers (N)	# Participants (n)	% Participation
School A	50	12	24%
School B	158	46	29%
School C	41	9	22%
School D	190	81	43%
School E	65	4	16%
Total	504	152	30%

Data Analysis

Once the survey was closed, I imported participants' responses into SPSS (Version 16.0), a software package used to analyze data. Next, descriptive statistics were generated and analyzed to determine mean scores on each survey instrument, frequency

distributions, and demographic information about the sample as a whole. Relevant demographic information included teacher gender, age, and years of experience. The demographic variables of age and experience were dummy coded as necessary to prepare them for use in regression analysis (see Table 4). Cut points for dummy coding were determined based on an examination of the frequency tables. Age was divided into two categories, under or over age 40. It was necessary for experience to be separated into three levels, so two separate dummy coded variables were created for this purpose. The first is Novice, defined as an individual with less than 10 years of teaching experience. The second is Veteran, defined as an individual with more than 20 years of experience.

Table 4

Key to dummy coded demographic variables

Variable	Codes
Gender	0=female 1=male
Age	0=under 40 years 1=over 40 years
Experience	
Novice status	0=not novice 1=novice
Veteran status	0=not veteran 1=veteran
Total	504

Research Questions

The research question for this study was, Beyond that of transactional leadership practices, what, if any, impact do principals' transformational leadership behaviors have

on teachers' job satisfaction and organizational commitment? and the subsidiary questions were:

1. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of idealized influence as a practice have on high school teachers' job satisfaction and organizational commitment?
2. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of inspirational motivation as a practice have on high school teachers' job satisfaction and organizational commitment?
3. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of intellectual stimulation as a practice have on high school teachers' job satisfaction and organizational commitment?
4. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of individualized consideration as a practice have on high school teachers' job satisfaction and organizational commitment?

Initially, I sought to identify and define a relationship between the predictor variables (transformational and transactional leadership behaviors) and four outcome variables (three types of job satisfaction—*intrinsic*, *extrinsic* and *general*—and organizational commitment). To do this, I first used SPSS to run a single correlation analysis in which the nine Full Range of Leadership behaviors (which comprise transformational, transactional and *laissez faire* leadership) and the four outcome variables (teachers' *intrinsic* job satisfaction, *extrinsic* job satisfaction, *general* job satisfaction, and organizational commitment) were all entered as variables. The

correlation coefficient selected was Pearson's correlation coefficient because that is the most common type and the one with which I was most familiar. The type of test selected was 2-tailed, because I did not pre-suppose the direction of the relationship. Finally, SPSS was set to flag significant correlations. The results allowed me to see which specific leadership behaviors and groups of behaviors (transformational, transactional, or laissez faire) were significantly correlated with each of the outcome variables.

I then conducted exploratory simple regressions to further examine the relationship between the variables under study. The results of these exploratory simple regressions were used to create the models that would be used in a hierarchical linear regression, constructed to answer the research questions. Five hierarchical linear regressions were then conducted for each of the four outcome variables. In each case, the researcher used demographic variables in the first model, then added one significant transactional leadership behavior in the second model (contingent reward), and finally added one of the transformational leadership behaviors in the third model. In this way, the researcher was able to control for demographics and for the influence of a transactional leadership behavior that was shown to be significant and still determine whether the transformational leadership behavior added value to the model, as evidenced by the r^2 change between the second and third models.

Summary

This section has outlined the population, instrumentation, data collection and analysis techniques that were employed in this study, which was a quantitative design. The purpose of the study was to answer the question, What, if any, impact do principals' transformational leadership behaviors have on teachers' job satisfaction and

organizational commitment beyond that of transactional leadership practices? as well as the four subsidiary questions. The study was expected to reveal new information about the relationship between high school principals' leadership practices and teachers' job satisfaction and organizational commitment.

Chapter IV

ANALYSIS OF DATA

Introduction

The purpose of this study was to answer the question, Beyond that of transactional leadership practices, what, if any, impact do principals' transformational leadership behaviors have on teachers' job satisfaction and organizational commitment? and the following four subsidiary questions:

1. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of idealized influence as a practice have on high school teachers' job satisfaction and organizational commitment?
2. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of inspirational motivation as a practice have on high school teachers' job satisfaction and organizational commitment?
3. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of intellectual stimulation as a practice have on high school teachers' job satisfaction and organizational commitment?
4. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of individualized consideration as a practice have on high school teachers' job satisfaction and organizational commitment.

In order to answer these questions, I engaged in a quantitative study with a correlational design. One hundred and fifty six high school teachers in five different schools responded to a survey comprised of three established instruments. The first of

these instruments was the short form of the Multi-Factor Leadership Questionnaire (MLQ), which measures follower perceptions about leader behaviors. The behaviors measured correspond to the full range of leadership model, developed by Bass (1985), which includes three distinct components (transformational, transactional, and laissez faire) and specific behaviors associated with each. The second instrument was the Organizational Commitment Questionnaire (OCQ), which was developed by Mowday et al. (1979) to measure the level and relative strength of individuals' commitment to the organizational in which they work. The third instrument employed in this study was the Minnesota Job Satisfaction Questionnaire (MSQ), which measures individuals' satisfaction with specific aspects of their work and provides the researcher with three distinct satisfaction scores for each individual: intrinsic, extrinsic and general job satisfaction. The results from all three instruments, as well as some relevant demographic information about respondents, were analyzed and are synthesized in this chapter.

Organization of Data Analysis

The first section of this chapter provides information about the descriptive characteristics of the survey respondents, including demographic details, as well as mean scores on the job satisfaction and organizational commitment instruments. It also includes a descriptive analysis of perceived leadership dimensions, including the mean score for each separate behavior that is measured by the MLQ.

The next section of this chapter provides an analysis of the data as it relates to the research question. First, an analysis of Pearson correlations between each of the nine components of the Full Range of Leadership model and teachers' Job Satisfaction and then Organizational Commitment scores are examined. Next, the results of the

exploratory regression analysis of significant independent variables and teachers' Job Satisfaction and Organizational Commitment scores are presented. Finally, the results of the hierarchical linear regression, created based on the results of these analyses, is discussed.

Presentation of Descriptive Characteristics of Respondents

Of the 156 valid questionnaires, 36% (56) were completed by male respondents, 61% (95) were completed by female respondents and 3% (5) of respondents did not disclose their gender. The majority of respondents (63%) were between the ages of 21 and 50. Sixty one percent of respondents had between 0 and 20 years of teaching experience, while 26% had between 21 and 40 years of experience (see Table 5). Results for respondents aged 61-70 and with job experience of 36-40 years are very limited in their generalizability, due to the small number of respondents in those groups ($n=2$ & $n=1$).

Table 5

Teachers' Demographic and Work Profile

Personal Characteristics	Subgroups	Frequency	Percentage
Gender	Male	56	36
	Female	95	61
	Not Disclosed	5	3
Age	21-30	25	16
	31-40	51	32
	41-50	47	30
	51-60	25	16
	61-70	2	1

	Not Disclosed	7	4
Years of Experience			
0-5	16	10	
6-10	35	22	
11-15	40	26	
16-20	21	13	
21-25	16	10	
26-30	15	10	
31-35	8	5	
36-40	1	>1	
Not disclosed	4	3	

Descriptive statistics regarding the Job Satisfaction and Organizational Commitment scores for this sample of teachers are presented in Table 6, while scores disaggregated by age, gender and years of experience are presented in Table 7. The mean score across all groups for Intrinsic Job Satisfaction was 50.57. It was slightly higher for males (51.29) than females (50.25). Participants reporting the lowest mean Intrinsic Job Satisfaction were those aged 61-70. However, these results are limited because of the small number of participants in that age range ($n=2$). The next lowest mean Intrinsic Job Satisfaction was for teachers aged 21-30 (49.72), while the mean for teachers between 31 and 60 was very similar (51.11-51.52). Teachers with between 16 and 20 years of teaching experience reported the lowest mean Intrinsic Job Satisfaction score (47.67), followed by the small group of teachers with between 36-40 years (48). The highest mean Intrinsic Job Satisfaction score was for teachers with between 31 and 35 years of teaching experience (54.50).

Table 6

Descriptive Analysis of Teacher Participants' Job Satisfaction and Organizational Commitment Scores

Scale	Low Score	High Score	Mean Score	Standard Deviation
Job Satisfaction				
Intrinsic	20	60	50.57	7.54
Extrinsic	7	30	21.65	4.98
General	44	100	80.08	12.64
Organizational Commitment				
	3.13	5.87	4.52	.435

N=156

Table 7

Descriptive Analysis of Participants' Job Satisfaction and Organizational Commitment Scores by Subgroup

Scale	Characteristic	Subgroups	Mean Score	Standard Deviation
Job Satisfaction				
Intrinsic	Gender	Males	50.25	6.431
		Females	51.29	6.403
	Age	21-30	49.72	5.89
		31-40	51.45	5.54
		41-50	51.11	7.64
		51-60	51.52	5.06
		61-70	37.00	5.66
	Years of Experience	0-5	51.06	5.42

Scale	Characteristic	Subgroups	Mean Score	Standard Deviation
Extrinsic		6-10	51.20	5.68
		11-15	51.15	4.89
		16-20	47.67	7.74
		21-25	52.25	10.47
		26-30	51.27	5.30
		31-35	54.50	4.54
		36-40	48.00	N/A
	Gender	Males	21.98	4.56
		Females	21.78	4.74
	Age	21-30	21.64	4.89
		31-40	22.04	4.22
		41-50	22.21	5.02
		51-60	21.28	4.68
		61-70	16.50	4.95
	Years of Experience	0-5	22.62	5.50
		6-10	22.11	3.71
		11-15	21.02	4.76
		16-20	20.19	5.02
		21-25	24.88	3.81
		26-30	21.33	5.30
		31-35	23.12	3.83
		36-40	23.00	N/A
General	Gender	Males	80.32	11.03
		Females	80.92	10.86

Scale	Characteristic	Subgroups	Mean Score	Standard Deviation
Organizational Commitment	Age	21-30	79.16	10.65
		31-40	81.73	9.56
		41-50	81.32	12.20
		51-60	80.20	9.96
		61-70	59.50	10.61
	Years of Experience	0-5	82.19	11.44
		6-10	81.29	9.07
		11-15	80.07	9.56
		16-20	75.29	12.77
		21-25	85.50	14.84
		26-30	79.93	9.45
		31-35	86.25	8.65
		36-40	78.00	N/A
		Gender	Males	4.38
	Females		4.48	.43
	Age	21-30	4.50	.57
		31-40	4.45	.43
		41-50	4.41	.39
		51-60	4.39	.39
61-70		4.70	.33	
Years of Experience	0-5	4.54	.48	
	6-10	4.49	.51	
	11-15	4.38	.40	

Scale	Characteristic	Subgroups	Mean Score	Standard Deviation
		16-20	4.37	.49
		21-25	4.49	.34
		26-30	4.40	.38
		31-35	4.53	.30
		36-40	4.73	N/A

The mean score for Extrinsic Job Satisfaction across all groups was 21.65. It was virtually the same for male and female respondents (21.78 and 21.98). The small group of teachers aged 61-70 had the lowest mean Extrinsic Job Satisfaction score (16.50), while the highest was for teachers age 41-50 (22.21) and those aged 51-60 (22.28). Teachers with between 16 and 20 years of experience as a group had the lowest mean Extrinsic Job Satisfaction score (20.19), while the highest was for those with 21-25 years of experience (24.88).

Finally, the mean General Job Satisfaction score for the teacher sample was 80.08. It was slightly higher for females (80.92) than for males (80.32). The small group of teachers aged 61-70 had the lowest mean General Job Satisfaction score (59.50), followed by those aged 21-30 (79.16). The highest mean General Job Satisfaction scores were reported by the group aged 41-50 (81.32) and those aged 31-40 (81.73). The group with between 16 and 20 years of teaching experience reported the lowest mean General Job Satisfaction (75.29), and the highest mean score was for the group with between 21 and 25 years of experience (85.50).

The authors of the MSQ outline two ways that scores on this instrument can be interpreted. First, they can be compared against normative data for other individuals in the same or similar profession. Two issues prevent this from being useful in this study. First, there is no normative data provided for teachers. The normative data that is available is only for a limited number of professions and was gathered when the instrument was developed in the 1960s. Therefore, the data that is available would have limited applicability now, 50 years later. However, in order to provide some basis for comparison, the results for the entire normative group (1,723 participants across a variety of professions) will be discussed. The mean Intrinsic Job Satisfaction score for the normative group was 47.14 ($SD = 7.42$), compared with a score of 50.91 ($SD = 6.41$) in this sample. The mean Extrinsic Job Satisfaction score for the normative group was 19.98 (std deviation = 4.78), compared with a score of 21.85 ($SD = 4.67$) in this sample. Finally, the mean General Job Satisfaction score was 74.85 ($SD = 11.92$), compared with a score of 80.70 ($SD = 10.89$) in this sample. In all three cases, the mean score for this sample is significantly higher than that of the normative sample group. The second way scores on the MSQ can be interpreted, according to the authors, is simply by ranking them and thereby identifying areas of greater or lesser satisfaction. This was not necessary in the current study, because comparative data between teachers was not a research focus.

Normative data provided by the authors for the Organizational Commitment scale is also dated (developed in 1979), but worth examining as it is based on results from 2,508 respondents in a variety of job fields. The mean score on the Organizational Commitment scale for this teacher sample was 4.45. According to Mowday et al. (1979),

a score of 4.45 translates to the 42nd percentile for males and the 34th percentile for females. However, when we compare our mean score (4.45) to the mean score they reported for public employees only (4.5), the difference is small and results comparable. Males and females in this sample differed little in this sample between their mean Organizational Commitment scores (4.38 and 4.48 respectively). In terms of teacher age, the lowest mean Organizational Commitment score was reported by teachers aged between 51 and 60 (4.39), while the highest was for the small group of teachers aged 61-70 (4.70). Finally, the group of teachers with between 11 and 15 years of teaching experience reported the lowest mean Organizational Commitment (4.38), while those with between 36 and 40 years of experience had the highest (4.73).

Descriptive statistics regarding the Job Satisfaction scales and Organizational Commitment scales scores for this sample of principals are presented in Table 8. The mean score for Intrinsic Job Satisfaction was 51.8, for Extrinsic Job Satisfaction, it was 21.8, and for General Job Satisfaction it was 82. Mean scores for both Intrinsic and General Job Satisfaction were higher than those for the teacher group, while the mean score for Extrinsic Job Satisfaction was the same. As with the teacher group, the mean scores for this sample were significantly higher than those of the normative sample group on all three job satisfaction scales. Likewise, the mean score on the Organizational Commitment scale was 4.52, which again is comparable to that of public employees in the normative sample group. It must be noted, however, that the sample from which these data were drawn is only five individuals, so results cannot be generalized beyond this small group. In addition, disaggregated results are not presented here due to the small sample size and in order to maintain participant confidentiality.

Table 8

Descriptive Analysis of Principal Participants' Job Satisfaction and Organizational Commitment Scores

Scale	Low Score	High Score	Mean Score	Standard Deviation
Job Satisfaction				
Intrinsic	43	60	51.8	7.09
Extrinsic	14	27	21.8	4.76
General	65	96	82	12.34
Organizational Commitment				
	3.93	4.87	4.52	.401

n=5

Of the nine dimensions of principal leadership practices, the mean score for the Inspirational Motivation scale (as reported by teacher participants) was the highest at 3.04, while the mean score for the Laissez-Faire Leadership scale was the lowest at .91. The average mean score for the five dimensions of transformational leadership behavior was 2.63, while the average mean for the three dimensions of transactional leadership behavior was 1.76 (see Table 9).

Table 9

Descriptive Analysis of Perceived Leadership Dimensions

Leadership Dimension	Minimum	Maximum	Mean	Standard Deviation
Transformational Leadership				
Idealized Influence (attributed)	.00	4.00	2.90	1.08
Idealized Influence (behavior)	.00	4.00	2.95	.88
Inspirational Motivation	.00	4.00	3.04	.86

Leadership Dimension	Minimum	Maximum	Mean	Standard Deviation
Intellectual Stimulation	.00	4.00	2.02	1.05
Individualized Consideration	.00	4.00	2.23	1.06
Transactional Leadership				
Contingent Reward	.00	4.00	2.57	.98
Management by Exception (active)	.00	4.00	1.67	.78
Management by Exception (passive)	.00	4.00	1.03	.93
Laissez-Faire Leadership	.00	4.00	.91	1.07

Research Question

The primary research question for this study was, Beyond that of transactional leadership practices, what, if any, impact do principals' transformational leadership behaviors have on teachers' job satisfaction and organizational commitment?

This question was answered by first comparing the correlation coefficients for each leadership dimension relevant to this study with teachers' Job Satisfaction scores and Organizational Commitment scores. The results, presented in Table 10, provide some initial insight into this question.

Table 10

Summary of Correlation Analysis between Leadership Practice Dimensions and Teacher Job Satisfaction and Organizational Commitment

Leadership Practice Dimension		Job Satis. (intrinsic)	Job Satis. (extrinsic)	Job Satis. (general)	Organ. Commit.
Transformational Leadership					
Idealized Influence (attributed)	<i>r</i>	.182*	.673**	.440**	.466**
	<i>sig</i>	.011	.000	.000	.000
Idealized Influence (behavior)	<i>r</i>	.221**	.615**	.437**	.402**
	<i>sig</i>	.003	.000	.000	.000
Inspirational Motivation	<i>r</i>	.260**	.631**	.476**	.393**
	<i>sig</i>	.001	.000	.000	.000
Intellectual Stimulation	<i>r</i>	.298**	.625**	.474**	.366**
	<i>sig</i>	.000	.000	.000	.000
Individualized Consideration	<i>r</i>	.371**	.678**	.551**	.344**
	<i>sig</i>	.000	.000	.000	.000
Transactional Leadership					
Contingent Reward	<i>r</i>	.301**	.664**	.511**	.409**
	<i>sig</i>	.000	.000	.000	.000
Management by Exception (active)	<i>r</i>	-.035	.068	.021	.073
	<i>sig</i>	.334	.201	.399	.182
Management by Exception (passive)	<i>r</i>	-.192**	-.482**	-.361**	-.389**
	<i>sig</i>	.008	.000	.000	.000
Laissez-Faire Leadership	<i>r</i>	-.140*	-.626**	-.397**	-.377**
	<i>sig</i>	.040	.000	.000	.000

Note: r = Pearson Correlation Coefficient, sig = significance (1-tailed test),

**=Correlation is significant at the .01 level (1-tailed), **= Correlation is significant at the .05 level (1-tailed)*

Exploratory Regression Analysis – Transformational Leadership Behaviors

Pearson Correlations Between All Full Range of Leadership Dimensions and Job Satisfaction Scores

This study found a weak, direct correlation between Intrinsic Job Satisfaction scores and the idealized influence (attributed) dimension of transformational leadership, with a correlation coefficient of .182, significant at the .05 level. There was a moderate, direct correlation between Intrinsic Job Satisfaction scores and the four other dimensions of transformational leadership, with correlation coefficients between .221 (idealized influence [behavior]) and .371 (individualized consideration), with significance at the .01 level.

Results also indicate a strong, direct correlation between Extrinsic Job Satisfaction scores and all the dimensions of transformational leadership behavior. Correlation coefficients ranged from .615 (idealized influence [behavior]) and .678 (individualized consideration), with significance in all cases at the .001 level.

Finally, results indicate a moderate, direct relationship between General Job Satisfaction scores and all the dimensions of transformational leadership behavior. Correlation coefficients vary from .437 (idealized influence [behavior]) to .551 (individualized consideration), with significance in all cases at the .001 level. Overall, idealized influence [attributed] demonstrated the weakest correlation with all types of job satisfaction scores, while individualized consideration demonstrated the strongest.

Statistically significant relationships were also identified between two of three transactional leadership practices and teacher job satisfaction. Passive management by exception had a strong, negative relationship with all three forms of job satisfaction, with correlation coefficients ranging from -.192 (intrinsic job satisfaction) to -.482 (extrinsic

job satisfaction). Contingent reward behavior, on the other hand, had a direct relationship with all forms of teacher job satisfaction. Correlation coefficients ranged from .301 (intrinsic job satisfaction) to .664 (extrinsic job satisfaction).

Finally, laissez-faire leadership had an inverse correlation with all dimensions of job satisfaction, with $r = -.140$ for intrinsic with significance at the .05 level, $r = -.626$ for extrinsic with significance at the .001 level, and $r = -.397$ for general, also with significance at the .001 level.

Pearson Correlations Between All Full Range of Leadership Dimensions and Organizational Commitment Scores

This study found a moderate, direct correlation between all dimensions of transformational leadership and teachers' Organizational Commitment scores. Correlation coefficients ranged from .344 (individual consideration) to .466 (idealized influence [attributed]), all with significance at the .001 level.

The three dimensions of transactional leadership demonstrated varied correlations with Organizational Commitment scores. Contingent reward behavior had a moderate, direct correlation, with a correlation coefficient of .409 and significance at the .001 level. Management by exception (active) demonstrated no significant correlation. Management by exception (passive), however, had a moderate, inverse correlation, with a correlation coefficient of $-.389$ and significance at the .001 level.

Laissez-faire leadership also had a moderate, inverse correlation with Organizational Commitment scores, with a correlation coefficient of $-.377$ and significance at the .001 level. Laissez-faire leadership is defined as the absence of any active leadership behaviors and is generally considered ineffective. Because this study

sought to investigate potentially effective leadership practices, I chose at this point to eliminate laissez-faire leadership from further study after the correlation analysis supported its status as negatively correlated with teacher job satisfaction and organizational commitment.

Overall, this examination of Pearson correlation coefficients provided compelling evidence that a positive, direct relationship exists between certain dimensions of the Full Range of Leadership model and teacher job satisfaction and organizational commitment. Specifically, significant correlations were identified between all four outcome variables and most dimensions of transformational leadership behaviors. Additionally, contingent reward behavior (a dimension of transactional leadership) also had a significant, direct correlation with all of the outcome variables. This analysis was used to help the researcher select outcome variables to include in an exploratory regression analysis to further examine the relationship between the study variables.

Because the results of the correlation analysis indicated that all the transformational leadership behaviors are significantly correlated with each of the four outcome variables, I next conducted an exploratory regression analysis to determine how much of the variance in each outcome variable could potentially be explained by each dimension of transformational leadership behavior.

Exploratory Regression Analysis – Transformational Leadership Practices

Transformational Leadership and Intrinsic Job Satisfaction

In the first regression, the dependent variable was intrinsic job satisfaction and the independent variable was idealized influence (attributed), the first of five transformational leadership behaviors. In this case, only 3% of the variance in intrinsic

job satisfaction was explained by idealized influence (attributed), since the adjusted R^2 was .027. The model had an F value of 5.300, with degrees of freedom 1,154 and the regression model was significant at the .02 level. Idealized influence (attributed) had a standardized beta of .182 and a t value of 2.302 and it was significant at the .02 level. This means that idealized influence (attributed) is a significant predictor of intrinsic job satisfaction. However, the amount of variance explained by idealized influence (attributed) is quite small.

In the second regression, the dependent variable was intrinsic job satisfaction and the independent variable was idealized influence (behavior), the second of five transformational leadership behaviors. In this case, 4% of the variance in intrinsic job satisfaction was explained by idealized influence (behavior), since the adjusted R^2 was .043. The model had an F value of 7.911, with degrees of freedom 1,154 and the regression model was significant at the .01 level. Idealized influence (behavior) had a standardized beta of .221 and a t value of 2.813 and it was significant at the .01 level. This means that idealized influence (behavior) is a significant predictor of intrinsic job satisfaction, though like idealized influence (attributed), it accounts for only a small amount of the variance.

In the third regression, the dependent variable was intrinsic job satisfaction and the independent variable was inspirational motivation, the third of five transformational leadership behaviors. In this case, 6% of the variance in intrinsic job satisfaction was explained by inspirational motivation, since the adjusted R^2 was .061. The model had an F value of 11.15 and was significant at the .001 level. Inspirational motivation had a standardized beta of .260 and a t value of 3.339 and was significant at the .001 level. This

means that inspirational motivation is a significant predictor of intrinsic job satisfaction, accounting again for a small but significant amount of the variance.

In the fourth regression, the dependent variable was intrinsic job satisfaction and the independent variable was intellectual stimulation, the fourth of five transformational leadership behaviors. In this case, 8% of the variance in intrinsic job satisfaction was explained by intellectual stimulation, since the adjusted R^2 was .083. The model had an F value of 14.943 and was significant at the .000 level. Intellectual stimulation had a standardized beta of .298 and a t value of 3.866 and was significant at the .000 level. This means that intellectual stimulation is a significant predictor of intrinsic job satisfaction.

In the fifth regression, the dependent variable was intrinsic job satisfaction and the independent variable was individualized consideration, the last of five transformational leadership behaviors. In this case, 13% of the variance in intrinsic job satisfaction was explained by individualized consideration, since the adjusted R^2 was .138. The model had an F value of 24.654 and was significant at the .000 level. Individualized consideration had a standardized beta of .371 and a t value of 4.965 and was significant at the .000 level. This means that individualized consideration is a significant predictor of intrinsic job satisfaction.

Transformational Leadership and Extrinsic Job Satisfaction

In the first regression, the dependent variable was extrinsic job satisfaction and the independent variable was idealized influence (attributed), the first of five transformational leadership behaviors. In this case, 45% of the variance in extrinsic job satisfaction was explained by idealized influence (attributed), since the adjusted R^2 was .449. The model had an F value of 127.556, with degrees of freedom 1,154 and the

regression model was significant at the .000 level. Idealized influence (attributed) had a standardized beta of .673 and a t value of 11.294 and it was significant at the .000 level. This means that idealized influence (attributed) is a strong and significant predictor of extrinsic job satisfaction.

In the second regression, the dependent variable was extrinsic job satisfaction and the independent variable was idealized influence (behavior), the second of five transformational leadership behaviors. In this case, 38% of the variance in extrinsic job satisfaction was explained by idealized influence (behavior), since the adjusted R^2 was .378. The model had an F value of 93.618, with degrees of freedom 1,154 and the regression model was significant at the .000 level. Idealized influence (behavior) had a standardized beta of .615 and a t value of 9.676 and it was significant at the .000 level. This means that idealized influence (behavior) is a strong and significant predictor of extrinsic job satisfaction.

In the third regression, the dependent variable was extrinsic job satisfaction and the independent variable was inspirational motivation, the third of five transformational leadership behaviors. In this case, 40% of the variance in extrinsic job satisfaction was explained by inspirational motivation, since the adjusted R^2 was .399. The model had an F value of 102.147 and was significant at the .000 level. Inspirational motivation had a standardized beta of .631 and a t value of 10.107 and was significant at the .000 level. This means that inspirational motivation is a strong and significant predictor of extrinsic job satisfaction.

In the fourth regression, the dependent variable was extrinsic job satisfaction and the independent variable was intellectual stimulation, the fourth of five transformational

leadership behaviors. In this case, 39% of the variance in extrinsic job satisfaction was explained by intellectual stimulation, since the adjusted R^2 was .386. The model had an F value of 97.904 and was significant at the .000 level. Intellectual stimulation had a standardized beta of .625 and a t value of 9.895 and was significant at the .000 level. This means that intellectual stimulation is a strong, significant predictor of extrinsic job satisfaction.

In the fifth regression, the dependent variable was extrinsic job satisfaction and the independent variable was individualized consideration, the last of five transformational leadership behaviors. In this case, 46% of the variance in extrinsic job satisfaction was explained by individualized consideration, since the adjusted R^2 was .457. The model had an F value of 131.223 and was significant at the .000 level. Individualized consideration had a standardized beta of .678 and a t value of 11.455 and was significant at the .000 level. This means that individualized consideration is a strong, significant predictor of extrinsic job satisfaction.

Transformational Leadership and General Job Satisfaction

In the first regression, the dependent variable was general job satisfaction and the independent variable was idealized influence (attributed), the first of five transformational leadership behaviors. In this case, 19% of the variance in general job satisfaction was explained by idealized influence (attributed), since the adjusted R^2 was .188. The model had an F value of 36.903, with degrees of freedom 1,154 and the regression model was significant at the .000 level. Idealized influence (attributed) had a standardized beta of .440 and a t value of 6.075 and it was significant at the .000 level.

This means that idealized influence (attributed) is a significant predictor of general job satisfaction.

In the second regression, the dependent variable was general job satisfaction and the independent variable was idealized influence (behavior), the second of five transformational leadership behaviors. In this case, 19% of the variance in general job satisfaction was explained by idealized influence (behavior), since the adjusted R^2 was .186. The model had an F value of 36.347, with degrees of freedom 1,154 and the regression model was significant at the .000 level. Idealized influence (behavior) had a standardized beta of .437 and a t value of 6.029 and it was significant at the .000 level. This means that idealized influence (behavior) is a significant predictor of general job satisfaction.

In the third regression, the dependent variable was general job satisfaction and the independent variable was inspirational motivation, the third of five transformational leadership behaviors. In this case, 22% of the variance in general job satisfaction was explained by inspirational motivation, since the adjusted R^2 was .222. The model had an F value of 45.211 and was significant at the .000 level. Inspirational motivation had a standardized beta of .476 and a t value of 6.724 and was significant at the .000 level. This means that inspirational motivation is a significant predictor of general job satisfaction.

In the fourth regression, the dependent variable was general job satisfaction and the independent variable was intellectual stimulation, the fourth of five transformational leadership behaviors. In this case, 22% of the variance in general job satisfaction was explained by intellectual stimulation, since the adjusted R^2 was .220. The model had an F value of 44.325 and was significant at the .000 level. Intellectual stimulation had a

standardized beta of .474 and a t value of 6.658 and was significant at the .000 level. This means that intellectual stimulation is a strong, significant predictor of general job satisfaction.

In the fifth regression, the dependent variable was general job satisfaction and the independent variable was individualized consideration, the last of five transformational leadership behaviors. In this case, 30% of the variance in general job satisfaction was explained by individualized consideration, since the adjusted R^2 was .300. The model had an F value of 67.299 and was significant at the .000 level. Individualized consideration had a standardized beta of .551 and a t value of 8.204 and was significant at the .000 level. This means that individualized consideration is a strong, significant predictor of general job satisfaction.

Transformational Leadership and Organizational Commitment

In the first regression, the dependent variable was organizational commitment and the independent variable was idealized influence (attributed), the first of five transformational leadership behaviors. In this case, 21% of the variance in organizational commitment was explained by idealized influence (attributed), since the adjusted R^2 was .212. The model had an F value of 42.816, with degrees of freedom 1,154 and the regression model was significant at the .000 level. Idealized influence (attributed) had a standardized beta of .466 and a t value of 6.543 and it was significant at the .000 level. This means that idealized influence (attributed) is a significant predictor of organizational commitment.

In the second regression, the dependent variable was organizational commitment and the independent variable was idealized influence (behavior), the second of five

transformational leadership behaviors. In this case, 16% of the variance in organizational commitment was explained by idealized influence (behavior), since the adjusted R^2 was .156. The model had an F value of 29.667, with degrees of freedom 1,154 and the regression model was significant at the .000 level. Idealized influence (behavior) had a standardized beta of .402 and a t value of 5.447 and it was significant at the .000 level. This means that idealized influence (behavior) is a significant predictor of organizational commitment.

In the third regression, the dependent variable was organizational commitment and the independent variable was inspirational motivation, the third of five transformational leadership behaviors. In this case, 15% of the variance in organizational commitment was explained by inspirational motivation, since the adjusted R^2 was .149. The model had an F value of 28.115 and was significant at the .000 level. Inspirational motivation had a standardized beta of .393 and a t value of 5.302 and was significant at the .000 level. This means that inspirational motivation is a significant predictor of organizational commitment.

In the fourth regression, the dependent variable was organizational commitment and the independent variable was intellectual stimulation, the fourth of five transformational leadership behaviors. In this case, 13% of the variance in organizational commitment was explained by intellectual stimulation, since the adjusted R^2 was .129. The model had an F value of 23.714 and was significant at the .000 level. Intellectual stimulation had a standardized beta of .366 and a t value of 4.554 and was significant at the .000 level. This means that intellectual stimulation is a strong, significant predictor of organizational commitment.

In the fifth regression, the dependent variable was organizational commitment and the independent variable was individualized consideration, the last of five transformational leadership behaviors. In this case, 12% of the variance in organizational commitment was explained by individualized consideration, since the adjusted R^2 was .119. The model had an F value of 20.736 and was significant at the .000 level. Individualized consideration had a standardized beta of .344 and a t value of 4.554 and was significant at the .000 level. This means that individualized consideration is a strong, significant predictor of organizational commitment.

Exploratory Regression Analysis - Transactional Leadership Practices

As described in Chapter II, Bass's (1985) Full Range of Leadership (FRL) model includes nine specific leadership behaviors which fall into three distinct categories. The first part of this simple regression analysis described the impact of five of these behaviors, known as transformational behaviors, on the outcome variables. However, the research indicates that the three transactional behaviors impact job performance and therefore potentially impact employee job satisfaction and organizational commitment. Thus, it was necessary to also conduct exploratory regression analyses using the transactional behaviors as predictor variables.

Transactional Leadership and Intrinsic Job Satisfaction

In the first regression, the dependent variable was intrinsic job satisfaction and the independent variable was contingent reward, the first of three transactional leadership behaviors. In this case, 9% of the variance in intrinsic job satisfaction was explained by contingent reward, since the adjusted R^2 was .085. The model had an F value of 15.393 and was significant at the .000 level. Contingent reward had a standardized beta of .301

and a t value of 3.923 and was significant at the .000 level. This means that contingent reward is a significant predictor of intrinsic job satisfaction.

In the second regression, the dependent variable was intrinsic job satisfaction and the independent variable was the active form of management-by-exception, the second of three transactional leadership behaviors. The results indicate that active management-by-exception is not a significant predictor of intrinsic job satisfaction.

In the third regression, the dependent variable was intrinsic job satisfaction and the independent variable was the passive form of management-by-exception, the last of three transactional leadership behaviors. In this case, 3% of the variance in intrinsic job satisfaction was explained by passive management-by-exception, since the adjusted R^2 was .031. The model had an F value of 5.880 and was significant at the .05 level. Passive management-by-exception had a standardized beta of -.192 and a t value of -2.425 and was significant at the .05 level. This means that passive management-by-exception is a significant negative predictor of intrinsic job satisfaction.

Transactional Leadership and Extrinsic Job Satisfaction

In the first regression, the dependent variable was extrinsic job satisfaction and the independent variable was contingent reward, the first of three transactional leadership behaviors. In this case, 44% of the variance in extrinsic job satisfaction was explained by contingent reward, since the adjusted R^2 was .437. The model had an F value of 121.348 and was significant at the .000 level. Contingent reward had a standardized beta of .664 and a t value of 11.016 and was significant at the .000 level. This means that contingent reward is a strong and significant predictor of extrinsic job satisfaction.

In the second regression, the dependent variable was extrinsic job satisfaction and the independent variable was the active form of management-by-exception, the second of three transactional leadership behaviors. The results indicate that active management-by-exception is not a significant predictor of extrinsic job satisfaction ($P = .402$)

In the third regression, the dependent variable was extrinsic job satisfaction and the independent variable was the passive form of management-by-exception, the last of three transactional leadership behaviors. In this case, 23% of the variance in extrinsic job satisfaction was explained by passive management-by-exception, since the adjusted R^2 was .227. The model had an F value of 46.254 and was significant at the .000 level. Passive management-by-exception had a standardized beta of -.482 and a t value of -6.801 and was significant at the .000 level. This means that passive management-by-exception is a significant negative predictor of extrinsic job satisfaction.

Transactional Leadership and General Job Satisfaction

In the first regression, the dependent variable was general job satisfaction and the independent variable was contingent reward, the first of three transactional leadership behaviors. In this case, 26% of the variance in general job satisfaction was explained by contingent reward, since the adjusted R^2 was .257. The model had an F value of 54.550 and was significant at the .000 level. Contingent reward had a standardized beta of .511 and a t value of 7.386 and was significant at the .000 level. This means that contingent reward is a strong and significant predictor of general job satisfaction.

In the second regression, the dependent variable was general job satisfaction and the independent variable was the active form of management-by-exception, the second of

three transactional leadership behaviors. The results indicate that active management-by-exception is not a significant predictor of general job satisfaction ($P = .799$).

In the third regression, the dependent variable was general job satisfaction and the independent variable was the passive form of management-by-exception, the last of three transactional leadership behaviors. In this case, 13% of the variance in general job satisfaction was explained by passive management-by-exception, since the adjusted R^2 was .125. The model had an F value of 22.979 and was significant at the .000 level. Passive management-by-exception had a standardized beta of $-.361$ and a t value of -4.794 and was significant at the .000 level. This means that passive management-by-exception is a significant negative predictor of general job satisfaction.

Transactional Leadership and Organizational Commitment

In the first regression, the dependent variable was organizational commitment and the independent variable was contingent reward, the first of three transactional leadership behaviors. In this case, 2% of the variance in organizational commitment was explained by contingent reward, since the adjusted R^2 was .162. The model had an F value of 31.015 and was significant at the .000 level. Contingent reward had a standardized beta of .409 and a t value of 5.569 and was significant at the .000 level. This means that contingent reward is a significant predictor of organizational commitment.

In the second regression, the dependent variable was organizational commitment and the independent variable was the active form of management-by-exception, the second of three transactional leadership behaviors. The results indicate that active management-by-exception is not a significant predictor of organizational commitment.

In the third regression, the dependent variable was organizational commitment and the independent variable was the passive form of management-by-exception, the last of three transactional leadership behaviors. In this case, 15% of the variance in organizational commitment was explained by passive management-by-exception, since the adjusted R^2 was .146. The model had an F value of 27.295 and was significant at the .000 level. Passive management-by-exception had a standardized beta of -.389 and a t value of -5.225 and was significant at the .000 level. This means that passive management-by-exception is a significant negative predictor of organizational commitment.

Hierarchical Linear Regression Analysis

The results of the exploratory regression analyses provided me with compelling evidence that all five transformational leadership practices are significant predictors of the four outcome variables (intrinsic job satisfaction, extrinsic job satisfaction, general job satisfaction and organizational commitment). It also indicated that one transactional leadership practice, contingent reward, was also a significant predictor of the outcome variables. Thus, in order to answer the research questions and determine the effect of specific transformational leadership practices on the outcome variables, while controlling for the effect of other potentially influential variables, it was necessary to use hierarchical linear regression.

I set up five hierarchical linear regressions for each outcome variable. In all of the regressions, Model 1 was comprised of demographic variables (gender, age, dummy coded veteran status, and dummy coded novice status); Model 2 included the demographic variables and added contingent reward behavior, since it was the one

transactional variable that emerged in the exploratory regression analysis as a significant positive predictor of all of the outcome variables; and Model 3 included demographic variables, contingent reward behavior and one of the five transformational leadership behaviors. The results of these analyses allowed me to fully answer the primary and four subsidiary research questions presented in this study.

Subsidiary Research Question 1: Given the impact of principals' use of contingent reward (a transactional leadership behavior), what is the added value of idealized influence on high school teachers' job satisfaction and organizational commitment?

Two types of idealized influence are present in Bass and Riggio's (2006) model: attributed and behavioral. The first part of this section of analysis will address the attributed form of idealized influence and the second will address the behavioral form.

idealized influence (behavioral). This form of idealized influence refers to leaders whose followers credit them with specific behaviors that characterize them as models for ethical behavior who instill pride in followers, thereby gaining their trust and respect. Its value-added influence on the four outcome variables, above and beyond that of contingent reward behavior, is presented in Tables 11, 12, 13 and 14.

idealized influence (behavior) adds no value to teachers' general job satisfaction beyond that of contingent reward.

TABLE 14

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' Organizational Commitment. Characteristic of Transformational Leadership: Idealized Influence (behavior)

Variable	Model 1		Model 2			Model 3			
	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.094	.074	.105	.132	.067	.148	.112	.068	.125
Age	-.085	.093	-.098	-.065	.085	-.075	-.073	.084	-.084
Experience									
Veteran	.136	.103	.137	-.009	.098	-.009	-.008	.097	-.009
Novice	.096	.087	.104	.024	.081	.026	.018	.080	.020
Cont. Reward				.191	.035	.429**	.117	.054	.262*
Ideal Infl (beh)							.107	.059	.215
R^2		.033			.199			.218	
F for change in R^2		1.238			29.946**			3.311	

* $p < .05$. ** $p < .01$.

Three models are again presented in Table 14. The predictors in the first two models are the same as in Tables 11 through 13. Similarly, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.166). Contingent reward behavior accounts for 17% of the variance in teachers' organizational commitment, suggesting that teachers' organizational commitment is likely to increase the more the principal engages in contingent reward behavior. In Model 3, where idealized influence (behavior) is added, there is no significant change in the R^2 . This indicates that idealized influence (behavior) adds no value to teachers' organizational commitment beyond that of contingent reward.

idealized influence (attributed). This form of idealized influence (similar to the behavioral form) refers to leaders whose followers attribute certain qualities to them which characterize them as models for ethical behavior who instill pride in followers, thereby gaining their trust and respect. Its value-added influence on the four outcome variables, above and beyond that of contingent reward behavior, is presented in Tables 15, 16, 17 and 18.

TABLE 15

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers'

Intrinsic Job Satisfaction: Characteristic of Transformational Leadership: Idealized Influence (attributed)

	Model 1			Model 2			Model 3		
Variable	<i>B</i>	<i>SEB</i>	B	<i>B</i>	<i>SEB</i>	B	<i>B</i>	<i>SEB</i>	B
Gender	1.015	1.086	.077	1.498	1.025	.113	1.478	1.021	.112
Age	-1.195	1.374	-.093	-.942	1.291	-.074	-.940	1.286	-.073
Experience									
Veteran	2.861	1.521	.196	1.040	1.483	.071	1.048	1.478	.072
Novice	.657	1.286	.048	-.252	1.223	-.019	-.035	1.229	-.003
Cont. Reward				2.404	.530	.367**	3.384	.870	.516**
Ideal Infl (attr)							-1.117	.788	-.186
<i>R</i> ²		.029			.151			.163	
<i>F</i> for change in <i>R</i> ²		1.101			20.574**			2.011	

p* < .05. *p* < .01.

Table 15 presents the results of a hierarchical linear regression model with teachers' intrinsic job satisfaction as the dependent variable. Three regression models are estimated. The first model contains only demographic predictor variables. The second model contains the same demographic predictor variables and adds contingent reward (the most statistically significant of the transactional leadership practices). The third

model contains all previous predictor variables as well as idealized influence (attributed), a transformational leadership behavior. Model 1, which contains demographic variables, is not significant. In Model 2, the addition of contingent reward behavior results in a significant change in the R^2 . The R^2 of Model 2 is .151, which represents an R^2 change of .121 from the first model. Additionally, contingent reward is a significant predictor in Model 2 at the .01 level with a standardized beta of .367. This suggests that teachers' intrinsic job satisfaction is likely to increase the more the principal engages in contingent reward behavior. In Model 3, where idealized influence (attributed) is added, there is no significant change in the R^2 . This indicates that idealized influence (attributed) adds no value to teachers' intrinsic job satisfaction beyond that of contingent reward.

TABLE 16

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers'

Extrinsic Job Satisfaction: Characteristic of Transformational Leadership: Idealized

Influence (attributed)

	Model 1			Model 2			Model 3		
Variable	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	-.257	.778	-.027	.426	.562	.044	.461	.524	.048
Age	-1.301	.985	-.140	-.942	.709	-.101	-.944	.660	-.102
Experience									
Veteran	3.060	1.091	.289**	.484	.814	.046	.469	.758	.044
Novice	1.094	.922	.111	-.192	.672	-.019	-.568	.630	-.058
Cont.				3.401	.291	.714**	1.694	.446	.356**
Reward									
Ideal Infl							1.944	.404	.447**
(attr)									
R^2		.055			.515			.583	
F for change		2.116			136.693**			23.167**	
in R^2									

* $p < .05$. ** $p < .01$.

Table 16 also presents analysis for three models. The predictors in the first two models are the same as in Table 15. Again, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.460), indicating that contingent reward behavior accounts for 46% of the variance in teachers' extrinsic job satisfaction. This suggests that teachers' extrinsic job satisfaction is likely to increase substantially the more the principal engages in contingent reward behavior. In Model 3, idealized influence (attributed) is again added as a predictor variable, with a standardized beta of .447 and level of significance of .01. The addition of idealized influence (attributed) results in an overall R^2 change of .068. This indicates that, in contrast to intrinsic job satisfaction, nearly 7% of the variance in teachers' extrinsic job satisfaction is explained by idealized influence (attributed), beyond contingent reward behavior alone.

TABLE 17

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers'

General Job Satisfaction: Characteristic of Transformational Leadership: Idealized

Influence (attributed)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.469	1.828	.021	1.821	1.491	.081	1.843	1.490	.082
Age	-	2.313	-.138	-2.282	1.878	-.105	-	1.878	-.105
	2.993						2.284		
Experience									
Veteran	6.404	2.561	.259*	1.299	2.158	.052	1.290	2.158	.052
Novice	2.013	2.165	.087	-.534	1.780	-.023	-.762	1.793	-.033
Cont. Reward				6.740	.771	.606**	5.707	1.270	.513**
Ideal Infl (attr)							1.177	1.150	.116
R^2		.044			.375			.380	
F for change in R^2		1.654			76.417**			1.048	

* $p < .05$. ** $p < .01$.

Table 17 also presents three models. The predictors in the first two models are the same as in Tables 15 and 16. Similarly, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.332). Contingent reward behavior accounts for 33% of the variance in teachers' general job satisfaction, suggesting that teachers' general job satisfaction is likely to increase the more the principal engages in contingent reward behavior. In Model 3, where idealized influence (attributed) is added, there is no significant change in the R^2 . This indicates that idealized influence (attributed) adds no value to teachers' general job satisfaction beyond that of contingent reward.

TABLE 18

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' Organizational Commitment Characteristic of Transformational Leadership: Idealized Influence (attributed)

	Model 1			Model 2			Model 3		
Variable	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.094	.074	.105	.132	.067	.148	.136	.065	.151
Age	-.085	.093	-.098	-.065	.085	-.075	-.065	.082	-.075
Experience									
Veteran	.136	.103	.137	-.009	.098	-.009	-.010	.094	-.010
Novice	.096	.087	.104	.024	.081	.026	-.010	.078	-.011
Cont. Reward				.191	.035	.429**	.036	.055	.080
Ideal Infl (attr)							.177	.050	.435**
R^2		.033			.199			.264	
<i>F</i> for change in R^2		1.238			29.946**			12.484**	

* $p < .05$. ** $p < .01$.

Table 18 also presents analysis for three models. The predictors in the first two models are the same as in Table 15 through 17. Again, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.166), indicating that

contingent reward behavior accounts for 17% of the variance in teachers' organizational commitment. This suggests that teachers' organizational commitment is likely to increase substantially the more the principal engages in contingent reward behavior. In Model 3, idealized influence (attributed) is again added as a predictor variable, with a standardized beta of .435 and level of significance of .01. The addition of idealized influence (attributed) results in an overall R^2 change of .064. This indicates that, 6% of the variance in teachers' organizational commitment is explained by idealized influence (attributed), beyond the influence of contingent reward behavior alone.

Subsidiary Research Question 2: Given the impact of principals' use of contingent reward (a transactional leadership behavior), what is the added value of inspirational motivation on high school teachers' job satisfaction and organizational commitment?

As described in Chapter II, inspirational motivation is a transformational leadership behavior whose characteristics include motivating and inspiring followers by providing them with a sense of meaning in their work and with challenging work experiences. Its value-added influence on the four outcome variables, above and beyond that of contingent reward behavior, is presented in Tables 19, 20, 21 and 22.

TABLE 19

*Summary of Hierarchical Regression Analysis for Variables Predicting Teachers'**Intrinsic Job Satisfaction: Characteristic of Transformational Leadership: Inspirational Motivation*

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	1.015	1.086	.077	1.498	1.025	.113	1.504	1.030	.114
Age	-1.195	1.374	-.094	-.942	1.291	-.074	-.935	1.297	-.073
Experience									
Veteran	2.861	1.521	.196	1.040	1.483	.071	1.036	1.489	.071
Novice	.657	1.286	.048	-.252	1.223	-.019	-.246	1.229	-.018
Cont. Reward				2.404	.530	.367**	2.465	.867	.376**
Insp Motivation							-.087	.976	-.011
R^2		.029			.151			.151	
F for change in R^2		1.101			20.574**			.008	

* $p < .05$. ** $p < .01$.

Table 19 presents the results of a hierarchical linear regression model with teachers' intrinsic job satisfaction as the dependent variable. Three regression models are estimated. The first model contains only demographic predictor variables. The second model contains the same demographic predictor variables and adds contingent reward (the most statistically significant of the transactional leadership practices). The third model contains all previous predictor variables as well as inspirational motivation, a transformational leadership behavior. Model 1, which contains demographic variables, is not significant. In Model 2, the addition of contingent reward behavior results in a significant change in the R^2 . The R^2 of Model 2 is .151, which represents an R^2 change of .121 from the first model. Additionally, contingent reward is a significant predictor in Model 2 at the .01 level with a standardized beta of .367. This suggests that teachers'

intrinsic job satisfaction is likely to increase the more the principal engages in contingent reward behavior. In Model 3, where inspirational motivation is added, there is no significant change in the R^2 . This indicates that inspirational motivation adds no value to teachers' intrinsic job satisfaction beyond that of contingent reward.

TABLE 20

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' Extrinsic Job Satisfaction: Characteristic of Transformational Leadership: Inspirational Motivation

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	-.257	.778	-.027	.426	.562	.044	.324	.551	.034
Age	-1.301	.985	-.140	-.942	.709	-.101	-1.048	.694	-.113
Experience									
Veteran	3.060	1.091	.289**	.484	.814	.046	.548	.797	.052
Novice	1.094	.922	.111	-.192	.672	-.019	-.288	.658	-.029
Cont. Reward				3.401	.291	.714**	2.391	.464	.502**
Insp Motivation							1.441	.522	.263**
R^2		.055			.515**			.540**	
F for change in R^2		2.116			136.693			7.622	

* $p < .05$. ** $p < .01$.

Table 20 also presents analysis for three models. The predictors in the first two models are the same as in Table 19. Again, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.460), indicating that contingent reward behavior accounts for 46% of the variance in teachers' extrinsic job satisfaction. This suggests that teachers' extrinsic job satisfaction is likely to increase substantially the more the principal engages in contingent reward behavior. In Model 3, inspirational motivation is again added as a predictor variable, with a standardized beta of .263 and level of significance .01. The addition of inspirational motivation results in an overall R^2

change of .025. This indicates that, in contrast to intrinsic job satisfaction, nearly 3% of the variance in teachers' extrinsic job satisfaction is explained by inspirational motivation, beyond the influence of contingent reward behavior alone.

TABLE 21

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' General Job Satisfaction: Characteristic of Transformational Leadership: Inspirational Motivation

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.469	1.828	.021	1.821	1.491	.081	1.687	1.490	.075
Age	-2.993	2.313	-.138	-2.282	1.878	-.105	-2.423	1.876	-.112
Experience									
Veteran	6.404	2.561	.259	1.299	2.158	.052	1.384	2.153	.056
Novice	2.013	2.165	.087	-.534	1.780	-.023	-.661	1.777	-.029
Cont. Reward				6.740	.771	.606**	5.402	1.253	.486**
Insp Motivation							1.907	1.410	.149
<i>R</i> ²		.044			.375			.383	
<i>F</i> for change in <i>R</i> ²		1.654			76.417**			1.829	

p* < .05. *p* < .01.

Table 21 also presents three models. The predictors in the first two models are the same as in Tables 19 and 20. Similarly, the addition of contingent reward behavior in Model 2 results in a significant change in the *R*² (.332). Contingent reward behavior accounts for 33% of the variance in teachers' general job satisfaction, suggesting that teachers' general job satisfaction is likely to increase the more the principal engages in contingent reward behavior. In Model 3, where inspirational motivation is added, there is no significant change in the *R*². This indicates that inspirational motivation adds no value to teachers' general job satisfaction beyond that of contingent reward.

TABLE 22

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' Organizational Commitment. Characteristic of Transformational Leadership: Inspirational Motivation

Variable	Model 1		Model 2			Model 3			
	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.094	.074	.105	.132	.067	.148	.126	.067	.140
Age	-.085	.093	-.098	-.065	.085	-.075	-.072	.085	-.083
Experience									
Veteran	.136	.103	.137	-.009	.098	-.009	-.004	.097	-.004
Novice	.096	.087	.104	.024	.081	.026	.017	.080	.019
Cont. Reward				.191	.035	.429**	.122	.057	.275*
Insp Motivation							.098	.064	.192
R^2		.033			.199			.213	
F for change in R^2		1.238			29.946**			2.370	

* $p < .05$. ** $p < .01$.

Table 22 also presents three models. The predictors in the first two models are the same as in Tables 19 through 21. Similarly, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.166). Contingent reward behavior accounts for nearly 17% of the variance in teachers' organizational commitment, suggesting that teachers' organizational commitment is likely to increase the more the principal engages in contingent reward behavior. In Model 3, where inspirational motivation is added, there is no significant change in the R^2 . This indicates that inspirational motivation adds no value to teachers' organizational commitment beyond that of contingent reward.

Subsidiary Research Question 3: Given the impact of principals' use of contingent reward (a transactional leadership behavior), what is the added value of intellectual

stimulation on high school teachers' job satisfaction and organizational commitment?

As described in Chapter II, intellectual stimulation is a transformational leadership behavior whose characteristics include stimulating the thinking of followers, encouraging motivation and creativity and involving them in the solution of a variety of problems. Its value-added influence on the four outcome variables, above and beyond that of contingent reward behavior, is presented in Tables 23, 24, 25 and 26.

TABLE 23

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' Intrinsic Job Satisfaction: Characteristic of Transformational Leadership: Intellectual Stimulation

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.985	1.097	.074	1.506	1.036	.113	1.399	1.040	.105
Age	-1.206	1.379	-.094	-.938	1.296	-.073	-.831	1.299	-.065
Experience									
Veteran	2.866	1.527	.196	1.036	1.489	.071	1.002	1.489	.069
Novice	.687	1.296	.050	-.261	1.235	-.019	-.189	1.236	-.014
Cont. Reward				2.406	.533	.367**	1.743	.799	.266*
Intell. Stim.							.803	.722	.132
<i>R</i> ²		.029			.150			.158	
<i>F</i> for change in <i>R</i> ²		1.087			20.371**			1.239	

p* < .05. *p* < .01.

Table 23 presents the results of a hierarchical linear regression model with teachers' intrinsic job satisfaction as the dependent variable. Three regression models are estimated. The first model contains only demographic predictor variables. The second model contains the same demographic predictor variables and adds contingent reward

(the most statistically significant of the transactional leadership practices). The third model contains all previous predictor variables as well as intellectual stimulation, a transformational leadership behavior. Model 1, which contains demographic variables, is not significant. In Model 2, the addition of contingent reward behavior results in a significant change in the R^2 . The R^2 of Model 2 is .150, which represents an R^2 change of .121 from the first model. Additionally, contingent reward is a significant predictor in Model 2 at the .01 level with a standardized beta of .367. This suggests that teachers' intrinsic job satisfaction is likely to increase the more the principal engages in contingent reward behavior. In Model 3, where intellectual stimulation is added, there is no significant change in the R^2 . This indicates that intellectual stimulation adds no value to teachers' intrinsic job satisfaction beyond that of contingent reward.

TABLE 24

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' Extrinsic Job Satisfaction: Characteristic of Transformational Leadership: Intellectual Stimulation

	Model 1			Model 2			Model 3		
Variable	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	-.228	.786	-.024	.516	.565	.053	.364	.553	.038
Age	-1.290	.989	-.138	-.908	.708	-.097	-.757	.691	-.081
Experience									
Veteran	3.054	1.094	.288**	.447	.813	.042	.398	.792	.038
Novice	1.065	.929	.107	-.286	.674	-.029	-.184	.657	-.019
Cont. Reward				3.428	.291	.719**	2.493	.425	.523**
Intell Stim							1.133	.384	.256**
R^2		.054			.520**			.548**	
F for change in R^2		2.072			138.787			8.704	

* $p < .05$. ** $p < .01$.

Table 24 also presents analysis for three models. The predictors in the first two models are the same as in Table 23. Again, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.466), indicating that contingent reward behavior accounts for nearly 47% of the variance in teachers' extrinsic job satisfaction. This suggests that teachers' extrinsic job satisfaction is likely to increase substantially the more the principal engages in contingent reward behavior. In Model 3, intellectual stimulation is again added as a predictor variable, with a standardized beta of .256 and level of significance .01. The addition of intellectual stimulation results in an overall R^2 change of .028. This indicates that, in contrast to intrinsic job satisfaction, nearly 3% of the variance in teachers' extrinsic job satisfaction is explained by intellectual stimulation, beyond the influence of contingent reward behavior alone.

TABLE 25

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers'

General Job Satisfaction: Characteristic of Transformational Leadership: Intellectual Stimulation

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.459	1.847	.020	1.928	1.505	.085	1.688	1.502	.075
Age	-2.997	2.323	-.138	-2.242	1.884	-.103	-2.004	1.876	-.092
Experience									
Veteran	6.406	2.571	.59*	1.256	2.164	.051	1.179	2.150	.048
Novice	2.023	2.183	.087	-.645	1.795	-.028	-.485	1.785	-.021
Cont.				6.772	.775	.608**	5.296	1.155	.476**
Reward									
Intell Stim							1.787	1.042	.173
R^2		.044			.377			.389	
<i>F</i> for		1.643			76.385**			2.939	
change in R^2									

* $p < .05$. ** $p < .01$.

Table 25 also presents three models. The predictors in the first two models are the same as in Tables 23 and 24. Similarly, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.333). Contingent reward behavior accounts for approximately 33% of the variance in teachers' general job satisfaction, suggesting that teachers' general job satisfaction is likely to increase the more the principal engages in contingent reward behavior. In Model 3, where intellectual stimulation is added, there is no significant change in the R^2 . This indicates that intellectual stimulation adds no value to teachers' general job satisfaction beyond that of contingent reward.

TABLE 26

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' Organizational Commitment: Characteristic of Transformational Leadership: Intellectual Stimulation

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.090	.074	.100	.132	.068	.146	.124	.068	.138
Age	-.087	.093	-.099	-.065	.085	-.075	-.058	.086	-.067
Experience									
Veteran	.137	.103	.138	-.009	.098	-.009	-.011	.098	-.011
Novice	.100	.088	.108	.025	.081	.027	.030	.081	.032
Cont. Reward				.191	.035	.429**	.145	.053	.326**
Intell Stim							.056	.048	.135
R^2		.033			.199			.206	
<i>F</i> for change in R^2		1.238			29.524**			1.367	

* $p < .05$. ** $p < .01$.

Table 26 also presents three models. The predictors in the first two models are the same as in Tables 23 through 25. Similarly, the addition of contingent reward behavior in

Model 2 results in a significant change in the R^2 (.165). Contingent reward behavior accounts for nearly 17% of the variance in teachers' organizational commitment, suggesting that teachers' organizational commitment is likely to increase the more the principal engages in contingent reward behavior. In Model 3, where intellectual stimulation is added, there is no significant change in the R^2 . This indicates that intellectual stimulation adds no value to teachers' organizational commitment beyond that of contingent reward.

Subsidiary Research Question 4: Given the impact of principals' use of contingent reward (a transactional leadership behavior), what is the added value of individualized consideration on high school teachers' job satisfaction and organizational commitment?

As described in Chapter II, individualized consideration is a transformational leadership behavior whose characteristics include caring about followers, providing them with opportunities to grow personally and professionally and acting as a mentor or coach. Its value-added influence on the four outcome variables, above and beyond that of contingent reward behavior, is presented in Tables 27, 28, 29 and 30.

TABLE 27

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' Intrinsic Job Satisfaction: Characteristic of Transformational Leadership: Individualized Consideration

	Model 1			Model 2			Model 3		
Variable	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	1.015	1.086	.077	1.498	1.025	.113	1.936	.991	.146
Age	-	1.374	-	-.942	1.291	-.074	-1.109	1.240	-.087
	1.195		.093						
Experience									
Veteran	2.861	1.521	.196	1.040	1.483	.071	.444	1.433	.030
Novice	.657	1.286	.048	-.252	1.223	-.019	-.626	1.179	-.046
Cont.				2.404	.530	.367**	.094	.813	.014
Reward									
Indiv							2.776	.761	.458**
Consid									
<i>R</i> ²		.029			.151			.223	
<i>F</i> for change in <i>R</i> ²		1.101			20.574**			13.289**	

p* < .05. *p* < .01.

Table 27 presents the results of a hierarchical linear regression model with teachers' intrinsic job satisfaction as the dependent variable. Three regression models are estimated. The first model contains only demographic predictor variables. The second model contains the same demographic predictor variables and adds contingent reward (the most statistically significant of the transactional leadership practices). The third model contains all previous predictor variables as well as individualized consideration, a transformational leadership behavior. Model 1, which contains demographic variables, is not significant. In Model 2, the addition of contingent reward behavior results in a significant change in the *R*². The *R*² of Model 2 is .151, which represents an *R*² change of .121 from the first model. Additionally, contingent reward is a significant predictor in Model 2 at the .01 level with a standardized beta of .367. This suggests that teachers'

intrinsic job satisfaction is likely to increase the more the principal engages in contingent reward behavior. In Model 3, individualized consideration is added as a predictor variable, with a standardized beta of .458 and level of significance of .01. The addition of individualized consideration results in an overall R^2 change of .072. This indicates that nearly 7% of the variance in teachers' intrinsic job satisfaction is explained by individualized consideration, beyond the influence of contingent reward behavior alone.

TABLE 28

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers'

Extrinsic Job Satisfaction: Characteristic of Transformational Leadership:

Individualized Consideration

	Model 1			Model 2			Model 3		
Variable	<i>B</i>	<i>SEB</i>	B	<i>B</i>	<i>SEB</i>	B	<i>B</i>	<i>SEB</i>	B
Gender	-.257	.778	-.027	.426	.562	.044	.758	.520	.079
Age	-1.301	.985	-.140	-.942	.709	-.101	-1.069	.651	-.115
Experience									
Veteran	3.060	1.091	.289**	.484	.814	.046	.031	.753	.003
Novice	1.094	.922	.111	-.192	.672	-.019	-.476	.619	-.048
Cont.				3.401	.291	.714**	1.648	.427	.346**
Reward									
Indiv							2.107	.400	.479**
Consid									
R^2		.055			.515			.594	
F for change		2.116			136.693**			27.768*	
in R^2								*	

* $p < .05$. ** $p < .01$.

Table 28 also presents analysis for three models. The predictors in the first two models are the same as in Table 27. Again, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.460), indicating that contingent reward behavior accounts for 46% of the variance in teachers' extrinsic job satisfaction. This suggests that teachers' extrinsic job satisfaction is likely to increase substantially the

more the principal engages in contingent reward behavior. In Model 3, individualized consideration is again added as a predictor variable, with a standardized beta of .479 and level of significance of .01. The addition of individualized consideration results in an overall R^2 change of .079. This indicates that nearly 8% of the variance in teachers' extrinsic job satisfaction is explained by individualized consideration, beyond the influence of contingent reward behavior alone.

TABLE 29

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' General Job Satisfaction: Characteristic of Transformational Leadership: Individualized Consideration

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.469	1.828	.021	1.821	1.491	.081	2.633	1.399	.117
Age	-	2.313	-.138	-2.282	1.878	-.105	-2.593	1.751	-.119
Experience		2.993							
Veteran	6.404	2.561	.259*	1.299	2.158	.052	.194	2.024	.008
Novice	2.013	2.165	.087	-.534	1.780	-.023	-1.227	1.665	-.053
Cont. Reward				6.740	.771	.606**	2.459	1.147	.221*
Indiv Consid							5.144	1.075	.501**
R^2		.044			.375			.461	
<i>F</i> for change in R^2		1.654			76.417**			22.894**	

* $p < .05$. ** $p < .01$.

Table 29 again presents analysis for three models. The predictors in the first two models are the same as in Tables 27 and 28. Again, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.333), indicating that contingent reward behavior accounts for 33% of the variance in teachers' general job

satisfaction. This suggests that teachers' general job satisfaction is likely to increase substantially the more the principal engages in contingent reward behavior. In Model 3, individualized consideration is again added as a predictor variable, with a standardized beta of .501 and level of significance of .01. The addition of individualized consideration results in an overall R^2 change of .013. This indicates that approximately 1% of the variance in teachers' general job satisfaction is explained by individualized consideration, beyond the influence of contingent reward behavior alone.

TABLE 30

Summary of Hierarchical Regression Analysis for Variables Predicting Teachers' Organizational Commitment. Characteristic of Transformational Leadership: Individualized Consideration

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SEB</i>	β	<i>B</i>	<i>SEB</i>	<i>B</i>	<i>B</i>	<i>SEB</i>	<i>B</i>
Gender	.094	.074	.105	.132	.067	.148	.142	.068	.159
Age	-.085	.093	-.098	-.065	.085	-.075	-.069	.085	-.079
Experience									
Veteran	.136	.103	.137	-.009	.098	-.009	-.022	.098	-.022
Novice	.096	.087	.104	.024	.081	.026	.016	.081	.017
Cont. Reward				.191	.035	.429**	.139	.056	.313*
Indiv Consid							.062	.052	.151
R^2		.033			.199			.207	
<i>F</i> for change in R^2		1.238			29.946**			1.419	

* $p < .05$. ** $p < .01$.

Table 30 also presents analysis for three models. The predictors in the first two models are the same as in Table 27 through 29. Again, the addition of contingent reward behavior in Model 2 results in a significant change in the R^2 (.166), indicating that contingent reward behavior accounts for nearly 17% of the variance in teachers' organizational commitment. This suggests that teachers' organizational commitment is

likely to increase substantially the more the principal engages in contingent reward behavior. In Model 3, where individualized consideration is added, there is no significant change in the R^2 . This indicates that individualized consideration adds no value to teachers' organizational commitment beyond that of contingent reward.

Summary

The purpose of this chapter was to present the researcher's findings, based on the administration of a quantitative survey to a sample of 156 teachers in five Pennsylvania high schools. The first section of this chapter provided descriptive data on the survey respondents and their scores on three instruments. The next section contained first a correlation analysis, then an analysis of the exploratory regressions that were conducted. The final section presented the results of the hierarchical linear modeling, as they related to the four subsidiary research questions. Chapter V will include a summary of the study and its findings, conclusions drawn from them, and recommendations for further research.

Chapter V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary

Those who work in American public schools today face unprecedented challenges. Decades of reform efforts have failed to result in increased student performance at a rate considered acceptable by the public, as reflected in policies developed at the state and federal level. Increased accountability, coupled with deep budget cuts, result in pressure on school leaders to achieve higher results with fewer resources. At the same time, rates of teacher attrition remain high, with students in underprivileged environments the most affected by this rapid turnover. Given these circumstances, strong, effective, and informed leadership is essential if schools are to provide a quality education to all students.

Research has consistently demonstrated that, through effective leadership practices, the school principal can impact student achievement [Cotton, 2003; Kelley, Thornton & Daugherty, 2005; Leithwood et al., 2004; Nettles & Herrington, 2007]. The question then becomes, Which leadership practices are proven effective? Bass (1985) and colleagues provided their Full Range of Leadership (FRL) model, which includes transformational leadership practices, in an attempt to answer that question. Subsequent testing of this theory in educational settings has provided evidence that transformational leadership practices, which are one of three categories of leadership practices identified in the FRL model, enable leaders to alter the school environment in order to achieve desired outcomes [Barnett, 2003; Leithwood, 1992a; Nguni et al., 2006]. Findings presented in the review of relevant research support the contention that leader behaviors

have a profound influence on teacher job satisfaction [Bogler, 2001; Morris & Sherman, 1981; Nguni et al, 2006]. Nguni et al. (2006) obtained empirical results indicating that transformational leadership factors had a strong positive influence on job satisfaction and organizational commitment in both educational and non-educational settings. Such research has become popular in the field of education since the 1990s and provided the basis for this study.

The purpose of this study was to examine principals' leadership behaviors, as perceived by the teachers whom they supervise, and to determine the value-added influence of transformational behaviors on teacher job satisfaction and organizational commitment, above and beyond the influence of transactional practices. One hundred fifty six teachers in five Pennsylvania high schools participated in an online survey comprised of three separate instruments designed to measure the independent and dependent variables under study. The Multi-Factor Leadership Questionnaire (MLQ) measured teacher perceptions about their principals' leadership behaviors, specifically those identified in the Full Range of Leadership Model (Bass & Riggio, 2006). These include five separate dimensions of transformational leadership, three dimensions of transactional leadership and laissez faire leadership. The Organizational Commitment Questionnaire (OCQ), developed by Mowday, Porter and Steers (1979) measured teacher and principal commitment to their organization. Thirdly, the Minnesota Job Satisfaction Questionnaire (MSQ) from the University of Minnesota measured teacher and principal job satisfaction on three separate scales: intrinsic, extrinsic, and general job satisfaction.

Primary Research Question

Beyond that of transactional leadership practices, what, if any, impact do principals' transformational leadership behaviors have on teachers' job satisfaction and organizational commitment?

Subsidiary Research Questions

1. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of idealized influence as a practice have on high school teachers' job satisfaction and organizational commitment?
2. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of inspirational motivation as a practice have on high school teachers' job satisfaction and organizational commitment?
3. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of intellectual stimulation as a practice have on high school teachers' job satisfaction and organizational commitment?
4. Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of individualized consideration as a practice have on high school teachers' job satisfaction and organizational commitment?

Conclusions

The results of the correlation analysis indicated that there were significant, direct correlations between all dimensions of transformational leadership behavior and the outcome variables (teachers' intrinsic job satisfaction, extrinsic job satisfaction, general job satisfaction and organizational commitment). This finding reinforces those outlined in

prior research, specifically the work of Nguni et al. (2006), Leithwood and Jantzi (2006), Amoroso (2002), Carnes (2007), Mota (2010), and Korkmaz (2007). The strongest correlations were identified between transformational leadership behaviors and teachers' extrinsic job satisfaction (with correlation coefficients between .615 and .678).

Specifically, of the five dimensions of transformational leadership behavior, individualized consideration (the extent to which the leader demonstrates care for and mentors individual followers) was most highly correlated with all three components of job satisfaction. Idealized influence (attributed), which is the extent to which the principal engenders trust and respect and is believed to serve as a role model for followers, was most highly correlated with organizational commitment. It is important to note that a significant, positive correlation was identified between one transactional leadership behavior, contingent reward, and extrinsic job satisfaction, general job satisfaction, and organizational commitment. These relationships were further explored in the exploratory regression analysis.

The results of the exploratory regression analysis provided the researcher with more specific information about the relationship between the study variables. Based on the aforementioned correlation analysis, the researcher expected the exploratory regressions to identify some or all of the five transformational leadership behaviors as predictive of teacher job satisfaction and organizational commitment. This expectation was met. Transformational leadership behaviors accounted for

- a) between 3% and 13% of the variance in teachers' Intrinsic Job Satisfaction scores;

- b) between 38% and 46% of the variance in teachers' Extrinsic Job Satisfaction scores;
- c) between 19% and 22% of the variance in teachers' General Job Satisfaction scores;
- d) between 12% and 21% of teachers' Organizational Commitment scores.

Individualized consideration, or the extent to which leaders seem to care about and support followers as individuals, accounted for the greatest amount of variance in all three types of job satisfaction (intrinsic, extrinsic and general). The attributed dimension of idealized influence, which is the extent to which a leader serves as an admired role model for followers, accounted for the greatest amount of variance in organizational commitment.

Interestingly, two dimensions of transactional leadership behavior also emerged in the exploratory regression analysis as significant predictors of teachers' job satisfaction and organizational commitment. Contingent reward behavior, which is the extent to which leaders outline specific tangible rewards to be conferred on followers as a result of goal attainment, accounted for 9% of the variance in intrinsic job satisfaction, 44% of the variance in extrinsic job satisfaction, and 26% of the variance in general job satisfaction. It also accounted for a small but significant amount of variance in organizational commitment (2%). In addition, passive management-by-exception behavior, which can be described as the extent to which a leader intervenes only when standards are not met or performance is below expectations, accounted for between 3% and 23% of the variance in job satisfaction and 15% of the variance in organizational commitment. In all

cases, this behavior had a negative beta, meaning that it was a significant negative predictor of the outcome variables.

The findings from the exploratory regression analyses provided me with information necessary to further explore the relationship between transformational leadership behaviors and teachers' job satisfaction and organizational commitment. Although transformational leadership behaviors were identified as explaining a significant amount of variance in the outcome variables, one dimension of transactional leadership behavior (contingent reward) also had a positive beta and explained a striking amount of variance in these variables. This finding was not surprising, since Carnes (2007) had also identified a similar relationship. It is important to remember that transactional and transformational behaviors are not opposites, but exist on a continuum of leadership behaviors, and effective leaders employ behaviors in both categories on a regular basis. Bass and Avolio's (2006) Augmentation Model of Transactional and Transformational Leadership, as described in Chapter II, posits that transactional behaviors are necessary, foundational leadership practices that are augmented by the use of transformational behaviors. The influence of both types of behaviors motivates subordinates to achieve the highest level of performance. In order to test this Augmentation Model and answer the research questions presented in this study, it was important for me to use hierarchical linear modeling to determine what amount (if any) of the variance in the outcome variables could be explained by transformational behaviors, while controlling for the significant positive influence of contingent reward behavior.

To this end, I generated five hierarchical linear regressions for each outcome variable (intrinsic job satisfaction, extrinsic job satisfaction, general job satisfaction and

organizational commitment). In each regression, demographic variables (age, gender, experience) were included in the first model. Next, contingent reward behavior was added to demographic variables in the second model. Finally, the third model contained demographic variables, contingent reward behavior and one of the five transformational behaviors. The results were interesting and, for the most part, reinforced the findings of prior research.

The first subsidiary research question was Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of idealized influence as a practice have on high school teachers' job satisfaction and organizational commitment?

Two types of idealized influence are present in Bass and Avolio's (2006) model: attributed and behavioral. The behavioral form refers to leaders whose followers credit them with specific behaviors that characterize them as models for ethical behavior who instill pride in followers to gain their trust and respect. Idealized influence (behavior) added no significant value to the model beyond that of contingent reward with three of the four outcome variables: intrinsic job satisfaction, general job satisfaction and organizational commitment. However, it did add significant value to the model that included extrinsic job satisfaction as the outcome variable. Three percent of the variance in teachers' extrinsic job satisfaction can be explained by the model that includes both contingent reward behavior and teachers' extrinsic job satisfaction.

The second form of idealized influence, the attributed form, refers to leaders whose followers attribute certain qualities to them that characterize them as models for ethical behavior who instill pride in followers and gain their trust and respect. Similar to the

behavioral form, the attributed form added no significant variance to the models that included intrinsic or general job satisfaction. It did, however, add 7% of the variance to the model that included teachers' extrinsic job satisfaction and 6% to the model that included organizational commitment as the outcome variable.

The second subsidiary research question was Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of inspirational motivation as a practice have on high school teachers' job satisfaction and organizational commitment?

Inspirational motivation is used to describe leader behavior that motivates and inspires followers by providing them with a sense of meaning in their work and challenging work experiences. This behavior added no value to three of the four sets of hierarchical linear models – those with intrinsic job satisfaction, extrinsic job satisfaction and organizational commitment as outcome variables. It only added value beyond that of contingent reward behavior in the model where extrinsic job satisfaction was the outcome variable. In that case, inspirational motivation added 3% of the variance the model with a high level of significance ($P = .01$).

The third subsidiary research question was Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of intellectual stimulation as a practice have on high school teachers' job satisfaction and organizational commitment?

Intellectual stimulation describes leader behavior that stimulates followers' thinking, thereby encouraging motivation and creativity, as well as involving subordinates in the solution of a variety of problems. Similar to the results for inspirational motivation, this

behavior also added no value to the same three of our sets of hierarchical linear models – those with intrinsic job satisfaction, general job satisfaction, and organizational commitment as outcome variables. In the model with extrinsic job satisfaction as the outcome variable, however, intellectual stimulation added 3% of the variance to the model with a high level of statistical significance ($P = .01$).

The fourth subsidiary research question was Beyond the effects of contingent reward (a transactional leadership behavior), what additional contribution does the use of individualized consideration as a practice have on high school teachers' job satisfaction and organizational commitment?

Individualized consideration in this study emerged as the transformational leadership behavior that accounted for the most variance in the outcome variables. Individualized consideration is behavior whose characteristics include: caring about followers, providing them with opportunities to grow professionally and personally, and acting as a mentor or coach. In this study, it added value to the models that included each of the three forms of teacher job satisfaction as the outcome variable: intrinsic, extrinsic, and general. It added 7% of the variance in intrinsic job satisfaction, 8% of the variance in extrinsic job satisfaction, and 9% of the variance in general job satisfaction, all with significance at the .01 level. It did not, however, add significant value to the model that included teachers' organizational commitment as the outcome variable.

Implications of Findings

This study sought to identify a relationship between transformational leadership practices and teacher job satisfaction and organizational commitment. However, findings related to the contingent reward dimension of transactional leadership were striking.

Contingent reward, defined as the leader setting clear expectations, providing resources, and connecting achievement of goals with rewards for their subordinates, emerged as a strong and significant predictor of all of the outcome variables. In the hierarchical linear models, the addition of contingent reward behavior to demographic variables in Model 2 accounted for between 12% and 46% of the variance in teacher job satisfaction and 17% of the variance in their organizational commitment scores. Bass's (1985) work likens contingent reward to leaders' explicitness and consistency, which "had moderate effects on reducing role ambiguity and role conflict" (p. 129). He goes on to state that "some of the contingent-reward behaviors also contribute indirectly to improved performance and satisfaction with supervision" (p. 129) as a result. In addition, The Augmentation Model of Transactional and Transformational Leadership outlined in Bass and Avolio (2006) and discussed in detail in Chapter II, illustrates the relationship between these behaviors and indicates that contingent reward behavior provides the necessary managerial foundation on which leaders can add transformational behaviors in order to bring about heightened employee motivation and exceptional results.

An implication of this finding is that principals must set clear expectations in order to ensure that teachers are meeting acceptable standards and also must sanction or reward them as appropriate, based on their performance. This is a basic managerial function. However, they must remember that such behaviors, though generally effective, are significantly augmented by the use of transformational behaviors, which provide the extra motivation for employees to reach their highest levels of performance.

Idealized influence (attributed) is one of two transformational leadership behaviors that were shown in the regression analysis to account for the most amount of

variance in teachers' job satisfaction and their organizational commitment. Idealized influence is associated with leaders who are role models for ethical behavior, who instill pride in followers and thereby gain their trust and respect. The attributed label on this type of idealized influence refers to qualities attributed to the leader, rather than specific, observed actions—those belong in the idealized influence (behavior) dimension. These attributed qualities include instilling pride in subordinates, going beyond self-interest for the good of the group, building respect, and displaying a sense of power and confidence. In this study, attributed idealized influence emerged as adding variance to teachers' extrinsic job satisfaction and their organizational commitment, even when controlling for demographic factors and significant transactional behavior (in this case, contingent reward). These findings reinforce those of Koh et al. (1995) and Shaw and Reyes (1993).

As discussed in the review of relevant literature, Leithwood and Jantzi (2006) argued that the idealized influence dimension of transformational leadership should be de-emphasized in schools, while Nguni et al. (2006) asserted that charisma (comprised of both types of idealized influence) has been shown to have the greatest influence of all the transformational leadership dimensions on employee satisfaction and commitment. The results of this study, like the findings in the related literature, indicate that idealized influence (attributed) does have a meaningful impact on teacher job satisfaction and organizational commitment, and thus should not be discounted in studies of leadership behavior and schools.

Individualized consideration was the second of two transformational behaviors that emerged in this analysis as a powerful influence on teachers' intrinsic, extrinsic, and general job satisfaction and is therefore worthy of a detailed examination here.

Individualized consideration is the extent to which a leader listens and attends to the needs of his or her subordinates and acts as a coach/mentor. Leaders who exhibit individualized consideration see their subordinates as individuals and demonstrate interest in their growth and development. According to Bass (1985), "Consideration for others has emerged as a consistently important aspect of leader-subordinate relations. Generally, it has been found to contribute to subordinates' productivity. It is central to participative management to the extent that it focuses on the employee's needs for growth and participating in decisions affecting his work and career" (p. 82). This finding supports those of Niehoff et al. (1990), Hulpia et al. (2009), Barnett (2003) and Lee (1983, as cited in Evans and Johnson 1990), who all identified individualized consideration as strongly related to job satisfaction.

An implication of this finding is that principals who exhibit individualized consideration can have a profound influence on teachers' commitment and job satisfaction. Schools are unique work environments because they are comprised of many small units (classrooms) in which the employees (teachers) carry out very similar work in a largely independent fashion. Depending on the size of the school, interactions between the building principal and his or her teachers can be infrequent and often impersonal. Principals interested in increasing teacher job satisfaction and commitment would be wise to put in place specific routines that allow them to demonstrate individualized consideration. For example, principals could hold more frequent, goal-oriented meetings with teachers to discuss their personal objectives and professional development activities, and provide them with support, feedback, and encouragement. Principals could also frequently take time in a more informal context (interactions in hallways or at school

events, for example) to talk one-on-one with teachers and get to know them on a personal level. Given the multitude of constraints on principals' time, these interactions must be purposeful and deliberate in order to significantly improve employee perceptions about their level of exhibited individualized consideration. The behaviors associated with individualized consideration are widely considered best practice in human relations management, but this study and others like it provide convincing evidence that they also have a significant impact on factors (in this case, teacher job satisfaction and organizational commitment) that directly influence student performance, which is the most important outcome of any school management practice.

The remaining three dimensions of transformational leadership (behavioral idealized influence, intellectual stimulation and inspirational motivation) had a small but statistically significant impact on only the extrinsic form of job satisfaction. This provides limited support to the assertion of Bass and Avolio (2006) that transformational leadership behavior does produce results beyond those possible as a result of transactional behaviors alone. However, these behaviors did not emerge as significant in the models that included the other outcome variables, specifically: intrinsic job satisfaction, general job satisfaction and organizational commitment. An implication of this finding is that principals who are interested in increasing the extrinsic job satisfaction of their teachers could engage in these three behaviors more actively. However, the findings here were limited to just one type of job satisfaction, and the amount of variance added to the model for each was small. Thus, it would be valuable for more research to be conducted regarding these three behaviors and their impact on job satisfaction and organizational commitment. Based on the results of this study, principals would achieve

better results by exploring attributed idealized influence and individual consideration, the two behaviors that accounted for more variance in the model.

In addition, worthy of note is the transactional dimension of the Full Range of Leadership Model that had negative correlations and a negative beta in the regression analysis with some aspects of teacher job satisfaction and organizational commitment. Management-by-exception is practiced when a leader becomes involved with the work of a subordinate only when standards are not met or when performance is unsatisfactory. Sometimes, this involvement includes punishment or sanctions as a consequence for such unacceptable performance. This is broadly considered an ineffective leadership practice, especially when practiced in the absence of other, more effective, behaviors. Greene and Podsakoff (1981, as cited in Bass, 1984) stated that:

Full preoccupation with the possible negative deviations inhibits attention to the positive, particularly in the absence of clear goals, clear policies, long-term objectives, and stable outside environment....Managers may lack or may lose their power to provide or recommend rewards. Faced with continuing demands for productivity, managers have been found to increase their tendencies to use punishment if they lose their ability to provide rewards contingent on subordinate performance. (p. 140)

These results indicate that passive management-by-exception behaviors should be avoided by principals who are interested in maximizing teacher job satisfaction and organizational commitment in their schools.

Recommendations for Future Research

Some recommendations for further study and research present themselves as a result of the findings of this study.

1. This study was the first to use hierarchical linear modeling to test Bass and Riggio's (2006) Augmentation Model of Transactional and Transformational Leadership in schools. Thus, replication studies would be a valuable further contribution to the field.
2. Research could be conducted to explore the powerful relationship between contingent reward behavior (a dimension of transactional leadership) and teachers' job satisfaction and organizational commitment. Contingent reward behavior accounted for so much of the variance in all outcome variables, it may be that this type of behavior is particularly necessary and effective within the school context. A researcher might also seek to discover whether, within Bass (1985)'s Full Range of Leadership Model, contingent reward is a foundational behavior that must be in place for principals to effectively exhibit transformational leadership behaviors.
3. Research could also be devoted to a detailed examination of individualized consideration and/or idealized influence (attributed) behavior in school principals. Specifically, a researcher could identify principals whose teachers view them as high in these behaviors and seek to determine what specific routines they engage in that allow them the time and structure necessary to exhibit them in a consistent and meaningful way. This could provide guidance to principals wishing to engage in these types of effective leadership behaviors.

4. Another interesting avenue of study would be to learn more about the connection between principals' transformational leadership behaviors and the performance of their students on various types of assessments. What connections can be made between specific leadership behaviors and student achievement outcomes? In addition, it would be valuable to examine which aspect(s) of job satisfaction— intrinsic, extrinsic or general—have the most impact on student achievement?
5. A researcher could engage in qualitative interviews or focus groups with transformational school leaders in order to determine to what extent the Full Range of Leadership Behaviors are learned through professional development, mentoring or other means and to what extent they are behaviors to which leaders are inclined as a result of personality or other inherent characteristics. This would help those who provide professional development to school administrators understand how to increase their capacity in this area.

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Appendix A: Survey Permission Letters

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US

Bill To:

Name: Katherine Kieres
Email Address: kkieres@palisadessd.org
Phone Number: 610-462-1161
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Company:
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November 28, 2011

Kate Kieres
7145 Linden Rd
Macungie, PA 18062

Dear Kate Kieres:

We are pleased to grant you permission to use the Minnesota Satisfaction Questionnaire 1977 short form on a secure web site as you requested.

Please note that you must include the following copyright statement:

Copyright 1977, Vocational Psychology Research
University of Minnesota. Reproduced by permission.

Vocational Psychology Research is currently in the process of revising the MSQ manual and it is very important that we receive copies of your research study results in order to construct new norm tables. Therefore, we would appreciate receiving a copy of your results including 1) demographic data of respondents, including age, education level, occupation and job tenure; and 2) response statistics including scale means, standard deviations, reliability coefficients, and standard errors of measurement. If your tests are scored by us, we will already have the information detailed in item #2.

Your providing this information will be an important and valuable contribution to the new MSQ manual. If you have any questions concerning this request, please feel free to call us at 612-625-1367.

Sincerely,



Dr. David J. Weiss, Director
Vocational Psychology Research

Appendix B: IRB Approval



OFFICE OF INSTITUTIONAL
REVIEW BOARD

SETON HALL UNIVERSITY

November 30, 2011

Katherine Kieres
7145 Linden Road
Macungie, PA 18062

Dear Ms. Kieres,

The Seton Hall University Institutional Review Board has reviewed the information you have submitted addressing the concerns for your proposal entitled "Transformational Leadership in Five Pennsylvania High Schools". Your research protocol is hereby approved as revised through exempt review. The IRB reserves the right to recall the proposal at any time for full review.

Please note that, where applicable, subjects must sign and must be given a copy of the Seton Hall University current stamped Letter of Solicitation or Consent Form before the subjects' participation. All data, as well as the investigator's copies of the signed Consent Forms, must be retained by the principal investigator for a period of at least three years following the termination of the project.

Should you wish to make changes to the IRB approved procedures, the following materials must be submitted for IRB review and be approved by the IRB prior to being instituted:

- Description of proposed revisions;
- *If applicable*, any new or revised materials, such as recruitment fliers, letters to subjects, or consent documents; and
- *If applicable*, updated letters of approval from cooperating institutions and IRBs.

At the present time, there is no need for further action on your part with the IRB.

In harmony with federal regulations, none of the investigators or research staff involved in the study took part in the final decision.

Sincerely,

Mary E. Ruzicka, Ph.D.

Mary E. Ruzicka, Ph.D.

Professor

Director, Institutional Review Board

cc: Dr. Daniel Gutmore

Presidents Hall • 400 South Orange Avenue • South Orange, New Jersey 07079-2641 • Tel: 973.313.6314 • Fax: 973.275.2361

Appendix C: Letter of Solicitation

Dear Potential Study Participant,

I am a doctoral student, pursuing an Ed.D. in Educational Leadership, Management and Policy in the College of Health and Human Services at Seton Hall University.

My study is entitled Transformational Leadership Behavior in Five Pennsylvania High Schools. The study seeks to contribute to a growing body of knowledge on the effects of transformational leadership in the school setting, specifically to support or refute prior evidence that transformational leadership practices have a positive impact on teacher job satisfaction and organizational commitment. I will also seek to determine whether a relationship exists between teacher perceptions about their leaders' transformational leadership behaviors and principals' job satisfaction and organizational commitment.

The sample population for this study will be all instructional staff members and the principal in five participating schools. Three established instruments will be administered online through Seton Hall Asset to participants in this study. They are:

1. The Multifactor Leadership Questionnaire (MLQ) – This instrument was developed by Bernard Bass (1985) and colleagues as a means of measuring the extent to which leaders exhibit transactional and/or transformational leadership behaviors.
2. The Organizational Commitment Questionnaire (OCQ) – This instrument was developed by Mowday, Porter and Steers (1979) as a means to measure the level and relative strength of individuals' commitment to the organizations in which they work.
3. The Minnesota Job Satisfaction Questionnaire (MSQ) – This instrument was developed at the University of Minnesota as a means to measure individuals' satisfaction with several aspects of their work and work environments.

The instruments will all be administered during one survey session, which will take approximately 20-25 minutes to complete. Your participation in this study is entirely voluntary, and you can stop participating at any time by closing your internet browser.

The final published study will not identify any of the schools by name. Additionally, no names of individuals will be collected as part of the research. However, participants will be asked to share four items of personal information: years of experience, gender, age and building of assignment.

The researcher will maintain and secure all survey results, notes, data and electronic media in a locked filing cabinet. Only the researcher and her dissertation committee will have access to the survey results. After three years, all materials will be destroyed.

Questions or concerns about the study can be directed to: Kate Kieres (principal investigator/researcher) at kkieres@palisadesd.org or (610) 462-1161 or Dr. Daniel Gutmore (Senior Faculty Associate/researcher's faculty advisor) at daniel.gutmore@shu.edu or (973) 275-2853.

Questions or concerns about your rights as a human subject can be directed to the Institutional Review Board at Seton Hall University at (973) 313-6314 or by mail c/o Mary F. Ruzicka, Ph.D., Office of the IRB, Presidents Hall, Seton Hall University, South Orange, NJ 07079.

Thank you for your time and consideration.

Sincerely, Kate Kieres