

**A Study of the Relationships Between Teacher Leadership and School Culture in
Secondary Schools within the Eastern School District on Prince Edward Island**

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for the Degree of

Master of Education

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SIGNATURE PAGE

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DEDICATION

To my wife Pam and my family for their support, patience, and encouragement. Thank you.

ABSTRACT

This study examined the relationship between teacher leadership and school culture at the secondary level and explored other areas of interest that included how teacher leadership was affected by such variables as gender, a teacher's level of education, and teaching experience. This was a quantitative study that used a purposeful sample of 146 of the 212 high school teachers from the Eastern School District on Prince Edward Island. The return rate was 68.9%.

The leadership behaviors and characteristics of each teacher was determined through self-assessment ratings using The Leadership Profile (TLP) developed by Sashkin and Rosenbach (1995). This survey evaluated fifteen leadership measures which included the overall leadership potential of the teacher and four leadership scales: transformational leadership behaviors, transformational leadership characteristics, total transformational leadership, and transactional leadership. These scales were further subdivided into ten sub-scales. The teachers' perception of school culture was determined using the School Culture Assessment Questionnaire (SCAQ) developed by Sashkin (2001a). This survey evaluated the norms, beliefs and values of the school as perceived by each teacher.

The results of this study revealed that a significant statistical relationship existed between the overall leadership score and school culture. Significant relationships also existed between all four leadership scales as well as eight of the ten sub-scales and school culture. Further analyses indicated that the transformational leadership behavior scale and one of its sub-scales, caring leadership, had the strongest relationship with school culture.

Although there were no significant differences in the overall leadership scores between male and female teachers, significant differences were reported between the genders for the

transformational leadership behavior scale, three of its sub-scales (communications leadership, credibility leadership, and caring leadership) and the transactional leadership sub-scale of reward equity. Teaching experience displayed significant differences for nine of the fifteen leadership measures which included the overall leadership score and the three scales of transformational leadership behavior, transformational leadership characteristics, and total transformational leadership. The five sub-scales that produced significant differences were capable management, communications leadership, credible leadership, follower-centered leadership, and principled leadership. A significant interaction was also observed between teaching experience and a teacher's level of education for the follower-centered leadership sub-scale. Finally, a teacher's level of education displayed significant differences for only three sub-scales which included creative leadership, follower-centered leadership, and visionary leadership.

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Chapter 1

Introduction

Background to the Study

Leadership is a concept that describes how certain individuals inspire others to achieve the goals of a particular organization. It is a conviction that requires commitment and sense of personal obligation on behalf of the individual who decides to assume such a responsibility. The type of leadership that exists will undoubtedly influence the world around us. Too often, history has revealed how individuals such as Winston Churchill and Adolf Hitler can use leadership for the betterment of others or perverse it into a tool of destruction. Although these examples may seem extreme, they illustrate the importance of this concept. Leaders are individuals who create opportunities and instill commitment for the betterment of a group, organization, or society in general (Rosenbach & Sashkin, 1996). Whether this individual is a world leader or a classroom teacher, good leadership must begin with a respect for others and effective modeling if followers are to display the same commitment in achieving common collective goals.

Leadership is an enigma that scholars and researchers have attempted to unravel for the past century. During the early years of leadership research, leaders were identified as those who possessed certain characteristics that made them “great” (Sashkin & Sashkin, 2003). Recent studies, however, have revealed that the concept of leadership is much more complex and is not limited to a few special people. For the first seventy-five years, research focused on the characteristics and behaviors of people in managerial positions. In 1978, however, James Burns developed a ground-breaking theory called transformational leadership which changed the way leadership was viewed and researched. Instead of being just managerial in nature, leadership

became a process of “transforming” followers into leaders. Burns thought that when followers were transformed in this manner, greater achievements and increased moral development was possible (Rosenbach & Sashkin, 1996). Bernard Bass (1985) further refined this theory while scholars such as Bennis and Nanus (1985), Kotter and Heskett (1992), and Sashkin and Sashkin (2003) developed theories relating transformational behaviors and characteristics to organizational culture.

The nature of the research mentioned above is broad in its context and has been applied to a wide variety of institutions. In the field of education, many of the leadership studies have focused on school administrators and how they have affected different aspects of their schools. It has only been recently that teacher leadership has gained the attention of researchers. Within the last decade, theories have been developed that have identified the leadership characteristics (Ash & Persall, 2000; Sashkin, 2001b) and behaviors (Bishop, Tinley, & Berman, 1997; Meredith, 2000) of teachers and how they relate to the creation of a positive school culture. More specifically, the transformational leadership skills of teachers have been revealed as having the greatest influence on school culture (Cavanagh & Dellar, 1998; Sashkin, 2001c; Sergiovanni, 1992). Strodl (1992) indicates that by utilizing these skills more frequently, teachers can develop a closer relationship with their students and contribute to the overall culture of the school. As well, he points out that the leadership of teachers are often defined by their roles within the school and it is these roles that “change the direction of curriculum articulation, culture of the school, and the cooperation among peers, parents, community leaders” (p. 5).

As the world we live in becomes more complex, educators will need to adapt to the changes and needs of the school community. By developing a shared vision that gives rise to common

values and beliefs, the school community as a whole will be able to cope with these changes more effectively. Early knowledge of the principles of transformational leadership can empower teachers to facilitate the creation of such a community and enhance the culture of their schools so as to create institutions of knowledge to prepare students for the future.

General Problem Statement

The purpose of this study was to add to the body of research regarding teacher leadership and determine if there was a significant relationship between teacher leadership and school culture at the secondary level. This correlational study was quantitative in nature and conducted using the instructional staff of all the high schools of the Eastern School District on Prince Edward Island. Using two surveys as the instruments of measurement, a teacher's potential for leadership was examined in relationship to their perception of school culture. The data was further analyzed to determine if there was a significant relationship between transactional and transformational leadership behaviors and school culture. Other areas of interest that were explored included how teacher leadership was affected by such variables as gender, a teacher's level of education, and teaching experience.

Definition of Terms

A number of terms will need to be defined to allow for a greater understanding of this research:

1. Teacher leadership- teachers who influence the behaviors, beliefs, actions and values of both students and adults in a school setting to stimulate student learning and enhance school

improvement (Brownlee, 1979; Childs-Bowen, Moller, & Scrivner, 2000). A teacher's leadership potential will be assessed using an instrument called The Leadership Profile (TLP).

The Leadership Profile (TLP) assesses two specific types of leadership: transactional and transformational. These two forms of leadership are assessed as three separate scales of the TLP. Transformational leadership is assessed as two separate scales: behaviors and characteristics.

2. Transactional leadership - "leadership by bartering" (Sergiovanni, 1990). When this form of leadership is employed, a follower's performance is often rewarded by a promotion, money, praise or some other transaction (Rosenbach and Sashkin, 1996).

3. Transformational leadership - goes beyond meeting the self-interests of followers and unites both leaders and followers in the creation of a shared vision with common goals. It is this form of leadership that often influences followers to exceed expectations and perform to the best of their abilities for the good of the organization; in this case, the school. (Higgins, 1998; Sergiovanni, 1990, 1991).

Sashkin and Rosenbach (1996) further subdivide the TLP into ten separate sub-scales. The transactional leadership scale is divided into two sub-scales:

4. Capable management - measures how well a leader carries out the basic managerial duties for an organization to run effectively.

5. Reward equity - measures how well leaders explain their performance expectations and the rewards that accompany good performance.

The transformational leadership behavior scale is divided into four sub-scales:

6. Communications leadership - measures how well leaders obtain the attention of others by not only clearly communicating their intentions but by paying attention to the concerns of others.

- 7. Credible leadership - measures the leaders perceived trustworthiness by leading by example.
- 8. Caring leadership - measures how well leaders show respect and concern for others.
- 9. Creative leadership - measures a leader's willingness to take calculated risks in order to create opportunities.

The transformational leadership characteristics scale is also divided into four sub-scales:

- 10. Confident leadership - measures the extent to which a leader exhibits self-confidence and create a self-confidence in followers.
- 11. Follower-centered leadership - measures the extent to which a leader views followers as partners and not subordinates.
- 12. Visionary leadership - measures how well a leaders can describe the future for an organization.
- 13. Principled leadership - measures how well a leader develops and supports shared values and beliefs within an organization. This scale measures the culture-building ability of a leader.

School culture must be defined clearly to provide clarity to certain sections of this research.

- 14. School culture - the norms, values, beliefs, and commitments of the school community that shape how people think and act (Leithwood & Jantzi, 1998; Sergiovanni, 1991; Stolp, 1994).

This term has often been confused with school climate.

- 15. School Climate - refers to the perceptions that individuals have of their school that result from day-to-day interactions among the school community. School culture is a concept of greater depth in that it refers to a process of changes in behaviors based on values and beliefs. Since the literature suggests that culture has a direct effect on climate, school climate can be considered a subset of school culture (Sawner, 1999). For the purposes of this study, the strength of the school

culture will be assessed using an instrument called the School Culture Assessment Questionnaire.

16. Teaching experience - the number of years a teacher has spent in the teaching profession.

17. Level of education - the highest degree earned by a teacher (i.e. bachelors, Masters, or doctoral degree).

The purpose of these definitions is to provide clarity when establishing a relationship between these variables and teacher leadership.

Specific Research Questions and Hypotheses

The research questions of this study are as follows:

1. Is there a significant relationship between teacher leadership at the high school level and school culture ?
2. Is there a significant relationship between a high school teacher's practice of transformational leadership and school culture ?
3. Is there a significant relationship between teacher leadership and gender ?
4. Is there a significant relationship between the frequency in which transformational leadership is used and gender ?
5. Is there a significant relationship between teacher leadership and teaching experience ?
6. Is there a significant relationship between teacher leadership and a teacher's level of education ?

The scores of The Leadership Profile (TLP) will be related to the scores of the School Culture Assessment Questionnaire (SCAQ) as well as the nominal information collected from each teacher. From this data, the following hypotheses are given:

1. Ho - There will be no statistically significant relationship between teacher leadership and school culture.

Ha - There will be a statistically significant relationship between teacher leadership and school culture.

2. Ho - There will be no statistically significant relationship between a teacher's use of transformational leadership practices and school culture.

Ha - There will be a statistically significant relationship between a teacher's use of transformational practices and school culture.

3. Ho - There will be no statistically significant difference between teacher leadership and gender.

Ha - There will be a statistically significant difference between teacher leadership and gender.

4. Ho - There will be no statistically significant difference between the frequency in which transformational leadership is utilized and gender .

Ha - There will be a statistically significant difference between the frequency in which transformational leadership is utilized and gender.

5. Ho - There will be no statistically significant difference between teacher leadership and teaching experience.

Ha - There will be a statistically significant difference between teacher leadership teaching experience.

6. Ho - There will be no statistically significant difference between teacher leadership and a teacher's level of education.

Ha - There will be a statistically significant difference between teacher leadership and a teacher's level of education.

Significance of the Research

The significance of this research is to develop a greater understanding of how teacher leadership can affect the culture of a school. Most of the research that has been conducted to date has focused primarily on how principal leadership affects culture. Leithwood and Jantzi (2000b) indicate that there have been few large scale quantitative studies of teacher leadership effects and much of what is known about this type of school leadership is limited to teachers perceptions of such leadership as they have experienced it from other sources. They comment further that more research is required describing the nature of transformational leadership and its effects as it is exercised by those in non-administrative roles, especially teachers. This quantitative study, although not on a large scale, is intended to examine how teacher leadership affects or is affected by such variables as school culture, gender, teaching experience, and a teacher's level of education. The results of this study will add to the limited body of knowledge that already exists

and could possibly remedy some of the deficiencies previously mentioned.

By highlighting that teacher leadership can exist within a school, this research may contribute to encouraging teachers to take part in leadership activities which may lead to the creation of programs and positions that promote teacher leadership. Studies have shown that by promoting such leadership, a sense of collegiality will form within a school and will eventually lead to a community-like atmosphere (Bishop et al. 1997; Cavanagh & Dellar, 1998; Meredith, 2000). Should the results of this study be favorable, it could have implications on the way schools and school boards view leadership within a particular school and possibly refine certain policies of how leadership is developed within its employees.

Finally, the development of a positive school culture is the aim of most schools. By identifying a variable such as teacher leadership as a possible vehicle for school improvement, schools can work towards creating an atmosphere where learning can thrive.

Chapter 2

Review of the Literature

Overview

The literature review for this study will examine how teacher leadership can affect a school's culture and, to a lesser degree, how it can be affected by such variables as gender, teaching experience, and the level of education of a teacher. The exploration of this subject will be accomplished by focusing on five particular areas. The first area will review the history of leadership research to provide a background as to how leadership can be assessed and related to culture. The second area will focus specifically on teacher leadership and its effects on school culture. The third area will describe how transformational leadership can affect school culture while the fourth and fifth areas will outline how gender, experience, and education can influence leadership.

An exhaustive search was conducted using ERIC, Academic Search Elite, and EBSCOHOST databases for the period of 1976-2003. The descriptors used in the search include the following terms: leadership, teacher leadership, school culture, secondary education, high school, gender, level of education, and teaching experience. Other bodies of literature utilized in this review were educational documents, books, journals, papers, and the Internet.

History of Leadership Research

Organized methodological approaches to the study of leadership began in the early years of the twentieth century. For the first fifty years, leadership research focused on identifying traits or personal characteristics of successful individuals. The hundreds of studies that were conducted

during this time attempted to determine if certain personal traits were responsible for successful leadership (Mendez-Morse, 1992). In 1948, however, researcher Ralph Stogdill conducted a review of much of the leadership research that was carried out in the first half of the century and found that there was no identifiable traits that set leaders apart from the general population. While he noted that leaders seemed to be more intelligent, more outgoing, and had a greater sense of responsibility, none of these characteristics proved to be statistically different in leaders than from the average person (Sashkin & Sashkin, 2003).

Stogdill's review revealed that the study of personality traits was not the key to identifying effective leadership. However, it did lead researchers to focus on another dimension of leaders; their behavior. If it wasn't who they were, maybe it was what they did (Rosenbach & Sashkin, 1996). During the 1950's and 1960's, the leadership research attempted to determine if specific behaviors were responsible for successful leadership. This research was led by three independent studies : one at the University of Michigan (Katz, Maccoby, Gurin, & Floor, 1951), another at Ohio State University (Stogdill & Coons, 1957), and a third at Harvard University (Bales, 1958). Each of these studies revealed that successful leaders had a tendency to display two main types of behaviors: "task-centered" and "employee-centered" behaviors. Task-centered leaders were described as those individuals who give detailed instructions to accomplish goals while maintaining maximum supervision. Employee-centered leaders, however, were those who developed interpersonal relationships in order to encourage employees to accomplish their goals (Sashkin & Sashkin, 2003). While researchers conceded that displaying both of these behaviors was a key aspect of leadership, they determined that they did not make a statistical difference in the overall success of an organization. As a result, by the end of the 1960's, leadership research

again shifted its focus; this time to a situational approach. If it wasn't who or what leaders did that made the crucial difference in leadership, maybe it was the given situation in which they were placed (Rosenbach & Sashkin, 1996).

Situational leadership, as it was later referred to, involved making the correct decisions based on a specific set of circumstances. Theories were developed by Robert House (1971) and Paul Hersey (1969) that described how to utilize certain leadership behaviors in certain situations. Further research involving both of these theories, however, proved to be ambiguous. Some studies supported the work of House and Hersey while others refuted the principles of both these theories (Mendez-Morse, 1992). Once again, a piece of the puzzle was identified in describing effective leadership but the entire picture remained unclear.

The research that involved the trait, behavioral, and situational approaches to explain leadership proved to be limited in their contributions. It should also be noted that until the late 1970's, a large portion of leadership research involved supervisors and low-level managers which led researchers to believe that leadership was managerial in nature (Sashkin & Sashkin, 2003). In 1978, however, James Burns developed a more organizational approach to leadership. His research, which essentially explained the difference between a leader and a manager, laid the groundwork for several new approaches to leadership research which led to the development of what is now called transformational leadership. Burns believed there was only two types of leadership: transactional and transformational. Transactional, or managerial, leadership describes how leaders influence followers through a transaction such as money or some other reward. Transformational leadership, on the other hand, describes how leaders develop followers so they can move beyond their personal needs and work towards the goals of the organization. Although

transactional leadership is still considered an important quality for leaders to display, it is transformational leadership that personally involves everyone in the decision-making process within an organization, improving its effectiveness (Rosenbach & Sashkin, 1996).

With the development of transformational leadership, research once again focused on the behaviors and characteristics of this particular type of leader and how these qualities could be applied to a given situation. Although many quantitative and qualitative studies have identified numerous characteristics and behaviors associated with transformational leadership, common themes are evident throughout the research. Typical behaviors displayed by such leaders include good communication skills, trust, caring for others, and creating opportunities for followers and the organization as a whole. Characteristics such as self-confidence, empowerment, and vision have also been identified as common by such leaders (Bass, 1985; Bennis & Nanus, 1985; Conger & Kanungo, 1994; Kotter & Heskett, 1992; Kouzes & Posner, 1987; McClelland & Boyatzis, 1982). However, transformational leadership has had a larger influence on leadership research than simply identifying a new set of behaviors and characteristics. It has led to research that has shown that the use of transformational principles is related to organizational effectiveness through the construction of a positive culture (Bennis & Nanus, 1985; Kotter & Heskett, 1992). Sashkin and Sashkin (2003) refer to psychologist Edgar Schein who stated “It may be the only really important thing leaders do is construct culture” (p. 116). More importantly, transformational leadership has identified the need to incorporate all three approaches to leadership (trait, behavioral, and situational) to define and measure leadership more accurately. Unlike the first seventy-five years of leadership which attempted to find one approach to explain the concept of leadership, recent theories recognize how all three approaches

are interrelated and must be considered if a greater understanding of leadership is to be achieved (Higgins, 1998).

For the next decade after Burns' revelation, transformation leadership studies targeted the CEOs and higher-level management of private industry since it was thought that such leadership had to take place at a much higher level than the supervisory level of management. As the picture of leadership became clearer, this research began to branch out into the public sector, especially in the field of education.

Teacher Leadership and School Culture

As the world changes with great speed due to the rapid advances in science, technology, and the arts, schools are becoming forced to evolve from institutions of information to institutions of knowledge and understanding in order to keep pace with these changes and to adequately prepare students for the future (Blegen & Kennedy, 2000). If this evolution is to take place, a school culture that fosters student achievement and motivation as well as teacher satisfaction must be developed. Such a culture is dependent upon the leadership that exists within a school. School leadership, as it pertains to developing school culture, can take on many forms. Probably the most documented form is that of the role of the principal. However, this discussion will focus on a lesser known form of leadership that can also have an impact on school culture; the leadership expressed by teachers.

The importance of teacher leadership within schools has only recently gained attention of educational researchers. While most studies have focused on the effects of educators in administrative positions, it has only been in the last decade that certain educational reforms have

advocated teacher involvement with regards to decision-making in administrative processes and have attributed this type of involvement to creating a positive school culture (Foster, 1998; Howey, 1988; Katzenmeyer & Moller, 1996; Leithwood & Jantzi, 1998, 2000a; Mendez-Morse, 1992; Sashkin & Walberg, 1993; Senge, 1990; Stone, Horejs, & Lomas, 1997; Wasley, 1991).

Teacher leadership can take on two forms: formal and informal. Traditional roles such as department head, union representative, chairperson, or curriculum committee representative have often been considered the formal aspect of such leadership. While important in contributing to the efficiency of a school, these positions have often been found to be restrictive in that they are limited in number, reducing the amount of teacher participation in leadership activities. By advocating the informal aspect of teacher leadership by identifying roles such as mentor, sharing expertise, staff development provider, strengthening home-school relationships, and developing instructional materials, the level of participation in the leadership of the school will increase and contribute to an improvement in its culture (Howey, 1988; Leithwood & Jantzi, 2000b; Wasley, 1991).

Senge (1990) and Mendez-Morse (1992) contend that leadership is about culture formation and such skills need to be developed throughout an entire organization if its culture is to flourish. Theories that advocate the single leader with multi-followers are outdated and ignore the possibilities of leadership within other staff members that may contribute to the effectiveness of an organization. Recent theories focusing on leadership in education have allowed the concept of leadership to become more inclusive. One such theory is the Formative Leadership Theory developed by Ash and Persall (2000). It is based on the premise that leadership within a school is not the sole domain of the administrators and that many leadership opportunities exist for the

many leaders that reside within a particular school. Ash and Persall state “This theory is based on the concept of the teacher as leader and the principal as the leader of leaders. It is grounded in the belief that educators should enhance both student learning and the learning of the adults within the school” (p. 16). This model is based on ten leadership principles that describe how teacher leadership, when developed in sufficient numbers, will improve a school’s performance and culture. These principles advocate that teachers and principals engage in team learning, collaboration, trustful relationships with colleagues, communication, building relationships, empowerment, and identifying possibilities. The Formative Leadership Theory, therefore, supports previous research that states by displaying such transformational behaviors, culture is strengthened and productivity increases (Bennis & Nanus, 1985; Kotter & Heskett, 1987; Sashkin & Sashkin, 2003). Sergiovanni (1991) further reinforces this theory by stating that as the total amount of leadership expressed in a school (or leadership density) increases, especially by teachers, the likelihood that the school will be successful will increase.

A number of studies have been conducted that show a positive relationship between leadership and organizational culture. Sashkin and Sashkin (1990) gathered evidence that revealed a positive correlation between visionary leadership and school culture. Using as instrument called the Leadership Behavior Questionnaire (LBQ), the researchers distributed this survey to all the administrators within twelve different schools and assessed the amount of visionary leadership that existed within each school. They then distributed a second instrument called the School Culture Assessment Questionnaire (SCAQ) to five randomly selected teachers in each of these schools to assess the culture of each school. Using Pearson correlations, this study revealed that significant relationships existed between the overall visionary leadership

score for each school and all five scales of the SCAQ. As well, significant relationships were found between each of the three scales of the LBQ (Visionary Leadership Behavior, Visionary Leadership Characteristics, and Visionary Culture Building) and school culture. The strength of these correlations ranged from moderate to strong ($r = 0.36$ to $r = 0.72$). These findings support Sashkin's Visionary Leadership Theory which hypothesizes that it is visionary leaders that work to build strong organizational cultures. This theory is based on identifying specific characteristics that make individuals good transformational leaders that can potentially enhance the culture of an organization (Sashkin, 2001b). It should be noted that Sashkin's study focuses on the leadership of administrators and not teachers. However, this study being outlined by this literature review utilizes both the instruments previously mentioned (the LBQ is the predecessor of the TLP) and shifts their focus to teacher leadership. By mentioning the correlations arrived at by Sashkin's Visionary Leadership study, it is hoped to give more credibility to this author's research.

Other studies that focused on how leadership affects school conditions include research conducted by Leithwood and Jantzi. The basis of some of their research included the effects of both principal and teacher leadership. Two of their studies in particular involved an extensive quantitative analysis of how teacher leadership affected different school variables. In these studies, populations with sample sizes that included over 9000 students and 5000 teachers were given surveys to assess how teacher and principal leadership affected these variables. Pearson correlations were used to estimate the strength of any relationships and multiple regressions were used to determine any teacher influence on the school variables after controlling for principal influence. The results of both studies revealed a strong significant relationship between teacher leadership and student engagement ($r = 0.50$). This is hardly surprising since teachers interact

directly with the students on a daily basis. However, student engagement is still an important factor that contributes to school culture. With respect to school culture in general, principal leadership was found to be more influential than teacher leadership. However, teacher leadership still had a significant correlation of $r = 0.41$ to school culture (Leithwood & Jantzi, 1997, 1998).

Leithwood and Jantzi (2000b) conducted another extensive quantitative study involving 1818 teachers and 6490 students. The purpose of this research was, once again, to determine the effects of principal and teacher leadership on student engagement and school conditions. Using data gathered from two separate surveys, the researchers used Pearson correlations to show the strengths of relationships between leadership and school conditions and a LISREL 8 analysis of covariance to assess the direct and indirect effects of leadership on student engagement. The results from this study were similar to those found in Leithwood's and Jantzi's previous studies in that teacher leadership had a significant relationship with school conditions ($r = 0.48$).

However, teacher leadership, in this instance, did not stand out as critical for student engagement ($r = 0.16$). What proves to be the most disappointing aspect of this study is the conclusions reached by the authors as a result of the poor correlation with student engagement. They state "grafting leadership on to the concept of teaching actually devalues the status of teaching in the long run. It does this by implying that being a teacher, and all that entails in the classroom and the wider organization, is really not enough to warrant a respected role in bettering the human condition. Indeed, it seems likely that this marriage of concepts will do a disservice to the concept of leadership" (p. 430). These statements are somewhat contradictory considering the results of the studies previously mentioned that were conducted by the same researchers. They appear to take a pessimistic view of the teaching profession and essentially take a step backward

from recently developed theories involving the development of transformational leadership in schools. As well, this research was a correlational study which can only determine if there is a relationship between teacher leadership and student engagement. It cannot determine if one variable *causes* another. Before the idea of teacher leadership is set aside, perhaps more sophisticated research is required to determine if teacher leadership *causes* an improvement in various aspects of school culture. Numerous studies already mentioned have provided direct and indirect links between teacher leadership and school culture and such research needs to be continued if the teaching profession is to evolve from its present state.

Leaders who define and support shared values and beliefs construct a culture within their organizations that supports effective performance. These values and beliefs give boundaries to members of an organization as to what is right and wrong and the consequences of their actions (Sashkin & Sashkin, 2003). It has become more common to read in the literature that the most important factor in creating productive schools is the development of a culture and that the school leaders, principals and teachers alike, are the culture builders (Rosenbach & Taylor, 1998; Sashkin, 1995). It should be noted that some research such as the qualitative study conducted by Stone et al. (1997) and the Contemporary Leadership Model (Bishop et al., 1997) promotes the idea that a positive culture must be established first if teacher leadership is to flourish. However, a great deal of the literature has advocated teacher leadership as the driving force behind the creation of an effective culture. According to Blegen and Kennedy (2000), if we are to create a culture in our schools that allows students and adults alike to succeed, teacher leadership needs to be developed and encouraged.

Transformational Leadership and School Culture

Transformational leaders control the culture of an organization by defining and exemplifying the importance of shared values and beliefs. Within the context of a school, a number of researchers have identified different transformational behaviors that contribute to its effectiveness. The most commonly mentioned behaviors throughout the research that focuses on school leadership include developing a shared vision, shared goals, empowering others, collaboration, collegiality, modeling behavior, and strengthening cultures (Leithwood & Jantzi, 1997, 2000a; Pielstick, 1998; Rogus, 1988; Rosenbach & Sashkin, 1996; Sheppard, 1999; Wynne, 2001). Different studies have linked the practice of these transformational behaviors with the development of strong school cultures.

Foster (1998) conducted qualitative research involving case studies of two secondary schools known for their success. Data was collected through interviews with students, teachers, principals, and parents. In each case, emergent themes revealed that the successes of both schools were attributed to each having a shared vision, a shared philosophy, and that the administration of both schools encouraged transformational behaviors. The philosophies of each school were similar in that they stressed values such as freedom, trust, learning, and personal responsibilities for choices which leadership research has determined as crucial in building a strong culture (Rosenbach & Sashkin, 1996). The findings of Foster's study lend support to Sergiovanni's (1992) Theory of Moral Leadership which contends that leaders must do what is right because it is the right thing to do. By having a shared philosophy or a "moral voice", schools can revolutionize the way leadership is practiced.

Chirichello (1999) conducted a study which involved interviewing six principals in order to

identify their leadership styles. He analyzed the content of these interviews for common themes and compared these findings to the climate of each school (a component of school culture) which was determined using survey data gathered from teachers. Chirichello determined that the transformational behaviors exhibited by each principal was directly related to the creation of positive school climates. These findings are similar to those found in another qualitative study, Sheppard (1999), and also lend support to the quantitative findings of Sashkin and Sashkin (1990) and Leithwood and Jantzi (2000a) which revealed strong significant correlations between administrative transformational leadership and organizational culture.

Most of the research that has been conducted involving the effects of transformational leadership on school culture has centered around the principal. However, recent studies have also established a relationship between the transformational practices of teachers and school culture. Stone et al. (1997) conducted qualitative research involving interviews with 18 teachers and three principals from three different schools. Results from the data revealed that teacher leadership improved professional practice and school climate by empowering teachers through collaboration, modeling, and shared decision-making. These findings were similar to the qualitative portion of Leithwood and Jantzi's (1997) study which found that teacher leaders reflected many aspects of transformational leadership. The results of both of these studies lend support to Leithwood and Jantzi's (1998) quantitative research which found strong relationships between the total effects of transformational leadership expressed by both principals and teachers and student engagement. Using Pearson correlations and 2-tailed t-tests, relatively strong correlations of $r = 0.60$ and $r = 0.51$ were determined for principals and teachers respectively as they related to student engagement. Leithwood and Jantzi also conducted a LISREL analysis of

covariance which resulted in the construction of three different path models. All of the models suggested that leadership had important consequences for student engagement especially when it came from teachers who utilized transformational behaviors. It should be noted that this study also revealed that transactional leadership practices either had no significant relationship or a negative relationship ($r = 0.12$ and $r = -0.25$) with student engagement. Although the negative relationship is weak, it is still considered significant.

The results of these studies that link transformational behaviors to school culture support a number of models concerning school leadership. The School Improvement Model of School Culture developed by Cavanagh and Dellar (1998) assumes that the culture of a school continuously interacts with its external environment. The internal structure of the model consists of six basic elements: professional values, an emphasis on learning, collegiality, collaboration, shared planning, and transformational leadership. These six elements, which all share characteristics of transformational principles as they apply to a school setting, are considered the driving forces of cultural development and aid in maintaining the culture as the external environment changes. Eventually, these elements will change individual values into collective values. This model also stresses that these six behaviors need to be expressed by both teachers and principals if a school is to develop a positive culture.

Meredith (2000) discusses a teacher leadership model called REACH which emphasizes the behaviors teachers should adopt to become transformational leaders. These behaviors, which are spelled out in REACH, include risk-taking, effectiveness, autonomy, collegiality, and honor. When explaining each element of this model further, Meredith highlights such transformational behaviors as modeling best practice, improved communication skills, and creating new processes

as vital if a school is to transform its culture. When teachers help others look beyond their own self-interests and commit to something larger than themselves, a school culture is created that places values and commitment above all else. The principles of this model are supported by such studies as Foster (1998), Leithwood and Jantzi (1997,1998), and Stone et al.(1997).

The Contemporary Leadership Model developed by Bishop et al. (1997) is another example of a model describing teacher leadership. Although it is not as complex as the REACH model, it still emphasizes the importance of teachers displaying transformational behaviors such as collegiality and collaboration to construct strong school cultures. When certain policies are put in place to encourage transformational leadership, a stronger culture results that recognizes teacher leadership. Once these policies are developed, student productivity is thought to increase.

A positive school culture is important for the success of any school. Numerous studies have confirmed that when transformational leadership behaviors are expressed by both principal and teachers alike, the development of this culture takes shape and provides an atmosphere where learning can flourish for both students and adults.

Leadership and Gender

Leadership research involving gender has mainly centered around school administrators, corporate executives, and work supervisors. Various studies, such as one conducted by Bartol and Wortman (1976), have revealed very few differences in the overall leadership abilities of men and women (Sashkin, 2001c). Some research, however, has noted that women have a

tendency to display transformational leadership behaviors more frequently than men. Ernst (1997) conducted a study using a questionnaire called The Leadership Profile that involved 750 male and 750 female CEOs and senior executives. Although there were no statistical differences between male and females in the overall leadership scores, she did report small significant statistical differences between male and females in their use of transformational behaviors. According to this study, women had a higher level of respect and concern for others and also involved and empowered their subordinates more frequently than their male counterparts.

Gonzales and Lambert (2001), Sherman (2000), and Mertz and McNeely (1997) all conducted qualitative research that involved female school administrators and determined that female principals were most likely to engage in such behaviors as shared decision-making, communication, and building relationships. These findings support Petersen's (1997) quantitative research that showed a significance difference between gender and active student engagement. Using survey data collected from 111 public secondary school principals, Petersen found that females had a significantly higher mean score ($M = 44.86$, $SD = 3.25$) with respect to engagement than the males ($M = 42.21$, $SD = 3.37$). From this data he concluded that women recognized the importance of this quality and that, as a result, women have a tendency to be more collaborative and become more involved in shared decision-making.

Most of the research involving leadership and gender has concluded that no real differences exist between men and women in their abilities to lead. However, evidence continually makes its way into the literature that indicates that women are more prone to utilize transformational leadership principles. Leadership research has already determined that transformational leadership increases the effectiveness of an organization. If women have a natural ability for such

leadership, it might benefit school boards and other organizations to draw out these abilities in women to improve performance and serve as models of leadership to others (Sashkin & Sashkin, 2003).

Teacher Leadership vs. Experience and Education

Effective leaders work hard at honing their skills and professional knowledge. They are self-directed learners that are willing to undergo considerable preparation for the leadership tasks that lie ahead (Howey, 1988; Rogus, 1988). According to the REACH model of teacher leadership, teacher leaders practice the following behaviors: they continue their education, they read educational research, they increase their subject knowledge, and they improve their technology skills (Meredith, 2000). This model is supported by a qualitative study conducted by Stone et al. (1997) which found that teacher leaders have more teaching experience and more formal education than the average staff member. As well, Brownlee (1979) conducted a quantitative study involving 244 teachers and eight principals that revealed similar findings. Using Pearson correlations and t-tests, she found that teacher leaders had a more formal education ($t = -3.18$, $df = 277$, $p < 0.01$, two-tailed) and had more years of experience ($t = -3.45$, $df = 265$, $p < 0.001$, two-tailed).

Summary

Presently, research supports the idea that leadership has a positive influence on organizational culture. This is especially true when leadership is transformational. However, the research that has focused on public education has been aimed predominately at the leadership influences of the

school administration. If the principles of transformational leadership are to be applied properly, leadership must be developed throughout the school community with a particular focus on teachers. Few studies have identified the influences of teacher leadership on the different aspects of school culture which led Leithwood and Jantzi (2000b) to contend that much more research is required if the leadership influences of teachers is to be fully understood especially when it is transformational in nature.

For teacher leadership to serve as a vehicle for improving school culture, different facets of such leadership need to be explored. By studying such variables as gender, teaching experience, and a teacher's level of education, it is hoped that this study can aid in the identification of role models to foster teacher leadership development and eventually lead to the construction of strong school cultures.

Chapter 3

Methodology

Overview

The purpose of this chapter is to outline the research design, instrumentation, data collection procedures, data analysis, and limitations of this research. This chapter will outline the methodology used to study the relationship between teacher leadership and school culture as well as the relationships between teacher leadership and such variables as gender, teaching experience, and a teacher's level of education.

Design

The design of this study was a quantitative analysis of the relationship between teacher leadership and school culture as well as any relationships that may have existed between teacher leadership and gender, experience, and education. The subjects consisted of the 212 high school teachers (instructional staff) from the six high schools of the Eastern School District on Prince Edward Island.

This purposeful sample represented 100% of the population of the high school teachers in the Eastern School District. Of the 212 sets of questionnaires that were distributed to these teachers, 146 were returned providing a return rate of 68.9%. According to Krejcie and Morgan (1970), an acceptable rate of return for a population of 212 is 136 based on a confidence level of 0.05.

Instrumentation

Two surveys were used to collect data for this research study. The first, used to measure the leadership potential of each teacher, was The Leadership Profile (see Appendix A) (Sashkin & Rosenbach, 1995). This instrument consists of fifty items based on a Likert scale of 1 to 5 with responses ranging from *To a Little or no Extent* to *To a Very Great Extent*. The fifty items are separated into ten scales that measure transformational leadership behaviors, transformational leadership characteristics, and transactional leadership behaviors that impact a group or organization. The transformational behaviors that are measured include Communications Leadership, Credible leadership, Caring Leadership, and Creative Leadership. The transformational characteristics that are measured are Confident Leadership, Follower-Centered Leadership, Visionary Leadership, and Principled Leadership. Finally, the transactional practices that are assessed are Capable Management and Reward Equity (Rosenbach & Sashkin, 1996).

The Leadership Profile (TLP) can be used as a self-assessment tool or as a tool used by colleagues to assess the leadership potential of a particular individual. Previous studies have applied the TLP using both methods by averaging the self-assessment score with the scores from a set number of colleagues (Dixon, 1998; Hall, 1999; Higgins, 1998; Sashkin & Sashkin, 1990). However, for logistical purposes in data collection, this study will use the self-assessment ratings of teachers alone.

Sashkin and Sashkin (2003) have reported that research has supported the criterion validity of the TLP as this particular questionnaire continues to significantly relate transformational leadership to organizational effectiveness (Dixon, 1998; Higgins, 1998; Major, 1988; Sashkin, Rosenbach, & Mueller, 1994; Sawner, 1999; Silver, 1999). The construct validity of the TLP has

also been established through a statistical procedure called factor analysis which shows that the elements of transformational leadership exist in the data itself. This was accomplished using three large data sets from other studies (Lafferty, 1998; Rosenbach & Mueller, 1989; Sashkin, 1996).

Test-retest reliability is determined by measuring the same thing twice and obtaining a correlation between the two results. Sashkin and Sashkin (2003) established that the TLP was reliable over time using a study that involved U.S. Air Force officers completing this survey twice over a 10 month period. Correlations between the two data sets ranged from $r = 0.217$ to $r = 0.615$. Although it is acknowledged that significant correlations of 0.20 to 0.30 are weak, only two of the twelve correlations produced were below 0.30. The remaining correlations were considered to be moderate or strong.

Internal reliability of a survey describes how well questions fit together or how they are interrelated. Reliability of this type is determined using Cronbach's alpha where any coefficient above 0.70 is considered good and anything above 0.80 is excellent. Using numerous studies, Sashkin and Sashkin (2003) determined the alphas for each of the ten scales of the TLP. Eight of the ten scales reported alphas 0.714 or higher. Scale eight (Follower-Centered Leadership), which reported alphas ranging from 0.213 to 0.520, is actually composed of two independent sub-scales that when examined separately, raise its alpha to 0.710. Scale nine (Visionary Leadership), which reported alphas of 0.419 to 0.640, had one item in the scale that reduced the overall alpha considerably. When this item was removed, the alpha for scale nine was raised to above 0.700 (Sashkin, 2001c). It should be noted that a set of data involving 1466 Florida public school teachers and principals produced alphas of 0.900 or higher for five scales and 0.780 or higher for

three other scales. When a Cronbach alpha was determined for the TLP for this particular study, the 146 participants produced a coefficient of 0.9160 for all fifty items of this survey.

The second survey used in this study to measure school culture was the School Culture Assessment Questionnaire (see Appendix B) (Sashkin, 2001a). This survey consists of thirty items based on a Likert scale of 1 to 5 that ranges in its responses from *Not True* to *Completely True*. The thirty items are divided into five scales that measure five different aspects of school culture. However, for the purposes of this study, only the total score was determined for each survey. The validity and reliability data concerning this survey is not as extensive as that of the TLP as it has been used to a lesser extent (Sashkin & Sashkin, 1990). For this reason, a Cronbach alpha was performed for all 30 items of this survey using the data set of this study to produce a coefficient of 0.7689. As a result of this analysis, this instrument displays a very good internal reliability for this study. Data regarding the validity of the School Culture Assessment Questionnaire (SCAQ) is minimal. This questionnaire has been used to a certain extent in some studies (Sashkin & Sashkin, 1990), but specific information was not available. However, the Organizational Culture Assessment Questionnaire (OCAQ), the predecessor of the SCAQ, had its validity established by Sawner (1999) and the author of the SCAQ, Dr. Marshall Sashkin, has been extensively involved in leadership and organizational cultural research for over three decades. As a result, it is the judgement of this researcher that the SCAQ is a valid instrument.

Finally, an attachment accompanied the TLP and the SCAQ to collect the nominal information relevant to the research. It consisted of three items that identified the gender, teaching experience, and level of education of each individual teacher.

Coding and Scoring

1. The Leadership Profile - total leadership score will range from 50 - 250.
2. Scales of The Leadership Profile
 - a. Transactional Leadership score - a total score is derived from questions 1, 2, 11, 12, 21, 22, 31, 32, 41, and 42. Scores will range from 10 - 50.
 - b. Total Transformational Leadership score - a total score is derived from questions 3, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 38, 39, 40, 43, 44, 45, 46, 47, 48, 49, and 50. Scores will range from 40 - 200.
 - c. Transformational Leadership Behavior score - a total score is derived from questions 3, 4, 5, 6, 13, 14, 15, 16, 23, 24, 25, 26, 33, 34, 35, 36, 43, 44, 45, and 46. Scores will range from 20 - 100.
 - d. Transformational Leadership Characteristics score - a total score is derived from questions 7, 8, 9, 10, 17, 18, 19, 20, 27, 28, 29, 30, 37, 38, 39, 40, 47, 48, 49, and 50. Scores will range from 20 - 100.
3. Sub-scales of The Leadership Profile - all ten scales will range in scores from 5 - 25.
 - a. Capable Management - a total score is derived from questions 1, 11, 21, 31, and 41.
 - b. Reward Equity - a total score is derived from questions 2, 12, 22, 32, and 42.
 - c. Communications Leadership - a total score is derived from questions 3, 13, 23, 33, and 43.
 - d. Credible Leadership - a total score is derived from questions 4, 14, 24, 34, and 44.
 - e. Caring Leadership - a total score is derived from questions 5, 15, 25, 35, and 45.

- f. Creative Leadership - a total score is derived from questions 6, 16, 26, 36, and 46.
 - g. Confident Leadership - a total score is derived from questions 7, 17, 27, 37, and 47.
 - h. Follower-Centered Leadership - a total score is derived from questions 8, 18, 28, 38, and 48.
 - i. Visionary Leadership - a total score is derived from questions 9, 19, 29, 39, and 49.
 - j. Principled Leadership - a total score is derived from questions 10, 20, 30, 40, and 50.
4. The School Culture Assessment Questionnaire - total culture score will range from 30 - 150.

Data Collection Procedures

Before data collection took place, permission was obtained from the University of Prince Edward Island Ethics Board and the Eastern School District to conduct the study. A meeting was then held with the principal of each high school to obtain permission to utilize their staffs. An information package was given to each principal that contained a letter outlining the details of this research study, a copy of the letter to be given to each teacher explaining the study, consent form, the nominal information attachment, the TLP, and the SCAQ. All six principals agreed to participate in this study.

As each principal agreed to participate, a time was arranged for the researcher to attend the earliest convenient staff meeting for the purpose of data collection. Data collection took place over a period of two months and occurred at each of the six high schools on December 16, 2002, January 13, 2003, January 20, 2003, January 27, 2003, February 3, 2003, and February 17, 2003. At each staff meeting, all teachers were provided with information packages that were randomly

distributed. Each package contained the same information as the package provided to each principal earlier. The researcher then explained the purpose of the research, how to complete the surveys, and stressed that the study was completely voluntary and that anyone could withdraw at any time. The consent forms were completed at this time and given to the researcher separate from the rest of the information package. Three of the high school staffs agreed to fill out the surveys at the staff meeting. This allowed for a high rate of return from each of these schools. For the remaining three schools, it was requested that the teachers leave the surveys at the office of their respective schools where they were picked up after one week. Although the rate of return was not as high for these schools, it was still acceptable.

Each survey was assigned a letter and a number. The number served as an identification of the teacher who filled out the survey while the letter indicated the school of origin. The purpose of these assignments was to ensure that the same person did not complete more than one survey and to ensure that the information from each TLP, SCAQ, and nominal information form came from the same teacher in the event they became separated from the rest of the information package. Since names were not required on the surveys, this method of coding also ensured a certain degree of anonymity. The teachers were assured that the source of the data would be held in the strictest of confidence and would only be available to the researcher and his supervisor.

Data Analysis

The data collected from the surveys and the nominal information form was analyzed to answer the research questions of this study. This analysis included the following:

1. Descriptive statistics to describe the characteristics of the sample.

2. Pearson correlations, strength of correlation (r^2) and linear regression analysis to answer questions 1 and 2.
3. Independent t-tests, two-way ANOVAs, and ANCOVAs to answer questions 3, 4, and 6.
4. One-way ANOVAs, two-way ANOVAs, and ANCOVAs analysis to answer question 5.

The school culture scores were used as the covariate for the ANCOVAs. The rationale for the use of this particular covariate has been identified in the literature review. A teacher's perception of culture may influence their leadership scores because according to some of the literature, the existence of a positive school culture can contribute to the development of teacher leadership within a school (Bishop et al, 1997; Stone et al., 1997; Urbanski, 1997)

Limitations of the Study

The primary limitation of this study was the way the leadership potential of each teacher was determined. Since The Leadership Profile was used as a self-rating of leadership, inflated scores may have resulted from teachers who may not be able to assess their own leadership potential from a dispassionate point of view. As well, there may have been teachers who were too critical of themselves and their leadership scores may have become skewed as a result. Higgins (1998) points out that self-ratings of leadership are often inflated with respect to other-ratings from colleagues. This assertion is supported by Harris and Schaubroeck (1988) who determined correlations between self-ratings and peer-ratings ($r = 0.36$), self-ratings and supervisor-ratings ($r = 0.35$), and peer-ratings and supervisor-ratings ($r = 0.62$). Although it is obvious that the other-ratings of leadership have a much stronger correlation, it should be noted that the correlations for both self-ratings in this study can be considered moderately significant and lend

some credibility to determining leadership potential in this manner.

The Leadership Profile can be used as a self-assessment of leadership or by an observer to reinforce self-scores. However, it was felt that due to the size of the population sample, the logistics involved in using the questionnaire in this manner were complicated and not feasible. As well, maximum cooperation from a population sample often relies on keeping the data collection technique as simple as possible. This was best accomplished using the questionnaire as a self-assessment only.

Leadership and culture are complex concepts. While the design of this study can determine if there is a relationship between these two variables, it cannot determine if one causes the other. Determining causal effects requires a more sophisticated quantitative or qualitative study.

Finally, this study is limited to the high school teachers of the Eastern School District on Prince Edward Island.

Chapter 4

Results

Overview

A purposeful sample of the 212 high school teachers of the Eastern School District of Prince Edward Island participated in this research study. From this population, 146 sets of questionnaires were returned providing a return rate of 68.9%. The data collected using these questionnaires were analyzed to determine if any statistical significant relationship existed between:

1. teacher leadership and school culture;
2. teacher leadership and gender;
3. teacher leadership and experience; and
4. teacher leadership and education.

The Leadership Profile (TLP) provided statistical information regarding the potential leadership of a teacher. The overall score of this questionnaire represented the total leadership score of the teacher which was divided into three scales that measured the transactional leadership, transformational leadership behaviors, and the transformational leadership characteristics of each teacher. The last two scales were combined to create a fourth scale called total transformational leadership. Specific leadership dimensions of teachers were also examined by further dividing these scales into ten sub-scales. The transactional leadership scale was divided into two scales called capable management and reward equity. The transformational leadership behavior scale included the sub-scales called credible leadership , caring leadership, communications leadership, and creative leadership. Finally, the transformational leadership

characteristics scale was described by the sub-scales called confident leadership, follower-centered leadership, visionary leadership, and principled leadership. Each of these ten sub-scales are described by the overall score of five specific questions within this fifty-item questionnaire.

The School Culture Assessment Questionnaire (SCAQ) provided statistical information regarding the culture of the school as perceived by the teachers. Only the overall score from this instrument was utilized in this study which represented the overall culture of the school.

The data analysis described in this chapter focuses on four areas. They examine: a) the characteristics of the sample population, b) the relationship between teacher leadership and school culture, c) the relationship between teacher leadership and gender, and d) any relationships that may exist between teaching experience or the level of education of a teacher and teacher leadership.

Characteristics of the Sample

Characteristics of the sample are described by gender, level of education, and teaching experience.

Table 1 describes the teacher distribution by gender. The 146 participants of this study consisted of 72 (49.3%) males and 74 (50.7%) females.

Table 2 represents the teacher distribution according to their level of education. Of the 146 participants in this study, 120 (82.2%) held a Bachelor's degree, 23 (15.8%) held a Master's degree, 1 (0.7%) held a doctorate, and 2 (1.4%) had a vocational qualification.

Table 3 represents the teacher distribution according to their years of teaching experience. Of the 146 participants, 30 (20.5%) had 0-5 years of experience, 28 (19.2%) had 6-10

years, 20 (13.7%) had 11-15 years, 17 (11.6%) had 16-20 years, 22 (15.1%) had 21-25 years, and 29 (19.9%) had 26 or more years of experience.

Table 1

Teacher Gender

	Frequency	Percent
Male	72	49.3
Female	74	50.7
Total	146	100.0

Table 2

Teacher Level of Education

	Frequency	Percent
Bachelor's Degree	120	82.2
Master's Degree	23	15.8
Doctorate	1	0.7
Vocational	2	1.4
Total	146	100.0

Table 3**Teacher Experience**

	Frequency	Percent
0-5 years	30	20.5
6-10 years	28	19.2
11-15 years	20	13.7
16-20 years	17	11.6
21-25 years	22	15.1
26 years or more	29	19.9
Total	146	100.0

Teacher Leadership and School Culture

The primary focus of the data analysis was to determine if a relationship existed between teacher leadership and school culture. Presented in Table 4 are the mean, median, standard deviation, maximum and minimum scores for the School Culture Assessment Questionnaire (SCAQ) and The Leadership Profile (TLP), its scales, and sub-scales.

A correlation analysis was conducted between the fifteen leadership measures and the culture measure to determine if any significant relationships existed between a particular aspect of leadership and school culture. To test the first two hypotheses of this study that there is no significant relationship between teacher leadership and school culture and that there is no significant relationship between a teacher's use of transformational leadership practices and school culture, Pearson correlations were conducted.

Table 4**Leadership and School Culture Scores (N = 146)**

Leadership Measure	Mean	Median	S.D.	Minimum	Maximum
SCAQ score	102.75	104.50	14.58	67	135
Total TLP score	196.46	197.00	18.58	139	244
Transactional leadership	40.12	40.00	4.64	26	56
Transformational behaviors	83.60	83.50	8.08	58	100
Transformational characteristics	72.73	72.00	7.66	55	94
Total transformational score	156.34	156.00	14.70	113	194
Capable management	19.89	20.00	2.43	11	25
Reward equity	20.23	20.00	2.57	13	25
Communications leadership	19.81	20.00	2.58	13	25
Credible leadership	22.16	22.00	2.27	15	25
Caring leadership	21.59	22.00	2.45	14	25
Creative leadership	20.04	20.00	2.41	11	25
Confident leadership	19.71	20.00	2.63	13	25
Follower-centered leadership	16.51	17.00	2.23	11	22
Visionary leadership	17.66	18.00	2.69	12	24
Principled leadership	18.85	19.00	2.47	13	25

The results, presented in Table 5, indicate that the null hypothesis for both these hypotheses can be rejected. The overall teacher leadership score and the four leadership scales all produced

significant positive correlations with the school culture measure, the largest of which was a positive correlation between transformational behaviors and culture ($r = .329$, $p = .000$). Of the

Table 5

Teacher Leadership/School Culture Correlations (N = 146)

Leadership Measure	School Culture (r)	Strength of Association (R^2)
Total TLP score	.295**	.087
Transactional Leadership	.264**	.070
Transformational behaviors	.329**	.108
Transformational characteristics	.208*	.043
Total transformational score	.289**	.084
Capable management	.215**	.046
Reward equity	.273**	.075
Communications leadership	.243**	.059
Credible leadership	.189*	.036
Caring leadership	.402**	.162
Creative leadership	.258**	.067
Confident leadership	.178*	.032
Follower-centered leadership	.076	.006
Visionary leadership	.146	.021
Principled leadership	.230**	.053

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

ten leadership sub-scales, eight were significantly correlated with school culture, the strongest of which was caring leadership ($r = .402, p = .000$). All correlations were significant at the $p < .05$ confidence level. Only visionary leadership ($r = .146, p = .079$) and follower-centered leadership ($r = .076, p = .363$) were not significantly correlated with culture. Figure 1, Figure 2, and Figure 3 provide visual examples of the linearity created from the significant correlations between three leadership measures (overall teacher leadership score, transformational leadership behaviors scale, and the caring leadership scale) and school culture using scatter plots.

Figure 1

Scatterplot of the Relationship Between the Overall Teacher Leadership Score and School Culture

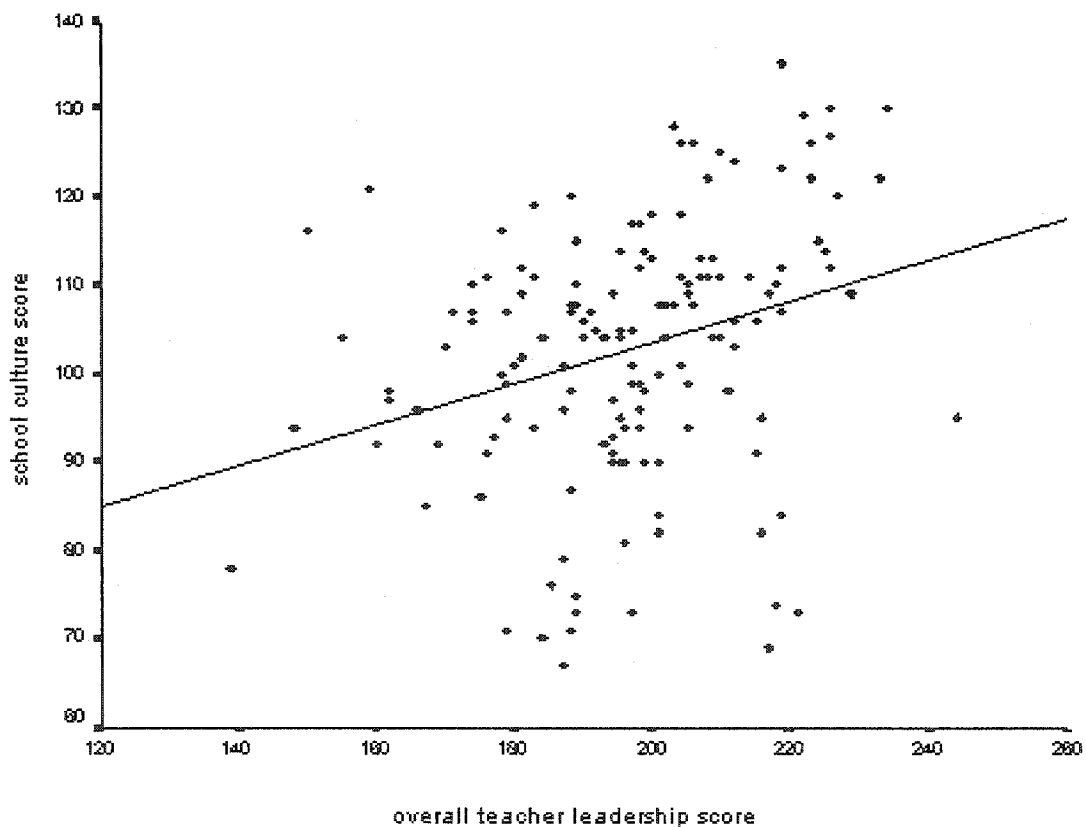
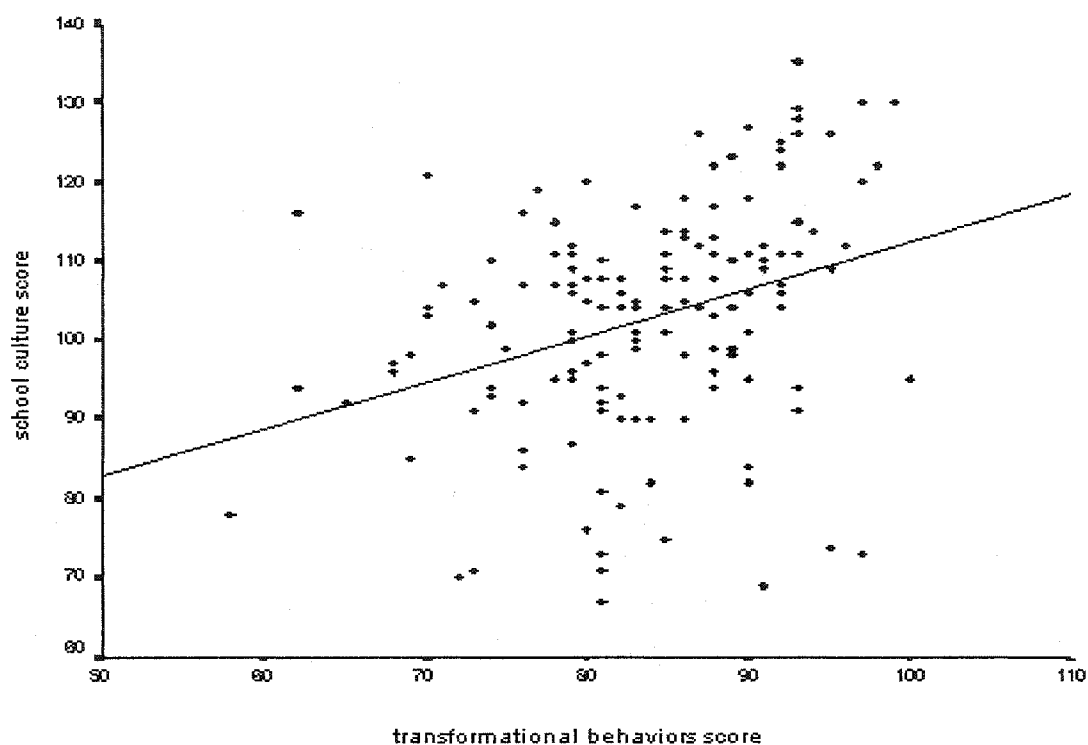


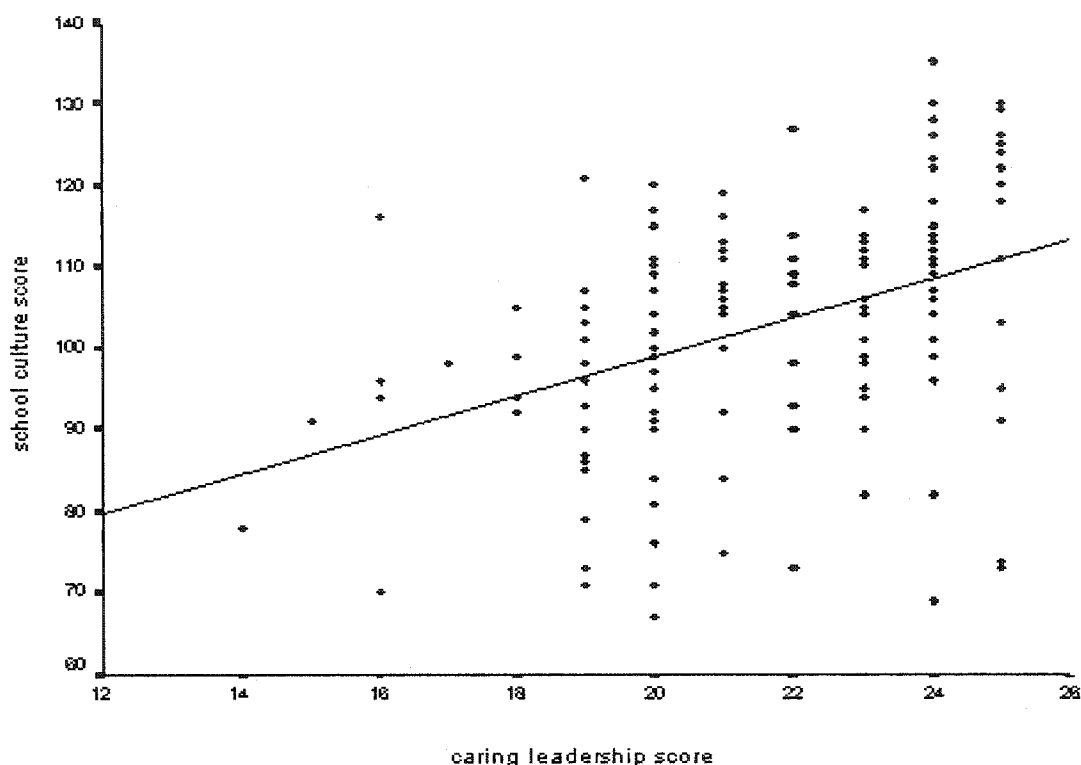
Figure 2

Scatterplot of the Relationship Between Transformational Leadership Behaviors and School Culture



All three scatterplots demonstrate that the strengths of each of the correlations are significant because the data points appear to be linearly related since a number of the points are in close proximity to the line of best fit. Homoscedasticity, or equal variability, also appears to have been met since the amount of scatter in each scatterplot is relatively the same throughout each distribution. This property appears to be most pronounced in Figure 3.

Figure 3

Scatterplot of the Relationship Between Caring Leadership and School Culture

Two regression analyses were performed with the culture measure as the dependent variable and the leadership measures as the independent variables. The first analysis involved only the three main scales of the TLP (transactional leadership, transformational leadership behaviors, and transformational leadership characteristics) as the independent variables so as to assess a particular category of leadership. The second analysis was conducted using the ten individual sub-scales of the TLP as the independent variables so as to focus on specific leadership behaviors and characteristics. The results of these analyses are presented in Table 6 and Table 7.

The regression presented in Table 6 identifies a significant relationship ($R = .335$, $p = .001$)

between the three leadership scales of the TLP and school culture. In particular, transformation leadership behaviors had a statistically significant relationship ($\beta = .364$, $p = .011$) with school culture supporting the Pearson correlation calculated in Table 5 ($r = .329$). All other scales in Table 6 were not statistically significant.

The regression presented in Table 7 identifies a significant relationship ($R = .434$, $p = .001$) between the ten sub-scales of the TLP and school culture. In particular, caring leadership, a sub-scale of transformational leadership behaviors, had a statistically significant relationship ($\beta = .507$, $p = .000$) with school culture supporting the Pearson correlation calculate in Table 6 ($r = .402$). All other sub-scales in Table 7 were not statistically significant.

Table 6

**Summary of Regression Analysis for the 3 Leadership Scales of the TLP
Predicting School Culture (N = 146)**

Leadership Scale	B	SE B	β
Constant	55.164	12.377	
Transactional leadership	.136	.413	.043
Transformational leadership behaviors	.657	.256	.364*
Transformational leadership characteristics	-.175	.233	-.092

ANOVA

Model	Sum of Squares	df	Mean Square	F
Regression	3450.290	3	1150.097	5.970**
Residual	27357.333	142	192.657	
Total	30807.623	145		

Note. $R = .335$; $R^2 = .112$.

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

Table 7

Summary of Regression Analysis for the 10 Leadership Sub-scales of the TLP Predicting School Culture (N = 146)

Leadership Sub-scale	B	SE B	β
Constant	59.817	13.501	
Capable management	.409	.776	.068
Reward equity	.188	.787	.033
Communications leadership	-5.83E-03	.676	-.001
Credible leadership	-.941	.752	-.146
Caring leadership	3.016	.783	.507**
Creative leadership	-.116	.838	-.019
Confident leadership	-.675	.639	-.122
Follower-centered leadership	-.437	.590	-.067
Visionary leadership	-.118	.589	-.022
Principled leadership	.625	.635	.106

ANOVA

Model	Sum of Squares	df	Mean Square	F
Regression	5815.867	10	581.587	3.142**
Residual	24991.757	135	185.124	
Total	30807.623	145		

Note. $R = .434$; $R^2 = .189$.

** $p < .01$.

Teacher Leadership and Gender

Multiple statistical analyses were conducted between gender and the fifteen measures of leadership to determine if any significant statistical differences existed between a particular aspect of leadership and gender. To test the third and fourth hypotheses of this study that there is no significant difference between teacher leadership and gender and that there is no significant difference between the frequency in which transformational leadership is utilized and gender, independent t-tests, two-way ANOVAs, and two-way ANCOVAs were conducted to determine if any significant differences in the leadership scores occurred between the gender groups.

The results of the independent t-test, presented in Table 8, indicate that the null hypothesis can be accepted for the third hypothesis. There was no significant difference in the overall leadership score between males and females. However, the null hypothesis can be rejected for the fourth hypothesis as four of the ten leadership sub-scale measures displayed significant differences between the gender groups as a result of the independent t-tests. Females had significantly higher scores for the sub-scales of communications leadership ($t = -2.085$, $p = .039$), credible leadership ($t = -2.44$, $p = .016$), caring leadership ($t = -2.15$, $p = .033$), and reward equity ($t = -2.141$, $p = .034$). The first three of these leadership measures are sub-scales of the transformational leadership behavior scale while reward equity is a sub-scale of transactional leadership.

A further statistical analysis of leadership and gender was conducted using two-way ANOVAs and two-way ANCOVAs. The ANCOVAs used the SCAQ score as the covariant. The method of analysis that provided the greatest significant differences between gender groups was the two-way ANCOVA. The results presented in Table 9 support the significant differences determined

by the independent t-tests outlined in Table 8 and identified one additional significant difference in that females had significantly higher transformational leadership behavior scores ($F = 4.633$, $p = .033$). A test for homogeneity of variance was conducted on each of the leadership measures in Table 9. The results indicated that the variances among the groups were equal.

Table 8

Gender Differences in Teacher Leadership Scores

Leadership Measures	Mean		SD		n		t	p
	Male	Female	Male	Female	Male	Female		
Total TLP score	194.47	198.39	20.53	16.39	72	74	-1.277	.204
Transactional	39.44	40.78	5.10	4.07	72	74	-1.757	.081
Transformational behaviors	82.32	84.85	8.59	7.40	72	74	-1.910	.058
Transformational characteristics	72.71	72.76	8.62	6.66	72	74	-.038	.970
total transformational score	155.03	157.61	16.34	12.89	72	74	-1.061	.291
Capable management	19.67	20.11	2.66	2.19	72	74	-1.097	.275
Reward equity	19.78	20.68	2.85	2.18	72	74	-2.141	.034*
Communications leadership	19.36	20.24	2.63	2.48	72	74	-2.085	.039*
Credible leadership	21.71	22.61	2.42	2.03	72	74	-2.440	.016*
Caring leadership	21.15	22.01	2.55	2.28	72	74	-2.150	.033*
Creative leadership	20.10	19.99	2.52	2.31	72	74	.277	.782

Table 8 - Continued

Leadership Measures	Mean		SD		n		t	p
	Male	Female	Male	Female	Male	Female		
Confident leadership	19.71	19.70	2.79	2.49	72	74	.013	.990
Follower-centered leadership	16.71	16.32	2.47	1.95	72	74	1.042	.299
visionary leadership	17.72	17.61	2.97	2.41	72	74	.255	.799
Principled leadership	18.57	19.12	2.67	2.24	72	74	-1.354	.178

*p < .05

Table 9

**Analysis of Covariance for Differences of
Leadership Scores Among Gender Groups**

Leadership Measure	Source	df	F	p	η^2
Transformational leadership behaviors	Gender	1	4.633	.033*	.034
	Experience	5	1.463	.206	
	Gender x Experience	5	.821	.537	
	Error	133	(56.467)		
Reward equity	Gender	1	4.241	.041*	.031
	Experience	5	1.092	.368	
	Gender x Experience	5	.901	.483	
	Error	133	(5.980)		
Communications leadership	Gender	1	7.155	.009**	.051
	Experience	5	.686	.635	
	Gender x Experience	5	1.662	.148	
	Error	133	(6.043)		
Credible leadership	Gender	1	4.583	.034*	.033
	Experience	5	3.559	.005**	
	Gender x Experience	5	1.057	.387	
	Error	133	(4.372)		

Table 9 - Continued

Leadership Measure	Source	df	F	p	η^2
Caring leadership	Gender	1	6.507	.012*	.047
	Experience	5	.773	.571	
	Gender x Experience	5	.520	.761	
	Error	133	(4.945)		

Note. The SCAQ score was used as the covariant for each leadership measure. Values enclosed in parentheses represent mean square errors.

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

Teacher Leadership and Teaching Experience

Multiple statistical analyses were conducted between the six teacher experience groups and the fifteen measures of leadership to determine if any significant statistical differences existed between a particular aspect of leadership and a teacher's level of experience. To test the fifth hypothesis of this study that there is no significant difference between teacher leadership and teaching experience, a one-way ANOVA, two-way ANOVAs, and two-way ANCOVAs were conducted.

The results of the one-way ANOVA, presented in Table 10, indicate that there were significant differences between the experience groups for two of the leadership sub-scales: capable management ($F = 2.699$, $p = 0.023$) and credible leadership ($F = 3.968$, $p = .002$). A further post hoc analysis using the Scheffe method revealed that these significant differences occurred between particular groups of teachers according to their experience. A significant difference occurred between teachers with 6-10 years experience and teachers with 16-20 years for the capable management sub-scale ($p = .05$). For the credible leadership sub-scale, the

significant difference occurred between teachers with 6-10 years experience and two other groups: teachers with 16-20 years ($p = .017$) and teachers with 21-25 years ($p = .049$).

A further analysis of leadership and experience was conducted using two-way ANOVAs and two-way ANCOVAs. The two-way ANCOVAs used the SCAQ scores as the covariant. The method of analysis that provided the greatest significant differences between the experience groups was the two-way ANOVA. The results presented in Table 11 support the significant differences determined by the one-way ANOVA outlined in Table 10 and identify additional significant differences between teaching experience and four of five of the leadership scales as well as three additional leadership sub-scales. The leadership scales that proved to be significant

Table 10

One-Way Analysis of Variance for Differences of Leadership Scores Among Experience Groups

Leadership Measure		Sum of Squares	df	Mean Square	F	p
Capable management	Between groups	75.456	5	15.091	2.699	.023*
	Within groups	782.790	140	5.591		
	Total	858.247	145			
Credible leadership	Between groups	92.361	5	18.472	3.968	.002**
	Within groups	651.694	140	4.655		
	Total	744.055	145			

Note. Post hoc analysis revealed significant differences in credible leadership between 6-10 years and 2 other groups: 16-20 years and 21-25 years.

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

included the total TLP score ($F = 2.739, p = .022$), transformational leadership behaviors ($F = 2.697, p = .024$), transformational leadership characteristics ($F = 2.903, p = .016$), and the total transformational leadership score ($F = 2.951, p = .015$). The leadership sub-scales that displayed significance were communications leadership ($F = 2.529, p = .032$), follower-centered leadership ($F = 2.956, p = .015$), and principled leadership ($F = 2.859, p = .017$). Although the only leadership measure that provided a significant difference between teacher leadership and a teacher's level of education was creative leadership ($t = -2.025, p = .048$), a significant interaction was observed between experience and education for follower-centered leadership ($F = 2.922, p = .01$) suggesting that teachers with more experience and a higher level of education tend to empower followers more frequently in order to achieve the goals of the group. A test for homogeneity of variance was conducted on each of the leadership measures in Table 11. The results indicated that the variances among the groups were equal for all of the leadership measures with the exception of the total transformational leadership scale ($p = .039$). However, using ANOVA as a method of statistical analysis is usually robust against any violation of equal variance assumption (Glass & Hopkins, 1996). As a result, the finding regarding the total transformational leadership scale can be preserved.

As a result of the findings of the one-way ANOVA and the two-way ANOVAs, the null hypothesis can be rejected for the fifth hypothesis.

Table 11

**Two-Way Analysis of Variance for Differences in
Leadership Scores Among Experience Groups**

Leadership Measure	Source	df	F	p	η^2
Total TLP score	Education	3	1.168	.324	.095
	Experience	5	2.739	.022*	
	Education x Experience	6	1.076	.380	
	Error	131	(338.568)		
Transformational Behaviors	Education	3	1.036	.379	.093
	Experience	5	2.697	.024*	
	Education x Experience	6	1.104	.364	
	Error	131	(63.588)		
Transformational Characteristics	Education	3	2.034	.112	.100
	Experience	5	2.903	.016*	
	Education x Experience	6	1.772	.110	
	Error	131	(56.020)		
Total Transformational Score	Education	3	1.661	.179	.101
	Experience	5	2.951	.015*	
	Education x Experience	6	1.322	.252	
	Error	131	(208.997)		
Capable Management	Gender	1	.433	.512	.091
	Experience	5	2.686	.024*	
	Gender x Experience	5	.474	.795	
	Error	134	(5.705)		
Communications leadership	Education	3	2.011	.116	.088
	Experience	5	2.529	.032*	
	Education x Experience	6	2.036	.065	
	Error	131	(6.397)		
Credible leadership	Gender	1	3.884	.050*	.025
	Experience	5	3.682	.004**	.121
	Gender x Experience	5	.987	.428	
	Error	134	(4.544)		

Table 11 - Continued

Leadership Measure	Source	df	F	p	η^2
Follower-centered leadership	Education	3	2.684	.049*	.058
	Experience	5	2.956	.015*	.101
	Education x Experience	6	2.922	.010**	.118
	Error	131	(4.403)		
Principled leadership	Education	3	1.022	.385	
	Experience	5	2.859	.017*	.098
	Education x Experience	6	1.162	.331	
	Error	131	(5.904)		

Note. Values enclosed in parentheses represent mean square errors.

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

Teacher Leadership and Level of Education

Multiple statistical analyses were conducted between a teacher's level of education and the fifteen measures of leadership to determine if any significant statistical differences existed between a particular aspect of leadership and a teacher's level of education. To test the sixth hypothesis of this study that there was no significant difference between teacher leadership and a teacher's level of education, independent t-tests, two-way ANOVAs and two-way ANCOVAs were conducted. The independent t-test involved only two of the four education groups: those teachers with a bachelor's degree and those with a Master's degree. The other two education groups, doctorate and other, had populations of one and two respectively and were considered statistically insignificant.

The results of the independent t-test revealed that the only leadership scale or sub-scale to display a significant difference between the two education groups of bachelor's and Master's was creative leadership ($t = -2.025$, $\omega^2 = .062$, $p = .049$). Further analyses using two-way ANOVAs,

as presented in Table 12, identified a significant difference between a teacher's level of education and two additional leadership sub-scales: follower-centered leadership ($F = 2.684$, $p = .049$) and visionary leadership ($F = 2.707$, $p = .048$). A significant interaction was also observed between education and experience and identified in Table 11. A test for homogeneity of variance was conducted on both of the leadership measures in Table 12. The results indicated that the variances among the groups was equal for follower-centered leadership but unequal for visionary leadership ($p = .038$). However, using ANOVA as a method of statistical analysis is usually robust against any violation of equal variance assumption (Glass & Hopkins, 1996). As a result, the finding regarding the visionary leadership sub-scale can be preserved.

Table 12

**Analysis of Variance for Differences of Leadership
Scores Among Education Groups**

Leadership Measure		df	F	p	η^2
Follower-centered leadership	Education	3	2.684	.049*	.058
	Experience	5	2.956	.015*	.101
	Education x Experience	6	2.922	.010**	.118
	Error	131	(4.403)		
Visionary leadership	Gender	Hypothesis	1	.170	.751
		Error	1	(.409)	
	Education	Hypothesis	3	2.707	.048*
		Error	123.33	(4.390)	
	Gen x Edu	Hypothesis	1	.056	.813
		Error	140	(7.243)	

Note. The ANOVA conducted for visionary used gender as a fixed factor and education as a random factor. Values enclosed in parentheses represent mean square errors.

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

Although the null hypothesis can be rejected for the sixth hypothesis as a result of these findings, it should be noted that a teacher's level of education had the least impact on leadership in comparison to the variables of gender and teaching experience for this study.

Summary

The data analysis for this study examined the relationships between fifteen measures of leadership and four separate variables. The primary focus of the analysis was to determine if any relationships existed between teacher leadership and school culture. With the exception of the follower-centered leadership and visionary leadership sub-scales, the results of a correlational analysis indicated that a significant relationship existed between all of the leadership measures and culture. A regression analysis of these correlations identified the transformational leadership behavior scale and one of its sub-scales, caring leadership, as having the closest significant relationship to culture.

Other analyses examined if teacher leadership was dependent on such variables as gender, teaching experience, and a teacher's level of education. The results indicated that gender displayed significant differences in five of the fifteen leadership measures. These measures included the one scale of transformational leadership behaviors and the sub-scales reward equity, communications leadership, credibility leadership, and caring leadership. Teaching experience displayed significant differences in nine of the fifteen leadership measures. These measures included the overall leadership score and the leadership scales of transformational leadership behaviors, transformational leadership characteristics, and the total transformational leadership score. Significant differences were also identified for the sub-scales of capable management,

communications leadership, credible leadership, follower-centered leadership, and principled leadership. Experience also interacted significantly with the education variable for the follower-centered leadership sub-scale. Education, however, showed significant differences in only three of the fifteen leadership measures. These measures included the sub-scales of creative leadership, follower-centered leadership, and visionary leadership. Education also significantly interacted with experience for the follower-centered leadership sub-scale.

Overall, these results support five of the six hypotheses of this research study. Further discussion of these results will be presented in Chapter Five.

Chapter 5

Discussion

Overview

The purpose of this study was to examine the relationship between teacher leadership and four separate variables: school culture, gender, teaching experience, and a teacher's level of education. Leadership was assessed using Sashkin and Rosenbach's (1995) categories of transactional leadership, transformational leadership behaviors, and transformational leadership characteristics. A fourth category was established by combining both transformational scales into one called total transformational score. These scales were further subdivided into ten sub-scales to identify specific leadership behaviors and characteristics. School culture was assessed using the criteria set out by the School Culture Assessment Questionnaire (SCAQ) developed by Sashkin (2001a).

The high school teachers of the six high schools of the Eastern School District were studied to determine if any significant relationships existed between teacher leadership and the variables of culture, gender, experience, and education. For the most part, the results support the hypotheses stated in this study.

Characteristics of the Sample

The population consisted of the 212 high school teachers of the Eastern School District. From this purposeful sample, 146 sets of questionnaires were returned for a return rate of 68.9% which is deemed acceptable according to Krejcie and Morgan (1970). All questionnaires were distributed at a staff meeting held at each school. The teachers from three of the schools

completed the surveys during the staff meeting while the teachers from the remaining schools submitted the surveys a week later. As a result, two of these three schools had a much lower return rate which, in conjunction with a small number of teachers absent on the day of the staff meeting, influenced the final rate of return.

Although no effort was made for equality of gender, the sample population consisted of 49.3% males ($n = 72$) and 50.7% females ($n = 74$) resulting in an adequate representation of both groups.

There was a disproportion in the populations of teachers who met the basic educational requirements to teach (a bachelor's degree) and those who held advanced degrees. Only 16.5% of teachers ($n = 24$) from the sample population held degrees at a Master's ($n = 23$) or doctoral ($n = 1$) level. The exclusion of principals and vice principals from this study may have been a factor that contributed to this distortion. However, the purpose of this research was to identify the existence of teacher leadership and the inclusion of administrative personnel might have skewed the results due to the numerous opportunities they have had to practice leadership in comparison to a classroom teacher.

Teaching experience was subdivided into six categories to ensure the statistical analysis remained uncomplicated for this portion of the study. By allowing an equal number of years (five) to represent each category, the analysis became more relevant to the study. At first glance, the populations for each of the categories may seem disproportionate. However, it should be noted that drastic changes in teaching and leadership abilities do not occur every five years of a teacher's career and that these groups were established to facilitate the statistical analysis. In fact, 53.4% of teachers ($n = 78$) have 0-15 years of experience while 46.6% ($n = 68$) have 16-26 years

or more resulting in a good cross-section of teaching experience among the population.

Teacher distribution by school was also somewhat disproportionate. However, since this study focused on teacher leadership at a district level, this anomaly can be disregarded. It should be noted that four of the six high schools involved with this study have a rural location while the remaining two have an urban location.

Teacher Leadership and School Culture

The Leadership Profile (TLP) was used as a self assessment of teacher leadership while the SCAQ evaluated teacher perception of school culture. Using the overall scores from both instruments as well as the scores from the scales and sub-scales of the TLP, correlational analyses were conducted between various aspects of teacher leadership and school culture. Significant relationships were identified between 13 of the 15 leadership measures and school culture.

A significant relationship was observed between the overall TLP score and culture ($r = .295$, $p = .000$) indicating that as the leadership potential of a teacher increased, their perception of school culture became more positive. This relationship suggests that not only does teacher leadership promote school culture but a positive school culture may also foster the development of such leadership. The attitudes and perceptions of teachers have a direct effect on all aspects of a school and are important in creating a positive school culture. This is consistent with the findings of previous studies and models that have supported the concept of teacher leadership as having a strong relationship with school culture (Bishop et al., 1997; Foster, 1998; Leithwood & Jantzi, 1997, 1998; Meredith, 2000; Stone et al., 1997). Leithwood and Jantzi (1997), in

particular, conducted a study that estimated the effects of teacher leadership on various school variables. Using Pearson correlations, they reported that a significant relationship existed between this type of leadership and school culture ($r = .41, p = .001$) and noted that developing such leadership can increase teacher satisfaction with their work and heighten their sense of professionalism. As a result, a more productive school culture may develop. These conclusions are echoed by Strodl (1992) and lend support to the Formative Leadership Model (Ash & Persall, 2000) in that they highlight the importance of professional growth in the development of teacher leadership to improve school culture. The qualitative research conducted by Stone et al. (1997), which had a focus specifically on high school teachers, also concluded that teachers tend to view teacher leadership as a vehicle for improvement in such areas as collaboration and professional growth which can eventually lead to a positive school culture.

The finding of this study that relates teacher leadership and school culture is important in that it supports the growing body of research that identifies teacher leadership as an integral part in establishing a positive school culture. As O'Hair and Reitzug (1997) contends, the primary purpose of teacher leadership is to develop a caring culture in schools so as to allow intellectual growth to flourish.

Transformational Leadership and School Culture

The TLP measured four separate scales: transactional leadership, transformational leadership behaviors, transformational leadership characteristics, and total transformational leadership score. Although all of these scales produced a significant relationship with school culture, the transformational leadership behavior scale had the strongest Pearson correlation ($r = .329, p =$

.000) and was the only scale to yield a statistically significant relationship from a regression analysis with school culture ($\beta = .364$, $p = .011$). This finding indicates that a positive learning environment is related to such leadership behaviors as trust, caring for the individual, risk taking, and good communication skills when they are utilized by the teachers of this study. This relationship suggests that not only do these leadership behaviors contribute to a positive learning environment but the existence of such an environment may cultivate the development of these specific behaviors. This is consistent with models and studies that have advocated a positive relationship between the use of transformational leadership principles and culture. The School Improvement Model of School Culture (Cavanagh & Dellar, 1998) identifies transformational leadership as the underlying principle that drives the development of school culture and describes how such leadership needs to be expressed by both teachers and principals if it is to have a positive effect on culture. This assertion is supported by a study conducted by Leithwood and Jantzi (1998) which concluded that transformational leadership was an important factor in affecting different aspects of school culture especially when it was practiced by teachers.

This particular finding also provides support to a transformational leadership model developed by Leithwood and Jantzi (1997) that includes the creation of a school culture as one of the seven dimensions used to describe this type of leadership. From their empirical research, they concluded that transformational school leadership was a determining factor in the development of a positive school culture. Stone et al. (1997) provides additional validation of this research from interviews conducted with high school teachers. Their study concluded that teacher leaders who participated in transformational leadership practices such as shared decision making, modeling, and collaboration contributed to an improved school culture. As teachers utilize these

practices more frequently, schools will begin to move beyond the traditional roles of authority and establish multiple relationships that share authority that lead to a productive school (Foster, 1998).

The TLP was further divided into ten sub-scales that measured specific leadership characteristics and behaviors. Of the ten leadership scales, eight produced significant correlations with school culture. The caring leadership scale, a sub-scale of the transformational leadership behavior scale, produced the strongest correlational relationship with culture ($r = .402, p = .000$) and was the only sub-scale that had a significant relationship from a regression analysis with culture ($\beta = .507, p = .000$) indicating that an improved school culture is related to such leadership qualities as concern and respect for others when they are utilized by the teachers of this study. This relationship suggests that not only does caring leadership contribute to a positive school culture but such a culture may also be responsible for the development of this type of leadership. This finding is supported by the qualitative portion of a study conducted by Leithwood and Jantzi (1997) that produced its results from interviews with teacher leaders. This study found that teacher leaders adopt many aspects of transformational school leadership. Leithwood and Jantzi noted that one practice that was mentioned frequently was one they called “individualized consideration” (p. 24) or caring for the individual.

Caring leadership is a transformational behavior that has been identified in the literature as an important factor in creating a positive culture. It is essential that a teacher have good interpersonal skills so as to respond effectively to the concerns and needs of others. Schools with uncaring teachers have little hope of establishing a culture that encourages the cooperation and effort which is necessary to lay the foundation for academic success (Buckner & McDowelle,

2000; Childs-Bowen et al., 2000; O'Hair & Reitzug, 1997).

This study also produced significant Pearson correlations between school culture and three additional transformational leadership behaviors: communication leadership ($r = .243, p = .003$), credible leadership ($r = .189, p = .022$), and creative leadership ($r = .258, p = .002$). These findings indicate that a positive school culture is related to a variety of leadership behaviors when they are expressed by the teachers of this study. These behaviors include taking the time to communicate complicated concepts in detail, listening to follow-up questions so as to facilitate a clear understanding of certain ideas, being consistent with one's actions so as to lead by example in order to develop credibility with their students and colleagues, and take creative risks to create opportunities for their students. These relationships suggest that not only do these behaviors promote a positive school culture but such a culture may stimulate the development of these specific leadership behaviors.

These findings are supported by the qualitative portion of a study conducted by Leithwood and Jantzi (1997) which utilized interview data to identify a number of traits associated with teacher leadership. Included in these traits, they found that teacher leaders were typically dependable and trustworthy with good interpersonal skills. These behaviors were linked to an improvement in school culture by the quantitative portion of their study in that they determined that same teachers produced a positive correlation between teacher leadership and school culture.

The findings of this study also lend support to the REACH model (Meredith, 2000) of teacher leadership which identifies five behaviors that define such leadership. Three of these behaviors include risk-taking, collegiality, and honor which can all be associated with the creative, communication, and credible leadership sub-scales respectively as they are described in this

study. Meredith notes that teacher leaders who practice these behaviors “provide the cement needed to secure the foundation of a school culture” (p. 7).

The transformational leadership characteristics scale of the TLP was divided into four sub-scales: confident leadership, follower-centered leadership, visionary leadership, and principled leadership. Significant relationships were observed between school culture and the transformational leadership characteristics scale ($r = .208$, $p = .012$) as well as two of its sub-scales: confident leadership ($r = .178$, $p = .032$) and principled leadership ($r = .230$, $p = .005$). These findings indicate that an effective school culture is related to such leadership characteristics as self-assurance and the promotion of a set of values and beliefs when they are possessed by the teachers of this study. Self-assured teachers tend to instill confidence in others while promoting a set of values and beliefs that encourage people to share in common principles. These relationships suggest that not only does confidence and principled leadership foster a positive school culture but such a culture may also contribute to the development of these particular leadership characteristics.

These findings are consistent with two qualitative studies involving secondary schools that were conducted by Leithwood and Jantzi (1997) and Foster (1998). Confidence and the promotion of shared principles were specifically identified by these studies as important leadership characteristics in teachers that aided in the development of a positive school culture. In order to transform a school into a professional culture so as to establish an effective learning environment, teachers must have confidence in themselves and commit to a common cause by way of shared professional values (Mertz & McNeely, 1997; Sergiovanni, 1992).

Significant relationships were identified by this study between eight of the ten sub-scales of

the TLP and school culture. The two sub-scales that failed to produce significant correlations were follower-centered leadership and visionary leadership. Throughout the literature, these transformational characteristics have been recognized as crucial in contributing to a positive school culture (Mendez-Morse, 1992; Meredith, 2000; Rogus, 1988; Sashkin & Sashkin, 1990; Sashkin, 2001b; Stone et al., 1997). The reason as to why this study did not produce significant relationships between these two leadership traits and school culture may rest with the internal reliability of the TLP. As noted in Chapter 3, these two sub-scales have been identified by a number of studies as the weakest of the ten sub-scales due to their consistently low Cronbach alphas. This weakness in the TLP may have contributed to the low correlations produced by these two particular sub-scales from this study.

The low correlations between school culture and the two sub-scales of follower-centered leadership and visionary leadership may also be attributed to the sample population of this study. First, the teachers of this study may have had limited opportunities to empower or share power with others. Such opportunities would likely occur less frequently in a classroom where students tend to require a good deal of direction. Although there are instances where empowerment can be used as an effective teaching strategy, a teacher is not often afforded the occasion to utilize follower-centered leadership in or beyond the classroom. Exposing teachers to other forms of leadership within the school may aid in the development of this transformational leadership characteristic. Second, the teachers of this study may typically practice visionary leadership with respect to curriculum. However, the strength of this particular leadership sub-scale is based on an individual's ability to develop long-range goals that extend over several years. Since curriculum plans may only extend over a period of one or two years, the teachers of this study need to

become more involved in leadership beyond the classroom if they are to find more opportunities to create plans that are of a longer term.

Transactional Leadership and School Culture

Significant Pearson correlations were observed between school culture and the transactional leadership scale of the TLP ($r = .264$, $p = .001$) as well as its two sub-scales: capable management ($r = .215$, $p = .009$) and reward equity ($r = .289$, $p = .001$). These findings indicate that a positive school culture is related to good management skills and to the equitable distribution of rewards among students when they are performed by the teachers of this study. Good management skills ensure that students are given the necessary knowledge and resources required to succeed on a daily basis while rewards identify good academic performance. These relationships suggest that not only does good management and rewards contribute to a positive school culture but such a culture may develop these particular characteristics.

Throughout the literature, transformational leadership has been advocated to a greater degree than transactional leadership (Burns, 1978; Bennis & Nanus, 1985; Kouzes & Posner, 1987; Sashkin & Sashkin, 1990). However, some researchers have noted the importance of transactional leadership within organizations including schools. They have described such leadership as the foundation upon which transformational leadership is built. Transactional leadership contributes to organizational stability by providing a framework for the development of followers in the performance of their basic tasks. They know exactly what needs to be accomplished and the consequences for good and bad performance. Once this performance has reached a desired result, transformational leadership will allow followers to go beyond their basic

needs and improve their performance based on the goals of the organization instead of individual rewards (Bass, 1985; Higgins, 1999; Leithwood & Jantzi, 2000a). The findings of this particular study support this contention that transactional leadership is important in establishing a successful organizational culture. Although some researchers such as Leithwood and Jantzi (1998) have found that transactional leadership can have a negative effect on certain aspects of school culture, such leadership is considered by a number of researchers as a first stage to the evolution of transformational leadership which will eventually lead to an effective school culture (Mendez-Morse, 1992; Sashkin & Sashkin, 2003; Sergiovanni, 1990).

Most of the correlations produced by this study between the fifteen leadership measures of the TLP and culture scores of the SCAQ were significant but, for the most part, weak. According to Sashkin and Sashkin (2003), correlations of .5 and greater are considered strong, .4 to .5 moderately strong, .3 to .4 moderate, and .3 and below is considered weak even when the correlation is statistically significant. From the total leadership score and the four scales of the TLP, only the transformational leadership behavior scale produced a correlation of moderate strength ($r = .329$, $p = .000$) while the other three scales and the total score had weak correlations. Of the ten sub-scales of the TLP, only caring leadership produced a moderately strong correlation ($r = .402$, $p = .000$) while the other nine sub-scales produced weak or no correlations. In fact, the only strong correlation that was produced by this study was the result of a regression analysis between caring leadership and school culture ($\beta = .507$, $p = .000$).

The weak correlations produced by this study may have resulted from its methodology. Previous studies have assessed the leadership potential of individuals by not only using the TLP self-assessment scores, but the scores from other colleagues as well. Typically, these scores were

averaged to obtain the overall leadership score of an individual. However, in order to simplify the data collection procedures, this study used only self assessment scores. Yammarino and Atwater (1993) determined from quantitative studies that self-assessment scores tend to be over inflated in comparison to the ratings from other colleagues. As a result of this inflation, the range of scores from the population of this study may have been reduced resulting in weaker correlations with the school culture scores. By incorporating scores from other colleagues, this range of scores may have increased producing stronger correlations. However, the logistics of obtaining these “other” scores would have been complicated and would probably have resulted in a reduction in the overall participation in the study.

The weak correlations produced by this study may have also resulted from factors that have already been identified by this study. The internal reliability weaknesses in the follower-centered leadership and visionary leadership sub-scales of the TLP may have weakened the significance of the relationship between the overall leadership score and culture score. However, the weakness of the correlations may be inherent in the population itself. Teachers are often relegated to practicing leadership in the classroom which may result in a greater participation of certain leadership behaviors than others. Since the TLP assesses a wide variety of leadership behaviors and traits, this lack of exposure to different aspects of leadership may have contributed to teachers arriving at similar scores, reducing the strength of any correlation. The size of the population of this study may have also contributed to this weakness in that a larger population would have produced a greater variance in the scores of the TLP possibly allowing for stronger correlations.

Finally, leadership and school culture are complex constructs and the weakness of the

correlations between these two variables may have resulted from other factors not mentioned in this study.

Regardless of the strength of the correlations produced by this study, they were significant nonetheless and established support for the literature on the relationship between teacher leadership and school culture.

Teacher Leadership and Gender

Much of the leadership research involving gender has concentrated on corporate executives and supervisors. When the literature shifts its focus to education, the emphasis of the research has been on school administrators, especially the principal. However, this study focused on the leadership of teachers and investigated how that leadership might be expressed differently between genders. Using the scores of the TLP, its scales, and sub-scales, analyses were conducted to determine if any significant differences occurred in any of the leadership measures between the male and female teachers of this study.

The results suggest that only a few differences exist between the genders and the way they perceive their leadership. The overall TLP scores revealed that no significant differences occurred between the males and females suggesting that gender has little influence on a teacher's leadership abilities. With the exception of small differences in the frequency of certain behaviors, this is consistent with the findings of previous studies that have identified gender as statistically insignificant when describing the factors that affect leadership (Bartol & Wortman, 1976; Ernst, 1997; Tibus, 1997). Leithwood and Jantzi (1997) focused part of their study specifically on teacher leadership and determined that gender had no influence on such leadership.

The significant differences that were observed between the genders of this study, however, revealed that females scored significantly higher on 5 of the 15 leadership measures of the TLP. These measures included the transformational leadership behavior scale ($F = 4.633$, $p = .033$) as well as three of its four sub-scales: communications leadership ($t = -2.085$, $p = .039$), caring leadership ($t = -2.15$, $p = .033$), and credible leadership ($t = -2.44$, $p = .016$). These findings indicate that the female teachers of this study tend to display transformational leadership behaviors more frequently than the male teachers. More specifically, the female teachers tend to display behaviors that include the use of clear and focused instructions to get their ideas across to others as well as a concern and respect for others for the purpose of building relationships that promote trust.

These findings are consistent with the research of Petersen (1997) and Mertz and McNeely (1997) which both contend that female leadership, as it applies to school administration, is more collaborative in nature which requires good interpersonal communication skills in order to be effective. Caring has also been identified as a transformational behavior that is used more frequently by female leaders (Ernst, 1997; Sherman, 2000; Tibus, 1997). Gonzales and Lambert (2001) focused their qualitative study specifically on teacher leaders and determined that female teachers often assessed their leadership “through a standard of responsibility and caring” (p. 15). They also maintained that female teacher leaders felt that developing relationships were important to promote trust so that leadership skills could eventually evolve.

The female teachers of this study also recorded statistically higher scores for the transactional leadership sub-scale of reward equity ($t = -2.141$, $p = .034$). This finding indicates that female teachers place an emphasis on the equitable distribution of rewards that promote good

performance. Quantitative studies conducted by Ernst (1997) and Tibus (1997) using The Leadership Profile support this observation. Although their studies involved 1500 male and female corporate CEOs, they reported that women had significantly higher scores for not only transformational behaviors such as communication and caring but for the transactional behavior of reward equity as well.

It should be noted that the statistical significant differences that have been identified by this study between genders are somewhat small. Although it has been established that females tend to display certain leadership behaviors slightly more frequently than males, this research supports the contention that the overall leadership capabilities of men and women are relatively the same (Sashkin & Sashkin, 2003). However, if administrators are inclined to increase the prevalence of transformational leadership within their schools, women may need to be considered as a source for the development of such leadership.

Teacher Leadership and a Teacher's Experience

Significant differences were observed between the different groups of teaching experience and nine of the leadership measures of the TLP. An initial statistical analysis revealed that there were significant differences in scores between these groups for two of the leadership sub-scales: capable management ($F = 2.699$, $p = .023$) and credible leadership ($F = 3.968$, $p = .002$). A further analysis identified that teachers with 16-20 years of experience had significantly higher scores than the teachers with 6-10 years of experience for capable management ($p = .05$). It also revealed that teachers with 16-20 years of experience ($p = .017$) and teachers with 21-25 years of experience ($p = .049$) each scored significantly higher on the credible leadership sub-scale than

the teachers with 6-10 years. These findings indicate that as teachers gain more experience, they tend to be able to establish a routine that allows them to perform the daily tasks that are necessary to meet the needs of their students to ensure their success. They also indicate that as teachers progress through their careers, they tend to act more consistently with what they do and what they say which will eventually establish trusting relationships.

When a teacher's level of education interacted with a teacher's experience, additional significant differences resulted in seven of the leadership measures. Although experience and education interacted significantly only with the follower-centered leadership sub-scale ($F = 2.922, p = .01$), teacher experience had significant differences with the total leadership score ($F = 2.739, p = .022$), the transformational leadership behavior scale ($F = 2.697, p = .024$), the transformational leadership characteristics scale ($F = 2.903, p = .016$), and the total transformational leadership scale ($F = 2.951, p = .015$). Other leadership sub-scales that had significantly different scores among the teacher experience groups included communications leadership ($F = 2.529, p = .032$) and principled leadership ($F = 2.859, p = .017$).

These findings suggest that teachers with more years of experience, especially those with 16-20 years, tend to display leadership behaviors more frequently than their colleagues with less experience. This leadership appears to be predominately in the form of transformational leadership. Specifically, the more experienced teachers tend to direct the attention of others more effectively as well as empower others so as to develop and share in common principles and values that can build a positive school culture. These findings also suggest that the significant interaction between experience and education for follower-centered leadership may indicate that as a teacher gains more experience while furthering their education, their ability to empower

others improves greatly.

Few studies have identified specific leadership traits associated with the experience of teachers. Brownlee (1979), Meredith (2000), and Rogus (1988) simply concluded that a teacher's overall leadership ability is a product of their years of experience which is consistent with the findings of this study. Ryan (1999) conducted one of the few studies that associated certain leadership qualities with experience. She identified teacher leaders as those who taught for an average of 19 years. These same teachers were described as having a great deal of integrity and served as role models for others. Stone et al. (1997) concluded that teachers leaders at the high school level had an average of 25 years experience and frequently empowered others to make decisions for themselves on various projects. Stone and Ryan lend support to this study which associated credible leadership and follower-centered leadership with teachers with greater teaching experience.

It is only natural that teachers seek out the advise of other teachers who have been around for a while. As teachers gain more experience, certain leadership traits and behaviors are likely to develop. Although support cannot be established that the more experienced teachers tend to display transformational and principled leadership with a greater frequency than other staff members, these particular findings may be specific to certain populations since different working conditions may bring about the development of different leadership qualities. As with gender, school administrators should consider experienced teachers as a resource for the development of transformational leadership within their schools.

Teacher Leadership and Level of Education

Significant differences were observed between the two different levels of a teacher's education and three of the leadership sub-scales. A statistical analysis revealed that teachers who held a Master's degree scored significantly higher than those with a Bachelor's degree for creative leadership ($t = -2.025$, $p = .049$). When the analysis included interacting a teacher's education with teaching experience, not only did those with a Master's degree score significantly higher on the follower-centered leadership sub-scale ($F = 2.684$, $p = .049$), but the interaction between education and experience became significant as well. The results of this interaction were previously reported. Finally, when a teacher's education was interacted with gender as a fixed variable, those teachers who held a Master's scored significantly higher on the visionary leadership sub-scale ($F = 2.707$, $p = .048$). These findings indicate that as the level of education of a teacher increases, their abilities to develop long term goals and empower others increase significantly. As well, teachers with a higher education tend to take more risks to create opportunities for others to benefit the classroom or the school.

These findings support studies that have identified teacher leaders as having a more formal education than other members of the staff. These same teachers were found to frequently empower others for the good of the school or organization within the school (Rogus, 1988; Stone et al., 1997). Ryan (1999) determined from her study that teacher leaders typically held a Master's or some other specialist degree beyond the basic qualifications. The same study described these teachers as risk-takers, an element of creative leadership, with a vision of the future.

The ability to empower others and to plan long term goals do not necessarily develop from

experience or from modeling other teachers. Such leadership qualities can be complex and may require more formal training if they are to develop properly which highlights the importance of a continuing education for teachers.

Summary

This study was a quantitative analysis that explored the relationship between teacher leadership and school culture. It also investigated any relationships that may have existed between teacher leadership and gender, teacher experience, and a teacher's level of education.

The results of this study indicate that significant relationships exist between teacher leadership and school culture in the high schools of the Eastern School District on Prince Edward Island. The teachers of this study established that the presence of teacher leadership contributes to a positive school culture, especially when that leadership is transformational in nature. Although a number of transformational leadership behaviors and characteristics were assessed by this study, caring leadership appeared to have the strongest relationship with a positive school culture.

Possible sources of transformational leadership that were identified by this study included gender and experienced teachers. Although few differences existed between the overall leadership of the male and female teachers, female teachers had a tendency to display certain aspects of transformational leadership more frequently than their male counterparts. These behaviors included caring, communication, and credibility. The female teachers also placed a greater importance on the need for rewards for good performance, a transactional leadership characteristic. The experience of a teacher also produced significant differences in nine of the leadership measures. According to this study, the teachers with teaching experience that ranged

from 16 to 25 years had a tendency to display certain elements of transformational leadership with a greater frequency than those with less experience, especially such behaviors as credibility, empowerment, and a belief in a shared set of principles or values.

The level of education produced a smaller number of significant differences. However, this study was able to determine that those teachers who held a Master's degree had a tendency to possess certain transformational characteristics as creativity, the ability to empower others, and plan for long term goals.

Further study is required if the impact of teacher leadership on a school is to be fully understood. This study was able to determine if a relationship existed between teacher leadership and school culture but could not determine the causal effects of either variable. These effects may surface from a qualitative study that could possibly provide more depth as to the specific leadership characteristics that teacher leaders possess that have the greatest influence on the different aspects of school culture. A similar study could also be conducted involving elementary and junior high school teachers. This would provide a greater cross-section of the types of teacher leadership that exist within a particular type of school. The variety of ages of the students in each of these types of schools would present different challenges to teachers. It would be interesting to note the specific leadership behaviors and characteristics that teachers would develop to meet these different challenges.

In summary, the results of this study are, for the most part, consistent and add support to the literature relating teacher leadership and school culture as well as how factors such as gender, experience, and education can affect such leadership. As the needs of students in public education become more complex, school administrators will face greater challenges. It is the

development of teacher leadership that will aid in dealing with these challenges effectively, as principals will need to delegate their authority more frequently to those who can effectively lead.

Recommendations

This study suggests that possible relationships exist between various types of teacher leadership and a positive school culture. So what can be done to promote teacher leadership in schools for the purpose of improving its culture ? Teacher leadership is often limited to formal leadership positions such as department head which can restrict the number of teachers participating in leadership roles. To increase leadership involvement, school administrators could establish a number of informal leadership roles for teachers that might include teacher mentors for beginning teachers, peer coaching, or a role in developing relationships with the community. Other leadership responsibilities could involve managing budgets, developing or refining curriculum with the school, and conducting research for school improvement.

School administrators could allow teachers to participate in establishing school goals and policy. Not only would this expose teachers to the administrative facet of the school, it would also give them a sense of ownership of the goals and policies allowing them to develop a sense of principled leadership in the process.

School administrators could use The Leadership Profile and the School Culture Assessment Questionnaire as a method of identifying and maintaining the health of their school's culture and its leadership density. With such a small population, a principal could not only identify different aspects of school culture that need improving but they could also use TLP scores from other colleagues for each teacher to determine a more accurate leadership score. The self-assessment

scores could be used by themselves should that sort of detail be deemed unnecessary.

Finally, school administrators should try to identify a leadership development program that is most suitable for their particular school. A number of seminars and professional development programs are available from a wide variety of institutions that specialize in educational leadership from across Canada and the United States. The Ontario Institute for Studies in Education in Toronto, Ontario and the Center for Creative Leadership in Greensboro, North Carolina are just two examples.

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Appendices

Appendix A - The Leadership Profile

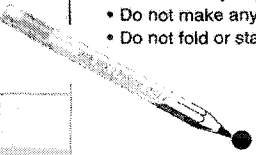
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The Leadership Profile

Marshall Sashkin, Ph.D.
and
William E. Rosenbach, Ph.D.

MARKING INSTRUCTIONS

- Use a NO. 2 PENCIL only.
- Darken the circle completely.
- Erase cleanly any marks you wish to change.
- Do not make any stray marks on this form.
- Do not fold or staple.



RIGHT MARK

Each of the following statements describes a certain leadership behavior, characteristic, or effect that a leader might have on a group or organization. Read each statement carefully and decide to what extent it is an accurate description of the person you are describing. For each statement, mark the response that best describes to what extent that statement accurately characterizes the actual leadership behavior of the person being described.

NAME OF PERSON BEING DESCRIBED

Last Name										First Name										MI															
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	0	1	2	3	4	5	6	7	8	9

RELATIONSHIP TO PERSON BEING DESCRIBED

I am the person being described

☐

I am an associate of the person being described

☐

For Office Use Only

PARTICIPANT NUMBER										RATER NUMBER																													
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

PLEASE CONTINUE ON BACK

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THIS PERSON ...

1. makes sure people have the resources they need to do a good job.
2. rewards people fairly for their efforts.
3. pays close attention to what others say.
4. can be relied on.
5. respects people's differences.
6. creates opportunities for people to succeed.
7. acts in ways that have impact.
8. enjoys making others obey her or his orders.
9. considers how a specific plan of action might be extended to benefit others.
10. encourages others to act according to the values and beliefs we share.
11. provides information people need to effectively plan and do their work.
12. recognizes good performance with rewards people value.
13. communicates a clear sense of priorities.
14. follows through on commitments.
15. shows he or she cares about others.
16. designs situations that permit people to achieve their goals.
17. can see the results of her or his actions.
18. expects others to obey without question.
19. concentrates on short term goals at expense of long range, strategic goals.
20. demonstrates that group goals are her or his own.
21. helps people get the training they need to perform their jobs effectively.
22. expresses appreciation when people perform well.
23. grabs people's attention, focusing on the important issue in a discussion.
24. keeps promises.
25. shows concern for the feelings of others.
26. involves others in new ideas and projects.
27. makes a difference.
28. uses power and influence to benefit others.
29. explains long-range plans and goals clearly.
30. supports effective coordination by working cooperatively with others.
31. supports and encourages people to get the job done well.
32. knows the rewards people value.
33. listens for feelings as well as ideas.
34. acts in ways consistent with her or his words.
35. treats others with respect, regardless of position.
36. helps others learn from mistakes.
37. is confident in her or his own abilities.
38. seeks power and influence to attain goals people agree on.
39. expresses a vision that engages people.
40. encourages people to support their views and positions with concrete evidence.
41. makes sure people have clear and challenging goals.
42. makes sure that people know what to expect in return for accomplishing goals.
43. is able to get complicated ideas across clearly.
44. can be trusted.
45. makes others feel a real part of the group organization.
46. gives people the authority they need to fulfill their responsibilities.
47. is in control of his or her life.
48. shares power and influence with others.
49. has plans that extend over a period of several years or longer.
50. values action over maintaining the status quo.

	To a very great extent.	To a great extent.	To a moderate extent.	To a slight extent.	To little or no extent.
1	VG	G	M	S	L
2	VG	G	M	S	L
3	VG	G	M	S	L
4	VG	G	M	S	L
5	VG	G	M	S	L
6	VG	G	M	S	L
7	VG	G	M	S	L
8	VG	G	M	S	L
9	VG	G	M	S	L
10	VG	G	M	S	L
11	VG	G	M	S	L
12	VG	G	M	S	L
13	VG	G	M	S	L
14	VG	G	M	S	L
15	VG	G	M	S	L
16	VG	G	M	S	L
17	VG	G	M	S	L
18	VG	G	M	S	L
19	VG	G	M	S	L
20	VG	G	M	S	L
21	VG	G	M	S	L
22	VG	G	M	S	L
23	VG	G	M	S	L
24	VG	G	M	S	L
25	VG	G	M	S	L
26	VG	G	M	S	L
27	VG	G	M	S	L
28	VG	G	M	S	L
29	VG	G	M	S	L
30	VG	G	M	S	L
31	VG	G	M	S	L
32	VG	G	M	S	L
33	VG	G	M	S	L
34	VG	G	M	S	L
35	VG	G	M	S	L
36	VG	G	M	S	L
37	VG	G	M	S	L
38	VG	G	M	S	L
39	VG	G	M	S	L
40	VG	G	M	S	L
41	VG	G	M	S	L
42	VG	G	M	S	L
43	VG	G	M	S	L
44	VG	G	M	S	L
45	VG	G	M	S	L
46	VG	G	M	S	L
47	VG	G	M	S	L
48	VG	G	M	S	L
49	VG	G	M	S	L
50	VG	G	M	S	L

Appendix B - School Culture Assessment Questionnaire

SCHOOL CULTURE ASSESSMENT QUESTIONNAIRE

Instructions

This questionnaire measures the ways that people in your school think and act. The questions ask you to describe, as best you can, how people typically behave and the sorts of things they generally believe about the organization and how it operates.

In giving your answers, the term "school" is used to mean the entire school, including administrators and teachers as well as any departments or organizational units that are located in and part of the school. It is possible that your responses would be different if you were to think about some aspect of the school, such as a counseling department or an athletic program. Try, however, to respond only in terms of the *entire* school; do your best to give answers that you think apply to the school as a whole.

Of course, it is impossible for anyone to know exactly what others think and believe about a wide range of issues; the aim here is to identify a rough, general consensus of ideas and beliefs that people in your school share and that affect the way they behave. Please be as accurate as possible in describing the behaviors and attitudes of yourself and other members of the organization. There are no right or wrong answers. Your answers should indicate what actually happens as you and others view it, *not* what you believe *should* happen or how you think people *should* see things.

Use the following response key:

CT = Completely True:	This statement definitely applies to the way people think and act in this school most or all of the time.
MT = Mostly True:	This statement applies to the way people think and act in this school much of the time.
PT = Partly True:	This statement applies occasionally to the way people in this school think and act.
ST = Slightly True:	This statement seldom applies to the way people in this school think and act.
NT = Not True:	This statement does not apply at all to the way people in this school think and act.

School Culture Assessment Questionnaire

In this school . . .

1. people are flexible and adaptable when changes are necessary.
2. individuals and teams have clearly defined goals that relate to the goals and mission of the school.
3. coordination among faculty, staff, administrators, departments, and other groups and units is generally ineffective.
4. we give personalized attention to all of the children and community members served.
5. people value and make use of one another's unique strengths and different abilities.
6. people agree that most change is the result of pressures from outside (e.g., by the district, the state, powerful associations, or the federal government).
7. people are often expected to reach goals they believe are unattainable.
8. people believe in teamwork, in "What's in it for us?" rather than "What's in it for me?"
9. we are flexible and quick to respond to problems of the community, government agencies, and other stakeholders.
10. everyone knows and understands our objectives and priorities.
11. when changes are necessary everyone has a clear idea of why and how to proceed.
12. individuals and teams are measured and rewarded according to how well goals are achieved.
13. the administration believes in making sure that everything happens according to plans made at the top.
14. people often see issues and concerns raised by parents, outside groups, and central administration as someone else's responsibility.
15. people sometimes compromise policies or principles to reach their goals.

In this school . .

16. the pressure to maintain the status quo is so great that if major changes were legally mandated, the school might not be able to meet such requirements.
17. individuals and teams participate in defining specific goals.
people understand what is expected of them and how what they do affects others.
19. we develop plans, design new programs, and offer new services that are natural extensions of our existing programs and strengths.
decisions are made on the basis of facts, not just perceptions and assumptions.
21. people believe they can have an influence on what happens by contributing ideas and being involved.
we are constantly stretching our goals to continuously improve.
23. people believe in working together collaboratively, preferring cooperation over competition.
people agree that we must develop new programs and services to benefit students, parents, and community.
25. people get timely and accurate information about what is happening and why.
we believe in making stakeholders (parents, district administration, school board members, the state agency, suppliers, etc.) into valued allies.
27. individuals, teams, and groups within the school often have incompatible goals.
28. teachers, administrators, and staff at all levels coordinate effectively to achieve results.
people believe that listening to what teachers, parents, district administration, the school board, and community members have to say is critical if we are to reach our goals.
30. everyone strongly believes in a set of shared basic values about how people should work together to solve common problems and reach mutual objectives.

**School Culture Assessment Questionnaire
Response Form**

Q1	CT MT PT ST NT	Q2	CT MT PT ST NT	Q3	CT MT PT ST NT	Q4	CT MT PT ST NT	Q5	CT MT PT ST NT
Q6	CT MT PT ST NT	Q7	CT MT PT ST NT	Q8	CT MT PT ST NT	Q9	CT MT PT ST NT	Q10	CT MT PT ST NT
Q11	CT MT PT ST NT	Q12	CT MT PT ST NT	Q13	CT MT PT ST NT	Q14	CT MT PT ST NT	Q15	CT MT PT ST N
Q16	CT MT PT ST NT	Q17	CT MT PT ST NT	Q18	CT MT PT ST NT	Q19	CT MT PT ST NT	Q20	CT MT PT ST N
Q21	CT MT PT ST NT	Q22	CT MT PT ST NT	Q23	CT MT PT ST NT	Q24	CT MT PT ST NT	Q25	CT MT PT ST NT
Q26	CT MT PT ST NT	Q27	CT MT PT ST NT	Q28	CT MT PT ST NT	Q29	CT MT PT ST NT	Q30	CT MT PT ST NT

Instructions: Circle the letters that best reflect your judgment of the extent to which each statement is true in your organization. Use the following key:

CT	=	<i>Completely True</i>
MT	=	<i>Mostly True</i>
PT	=	<i>Partly True</i>
ST	=	<i>Slightly True</i>
NT	=	<i>Not True</i>

Appendix C - Nominal Information Form**Nominal Information**

The purpose of this attachment is to provide the necessary nominal information to properly analyze the data collected from the surveys in relation to the research questions. Please circle the letter that best describes you.

1. Gender a) Male
 b) Female

2. Years of Teaching Experience a) 0 to 5 years
 b) 6 to 10 years
 c) 11 to 15 years
 d) 16 to 20 years
 e) 21 to 25 years
 f) more than 26 years

3. Highest degree earned a) Bachelor's degree
 b) Master's degree
 c) Doctoral degree
 d) Other _____

Appendix D - Letter to the Principal

Morell High School
Morell, P.E.I.
C0A 1S0
October 5, 2002

Dear (Principal's Name),

I am presently an M.Ed student at the University of Prince Edward Island and I am about to begin the thesis portion of my degree. The purpose of this letter is to obtain your permission to conduct a study involving the instructional staff of your school.

My research project involves teacher leadership and how it can influence and be influenced by such variables as school culture, gender, teaching experience, and a teacher's level of education. My intention is to have all the high school teachers in the Eastern School District complete two surveys: the first will assess the teacher's self-perception of their own leadership potential while the second will assess the teacher's perception of the school culture. Using the data from these surveys, I hope to find a number of relationships that might be considered as vehicles for school improvement and professional development activities in the future. The source of the data from these surveys will be held in the strictest of confidence and will only be available to myself and my supervisor. To ensure a certain degree of anonymity, the surveys will be marked with a number to ensure that the I can identify that the two surveys have been completed by the same person. A letter will also be assigned to each survey to identify the school of origin. However, the name of the school will not be included in the thesis nor will there be an indication of the school's origin due to staff sizes.

Attached with this letter is a copy of my thesis proposal. Should you have any questions.

Thank you for your time and consideration.

Sincerely,

Steven Wynne
Morell Regional High School

Appendix E - Letter to the Teacher

A Study of the Influences of Teacher Leadership on School Culture at the Secondary Level

Dear Colleague,

Thank you for taking the time to consider my request to participate in this study. I am a Masters student at UPEI and I am about to begin the thesis stage of my degree. My research project involves teacher leadership and how it can influence and be influenced by such variables as school culture, gender, teaching experience, and a teacher's level of education. My intention is to have all the high school teachers in the Eastern School District complete two surveys: the first will assess the teacher's self-perception of their own leadership potential while the second will assess the teacher's perception of the school culture. An short attachment will be included with these surveys to obtain information regarding the gender, experience, and level of education of each teacher. Each survey should take only 15 minutes each to complete. Using the data from these surveys, I hope to find a number of relationships that might be considered as vehicles for school improvement and professional development activities in the future. The source of the data from these surveys will be held in the strictest of confidence and will only be available to myself and my supervisor. To ensure a certain degree of anonymity, the surveys will be marked with a number to ensure that the I can identify that the two surveys have been completed by the same person. A letter will also be assigned to each survey to identify the school of origin. However, the name of the school will not be included in the thesis nor will there be an indication of the school's origin due to staff sizes. Participation is completely voluntary and your job will not be affected should you choose to fill out these surveys. As well, you may withdraw from this study at any time without prejudice even after you consent to participate in this study.

Should you choose to participate in this study, please fill out the attached consent form and return it immediately. As for the surveys, please complete them within one week and return them to the school's main office where they will be locked in a filing cabinet. Once I have retrieved the data, it will be secured at the researcher's place of residence in a locked filing cabinet. The data gathered will only be used for this study and will promptly be destroyed upon completion of the research. If there are any questions or concerns, please feel free to contact myself or my advisor at the numbers below :

Steven Wynne -

Dr. Gerry Hopkirk -

Thank you for your time and consideration.

Sincerely,

Steven Wynne
UPEI Masters Student

Appendix F - Consent Form**A Study of the Influences of Teacher Leadership on School Culture
at the Secondary Level****Consent Form**

I have read and understand the material in the information letter. I understand that my participation is completely voluntary and that I have the freedom to withdraw from this study at any time. I have the freedom not to answer any question and I understand that the information will be confidential within the limits of the law. I understand that I can keep a copy of the signed and dated consent form and that I can contact the UPEI Research Ethics Board at _____ if I have any concerns about the ethical conduct of this study.

Signatures

Participant _____

Researcher _____

Date _____

Appendix G - Letter to the School Board

Morell High School
Morell, P.E.I.
C0A 1S0
October 5, 2002

Ken McAleer
Superintendent
Eastern School District
P.O. Box 8600
Charlottetown, P.E.I.
C1A 8V7

Dear Mr. McAleer,

I am presently an M.Ed student at the University of Prince Edward Island and I am about to begin the thesis portion of my degree. I am writing to obtain your permission to conduct a study involving the high school teachers of the district.

My research project involves teacher leadership and how it can influence and be influenced by such variables as school culture, gender, teaching experience, and a teacher's level of education. My intention is to have all the high school teachers in the Eastern School District complete two surveys: the first will assess the teacher's self-perception of their own leadership potential while the second will assess the teacher's perception of the school culture. Using the data from these surveys, I hope to find a number of relationships that might be considered as vehicles for school improvement and professional development activities in the future. The source of the data from these surveys will be held in the strictest of confidence and will only be available to myself and my supervisor. To ensure a certain degree of anonymity, the surveys will be marked with a number to ensure that I can identify that the two surveys have been completed by the same person. A letter will also be assigned to each survey to identify the school of origin. However, the name of the school will not be included in the thesis nor will there be an indication of the school's origin due to staff sizes.

Thank you for your time and consideration.

Sincerely,

Steven Wynne
Morell Regional High School

Appendix H - Letter of Approval from the Eastern School District

24 Linden Avenue
PO Box 8600
Charlottetown
Prince Edward Island
Canada C1A 8V7

Tel: (902) 368-6990
Fax: (902) 368-6960

Eastern School District

www.edu.pe.ca/esd

November 13, 2002

Mr. Steven Wynne
Morell High School
Morell, P.E.I., C0A 1S0

Dear Mr. Wynne:

This is in response to your letter of October 5, requesting permission to carry out research for your Master of Education program at UPEI with high school teachers in our district.

Approval is given to your request contingent upon you receiving permission from principals and instructional staff, in our District that you contact to do this research.

Best of Luck with your research.

Sincerely,

Judy Hughes
Acting Director of Instruction/Program Services

/db

Excellence in Education

Appendix I - Letter of Approval from the UPEI Research Ethics Board



UNIVERSITY of
PRINCE EDWARD ISLAND

550 University Avenue
Charlottetown
Prince Edward Island
Canada C1A 4P3

University of Prince Edward Island Research Ethics Board

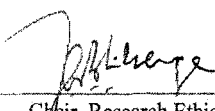
Certificate of Approval

Title of Proposal: A Study of the Influences of Teacher Leadership on
School Culture at the Secondary Level within the Eastern School District on
Prince Edward Island.

Name of Investigator: Stephen Wynne

Date Submitted: September 19th, 2002

Effective Date: 30 October 2002
DAY MONTH YEAR

Signature:  Date: Oct. 31, 2002
Chair, Research Ethics Board

cc. President Wade MacLauchlan, UPEI.
Dr. Katherine Schultz, Vice President, Research and Development, UPEI.

Research Ethics Board
Office of Vice President
Research and Development
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