

**FACULTY PERCEPTIONS OF PRINCIPAL SUPPORT AND CHANGE
ORIENTATION IN VIRGINIA HIGH SCHOOLS**

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

by

Karen E. Cagle

April 9, 2012

**THE FACULTY PERCEPTIONS OF PRINCIPAL SUPPORT AND CHANGE
ORIENTATION IN VIRGINIA HIGH SCHOOLS**

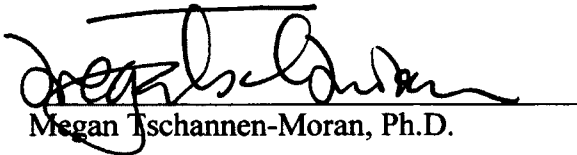
by

Karen E. Cagle

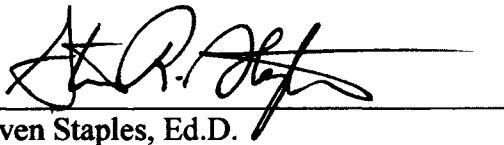
Dissertation approved April 9, 2012 by



Michael F. DiPaola, Ed. D.
Chair of Doctoral Committee



Megan Tschannen-Moran, Ph.D.



Steven Staples, Ed.D.

Dedication

This endeavor would not have been possible without the love, commitment, and support I received from my husband of twenty-nine years, Randall Cagle. Randy, you embarked on this journey with me without either one of us truly understanding the path ahead. You have walked beside me often sharing laughter and tears, behind me encouraging and even pushing me along, and in front of me leading by example, demonstrating what it means to be persistent and positive. This experience is just one of the many that have confirmed that we are meant to be together. I love you “*most.*”

Reese, Stephanie, and Andrea – you inspire me every day. I am most proud of my children. Much like the experience of writing a dissertation, motherhood has its moments of exhaustion and exacerbation, but more than that – joy, pride, and gratitude. I love you more than you are able to imagine and my prayer is that you too will discover and embrace your passion in life. Lindsey, you are a part of our family now and when you married my son, I gained a daughter. I am so proud of your passion for teaching children.

Finally, I would like to dedicate my work to three very special people who have left imprints on my life and frequently crossed my mind while working on this project. Mom, you were my first and favorite teacher. The memory of your gentleness and patience often carried me through difficult times. Dad, as a child I was often frustrated by our family trips to battlegrounds and museums, as well as the stacks of National Geographic magazines you thought I should read. But I appreciate these efforts now because your actions are probably the reason for my inquisitive nature and constant desire to learn. Lastly, Taylor, I will always be inspired by your determination and beautiful smile. I miss you every day.

TABLE OF CONTENTS

Acknowledgements.....	vii
List of Tables.....	ix
List of Figures.....	x
Abstract.....	xi
Half-Title Page.....	1
Chapter 1: Introduction.....	2
Significance of Study.....	4
Conceptual Framework.....	5
The Nature of Change in Schools.....	5
The Nature of Principal Support.....	6
Statement of Purpose.....	8
Research Questions and Hypotheses.....	9
Limitations and Delimitations of the Study.....	10
Definition of Terms.....	11
Conclusion.....	12
Chapter 2: Review of the Literature.....	14
The History of Change in Education.....	15
Change Orientation in Schools.....	18
Teacher Response to Change.....	19
Principal Openness to Change.....	22
Community Pressure for Change.....	24

Principal Support.....	25
House’s Framework for Social Support.....	25
Transformational and Transactional Leadership Theories.....	27
Dimensions of Principal Support.....	29
Professional Support.....	30
Emotional Support.....	31
Appraisal Support.....	33
Instrumental Support.....	33
Principal Support and Change Orientation.....	34
Chapter 3: Methodology.....	38
Research Questions.....	38
Site and Sample Characteristics.....	39
Instrumentation.....	42
Principal Support Scale.....	42
Faculty Change Orientation Scale.....	44
Data Collection Procedures.....	45
Data Analysis Procedures.....	46
Ethical Safeguards and Considerations.....	48
Chapter 4: Presentation and Analysis of Data.....	49
Factor Analysis of Survey Items.....	50
Principal Support Scale.....	51
Faculty Change Orientation Scale.....	53
Descriptive Statistics.....	56

Relationship between Principal Support and Change Orientation.....	57
Auxiliary findings.....	59
Dimensions of Principal Support that Best Predict Change Orientation.....	60
Data Summary.....	64
Chapter 5: Summary, Discussion, and Implications.....	65
Limitations.....	66
Summary of Findings.....	67
Discussion of the Results.....	68
Implications.....	74
Practical Implications.....	74
Principal Support and Change Orientation.....	76
Implications for Future Studies.....	78
Final Thoughts.....	80
Bibliography.....	82
Appendix A.....	92
Appendix B.....	93
Appendix C.....	94
Vita.....	95

ACKNOWLEDGEMENTS

It is with great joy and gratitude that I have accomplished this goal. I am also humbled because I know this would not have been possible without the support and guidance of several people.

Dr. DiPaola, thank you for leading me through this process and patiently supporting me along the way. Dr. Tschannen-Moran, you have inspired me through your teaching and writing, but most importantly through the way you live your life in a positive, caring, and empowering manner. Your words of wisdom and encouragement have helped me tremendously when the obstacles of life collided with efforts to obtain my goal. Dr. Staples, I continue to respect you as a leader and as a teacher. Thank you for serving on my dissertation committee. I am truly honored.

Kathleen Bressler, I will never forget meeting you when we were both accepted into the cohort program. I would have never imagined I would leave this experience with not only a doctorate, but with a life-long friend and kindred spirit. You are truly a gift. I will always be grateful for being blessed with someone to laugh, cry, and celebrate with during this incredible venture. Tina Manglicmot, thank you for being my editor, sounding board, and most importantly, my friend. Your insight and inquiry helped me more than you can know.

I also want to thank my “family” at Yorktown Middle School. Your encouragement has been tremendous and I am grateful to work with such a dynamic team. Candi Skinner, you have inspired me through your leadership and supported me as a colleague and a friend. I am truly thankful for all you have done to make me a better

educator, leader, and person. Alexis Swanson, what can I say? You are my cheerleader, comic relief, and prayer partner. I am so thankful we have had the opportunity to travel this path together and to work side by side each day. Dr. Patricia Johnson, thank you for your encouragement, advice and friendship. These have been invaluable during this process.

Most importantly, I would like to thank God for putting this vision in my heart, and helping me realize that my dreams can become a reality.

LIST OF TABLES

Table 3.1
Student Population of Sample Schools and Virginia Public High Schools.....41

Table 3.2
Data Analysis Procedures.....47

Table 4.1
Factor Analysis of the Principal Support Scale.....52

Table 4.2
Factor Analysis of the Faculty Orientation Scale.....55

Table 4.3
Descriptive Statistics for Principal Support and Change Orientation.....57

Table 4.4
Correlational Analysis of the Study Variables.....59

Table 4.5
Regression Analysis of Faculty Openness to Change and Principal Support.....61

Table 4.6
Regression Analysis of Principal Openness to Change and Principal Support.....62

Table 4.7
Regression Analysis of Community Pressure for Change and Principal Support.....63

LIST OF FIGURES

Figure 1.1 The role of principal support in change orientation7

**FACULTY PERCEPTIONS OF PRINCIPAL SUPPORT AND CHANGE
ORIENTATION IN VIRGINIA HIGH SCHOOLS**

ABSTRACT

Similar to other organizations, change is a part of any school setting. In this time of necessary educational transformation, school principals must have the knowledge and skills to be change agents. This study sought to expand on existing research on change orientation by examining how principal support affects the faculty's receptivity to institutional change. Thus, the focus of this study was to explore the relationship between two dimensions of principal support and three aspects of change orientation. The Principal Support Scale (PSS) and Faculty Change Orientation Scale (FCOS) were used to survey 1,276 licensed, professional teachers in 34 public high schools throughout the Commonwealth of Virginia.

Correlational statistics revealed a significant positive relationship between principal support and faculty perception of principal openness to change. When regressed with the other principal support factor, expressive support demonstrated a significant effect on principal openness to change. In addition, a significant relationship emerged between one dimension of principal support and faculty receptivity towards community pressure for change. A significant positive correlation was also found between principal openness to change and faculty openness to change.

**FACULTY PERCEPTIONS OF PRINCIPAL SUPPORT AND CHANGE
ORIENTATION IN VIRGINIA HIGH SCHOOLS**

CHAPTER 1

Introduction

Schools' primary goals are teaching and learning. This was true for the nineteenth century's one room schoolhouse, as well as the various types of schools that have emerged in the 21st century. Although the purpose of our schools has remained the same, our society has changed. A global economy, emerging technologies, the recognition of unique learner needs, and increasing research in the field of education have changed how educators must approach teaching and learning.

A real challenge for today's educational systems is to keep up with the rapid changes occurring around the world. Skills and customs within national and global societies are progressing so quickly that some content children learned in one generation are obsolete in the next. Civil unrest experienced by some nations has changed the boundaries of countries, as well as the faces of maps. New discoveries in science continue to dispute previous theories. For instance, students in the 1930's through the year 2006 studied and memorized the nine planets of our solar system. In 2006, science re-categorized Pluto, leaving only eight planets orbiting our Sun. At one time, the message in schools was that if a student studied and mastered the content, he or she would be prepared for a career following high school or college. Today, content cannot be studied and memorized as easily because of the huge amounts of information available through technology and the Internet. Instead of memorizing information, students must be able to find, analyze, and communicate it in order to be prepared for life beyond

formal education settings (Trilling & Fadel, 2009). This has resulted in a paradigm shift in pedagogy in many classrooms. The teacher's primary role is no longer imparter of knowledge, but rather facilitator of investigation and discovery.

Likewise, new skills and knowledge are needed to function in a society where diversity has had dramatic growth and major shifts have occurred in the economy (Friedman, 2005; Trilling & Fadel, 2009). Routine jobs are being outsourced to other countries, digitalized, or even eliminated. The job market has broadened, stretching across landscape and language divides, to include more opportunities, as well as more competition. Many industries across the nation, including those that dominated the American culture during the Industrial Age, have shut down and are unlikely to reappear the way they were before, if they return at all. Consequently, many of the jobs waiting for today's students have yet to be created. Students must be prepared for a different world than the one their grandparents, and even parents, experienced (Trilling & Fadel, 2009).

Along with the ever-expanding knowledge base and changes in the global economy, the "flattening of the world," a phrase coined by Thomas Freidman (2005), requires students to understand global issues that are no longer isolated to specific areas, but impact all of us due the connectivity created by technology, transportation, and communication. Present and next generation workers must be able to identify causes of global problems, such as deforestation and temperature changes, and recognize the political and economic implications in order to find solutions to these problems (Zhao, 2009). This requires critical thinking, risk-taking, and innovation – skills that are not often developed in learning environments whose primary focus is standardized test scores.

Changes must occur in education in order to address the needs of current and future generations. The nature of our inclusive society is making it necessary for educators to merge current digital culture with traditional academic culture in order to create a new learning environment designed to effectively prepare our students for the challenges they will face as they enter adulthood (Cookson, 2009). However, change within the educational system happens at a much slower pace than what transpires beyond the walls of the school (Elmore, 2000; Hanson, 2001; Butt & Lance, 2005; Fullan Cuttress & Kilcher, 2005; Saginor, 2006). Traditions and practices formed during the Agricultural Age of the 18th Century and the following Industrial Era can still be found in modern classrooms despite the efforts of many teachers, educational leaders, parents, and politicians (Deal & Peterson, 1990). If schools are going to effectively fulfill their mission, they must be prepared to transform the conventional classroom experience into learning environments consistent with the 21st Century.

Significance of the Study

In this time of necessary educational transformation, school principals must be change agents. Their position of leadership within the school setting provides opportunity to establish and support meaningful reform (Elmore, 2000; Bolman & Deal, 2003; Veel & Bredhauer, 2009). Although many studies have focused on leadership styles and change, there has been little research on specific principal behaviors that support change among the faculty at the building level (Hallinger, 2003; Leithwood & Jantzi, 2006). However, in a quantitative study involving 109 elementary schools, Kearney (2007) found a positive relationship between principal influence and faculty and principal orientation to change. According to Kearney, this relationship resulted in environments

that increased teacher beliefs in administrators to accomplish changes. Sample survey items for that study included statements such as *My principal understands how to obligate people*, and *My principal's behavior is open and transparent*. Results revealed that teachers who perceive their principals to be influential are more receptive to the changes that occur in their schools ($r = 0.662, p < .01$). The findings in this investigation provide opportunity for continued examination on what site-based educational leaders can do to be change agents for their students, their school community and the profession.

Conceptual Framework

The Nature of Change in Schools

Similar to other organizations, change is a part of any school setting. It can occur at the individual and the collective level and is measured in terms of intensity (Quinn, 1996). Change can be incremental. This type of change is an extension of what is currently occurring and is limited in scope – an evolution of sort. Reform, on the hand, is much more penetrating and often requires a new way of thinking and acting. This type of change can be a much more difficult process, requiring more support to initiate and sustain (Hargreaves & Goodson, 2006; Quinn, 1996).

Facets of educational change include internal, external and personal change (Goodson, 2001). Within the school setting, internal stakeholders initiate and promote change, often relying on resources and approval from external stakeholders. For example, principals often propose and implement school initiatives based on their vision. External change follows a top-down model and is largely driven by politics. Lastly, personal change involves the personal beliefs and purposes of individuals, such as teachers, that result in change.

Because of the nature of change, it can often be accelerated and complex.

Consequently, efforts to change can be unsuccessful. Because of the challenges involved when change occurs, principals and teachers often balk at change efforts (Fullan, 2001). Many educators have experienced years, even decades, of reform efforts in education and site-based initiatives, many of them being unsuccessful (Fullen, Cuttress, & Kilcher, 2005; Hargreaves, 2005). “We’ve tried that before and it didn’t work” or “Everything cycles around in education” are statements that can be heard in faculty meetings and planning sessions in practically every school. However, three intertwined aspects of change that have been shown to support the success of change in schools are teacher receptivity to change, the principal’s orientation to change and the receptivity of educators to external constituents’ pressure for change (Rettallick & Fink, 2002; Kearney & Smith, 2009).

The Nature of Principal Support

A key aspect of effective educational leadership is the relationship built between leaders and other stakeholders. Much of the success of the learning community relies on a shared goal, commitment to the group, and trust among the members. This is particularly important for teacher relationships with each other and with administrators (Waters et al., 2002; Barnett & McCormick, 2004; Dinham, 2004; Kouzes & Posner, 2007). Hence, a key theoretical framework guiding this investigation is built around the social support a principal provides to faculty members. Social support can be described as an interpersonal transaction that can involve emotional, instrumental, informational, and appraisal support (House, 1981). These four dimensions of social support were applied to the school principal’s role and can be used to assess how school leaders can influence

teacher's feelings about themselves and their professional growth (Littrell, Billingsley, & Cross, 1994). Each of these dimensions will be examined to determine their influence on teachers' perceptions of stakeholders' openness to change within the school setting.

Research supports the importance of the school principal's leadership during the change process (Fullan, 1992; Elmore, 2000). This includes leadership styles and characteristics that may or may not be effective depending on the context. This investigation will focus on how the support principals provide to teachers can help reduce resistance to change and increase teachers' openness to changes within the school. Principals who are supportive during change identify the contextual factors, structures, supports, and processes necessary for teachers to successfully make changes required of them. They use strategies, such as professional dialogue, reflection, workshops, and leadership teams to develop the capacity for dealing with change (Retallick & Fink, 2002; Roettgers, 2006). These supports are provided on a day-to-day basis in order to facilitate school improvement efforts.

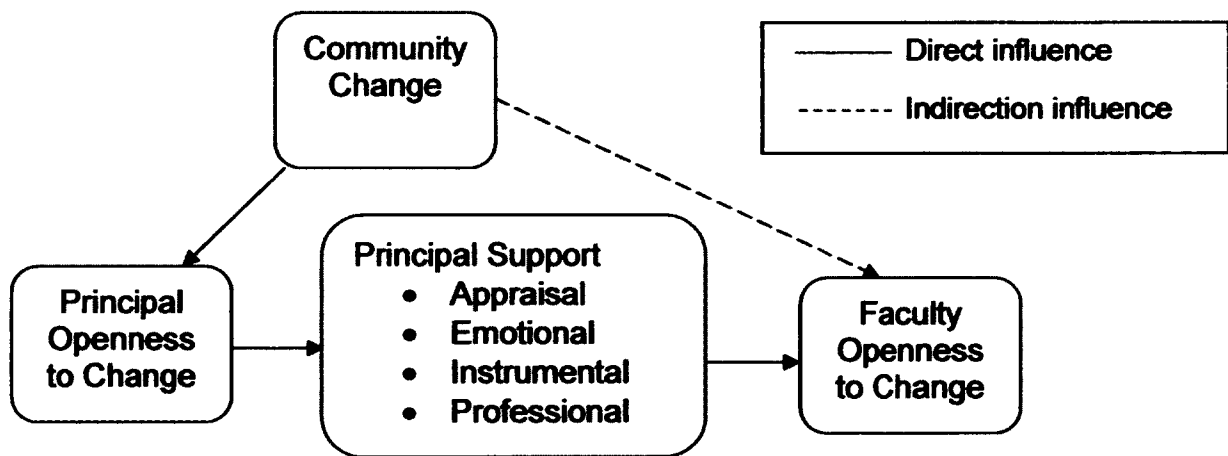


Figure 1.1 The role of principal support in change orientation

Consequently, principals who are perceived by faculty as open to change are inclined to provide supports necessary for change to occur. Finally, both the principal and faculty frequently feel community pressure for change. Because of the principals' role within the school, they often experience external stakeholder pressure more directly. By providing support to teachers to meet the pressures presented by external forces, they can serve as a buffer between outside influences and teachers. See Figure 1.1.

Statement of Purpose

Although the principal's role in schools has been investigated, there is little research targeting how the support provided by principals influences teacher orientation to change. This study will extend previous research on the relationship between school climate and faculty, principal, and community orientation to change by focusing on principal behaviors (Maika, 2007; Berger, 2009; Kearney & Smith, 2009). Hence, the focus of this study is to add to the existing literature by examining the relationships between principal support and three important aspects of school change: teacher orientation to change, teacher perceptions of the principal's orientation to change, and faculty receptivity to community pressure for change. Moreover, this study explores the relationships between two dimensions of principal support and the three aspects of change orientation. The transition from four dimensions of principal support to two dimensions is explained in Chapter 4.

In order to gauge these two variables, principal support and change orientation, and their possible relationships, data were collected from teachers in thirty-four public high schools across the Commonwealth of Virginia. Participants completed a survey that

included two instruments: The Principal Support Scale (DiPaola, in press) and the Faculty Change Orientation Scale (Kearney & Smith, 2008). The responses to these surveys measure teacher perceptions of support, which is appropriate because the effectiveness of social support is likely related to the extent in which it is perceived (House, 1981). For this study, the school represented the unit of analysis. It was predicted that principal support would be directly related to each of the three areas of change orientation: faculty openness to change, principal openness, and community pressure for change.

Research Questions and Hypotheses

The general hypothesis of this study was that change orientation is positively related to each of the four dimensions of principal support: professional, emotional, appraisal, and instrumental. Because both principal support and change orientation include multiple aspects, the central question was, “What dimensions of principal support are the best predictors of faculty orientation to change, faculty perceptions of the principal’s orientation to change, and openness to change initiatives proposed by the community?” The study’s focus is summarized by the following research questions:

- Q1. What is the relationship between faculty perceptions of principal support and faculty openness to change?
- Q2. What is the relationship between faculty perceptions of principal openness to change and principal support?
- Q3. What is the relationship between faculty perceptions of principal support and faculty’s openness to change initiatives proposed by the community?

Q4. What dimensions of principal support are the best predictors of faculty orientation to change?

Q5. What dimensions of principal support are the best predictors of faculty perceptions of principal orientation to change?

Q6. What dimensions of principal support are the best predictors of faculty's openness to change initiatives proposed by the community?

Limitations and Delimitations of the Study

The research study was not without limitations. First, due to the absence of a random sample of public high schools, generalization of the findings is limited. Although the research attempted to study a representative sample of Virginia public high schools, the sample was limited to those schools willing to participate in the study. Furthermore, the sample was specific to the state of Virginia, further limiting generalization beyond the boundaries of this study. In addition, data were collected beginning in the spring of 2011 and continued in the fall of the next school year, resulting in the possibility of situational influences, such as a change in principalship and change in faculty.

Other limitations include those related to the research instruments. Because scales for both constructs, principal support and change orientation, were included on a single survey, the possibility for response bias and fatigue exists. A participant's response to items on one scale may have influenced his or her responses to items of the other scale. This also yielded the possibility of multicollinearity, a statistical phenomenon in which two or more predictor variables are highly correlated, which may have also impacted the statistical relationship of the findings.

The survey relied on self-reported data from participants concerning their perceptions of principal support and change orientation. Situational stressors or other factors beyond the control of the researcher may have affected responses. The study also merely attempted to classify teachers with regard to their perceptions of the collective faculty, rather than each individual teacher's feelings regarding his or her actual openness to change initiatives.

Finally, this study was designed to discover relationships among the variables. It does not attempt to establish cause-effect relationships. The dimensions of principal support may influence the aspects of change orientation; however, the areas of change orientation may influence the dimensions of principal support.

Definition of Terms

This study of the relationship between principal support and change orientation uses the following definitions:

- *Administrative support*: The encouragement and assistance a principal provides to teachers (Littrell, Billingsley, & Cross, 1994). This term is used synonymously with principal support.
- *Appraisal support*: Principals provide information, such as constructive feedback or standards that can be used to evaluate personal performance, for teachers to use for self-evaluation (House, 1981; Littrell et al., 1994).
- *Emotional support*: Principals value teachers and trust them as professionals. In addition, they communicate openly and demonstrate an interest in the teachers' ideas and work (Littrell et al., 1994).

- *Instrumental support*: Resources and assistance are available for work-related tasks. This includes providing time, materials, and space (Littrell et al., 1994).
- *Professional support*: Principals provide information for teachers' professional growth (Littrell et al., 1994).
- *Change orientation*: An individual's readiness to make changes for personal growth or organizational improvement (Roettger, 2006).
- *Faculty openness to change*: The faculty's perception of the teachers' receptiveness changes and perceives these as opportunities for both personal and organizational growth (Kearney & Smith, 2008).
- *Principal openness to change*: The faculty's perception of the principal's commitment to embrace change strategies (Kearney & Smith, 2008).
- *Community pressure for change*: The faculty's perception of pressures from the community for change within the school (Smith & Maika, 2008).
- *High School*: A school that includes multiple grades within the range of 8th grade to 12th grade.
- *Principal support*: This term is used synonymously with administrative support.
- *Social Support*: Support available to a person through their relationships with other individuals and groups (House, 1981).

Conclusion

Because of the evolving nature of teaching and learning, especially in the age of globalization and emerging technologies, strong leadership strategies are needed to tackle the challenges of a paradigm shift in the way schools carry out their missions. Schools are no longer preparing citizens for their local, state, or national community; they are

preparing them for a global society and economy (Friedman, 2005). Furthermore, our schools are no longer preparing students for an agricultural or industrial age; they are preparing them for eras of information and innovation (Pink, 2006). Cookson (2009) stated it well when he penned, “We need to be on the right side of history if we are to survive and thrive (p. 10).” School leaders play a critical role in moving education forward by creating a vision, supporting optimal teaching and learning environments, and encouraging others to engage in the change process. Therefore, it is necessary for principals to identify and implement effective supportive behaviors that will help teachers embrace and manage change.

CHAPTER 2

Review of Literature

Schools are dynamic organizations, which must experience change in order to meet the evolving needs of the students whom schools serve, as well as the needs of a progressing society. Change occurs in an organization because leaders initiate it, outside forces mandate it, and conflict promotes it. In each situation, it is the responsibility of the leader to recognize and direct change (Bolman & Deal, 2003). Most recently, changes in the culture and the economy have led to new calls for reforms in education. A growing number of business leaders, politicians, educators, and parents are calling for more deliberate and effective instruction of 21st century learning skills, such as critical thinking, collaboration, and inventiveness (Rotherham & Willingham, 2009).

Understanding that changes in education must occur, school principals are in opportunistic positions to make this happen (Elmore, 2000; Bolman & Deal, 2003; Veel & Bredhauer, 2009). They hold the keys to planning and implementing educational initiatives within the school building. They have direct contact with teachers and the opportunity to motivate the faculty to take risks and try new strategies (Barnett & McCormick, 2004). Dinham's 2004 study of 38 outstanding secondary schools found that principals in successful schools had positive attitudes towards change, were open to potential opportunities, and "considered ways in which their school might benefit from change (p.16)." In addition, leaders of successful schools were responsive by identifying and meeting the needs of teachers and empowering them when changes were

implemented. Although the role of the principal has experienced change over time in conjunction with the evolution of education, it has remained an important and necessary aspect of the change process.

The History of Change in Education

Change isn't new to education. It is a part of the daily decision making that occurs as teachers and administrators strive to increase student achievement within the classroom and school settings. However, these steady incremental changes are combined with periodic large-scale reform efforts which target education on a grander level and are driven by major events in areas such as politics, economics, and demographics at all levels of society (Goodson, 2001; Hargreaves & Goodson, 2006). Societal events following World War Two have been catalysts for many substantial change efforts in the educational system.

The 1950s and 1960s brought major changes in American society. Space travel, technology, the Civil Rights Movement, and the Vietnam War are just a few of the major events that shaped education during this time (Fullan, 1998; Goodson, 2001). Although changes in the law, such as *Brown v. Board of Education* (1954), dictated a major shift in the landscape of education, teachers and administrators possessed substantial professional autonomy during this time. Often the change process was identified and initiated by the "experts" in the field of education in response to external forces (Goodson, 2001). For example, the success of the Soviet Union's space program prompted emphasis on math and science, as well as the development of advanced placement courses in high school to provide opportunities for excellence for high performing students. Subsequently, a lack of confidence in the government and traditional society during the Vietnam War resulted

in grass roots innovations in schools that challenged the norm. This included schools without walls, flexible scheduling, and team teaching (Fullan, 1998; Hanson, 2001).

Over time, an increase of federal funding, as evident in the passage of the Elementary and Secondary Act of 1965, corresponded with an increasing federal influence. Federal funding resulted in changes to benefit disadvantaged students and support desegregation, which had previously been slow to occur (Fullan, 1998). In addition, the baby-boomer generation began entering the teaching force with personal ambitions of changing society. America's war against poverty resulted in programs like Head Start (Hargreaves & Goodson, 2006). Education sought to level the playing field among those attending public schools.

The 1970's was a period of transition from optimism and innovation to standardization and accountability (Goodson, 2001; Hargreaves & Goodson, 2006). School systems, like society, began to stabilize after the Vietnam War resulting in "back to the basics" reforms and homogeny (Hanson, 2001). During this time, educators continued to have considerable amounts of professional autonomy. Furthermore, school leaders were often seen as "larger-than-life characters that were attached to their schools, knew most people within them, and stayed around long enough to make a lasting impression (Fink & Brayman, 2006, p. 86)."

During the 1980's, politicians, educators, parents, and community members responded to *A Nation At Risk* (1983), a government report by the National Commission on Excellence in Education, by calling for greater educational accountability. This period of time was often referred to as the excellence movement. Educational initiatives originated at the state level (Hunt, 2008). The demands for school reform increased

pressure on school principals and teachers to improve student performance. Building principals embraced the role of manager and appeared more attached to the system and their careers (Fink & Brayman, 2006). Government policies and the desire for standardization decreased teacher autonomy, replacing it with mandated requirements (Hargreaves & Goodson, 2006).

School restructuring continued during the 1990's and brought about a desire among educators to implement more bottom-up leadership approaches that have moved away from the principal operating in the predominant role of supervising, decision-making, and orchestrating the school environment (Hallinger, 2003; Hunt, 2008). School reform has continued with *Goals 2000, No Child Left Behind*, and the era of accountability, which permeates schools today. However, constant changes in American society, which include emerging and pervasive technology and globalization, produce external and internal forces that require education to continue to evolve. A 2007 nationwide poll of 800 registered voters revealed 99% of the respondents identified that teaching skills in the areas of critical thinking, problem solving, technology, communication and self-direction in contemporary classrooms is important for our nation's future economic success. Furthermore, 80% of the participants recognized that the skills students need to be prepared for jobs in the future are different from those they needed 20 years ago (Vockley, 2007). Continued calls for large-scale reform in education impact the decisions concerning instruction and curriculum made in schools and in classrooms (Anderson, 1997).

The complexity of change in education is a daunting challenge. The teaching profession is often an uncertain profession due to intrinsic and perpetual circumstances.

Coupled with politics of reform and the constituent involvement required for improvement, teachers can feel overwhelmed. However, many of the new goals of education for students, such as continuous learning, inquiry, and collaboration, cannot occur without similar developments in the educators who teach our youth (Fullan, 1993).

Change Orientation in Schools

Whereas school systems during the Agricultural Age taught the basic 3Rs and prepared students to participate in the local economy, today's schools must prepare students to use the 3Cs -collaboration, critical thinking, and communication - along with new technologies to contribute to both local and global communities. Besides a multiplicity of societal changes, public schools must also address a large constituency of teachers, parents, elected officials, community members and business leaders who have a variety of expectations regarding schools and their contribution to the local, national and worldwide communities.

Hanson (2001) describes three types of change that exist in educational institutions: homogenization, evolution, and reform. Homogenization occurs when a school performing below standard makes necessary adjustments to be comparable to other schools. Evolutionary change arises when an aspect of an expectation or requirement is modified, such as a state-mandated change in graduation requirements. Homogenization and evolution involve incremental changes. These changes are often goal oriented, task specific, and limited in scope. In addition, incremental change can often be reversed or abandoned if desired and therefore they are often more tolerated (Quinn, 1996). Examples of incremental changes are the implementation of a new reading model, improved evaluation tools, or changes to class schedules.

Unlike homogenization and evolution, which involve incremental changes, reform is much more dramatic and can significantly alter one or more core organizational components (Hanson, 2001). This type of change assumes that schools or components of education need to be revamped or transformed as opposed to the underlying notion of incremental change that focuses on building on existing structures in order to improve efficiency and effectiveness (Cuban, 1996). Quinn (1996) calls this deep change and proposes that it can be disruptive and confusing for both leaders and followers. Because it requires abandoning practices that have been embraced in the past and may challenge beliefs and attitudes, deep change often evokes anxiety and concern. Deep change or reform requires risk-taking and the willingness to do things differently (Quinn, 1996).

Teacher Response to Change

In order for changes, both incremental and large-scale, to occur, it is necessary for both the school leader and those most responsible for student learning, teachers, to be involved in the change process (Fullan, 2001). Teachers are faced with the task of creating and maintaining effective classroom environments where they are comfortable and confident. Often times, this can mirror learning experiences that were successful for them as students; experiences that may have even been the inspiration to enter the teaching profession. However, these learning experiences may not effectively address the needs of the current generation of students; therefore, requiring teachers to take risks in their professional practice and experience the discomfort that often comes with the unknowing. Because teaching requires this type of reflective practice, teachers must assess and clarify the needs of the organization and its members. By recognizing that

what worked previously will not continue to be work, individual change can occur and be a catalyst for collective change (Maxwell, 2005).

However, teachers are not the only stakeholders assessing the needs of students and schools. Standardized testing and accountability have resulted in administrators, parents, politicians, and the community scrutinizing student achievement on a larger level and therefore adding additional pressures for teachers to improve student performance (Hull et al., 2010). In order for school-wide change efforts to be successful, teacher commitment to external pressures and their capacity for change are necessary. While some teachers embrace change proposed by others and provide assistance during change efforts, others demonstrate resistance. Even if teachers do not overtly resist change, their various job responsibilities, which include knowledge of content, pedagogy, safety, school law, and daily operations, require large amounts of time and energy (Hull, Balka, & Miles, 2010). The complexities of teaching can often undermine change efforts.

Responses to change depend on a teacher's willingness to adapt, as well as the influence of the school leader (Kearney, 2010). In order for principals to support teachers during the change process, it is important for them to understand how teachers regard and respond to changes within the school setting and why they resist (Hargreaves, 2005). Teachers resist change for a variety of reasons. Change challenges the status quo (Gardner, 1990; Kouzes & Posner, 2007). This may cause teachers to view change as a threat to their security (Hargreaves, 2005; Chirichello, 2008), especially if they lack the knowledge or skills to address changes (Fullan, 2001). Some teachers fear the unexpected. Unpredictability can breed controversy, which can result in distrust among differing groups within the school setting. When this conflict leads to frustration or a

sense of futility, teachers may find themselves just going through the motions within their individual classrooms (Covey, 1991). Finally, people in an organization are less likely to embrace new ideas if these do not align with current beliefs, values, or attitudes (Kotter & Cohen, 2002). When teachers are faced with competing commitments or values, they can experience indecision and discomfort (Tschannen-Moran & Tschannen-Moran, 2010).

However, teachers respond positively to change efforts when they perceive them as beneficial for students (Mellencamp, 1992; Miller 2002; Hargreaves, 2004; Roettger, 2006). Change without improvement is one of the leading causes of frustration in the school setting (Jenkins, 2004). If teachers perceive themselves as the authority in their classrooms and are most committed to their students' learning and the responsibilities involved in managing a classroom, they must perceive change as necessary and advantageous (Wood, 2007). Therefore, evidence of improvements in student learning must be present during the change process (Roettger, 2006). It has been argued that teaching is often a moral activity driven by an assemblage of intrinsic rewards, such as making a difference in children's lives (Sergiovanni, 1992; Miller, 2002). The desire to improve student learning, an intrinsic motivator, helps sustain the teacher during the difficulties encountered during the change process (Fullan, 2001; McLaughlin & Hyle, 2001; Roettger, 2006).

Changes within a school setting are also more likely to occur when positive interpersonal dynamics are evident within the organization. This includes levels of trust and collaboration within the school (Woods, 2007). Progress is more likely to occur

when the change process is perceived as a collaborative effort, initiated and supported at the building level and not presented only as a top-down structural change (Fullan, 2000).

Change is inevitable and can be daunting; therefore, a leader must help the members of the organization deal with it (Gardner, 1990). Because stress and resistance can arise from organizational change, it is the leaders' responsibility to provide encouragement, support and necessary resources, as well guidance, in order to help workers adjust and be more successful (Yukl & Lepsinger, 2006). If conflict and resistance are not addressed when change occurs, the energy and commitment to work towards the vision can be lost. Operating in a stagnant state is not an option for a learning environment. Students are facing a future that is unpredictable, but one that also holds many opportunities. Educators' abilities to prepare students for the future rest in their ability to handle change.

Principal Openness to Change

School leaders initiate and support changes that are meaningful to their organization's vision. These initiatives are intended to address the needs of the constituents or goals of the group (Freiberg, 1997). Kouzes and Posner (2007) describe how leaders who strive for the "personal-best" (p. 163) in their organization embark on changes that will have a significant impact on the group. In an effort to successfully implement and sustain change within their schools, principals must identify and provide effective and meaningful support to those involved in the change process.

In order for change to occur within the organization, it must first occur within the individual (Fullan, 1991). Principals are faced with a myriad of situations each day; many are unexpected and demand time and resources. As various people and situations fill the

daily agenda, the principal must make change efforts a priority and an important part of daily decision making. In addition, leaders must consider the complexity of change when experiencing it within the organization and when supporting others through the change process. They must recognize that there is no quick fix or standard way of handling the multiple problems that change brings to an organization. Instead, leaders must understand and embrace the process of change and develop insights and strategies that can be adapted to situations, as well as sustain the momentum of the group towards its goals (Fullan, 2001).

A principal's willingness to embrace and implement changes in the school, as well as teachers' perception of this, is important to the success of change efforts (Kouzes & Posner, 1987; Frost & Durrant, 2003). In McLaughlin and Hyle's (2001) explanatory case study of how a principal creates a context for change, respondents perceived the school principal as the facilitator of change. As change facilitators, principals must reflect on their own receptivity to change within the organization because this will affect others and the success of the proposed changes (Fullan, 1991). Teachers often look to building administrators, as well as colleagues when deciding whether to support a change initiative (Hoy & Miskel, 1991; Miller, 2002; Hargreaves, 2005). Furthermore, they look to leaders for direction and confirmation that changes are effective (Yukl & Lepsinger, 2006).

In a study of 112 urban, suburban, or rural elementary schools across Texas, collegial leadership emerged as a strong predictor of principal openness to change. Maika (2007) proposed that principals who build sincere and trusting relationships with teachers and welcome insight and inquiry regarding practices and policies are perceived as more

receptive to change ($\beta = 0.88, p < .01$). Additionally, principals who make every effort to acquire necessary and desirable materials needed for instruction are viewed as supportive of innovation. The strength of the relationship between collegial leadership and principal openness to change in this investigation suggests that principals who are not perceived as collegial by faculty are also not perceived as receptive to change.

Community Pressure for Change

Schools are not isolated entities comprised of students, faculty, and staff; but are nested organizations with various connections to a larger community that includes families, community members, school division personnel, politicians, business leaders and others who have a vested interest in the education of future citizens (Hausman, Crow, & Sperry, 2000). When various groups attempt to solve potential and presumed problems in education, they develop their own agenda, preventing the development of a shared vision. Politicians want more accountability within the system, parents want the needs of their individual children met, and teachers want more support in the classroom. Without a common vision, communication and trust break down (Covey, 1991).

The principal is often the liaison between these internal and external constituents, as well as the person tasked with implementing and managing the changes mandated by interested parties at the local, state, and national levels (Kowalski, 2004). In addition, the school principal is responsible for creating and maintaining the confidence of the public through times of change (Elmore, 2000). Public confidence in public education is often threatened when changes in the external environment are more rapid than the incremental adaptations that occur in schools (Hanson, 2001). Changes in technology, such as the Internet; law, such as legislated integration; and public awareness, such as the Third

International Mathematics and Science Study (TIMSS), which revealed that American students ranked lower than their peers in the school systems found in other nations, all resulted in dramatic changes in the status quo of public school systems (Hanson, 2001).

Because of the evolving nature of society and our schools, as well as the problems that currently plague educational institutions, such as the achievement gap, it is necessary to determine and implement leadership strategies that will be most successful for accomplishing the desired goals of all stakeholders for a better and more effective educational system.

Principal Support

Effective school leadership plays a critical role in fulfilling the goals of educational institutions - quality teaching and student learning (Sergiovanni, 1995). The educational leader supports endeavors that improve instruction and result in increased student achievement (Leithwood, Louis, Anderson, & Wahlstrom, 2005; Dinham, 2007). This requires courage to address challenges, self-reflection to learn from the situation, and collaboration with teachers to improve instruction.

House's Framework for Social Support

Social support includes a multidimensional collection of resources an individual receives through social connections with another individual or groups, small or large (Lin, Simeone, Ensel, and Kuo, 1979, as cited in House, 1981). Social support has been researched in the areas of health and well-being (Schwarzer & Leppin, 1997) and applied to the workplace in order to address work-related stress, health issues, and job satisfaction (House, 1981). House's (1981) research also included social support and job

change, including change that occurs within a worker's job as a result of technological or organizational change (House, 1981).

In 1971, House published the path-goal theory of leader effectiveness, describing leadership behavior that consists of creating a supportive environment, which includes friendliness and helpfulness. Furthermore, the leader develops a support structure that involves clarifying expectations, assigning tasks, and providing rewards while reducing obstacles and increasing opportunities for personal satisfaction during the process of goal attainment (House, 1971; Hoy & Miskel, 1991). Wofford and Liska's (1993) meta-analysis of the path-goal theory found that this leadership approach requires an active role on a day-to-day basis when dealing with situational variables, especially when dealing with tasks that are unfamiliar or stressful.

Twenty-five years after the development of his path-goal theory, House (1996) augmented this theory, citing Hebb (1969), "A good theory is one that holds together long enough to get you a better theory" (p. 349). The revised theory included several propositions to clarify and extend the original one. Like earlier studies on leadership, revisions needed to be made to address the paradigm shift in leader-worker relationships. Over time, people had become more mobile, educated, and experienced. Thanks to technology, they now had access to information that was at one time only in the hands of those in supervisory positions. Societal and technological changes resulted in the necessity to revisit and identify individuals and their needs within the organization (Bennis, 1997).

In his revised theory, House proposed that aspects of path-goal theory could be linked to charismatic or transformational leadership based on the fact that those who

effectively lead social groups attend to affiliation needs of individuals (House, 1996; Vecchio, Justin, & Pearce, 2008). The propositions in his updated theory included leadership behaviors that empowered the worker and enhanced motivation. The revised path-goal theory proposed an interaction between transactional leadership, which involves contingent rewards for worker performance, and the relationship aspects of transformational leadership (Vecchio et al, 2008). Behaviors such as articulation of vision, high expectations, and frequent evaluations were cited as being more powerful when the use of extrinsic rewards was reduced (House, 1996). These two leadership styles, transactional and transformational can contribute to the change efforts of organizational leaders.

Transformational and Transactional Leadership Theories

The theory of transformational leadership was presented in 1978 by James McGregor Burns in *Leadership* and focused on general leadership studies (Stewart, 2006; Kouzes & Posner, 2007). Burns described transformational leadership as a mutual relationship between a leader and followers where the leader motivates individuals through his or her vision for the group, as well as with shared values and goals (Stewart, 2006). These shared goals satisfy the intrinsic motives, needs, and desires of members and establishes a higher purpose for the group above self-interest of the individual (Sergiovanni, 1990; Stewart, 2006). In this situation, the leader is a moral agent and empowers others through intellectual stimulation, shared decision making, and shared responsibilities (Stewart, 2006). The results of the collaborative relationship between the leader and followers are an increase in motivation, commitment, and capacity among group members (Sergiovanni, 1992). The follower identifies with the leader, trusts him

or her, and believes the vision is achievable (Barnett & McCormick, 2004). An outcome of effective transformational leadership is social change where the condition of both individuals and the group improves (Burns, 1978, as cited by Stewart, 2006).

Burns (1978) also proposed another type of leadership - transactional. The main focus of transactional leadership is the extrinsic motivations and needs of individuals. Unlike transformational leadership, there are no shared goals or higher purpose for the group (Stewart, 2006). Transactional leadership involves an exchange between the leader and group member and power is unequally distributed between the two, leaning more towards the person in authority. The leader provides time, attention, finances, and other resources in return for performance that will help achieve organizational goals. This distribution of power differs from transformational leadership where authority and influence is not reserved for those in formal administrative positions. It is consensual among group members and encouraged by leadership (Leithwood, 1999). Those members who have the capacity to inspire others to commit to their vision or the group's goals are the ones who have more power within the organization (Leithwood & Jantzi, 2006).

Although transactional and transformational are very distinct types of leadership models, they each serve a purpose in the operation of an organization. Whereas, transactional leadership is more appropriate for managerial tasks and daily operations within the organization, the intent of transformational leadership is to move the organization in a new direction (Sergiovanni, 1995). A study of 295 social service employees did not find support for House's proposed interaction of these two leadership styles; however, the researchers did conclude that there was a positive moderator effect at

the individual rather than group level for some transformational leader behaviors and the leader contingent reward behavior variable (Schriesheim, Castro, Zhou, & DeChurch, 2006).

A supplemental study of 179 high school teachers and their principals showed that transactional leadership augmented transformational leadership and that the relationship of transformational leadership was more positive when contingent reward was lower (Vecchio et al, 2008). Hence, leaders who support, respect, and include workers in the daily operations of the organization are able to build confidence and trust (Kotter & Cohen, 2002)

Dimensions of Principal Support

House's research on social support in the workplace resulted in four categories of supportive behaviors that involve an interpersonal transaction: emotional support, appraisal support, instrumental support, and informational support (House, 1981). When people receive emotional support, they feel cared for and trusted. This can involve concern, empathy, and even love. Appraisal support involves information relevant for self-evaluation. This can be direct feedback or indirect information provided for the individual to use for comparison. Informational support also involves the transfer of information; however, the information is used for problem solving to address personal or organizational needs. Lastly, instrumental aid involves directly providing goods or services to help someone in need (House, 1981).

Research on social support in schools has mainly focused on job satisfaction, teacher retention, and stress (Littrell, Billingsly, & Cross, 1994). However, social support has its place in educational change as well. Educators need opportunities to learn,

question, analyze, evaluate, and practice to successfully change practice. This requires supportive leadership (Hargreaves & Fink, 2004). Hoy, Smith, and Sweetland's (2002) research of 97 geographically diverse, public high schools in Ohio demonstrated that collegial leadership, one of four dimensions of school climate, was positively associated with professional teacher behavior. Such professional behavior includes teachers providing support to each other, going beyond what is expected for students, and tackling tasks enthusiastically. Collegial leadership includes principal behavior, such as fairness and being respectful, in relation to meeting the social needs of the faculty and achieving school goals (Hoy, Smith, & Sweetland, 2002).

Professional support. Professional support in the school setting is comparable to House's (1981) informational support. This involves providing information to teachers to help them improve classroom practice. The principal encourages professional growth and provides opportunities for this to occur. Mentoring and induction programs for new and struggling teachers are also a component of professional support (Bozonelos, 2008). Because teachers are more receptive to change and less resistant when they have developed their capacity to adapt and learn, professional growth opportunities are necessary for individual and collective growth (Yukl & Lepsinger, 2006).

Organizational improvement requires ongoing learning by both individuals and groups (Elmore, 2000). Schools need knowledgeable and competent people who are invested in the mission to make decisions that will have lasting and positive effects on the organization, especially student achievement. Therefore, professional development must align with the school's goals and objectives and help teachers improve their practice. Training should be consistent and ongoing. Teachers must be provided time to improve

their craft. Besides initial training to understand the process, teachers must be provided subsequent training to allow for deeper understanding (Boyle, Lamprianou, & Boyle, 2005; Roettger, 2006); this includes opportunities to apply new skills, collaborate with and learn from peers, and engage in reflective practice.

In order to intellectually stimulate staff, school leaders must understand how learning occurs within the organization. Individual learning occurs when the specific needs of a teacher are met. Small group learning opportunities are necessary to develop understanding of shared expectations. Whole school professional development may be required, especially when there is a widespread reform initiative (Leithwood & Jantzi, 2006).

Emotional support. Emotional support includes creating a positive school climate by showing appreciation, maintaining open communication, encouraging colleague support and considering teachers' ideas (Bozonelos, 2008). The principal can show appreciation formally in evaluations and public recognition, or informally on a daily basis by acknowledging quality teaching and supportive behaviors. Teachers are especially attentive to the values a principal embraces and recognizes during a time of organizational challenges, such as those experienced in times of change (Deal & Peterson, 1990).

The principal gives teachers a sense of importance by trusting and supporting teacher decisions in the classroom. Because the classroom teacher's influence is paramount in the success of students, it is essential to include his or her insights and input during the change process (Butt & Lance, 2005). Trust and support are also crucial for building and investing in relationships, another important and necessary component when

leading in a time of transformation. Leading from the desk in the top office is not effective when helping to mobilize and move an institution in the midst of change. Instead, the leader must care about those who are working towards the shared vision and work alongside them to achieve success (Fullan, 2001).

Teachers also need to feel they make a difference. Sharing ideas with peers, recognition of effort and successes, and constructive feedback from administration are important for teachers to improve their teaching skills. When working collaboratively to make changes, teachers and principals must recognize individual expertise and the role each person plays in achieving goals (Elmore, 2000).

When supervising instruction, administrators have the opportunity to build working relationships that embrace mutual respect and foster personal and professional growth of those who impact not only the education of students, but their futures as well. When speaking or writing, leaders must choose their words wisely because they have the power to transform people. Brain research has demonstrated that people have higher recall of negative comments than positive ones. Because this recall includes more intense feelings, it is important for the leader to be uplifting, encouraging, and positive (Kouzes & Posner, 2007).

Barnett and McCormick's (2004) research on principal-teacher relationships showed that a principal's individual concern for a teacher affects the support that a principal receives for the school's vision. This is especially important because a school's vision is critical to school improvement and necessary changes. Individual concern can include how well the principal knows the teacher, provides assistance when necessary,

supports his or her professional growth, and involves the teacher in leadership and decision making opportunities. It also involves trust, fairness, and respect. Effective principals build relationships by trusting teachers and communicate effectively by listening for understanding (Fullen, 2001).

Appraisal support. Appraisal support involves providing teachers with information that is relevant for self-evaluation. This can include information for reflections after classroom observations, as well as other types of performance feedback. The principal helps teachers evaluate their needs and provides support that will help them improve performance. Providing useful feedback to others demonstrates the leader's desire for improvement and individual growth (Kouzes & Posner, 2007).

In addition to formal observations and evaluations, informal feedback can occur on a daily basis as teachers observe the principal's behavior and demeanor in response to quality teaching and desired cultural mores (Deal & Peterson, 1990). This includes having high expectations and recognizing accomplishments (Kouzes & Posner, 2007). Besides receiving frequent and constructive feedback, teachers want to feel appreciated and valued for the work they do. In addition, teachers want principals to trust their judgment and support the decisions they make in the classroom (Littrell, Billingsley, & Cross, 1994).

Instrumental support. Principals can direct teachers and staff to make changes; however, they must also provide the support necessary for what they are requiring teachers to do (Elmore, 2000). Instrumental support involves providing the necessary resources to help people do their work, such as finances, space, and time. In the school setting, this includes providing adequate planning time and time for non-teaching

responsibilities. Bruno (2000) found time to be a more significant motivator for teachers than money. Teachers often feel pressure to do additional work in the same amount of time used previously for fewer tasks (Butt, & Lance, 2005). Struggles for scarce resources often exist in schools due to time constraints, budget cuts, and the daily demands of the job (Zimmerman, 2006). Instrumental support also includes offering extra assistance when teachers become overloaded, and equally distributing resources and unpopular chores.

In 2002 Great Britain's Department of Education implemented The Pathfinder Project to investigate ways to reduce teacher workload and improve job satisfaction. Researchers solicited information from teachers in 32 secondary schools regarding causes for excessive workloads and solutions. Teachers shared that time spent on non-teaching tasks such as paperwork and photocopying, additional work resulting from increased accountability, and lack of time for planning accounted for excessive workloads. Solutions included more time, smaller classes, and less bureaucracy. The project was designed to address these issues by providing funding for support staff and providing resources that resulted in less amount of time spent on non-teaching tasks. The outcome of the study showed that providing resources and support that allowed teachers to spend more time on teaching, rather than non-teaching tasks, resulted in increased job satisfaction as well as interest in change initiatives (Butt & Lance, 2005)

Principal Support and Change Orientation

Research supports the importance of the principal's role in change efforts (Hall, 1988; Fuchs, Fuchs, Harris, & Roberts, 1996; Louis, 2003). Educational institutions must identify leadership strategies that can move education into the future, creating learning

communities that will prepare students for the complexities and mysteries of tomorrow's global society. These facilitators of change are the innovators who identify and provide those external resources necessary for change to happen (Mellencamp, 1992; McEnery, 2005).

Teachers are empowered when they have the necessary resources and support to be successful in the classroom (Kotter & Cohen, 2002). Waugh and Godfrey's (1993) research on teacher receptivity to system-wide change demonstrated that perceived support from school principals was an important determinant for successful implementation of new endeavor. It was noted that teachers are more likely to have positive attitudes towards the change when it is apparent the principal supports the change effort in his or her communications and actions at the school.

In addition to implementation, change efforts must be sustained. Teacher commitment to change was investigated in a qualitative study of teachers from two school districts, a larger urban district and a smaller rural one. The research revealed that teachers were committed to change when there was a belief that the endeavor would benefit their classrooms and specifically student learning. In addition, teachers shared that communication from administration was critical during the change process, especially knowing why the change was important and how it would benefit their classrooms and students. Furthermore, administrative support is necessary to prevent teachers returning to more former traditional and more comfortable teaching practices. Types of support include the principal listening to teacher concerns and feedback, recognizing teacher differences and providing training for this, and providing necessary resources, including time and supplies, for success (Roettger, 2003).

Fullan (2002) describes how a principal's role not only includes focusing on classroom practices to increase student achievement in math and reading, the principal must also transform the school's culture to encompass higher order thinking and increased student engagement. This is done through improving the teacher's ability to perform or capacity (Fullan, 2002, Leithwood & Jantzi, 1999). The school leader develops individual and collective capacities within the organization in order to achieve common goals and solve school problems, which can often be complex and daunting in the context of educational reform (Bass & Avolio, 1997; Stewart, 2006). He or she does this by assisting teachers in developing clear, challenging, and realistic professional growth goals (Leithwood, 1992). Established goals must include the development of additional skills and higher levels of competence (Barnett & McCormick, 2004). In turn, teachers grow professionally as they extend their knowledge by taking risks and creating new understandings. The principal should model risk-taking and continuous learning for teachers (Elmore, 2000; Dinham, 2004).

In addition to teaching resources, professional growth opportunities, and performance feedback, teachers must also perceive they have emotional support in order to successfully engage in the change process (Vaugh & Godfrey, 1993; Kotter & Cohen, 2002). Change initiatives can influence teacher identity within the school and the profession. Teacher identity is influenced by age, career stage or generation. Identity, in turn, influences teachers' emotional reactions to change, which can then impact both risk-taking behavior and learning and development (Reio, 2005).

Teachers and administrators are committed to student achievement. The core values of education must be safeguarded while moving education forward towards an

uncertain future. The ambiguity of the future, along with the rapid changes in present culture, guarantee change will be a continuous part of the educational landscape. In addition, policy-makers, legislators, corporate executives have their agenda for school reform, along with students, parents, and community members who possess their own idea of what the local school means to them. Principal support is necessary to both bring about changes needed to improve schools and protect and preserve what is valued within the learning community (Sergiovanni, 2000).

CHAPTER 3

Methodology

The purpose of this correlational study was to determine the relationship between principal support, as measured by the Principal Support Survey, and faculty openness to change, as measured by the Faculty Change Orientation Scale (FCOS). The study also investigated the relationship between the faculty's perception of the principal's openness to change and the support he or she provides. In addition, data were collected and analyzed on faculty's openness to change in relationship to pressures from the community. Furthermore, this study examined which facets of principal support have the most effect on teachers' orientation to change. Descriptive and inferential statistics were used to determine if principal support affects the receptivity of change of high school teachers in Virginia public schools. A quantitative research method was selected and deemed appropriate to determine the relationship between these variables.

This chapter consists of an overview of the methodology including the research questions, research design, site and sample characteristics, data collection procedures, data analysis procedures, and issues of validity and reliability. It also includes a description of the instruments used to measure principal support and faculty openness to change.

Research Questions

This quantitative study focused on the relationship between principal support and openness to change within the school setting. A selected-response survey was used to

collect data during scheduled faculty meetings in Virginia High Schools. Research questions were as follows:

Q1. What is the relationship between faculty perceptions of principal support and faculty openness to change?

Q2. What is the relationship between faculty perceptions of principal support and principal openness to change?

Q3. What is the relationship between faculty perceptions of principal support and faculty's openness to change initiatives proposed by the community?

Q4. What dimensions of principal support are the best predictors of faculty orientation to change?

Q5. What dimensions of principal support are the best predictors of faculty perceptions of principal orientation to change?

Q6. What dimensions of principal support are the best predictors of faculty's openness to change initiatives proposed by the community?

Site and Sample Characteristics

The sample for this study was 34 urban, suburban, and rural public high schools throughout the state of Virginia. Participating high schools were self-selected based on the approval of central office personnel and the willingness of principals to participate in the study and, therefore, constituted a convenience sample. Once approval was garnered, a research team member from the College of William and Mary provided surveys to the teachers from these schools and invited them to participate in the study. Only licensed teachers completed the surveys. Participants were guaranteed anonymity, confidentiality, and the option to refuse, skip any question, or discontinue participation at any time. A

total of 1,276 surveys were completed during the spring of 2011 and fall/winter of 2012. Results from the Principal Support Survey and Faculty Orientation to Change Survey were made available and shared with the principals of each participating school who requested the information.

The goal was to have a sample that is representative of the diverse ethnicities, socioeconomic levels, and geographic regions represented in the state of Virginia in order to make results generalizable to the state. The sample included 31 traditional, 4-year public high schools and three high schools that include grades 8 – 12. Although the majority of participating schools are located on the eastern half of the state, the eastern half contains the vast majority of the state’s high schools. Seven of the eight geographical regions, as defined by the Virginia Department of Education, were represented in the sample.

Student population of the participating schools varied in size from 177 to 2,083 with a mean student population of 1,019 students. The term *economically disadvantaged* is used to describe a school’s socioeconomic status (SES) classification and was determined by the percentage of students on campus qualifying for free and reduced-price lunches. Data relating to these demographic variables were drawn from the 2010-2011 Virginia Department of Education Fall Membership Reports. Table 3.1 provides additional information on student populations in the sample schools and those in Virginia public high schools.

Table 3.1

Student Population of Sample Schools and Virginia Public High Schools

Student Population	Schools in Sample		Virginia Public High Schools	
	Total	Percentage	Total	Percentage
Economically Disadvantaged	8,496	24.52%	110,898	29.22%
Ethnicity				
American Indian	80	< 1%	1,304	< 1%
Asian	1,072	3.09%	21,751	5.73%
Black	7,125	30.57%	92,768	24.45%
Hawaiian	42	< 1%	486	< 1%
Hispanic	2,082	6.01%	37,724	9.94%
White	23,233	67.07%	212,307	55.95%
2 or More	968	2.79%	13,121	3.46%
Mean Population	1019		1212	

Virginia Department of Education. (2011). *Fall membership 2010-2011*.

The data show that with respect to the average public high school school enrollment, the sample's average enrollment was slightly lower than the average enrollment for public high schools in the state of Virginia. In addition, the percentage of economically disadvantaged students represented in the population of the sample schools was slightly lower than the percentage of economically disadvantaged students

throughout Virginia public high schools. With respect to ethnicity, black and white students were slightly overrepresented in the sample; consequently, the percentage of Asian students, Hispanic students, and those students representing two or more ethnicities were slightly lower than the percentage of students with the same ethnicities in the total number of public high schools in Virginia.

Instrumentation

Each of the items on the survey was part of existing instruments previously tested for reliability and validity in prior studies. The Principal Support Survey (PSS) (DiPaola, in press) and Faculty Change Orientation Scale (FCOS) (Kearney & Smith, 2008) were combined into one survey instrument to assess classroom teachers' perceptions of change orientation at the building level and the support they receive from principals to perform their duties. In addition, data included perceptions of principals' openness to change and receptivity to external pressure for change. Principal support included emotional, professional, instrumental and appraisal support. The survey included 16 questions that operationalized principal support and 19 questions that operationalized change orientation -- including faculty orientation to change, principal orientation to change, and community pressure for change. Sample survey items for each of the constructs are described below.

Principal Support Scale

In this study, principal support is the encouragement and assistance a principal provides to teachers and includes four dimensions of social support: emotional, appraisal, professional, and instrumental. Principal support, as perceived by faculty, was measured using a 16-item instrument, the Principal Support Scale (PSS), adapted from the Principal

Support Questionnaire (PSQ) (Littrell, Billingsley, & Cross, 1994). Littrell's original questionnaire contained 40 items and used a 6-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (6). Teachers were asked to rate statements, ten representing each dimension of administrative support. The study (n = 613) involved general and special education teachers. Cronbach's alpha reliability coefficients were calculated for each of the four dimensions and for support as a total. Alpha levels ranged from .48 to .93 (Littrell, Billingsley, & Cross, 1994).

To improve the psychometric properties and eliminate redundancy, a pilot study of the instrument was administered to Virginia public school teachers (n=118). Data analysis confirmed four strong factors and the survey was reduced to 16 items with four items corresponding to each dimension of support. One aspect, informational support, was renamed professional support in order to better conceptualize the dimension in the school setting. Furthermore, the wording on several items was revised to address a larger teacher population rather than special education teachers who were the focus of Littrell's original study (DiPaola, in press). Cronbach's Alpha for the subscales was: emotional support .94, appraisal support .93, instrumental support .88, and professional support .87. An overall Cronbach's Alpha of .86 for the instrument demonstrated high internal reliability. Teachers were asked to give each item a score from one to six, indicating a level of agreement that falls within a strongly disagree – strongly agree continuum.

Sample items include: The principal

- Gives me a sense of importance – that I make a difference.
- Provides opportunities for me to grow professionally.
- Provides frequent feedback for my performance.

- Provides extra assistance when I become overloaded.

A copy of the PSS is provided in Appendix A.

Faculty Change Orientation Scale

Change orientation is described as an individual's readiness to make changes for personal growth or organizational improvement (Roettger, 2006). Kearney and Smith (2009) identified three constructs of change orientation, which represent faculty perceptions of the orientations of principals, teachers, and community member to change.

The Faculty Change Orientation Scale (FCOS) is a 19-item Likert scale designed to measure a faculty's perceptions of three aspects of change in a school. Nine items address faculty openness to change, six items address principal openness to change, and four items address community press for change. Teachers are asked to give each item a score from one to six, indicating a level of agreement that falls within a strongly disagree – strongly agree continuum. The FCOS contains a combination of positively and negatively phrased statements. Sample items include:

- In this school, faculty welcomes change.
- In this school, the principal is committed to major change.
- In this school, suggestions by the PTA often produce change.

A pilot study was conducted involving a convenience sample of 75 participants representing approximately 70 schools in Texas, Ohio, and New York. Thirty-two items were eliminated from the original 54- item questionnaire. A second principal component analysis resulted in the elimination of three additional items and two additional elements of change – receptivity to incremental change and receptivity to deep change. Construct validity was confirmed for the final instrument during research involving approximately

4,000 teachers from 112 elementary schools in Texas. The reliability of items related to faculty openness to change was .95; the reliability of items related of principal's openness to change was .87; and reliability for community pressure for change was .87. A copy of this instrument is provided in Appendix B.

Data Collection Procedures

The data for this study were collected in cooperation with a team of researchers from the College of William and Mary. The Principal Support Scale (PSS) and Faculty Change Orientation Scale (FCOS) were combined with three other instruments. Items from the collective scales were divided between two paper and pencil forms, *Form A* and *Form B*, to be divided between faculty members at participating schools. Beginning in the spring of 2011, central office personnel were contacted for permission to administer surveys within school districts (Appendix C). Following this, principals in districts where permission was granted were contacted via phone, e-mail, written request, or in person, to seek their school's participation in this study. An overview of the study was provided to the administration, along with consent forms and survey samples for review. Once permission was approved at the building level, a member of the research team arranged a time to visit the participating school to collect data during a regularly-scheduled faculty meeting or provided directions for a designated faculty member to administer surveys. Prior to disseminating the survey, the researcher or designee briefly described the study and confirmed participant anonymity and confidentiality of responses. The description of the study, explanation of the process, and distribution, completion and collection of the surveys ranged from 15 to 25 minutes per school.

Although approval to administer the survey was granted by several central office personnel, some building principals did not respond to requests made by the research team. In an effort to increase the size and diversity of the sample, the research team conducted follow-up phone calls and mailed letters to those principals who failed to respond.

Data Analysis Procedures

Because the purpose of this study was to examine the relationship between principal social support and teacher orientation to change in schools, the school was the unit of analysis. Thus, while surveys were completed and collected from individual teachers, documenting their perceptions of principal support and change orientation, scores were aggregated to the school level. Researchers collected and recorded survey responses from each school and then entered their own data set into the Statistical Package for Social Sciences, SPSS, for data analysis.

Using the school as the unit of analysis, descriptive statistics including means, standard deviations and range were computed for all variables of principal support and change orientation. Correlation coefficients were calculated for each area of change orientation with the two factors of principal support that emerged. Regression analysis was used to determine which dimension of principal support was the best predictor of each area of change orientation. Table 3.2 displays which data analysis procedure was used to answer each research question.

Table 3.2

Data analysis

Research Questions	Data Analysis
Q1. What is the relationship between faculty perceptions of principal support and faculty openness to change?	Correlation
Q2. What is the relationship between faculty perceptions of principal openness to change and principal support?	Correlation
Q3. What is the relationship between faculty perceptions of principal support and faculty's openness to change initiatives proposed by the community?	Correlation
Q4. What dimensions of principal support are the best predictors of faculty orientation to change?	Regression Analysis
Q5. What dimensions of principal support are the best predictors of faculty perceptions of principal orientation to change?	Regression Analysis
Q6. What dimensions of principal support are the best predictors of faculty's openness to change initiatives proposed by the community?	Regression Analysis

Ethical Safeguards and Considerations

An application for the Approval of Investigation Involving Human Subjects was submitted to the College of William and Mary's Committee prior to beginning the study. In addition, the researcher secured the permission from Central Offices and principals in the participating school divisions. Participants had the option to opt out of the study at any time. The identity of individual participants was not included in the results of the study that will be shared with principals of the participating school. Furthermore, the identity of individual schools are not included in the results.

CHAPTER 4

Presentation and Analysis of Data

The data used in this study were collected from 34 public high schools in Virginia. This data were analyzed to investigate the relationship between principal support and change orientation within a school. In addition, this study sought to determine which dimensions of principal support are the best predictors of orientation to change. In order to formulate responses to the research questions outlined in Chapter 1, several statistical analysis were used to explore the variables – principal support and change orientation. The Statistical Package for the Social Sciences (SPSS) was used to analyze the data. First, a factor analysis was conducted to test the validity of each of the instruments used in the study. Once factor stability was established for the Principal Support Scale (PSS) and Faculty Change Orientation Scales (FCOS), correlations were utilized to test the hypothesis of this study and answer the research questions involving the relationship between principal support and each factor of change orientation. Finally, multiple predictors of each dimension of change orientation (faculty openness to change, principal openness to change, and community press for change) were conducted with each of the factors of principal support (expressive and instrumental) to provide a more refined understanding of the data.

Factor Analysis of Survey Items

Analysis began by examining the factor structure and reliability of the two instruments used in this study, the Principal Support Scale (PSS) and the Faculty Change Orientation Scale (FCOS). Factor analyses were conducted on items from both scales to establish the stability of the factor structure and confirm construct validity and reliability. Furthermore, Littrell's (1994) measure for principal support and the refined Principal Support Scale (DiPaola, in press) had previously been analyzed at the teacher level. Because the school was the unit of analysis for this study, it was necessary to conduct a factor analysis to determine if the change from teacher to school level would impact findings.

In addition, factor analysis of the FCOS would determine if the factor loadings of each item mirrored previous studies using this scale, which had been conducted at the elementary level (Maika, 2007; Kearney & Smith, 2008). The 19 items from the FCOS were expected to cluster into the three subsets of faculty openness to change, principal openness to change, and receptivity of a faculty to community pressure for change. Faculty openness to change is defined as a faculty's receptivity to internally and externally driven change. Principal openness to change is defined as a faculty's perception of the principal's receptivity to internally and externally driven change. Community pressure for change is defined as a faculty's perception of the school's receptivity to community supported change. Various levels of change from incremental to reform are considered.

Principal Support Scale

In order to determine the factor structure of the PSS, a factor analysis was performed on the 16-item scale. Accordingly, a principal axis factor analysis with varimax rotation was conducted. Interestingly, only two factors emerged with eigenvalues greater than 1, from the original four factor framework proposed by House (1981). Professional support and emotional support items loaded on one factor, which was labeled *expressive support*. A second factor emerged comprised of the original instrumental and appraisal items. This factor was labeled *instrumental support* (DiPaola, in press). Cronbach alpha coefficients of reliability were calculated for each factor. Table 4.1 demonstrates the results of the factor analysis of the principal support dimensions.

Table 4.1

Factor Analysis of the Principal Support Scale (N = 34)

Item	Factor I	Factor II
<u>Expressive Support</u>		
<i>Emotional Support Items</i>		
My principal gives me a sense of importance that I make a difference.	.822	
My principal supports my decisions.	.825	
My principal trusts my judgment in making classroom decisions.	.694	
My principal shows confidence in my actions.	.735	
<i>Professional Support Items</i>		
My principal gives me undivided attention when I am talking.	.774	
My principal is honest and straightforward with the staff.	.848	
My principal provides opportunities for me to grow professionally.	.700	
My principal encourages professional growth.	.893	
<u>Instrumental Support</u>		
<i>Instrumental Support Items</i>		
My principal provides adequate planning time.		.811
My principal provides time for various nonteaching responsibilities.		.809
My principal provides extra assistance when I become overloaded.		.720
My principal equally distributes resources and unpopular chores.		.683
<i>Appraisal Support Items</i>		
My principal provides data for me to reflect on following classroom observations.		.652
My principal provides frequent feedback about my performance.		.735
My principal helps me evaluate my needs.		.755
My principal provides suggestions for me to improve instruction.		.574
Eigenvalue	11.312	1.478
Cumulative Variance	70.701	79.937
Alpha Coefficient of Reliability	.954	.955

Faculty Change Orientation Scale

A subsequent factor analysis involved the examination of the factor structure and reliability of the FCOS. Previous studies reported stable factor structure for this instrument (Maika, 2007; Kearney & Smith, 2008). Kearney and Smith's (2008) study of 112 elementary schools in Texas reestablished the factor structures and reliabilities of the change scale, which had previously been piloted in 70 schools throughout Texas, Ohio, and New York. Three factors emerged with eigenvalues greater than one and explained 71.1% of the variance. Teachers' orientation to change ($\alpha = .95$), principal orientation to change ($\alpha = .87$), and community pressure for change ($\alpha = .87$) demonstrated high reliability coefficients, essentially the same, in both samples. The faculty openness to change factor included 9 items, the principal openness to change contained 6 items and the third factor, community pressure for change, had 4 items.

For this study, a principal axis factor analysis with varimax rotation was conducted on the 19 items of the FCOS. As in previous studies, three factors surfaced with eigenvalues greater than one. In addition, the three emerging subsets combined to explain 72 % of the variance. However, unlike the previous studies cited, one item, "The rhetoric of change in this school is strong, but actual change is negligible" did not load strongly on the factor it was intended to measure. Instead of loading on the factor, faculty orientation to change, this item loaded on community pressure for change. One explanation could be that respondents perceived the change described in this statement as deeper change initiated by outside forces such as state

initiatives driven by accountability and standardization rather than personal, incremental changes proposed by teachers.

Although previous studies using the FCOS resulted in positive relationships between the statements within each factor, one negative correlation emerged from the factor analysis in this investigation (Maika, 2007; Kearney, 2007). “Most community members are happy with their schools” has a negative correlation ($r = -.76$) with the other items in Factor III, indicating that participants who strongly agree with the other items (4, 16, 17, and 13), within the factor, community press for change, are likely to disagree with item 18. This could be perceived as teachers feeling that the catalyst for change initiated by the community is the result of dissatisfaction or unhappiness with the current school system. However, this does not imply that change cannot occur when there is a positive relationship between teacher openness to change and community pressure for change.

Reliability coefficients were calculated for each of the three change variables. Cronbach Alpha levels were strong for each dimension: faculty openness to change .93, principal openness to change .90, and community pressure for change .84. Factor analysis and alpha coefficients of the three dimensions of change orientation are displayed in Table 4.2

Table 4.2

Factor Analysis of the Faculty Change Orientation Scale (N=34)

Item	Factor I	Factor II	Factor III
<i><u>Faculty Openness to Change</u></i>			
8. Teachers in this school readily accept changes to new rules and procedures.	.854		
2. Faculty in this school embrace new ideas.	.811		
5. In this school, teachers are receptive to substantial changes.	.770		
1. In this school, faculty welcomes change.	.765		
6. In this school, major change is resisted.	.757		
10. Faculty in this school rejects all but minimal changes.	.700		
14. Faculty in this school would rather fight than switch.	.678		
15. In this school, the faculty relishes innovation.	.625		
<i><u>Principal Openness to Change</u></i>			
7. In this school, the principal is slow to change.		.896	
12. The principal in this school embraces change initiatives.		.856	
11. In this school, the principal often resists changes suggested by parents.		.824	
3. In this school, the principal balks at new suggestions.		.765	
9. In this school, the principal is committed to major change.		.683	
19. In this school, the principal is committed to no change.		.604	
<i><u>Community Pressure for Change</u></i>			
4. The community pushes for innovation.			.791
18. Most community members are happy with their schools.			-.765
16. In this school, suggestions by the PTA often produce change.			.738

17. Faculty in this school is open to ideas of the parents. .488
13. The rhetoric of change in this school is strong, but actual change is negligible. .578

Eigenvalue	8.373	2.934	1.610
Cumulative Variance	44.067	59.511	67.982
Alpha Coefficient of Reliability	.935	.903	.845

Descriptive Statistics

Descriptive statistics presented in Table 4.3, were computed for the two principal support dimensions (expressive and instrumental support) and the three change orientation factors (faculty, principal and community). The mean score of each construct (principal support and change orientation) was determined by averaging the scores of all items within the construct. The mean score for expressive support was calculated by averaging scores for the 4 emotional support items and 4 professional support items of the PSS. Likewise, averaging the 4 instrumental support items and the 4 appraisal support items of the PSS resulted in the mean score for instrumental support. Mean scores for change orientation included the average scores of items for each dimension - faculty openness to change, principal openness to change, and community pressure for change.

Standard deviations and range for each variable are also presented in Table 4.3. Reliabilities were computed using the Cronbach's alpha method of evaluating internal consistency.

Table 4.3

Descriptive Statistics for Principal Support and Change Orientation (N=34)

Variable	Mean	S.D.	Minimum	Maximum
<i>Principal Support</i>				
Expressive	4.74	.479	3.26	5.63
Instrumental	4.12	.515	2.51	4.94
<i>Change Orientation</i>				
Faculty Openness	3.87	.346	3.03	4.74
Principal Openness	4.48	.388	3.78	5.23
Community Pressure	3.68	.494	2.50	4.68

Relationship between Principal Support and Change Orientation

The first research question asked: What is the relationship between faculty perceptions of principal support and faculty openness to change? An independent bivariate correlational analysis was completed to measure the relationship between the two revised dimensions of principal support and faculty openness to change. In this design, a correlation coefficient of one ($r = 1.0$) would indicate a perfect positive linear relationship, while a correlation coefficient of negative one ($r = -1.0$) would signify a perfect negative linear relationship. Moreover, a correlation coefficient of zero ($r = 0.0$) would signify the lack of a linear relationship. The data in Table 4.4 show that a significant relationship did emerge between instrumental support and faculty openness to change at the .05 level ($r = .35$, $p < .05$), indicating that there is less than a 1 in 20 probability that the outcome occurred by chance. Interestingly,

there was not a significant relationship between expressive support ($r = .34$, n.s.) and faculty openness to change even though the degree of linear relationship between each type of support, instrumental and expressive, and faculty orientation to change is close in magnitude. Because effects are more difficult to determine in smaller samples, having a larger sample size may have yielded a significant relationship between expressive support and faculty openness to change.

The second question asked: What is the relationship between faculty perceptions of principal support and principal openness to change? Both aspects of principal support, expressive ($r = .75$, $p < .01$) and instrumental ($r = .67$, $p < .01$), were correlated with teachers' perception of the principal's openness to change.

The third question asked: What is the relationship between faculty perceptions of principal support and faculty's openness to change initiatives proposed by the community? As noted in Table 4.4, there was a significant positive correlation between expressive support and faculty's openness to change initiatives proposed by the community ($r = .44$, $p < .01$) but no relationship between instrumental support and faculty's perception of change initiatives proposed by the community ($r = .25$, n.s).

Table 4.4

Correlational Analysis of the Study Variables (N = 34)

	2.	3.	4.	5.	6.	7.
1. Expressive Support	.80**	.34	.75**	.44**	-.12	-.16
2. Instrumental Support		.35*	.67**	.25	-.13	-.31
3. Faculty Openness to Change			.47**	.56**	-.10	.07
4. Principal Openness to Change				.29	-.09	-.18
5. Community Pressure for Change					-.31	.13
6. Economically Disadvantaged						
7. School Size						

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

Auxiliary findings

Data relating to SES of students represented in the population of the sampled schools were collected in order to generalize the findings of this study to other high schools in Virginia. Because one could posit that the challenges presented when working with students who are economically disadvantaged could be a catalyst for change, SES was also investigated to determine if a statistically significant relationship existed between SES and each of the variables, principal support and change orientation. As previously noted, the term *economically disadvantaged* is used to describe SES classification. In addition to SES, previous studies have demonstrated

a strong relationship between school size and community pressure for change (Kearney, 2007; Maika, 2007). Therefore, this factor was also examined for possible relationships with the dimensions of both principal support and change orientation. Although no significant relationships emerged in this study, the findings are discussed in Chapter 5 with the results of previous studies on change orientation (See Table 4.4).

Dimensions of Principal Support that Best Predict Change Orientation

Research questions four through six focus on which dimension of principal support is the best predictor of each facet of change orientation-- faculty openness to change, faculty perception of principal openness to change, and faculty openness to community pressure for change. The correlational analysis provided information relevant to these questions; however, linear regression analyses for each subset of change orientation was also conducted in order to obtain a more detailed picture of the relationships and to determine which area of principal support explains more of the variance in each change orientation dimension.

The fourth question of this study asked: What dimensions of principal support are the best predictors of faculty orientation to change? Because a factor analysis of the PSS resulted in two distinct factors of principal support at the school level, expressive and instrumental support, only two variables were entered as independent variables into the regression model rather than the initial four dimensions proposed by House (1981). The first regression analysis in a series of three revealed 13% of the variance in faculty openness to change was explained by principal support. This is a small percentage and is congruent with the absence of a significant

relationship between these variables at the .01 level when correlational analysis was completed. Furthermore, the standardized beta weights for instrumental support ($\beta = .22$) and expressive support ($\beta = .16$) were not statistically significant, indicating that neither made an independent contribution to explaining the variance in faculty openness to change. Because the probability of the variance occurring by chance was 115 out of 1000, larger sample size would be necessary to identify more meaningful correlations.

Table 4.5

Regression Analysis of Faculty Openness to Change and Principal Support N = 34

	Faculty Openness to Change		
	Beta	t	Sig.
Expressive Support	.16	.578	.567
Instrumental Support	.22	.794	.433
			R ² = .13
			Adjusted R ² = .07
			S.E. = .33

The fifth question asked: What dimensions of principal support were the best predictors of principal orientation to change? Regression analysis revealed that although both principal support factors combined explain 58% of the variance in principal openness to change, only expressive support ($\beta = .58, p < .01$) had a significant independent effect on principal openness to change. Although the relationship between instrumental support and principal openness to change was

significant ($r = .67, p < .01$), it did not demonstrate significance in the regression (See Table 4.6). Therefore, it is important to note the interrelatedness of these areas of principal support and how the presence of both types of support influences faculty perception of the principal's openness to change.

Table 4.6

Regression Analysis of Principal Openness to Change and Principal Support

	Principal Openness to Change		
	Beta	t	Sig.
Expressive Support	.58	3.02	.005
Instrumental Support	.21	1.09	.285
			R ² = .58
			Adjusted R ² = .55
			S.E. = .26

The sixth question asked: What dimensions of principal support are the best predictors of faculty's perception of change initiatives proposed by the community? As shown in Table 4.4, expressive support had a moderately strong correlation with community pressure for change ($r = .44, p < .01$). The independent effect was statistically significant at the .05 level ($\beta = .65, p < .05$). Covariance provides one possible explanation for this result. Instrumental support was not significantly correlated with community pressure for change and yielded weak results at the independent level. Regression analysis revealed that 22% of the variance in this dimension of change is explained by principal support indicating that the dimensions of principal support, expressive and instrumental, work together to influence teacher response to community pressure for change.

Table 4.7

Regression Analysis of Community Pressure for Change and Principal Support

	Community Pressure for Change		
	Beta	t	Sig.
Expressive Support	.65	2.50	.018
Instrumental Support	-.27	-1.02	.316
			R ² = .22
			Adjusted R ² = .17
			S.E. = .45

In order to investigate the possibility of multicollinearity, a regression analysis with collinearity statistics was conducted to investigate the bivariate correlations among the independent variables. Tolerance values and the variance inflation factor (VIF) were considered. Tolerance values range between 0 and 1. VIF is the reciprocal of the tolerance (1/tolerance). Low tolerance values and high VIF indicate a greater probability of multicollinearity (Allison, 1999). Tolerance values for expressive and instrumental support were .366. VIF for both independent variables was 2.74. Allison (1999) considers multicollinearity when tolerance is below .40 and VIF is greater than 2.5; whereas, other researchers note tolerance less than .20 or .10 and VIF greater than 4 indicate a multicollinearity problem (Belsley, Kuh, & Welsch, 1980; Simon, 2004). Therefore, multicollinearity is present between expressive and instrumental support, indicating an increase in the standard errors between the factors; however, extreme multicollinearity is not present.

Data Summary

Significant relationships between variables emerged in this study. The factor analysis confirmed the structure and reliability of the instruments used to measure principal support and change. Interestingly, the four dimensions collapsed into two dimensions of principal support when the unit of analysis was the school rather than the individual. In addition, one item from the FCOS congregated with community pressure items rather than faculty openness to change items differing from previous studies using this instrument at the elementary level (Maika, 2007, Kearney & Smith, 2008). The correlational analysis revealed no statistically significant relationship between either dimension of principal support and faculty orientation to change ($p < .01$). However, a significant relationship at $p < .05$ was noted between instrumental support and faculty openness to change ($r = .35, p < .05$). It was noted one dimension of principal support, expressive support, and change initiatives proposed by the community were significantly related ($r = .44, p < .01$). There was no statistical significance between the second dimension, instrumental support, and community pressure for change. Finally, relationships between both dimensions of principal support at the school level and faculty perception of the principal's openness to change were found to be positive and significant at $p < .01$.

CHAPTER 5

Summary, Discussion, and Implications

Rapid changes within the global community, a cultural revolution that has changed the way people learn and inquire, and an ever-expanding digital world require schools to revisit the way they achieve the goal of preparing students for what they encounter when they leave the classroom (Friedman, 2005; Cookson, 2009; Trilling & Fadel, 2009). Hence, openness to change is critical to school effectiveness.

It is evident that the principal influences successful change at the building level. The school's leader is in the position to mediate the external forces, as well as empower the teachers who are striving to make improvements that will benefit student learning (Fullan, 2001). Therefore, the principal must have the information and skills necessary to address incremental changes, such as implementation of new programs and revisions in curriculum and assessment, as well as the type of comprehensive school changes necessary to restructure the current educational system so that it reflects present-day society and considers an uncertain future (Rotherham & Willingham, 2009). An example of the pivotal position of principal during times of change can be found in Dinham's 2004 study of thirty-eight Australian secondary schools identified as producing outstanding educational results. This investigation found that principals in these schools had positive attitudes towards change, were open to potential opportunities, and "considered ways in which their

school might benefit from change (p.16).” These leaders exhibited high expectations for both teachers and students by being both responsive and demanding. Moreover, effective school leaders were those identified as “informed risk takers” who were willing to try something new (Dinham, 2004).

Although previous studies have focused on change and leadership style, research on specific behaviors of school leaders and their relationship to change efforts is limited (Frost & Durant, 2003; Hallinger, 2003; Leithwood & Jantzi, 2006). This quantitative study attempted to identify the relationship between the daily supports a principal offers faculty members and teachers’ perceptions of how the teaching staff and principal respond to change efforts, as well as how teachers perceive community pressure for change. Specifically, two dimensions of principal social support and three dimensions of change orientation were analyzed. The general hypothesis of the study was that principal support would be positively related to the three dimensions of change orientation (faculty openness to change, principal openness to change, and community pressure for change) as perceived by the teaching staff.

Limitations

This study was limited to the convenience sample collected from public high school teachers in the Commonwealth of Virginia. As such, the findings cannot be generalized to public elementary schools or to schools in alternate settings. Because the focus of this correlational study was the relationships between the dimensions principal support and change orientation, no assumptions can be made of a causal nature of one construct on the other based on the findings.

Summary of Findings

- 1. Initially, four dimensions of principal support (emotional, professional, instrumental, and appraisal) were considered (House, 1981, Littrell & Billingsly, 1994). However, when the unit of analysis was the school rather than the individual, analysis of the data revealed only two factors of the Principal Support Scale (PSS). Emotional and professional support items combined and were renamed expressive support. Likewise, instrumental and appraisal support items demonstrated high correlation and were identified as one factor, instrumental support (DiPaola, in press).**
- 2. Factor analysis of the Faculty Change Orientation Scale (FCOS) revealed a reliable factor structure appropriate for use in high schools (Smith & Hoy, 2005). Factor loading resulted in three distinct subsets: faculty openness to change .935, principal openness to change .903, and community pressure for change .845. However, in previous studies, 9 items clustered to create the dimension faculty openness to change. One of these items loaded with the third factor, community pressure for change.**
- 3. Correlation analysis confirmed a strong positive relationship exists between principal support and teachers' perception of principal's openness to change.**
- 4. Correlation analysis revealed a statistically significant relationship between one dimension of principal support, expressive support, and community pressure for change.**

5. Correlational analysis showed the relationship between faculty receptivity to change and faculty perception of principal openness to change was statistically significant.
6. Correlational analysis showed a significant relationship between faculty receptivity to change and receptivity towards community pressure for change.
7. Correlational analysis showed a significant relationship between instrumental support and faculty openness to change at $p < .05$.
8. Regression analysis demonstrated that 58% of the variance in principal orientation to change was explained by principal support. Expressive support ($\beta = .58, p < .01$) had a significant independent effect on principal openness to change.
9. Regression analysis showed that expressive support explained the largest portion of the 22% of variance in community pressure for change ($\beta = .65, p < .05$).

Discussion of the Results

The conceptual framework guiding this study proposed principal openness to change would result in principal social support in the areas of emotional support, professional treatment, providing resources (instrumental), and recognition and feedback (appraisal). This support in turn would directly influence faculty openness to change. However, upon correlational analysis of participant responses in this study, only one dimension of principal support, instrumental, as significantly related to faculty openness to change ($r = .35, p < .05$) as noted in Table 4.4. In addition, further investigation through regression analysis revealed statistically insignificant

results in faculty openness to change and principal support. Nevertheless, interdependence between these variables is evident. Although the relationship between expressive support and faculty openness to change was insignificant ($r = .34$, n.s.), it was very close in magnitude to instrumental support. Furthermore, a strong and significant relationship was noted between instrumental and expressive support ($r = .80$, $p < .01$) in the correlational analysis of the study's variables (See Table 4.4).

It is noted that a significant relationship did emerge between faculty perception of principal openness to change and each dimension of principal support, expressive ($r = .75$, $p < .01$) and instrumental ($r = .67$, $p < .01$). When the school's leader embraces change, he or she is more likely to provide necessary resources for successful implementation and communicate vision, purpose and other relevant information (Fullan, 1993). This study confirmed that teachers who perceive an administrator as willing to embrace change is also a leader who is willing to provide social supports such as showing trust in teacher decisions, offering professional development opportunities and evaluating teacher needs (Maika, 2007). Furthermore, regression analysis revealed expressive support ($\beta = .58$, $p < .01$) explained a greater proportion of the variance in principal openness to change than instrumental support ($r = .67$, $p < .01$). Expressive support includes giving teachers a sense of importance, trusting teacher judgments in making decisions, being honest and straightforward, and providing professional growth opportunities.

In practice, principals must be cognizant that their openness to innovation in the school setting, as well as faculty perception of openness, is necessary for successful initiation and implementation of strategies that will improve the

organization (Kouzes & Posner, 1987; Frost & Durrant, 2003). Faculty will often follow the lead of the principal when deciding whether to support a change initiative (Hoy & Miskel, 1991; Miller, 2002; Hargreaves, 2005). They look to leaders for direction and confirmation that changes are effective (Yukl & Lepsinger, 2006). Therefore, the receptive building leader must engage in honest dialogue with teachers and communicate how the changes impact teaching and learning within the school (Waugh & Godfrey, 1993; Roettger, 2003).

With such a strong relationship between principal support and principal openness to change, why would faculty openness to change not increase when a principal provides supports for change to occur (Roettger, 2003)? One explanation for this outcome could be that teachers were responding based on their perceptions towards the faculty as a whole, rather than their feelings about their personal response to change. Principal support questions asked teachers to agree or disagree with statements about the support each participant receives as an individual receives from the building principal (*My principal provides extra assistance when I become overloaded*). Change orientation questions, on the other hand, asked teachers to rate perceptions of the faculty as a unit (*Faculty in this school embraces new ideas*). When teachers are considering change initiatives involving the school as a whole, they perceive change initiatives to be those proposed from people at higher levels within the organization. This type of change receives more resistance (Quinn, 1996; Fullen, 2000). This is different from the self-initiated incremental changes that are more apt to be embraced by individuals (Birky, Shelton & Headley, 2006).

The results from this investigation regarding principal support and faculty openness to change differ from Kearney's (2007) research on principal influence and change orientation in elementary schools, which resulted in positive and strong relationships between principal influence and faculty openness to change ($r = .66, p < .01$). The Persuasion Index used by Kearney to investigate principal influence, like the FCOS, asked for teacher perceptions of the faculty overall rather than the individual. This was also true for the climate survey used by Maika (2007), whose research found that collegial leadership, a facet of climate which characterizes the interactions between teachers and the principal based on the principal's openness, had a strong and positive relationship with faculty openness to change ($r = .67, p = < .01$). Hence, further research on the constructs of principal support and change orientation should consider consistency in scale items so that teachers are responding to perceptions of both principal support for the individual and change orientation of the individual. Likewise, the researcher may consider principal support for the collective faculty and change orientation of the faculty as a whole.

Interestingly, Maika (2007) and Kearney's (2007) studies involved elementary schools. In contrast, a correlational study of school change and climate in high schools found no significant relationship between collegial leadership, a principal's responsiveness to the social needs of the faculty in order to attain organizational goals, and faculty openness to change ($r = -.095, n.s.$) (Hoy, Smith & Sweetland, 2002; Berger, 2009). The differences in school organizations at the various levels of education, elementary and secondary, may also have contributed to the different results.

One must also consider research methods, such as sample size. Correlation coefficients calculated using a limited sample size may result in no evidence of a significant relationship; however, a larger range of scores may result in evidence of a significant relationship (Kiess & Green, 2010). This is also the case when conducting regression analyses (George & Mallery, 2009). Another consideration is faculty understanding of the change construct. Although the differences between incremental and deep change are outlined in Chapter 2, teachers were not provided this information. Because resistance is more apt to accompany deep changes, it is important that participants have a shared understanding of how their responses address these two types of change (Quinn, 1996; Cuban, 1996; Hanson, 2001).

The correlational analysis in this investigation did reveal a moderate relationship between a faculty's openness for change and the perceived openness to change of the principal ($r = .47, p < .01$). Previous studies found faculty members are more receptive to change with they perceive the principal as willing to embrace change efforts (Birky, Shelton & Headley, 2006; Kearny, 2007; Maika, 2007). Because an effective principal largely influences the culture within the organization, it is important for him or her to demonstrate a desire to improve the educational setting in order to garner the support of the teaching staff. Fullan (2001) described the school leader as a "context setter, the designer of a learning experience" (p. 112) during times of complex change. Because change is complex, the leader must work alongside others in the group to problem solve and grow during the circumstances. He or she must provide guidance and direction during the process.

Faculty's openness to change was also significantly related to the faculty's openness to pressures for change from the outside community ($r = .56, p < .01$). Although the conceptual framework for this study proposed community pressure for change more directly influences the principal's openness to change resulting in the principal serving as a buffer between outside pressures and the faculty, this was not evident in the results of this investigation. However, a significant relationship did emerge between the expressive support provided by the principal and faculty receptivity to changes proposed by external stakeholders ($r = .44, p < .1$). Because these proposed changes are not internally driven, principals must provide opportunities for skill and knowledge development. Consequently, professional growth will support confidence in classroom decisions and inclusion of teachers in school-wide decision making.

Student socio-economic status and school size can be considered when examining influences on change orientation. Because studies have demonstrated a relationship between SES and student achievement, it could be projected that in an era of accountability, educators in underperforming schools with higher numbers of economically-disadvantaged students may be more receptive to change efforts (Rumberger & Palardy, 2005; Sirin, 2005). They may have an intrinsic desire to find methods to help low-achieving students, as well as be more willing to respond to pressures from community members, politicians, and higher levels of academia. However, this study found no statistically significant relationship between the SES and faculty openness to change, principal openness to change, and community pressure for change (See Table 4.4). In addition, a 2009 study of 40 public high

schools in central Texas investigated the relationship between student SES and change and the results also yielded no statistical significant relationship between these two factors ($r = -.228$, n.s.) (Berger, 2009).

Likewise school size was not significantly related to the dimensions of change orientation in this study with an average of 1,019 or Berger's 2009 study ($r = .077$, n.s.), which had a mean enrollment of 1,735. School size was not significantly related to either faculty or principal openness to change in previous studies on change orientation; however, a relationship between community pressure for change and school size was present (Kearney, 2007; Maika, 2007). Hence, additional research into SES, school size, and the construct change orientation is warranted.

Implications

The findings from this study have implications for both research and practice. Previous studies on change orientation have demonstrated that both collegial leadership, one facet of school climate, and a principal's influence create an environment that supports change orientation in the school setting (Kearney, 2007, Maika, 2007, Kearney & Smith, 2009, Berger, 2009). Social support is another aspect of how principals relate with teachers. This study contributed to the current research on change orientation by investigating how principal support relates to change orientation in public high schools.

Practical implications. Principals support teachers by communicating openly, providing professional development opportunities, recognizing teachers' efforts, and securing necessary resources (Littrell & Billingsley, 1994). These dimensions of principal support are not only linked to morale, attrition, and job

satisfaction (Wynn et al, 2007); teachers have also identified them as necessary for teachers to embrace change (Roettgers, 2003).

Principals seeking to initiate change initiatives within their schools can benefit from the two scales used in the study. Both diagnostic tools demonstrated reliability and validity in the public high school setting. The Principal Support Scale (DiPaola, in press) is a useful tool for administrators wishing to measure the extent in which their teaching staff perceives the types and amount of support they receive. This measure is concise, anonymous, and requires a minimal amount of time to administer and complete. The results can provide information when making decisions about evaluation, professional development, distribution of resources, and communication.

Similarly, the Faculty Change Orientation Scale (Smith & Hoy, 2005) provides a quick and simple assessment of a faculty's perception of their willingness to embrace change. Teacher buy-in is critical for the implementation of changes. Furthermore, the perception of openness at the school, rather than individual level, will help administrators make decisions and strategize to promote change and move teachers through the change process. In addition, the FCOS is a means for determining faculty perception of the principal's openness to change. When incremental changes are being considered, teachers can often be eager, innovative and willing to take risks when they have a desire to make a difference in the lives of their students (Birky et al, 2006). However, this enthusiasm can be thwarted if teachers feel administrators are not open to proposed changes. At the reform level, teachers may have little or no motivation to support the larger initiative if they do not sense the principal is on board with the changes (Frost & Durrant, 2003). The FCOS can also

provide information regarding teachers' willingness to respond to community pressure for change. This can be valuable when developing strategies and opportunities to improve school-community relations.

It is noted, that the FCOS was designed to consider various levels of change from incremental to reform (Kearney, 2007). The initial pilot study included 54 items, which attempted to examine two types of change, incremental and deep, as well as change initiated internally and externally. These four factors were considered along with teacher and principal orientation to change. However, principal components analysis with varimax rotation resulted in the elimination of 35 items and the emergence of 19 items and three components: faculty orientation to change, principal orientation to change, and external pressure for change (Kearney & Smith, 2008). For the resulting scale, faculty orientation to change was defined as a faculty's receptivity to internally and externally driven change. Principal orientation to change was defined as a faculty's perception of the principal's receptivity to internally and externally driven change. Community pressure for change was defined as a faculty's perception of the school's receptivity to change proposed by external constituents. It is recommended that faculty be informed of the definition of the types and intensities of change in order to establish a shared meaning of this construct.

Principal support and change orientation. Change is a natural part of education. It can result from an individual's desire for improvement or growth. It can also occur at the collective level as groups work together to make progress towards a goal (Quinn, 1996). In our current educational setting, teachers and principals initiate incremental changes in order to meet the needs of the students they teach each day.

Outside stakeholders, such as politicians and business leaders, mandate reforms on a larger scale in response to events and changes in society. This can result in a precarious situation for teachers who must balance traditional practice with new strategies and ideas necessary for learning in an era of information and innovation. In order to support teachers through this process, the principal must have the knowledge and skills to effectively lead change.

The findings from this study show that teachers look to their leaders when responding to change. When they perceive the principal is open to change, teachers show more willingness to change. When change is initiated or embraced by the teacher, the principal can offer support by providing adequate planning time, extra assistance when change efforts become overwhelming, and offering necessary resources for successful implementation. In addition, the principal can provide data related to the change process for reflection, provide performance feedback, and help evaluate what the teacher needs to begin and sustain the change process. In instances of large-scale reform directed by external constituents, the school leader must communicate why the change is important and its potential effectiveness. They must listen to the concerns and feedback of teachers in order to support the change process (Yukl & Lepsinger, 2006; Smith & Maika, 2008). Support should include opportunities for teachers to increase their knowledge and skills as related to the change initiatives. Furthermore, support structures must recognize teachers' importance, efforts, and effectiveness in the change process.

These findings also suggest that teachers welcome parent involvement and work in partnership with the community to improve school performance. This can

result when school personnel and community members share common goals. The principal should look for opportunities to cultivate these relationships rather than hinder them. Teachers do not need protection from community pressure for change; they need support to develop these relationships.

In addition, this investigation supported the findings of previous studies on principal support. Principals who are change agents are willing to provide necessary supports for the successful implementation and endurance of initiatives for school improvement (Dinham, 2004; Yukl & Lepsinger, 2006; Maika, 2007). Because school personnel look to the principal when deciding whether to support change, it is important they see perceive the principal as open to change (Hoy & Miskel, 1991; Miller, 2002; Hargreaves, 2005). The results of this study demonstrate a relationship between faculty perception of principal openness to change and the support a principal offers, especially expressive support. Based on these findings, school leaders are encouraged to develop relationships with faculty members that involve trust, confidence, and honesty.

Implications for future research. The influence of principal support on teacher's openness to change provides many opportunities for future research. Because this study was limited by its sample, generalizing the findings is also limited. It would be beneficial to replicate the study using a larger sample of schools from various regions across the nation and within other grade levels.

This study sought to add to the existing literature on leadership and change; however, many questions remain. For example:

1. To what extent is the social support provided by a principal related to teachers' willingness to take risks and try something new?
2. What are the relationships between principal support and the different types of change – incremental and deep change?
3. Does a faculty's age, years of teaching experience within a school or overall experience impact teacher perception of the faculty's openness to change? If so, do these factors significantly influence participants' perceptions of principal support?
4. Does a principal's administrative experience at a school or overall influence teacher perception of his or her openness to change?
5. What are the perceptions of school leaders in regard to the three dimensions of change orientation? How closely do leaders' perceptions correlate with teacher perceptions of faculty openness to change, principal openness to change, and community pressure for change?
6. What is the relationship between faculty perception of organizational citizenship behaviors within a school and the faculty's openness to change, principal openness to change, and community pressure for change?
7. How does the relationship between principal support and change orientation differ between elementary and secondary schools?
8. What is the relationship between collective efficacy and change orientation?
9. Is there a statistically significant relationship between teachers' willingness to change and student achievement?

10. What societal factors influence teacher willingness to change? Which of these factors has the most influence on teacher willingness to change?

11. How is organizational trust related to change orientation?

Final Thoughts

The findings in this study support the need for school administrators to provide social supports to teachers in order to make changes within classrooms and schools that will address the needs of today's learners. Although no statistically significant relationship emerged between the individual dimensions of principal support and faculty openness to change, the relationship between the amount of expressive and instrumental support provided by a principal was significantly related to teacher perception of principal openness to change. In addition, a significant relationship between teacher openness to change and principal openness to change was discovered.

Changes in education can be teacher driven as they reflect on the achievements of their students and respond to pressures from external constituents and societal factors. Change can also be initiated by the building principal in response to both internal and external factors. Parents, community members, politicians, and business leaders can also mandate changes in education, resulting in a top-down approach for educational reform. Regardless of where the change effort originates or what type of change is involved, the principal plays a vital role in making certain that efforts to transform our schools are successfully implemented and continued (Fullan, 2001).

In sum, this study found that high school faculties who perceive their principals as providers of social support also perceive their principals as receptive to change. In addition, a positive and significant relationship exists between a principal's perceived openness to change and the willingness of the faculty to embrace change. This study contributed to the current literature on supportive leadership and change at the high school level. It provides insights to school leaders into the relationship between the social support provided by principals and openness to change within schools, so that students in classrooms today are ready for the world that awaits them tomorrow.

Bibliography

- Allison, P. (1999). *Multiple regression: A primer*. Thousand Oaks, CA: Pine Forge.
- Anderson, S. (1997). Understanding teacher change: Revisiting the concerns based adoption model. *Curriculum Inquiry* 27(3).
- Barnett, K. & McCormick, J. (2004). Leadership and individual principal-teacher relationships in schools. *Educational Administration Quarterly*, 40. doi: 10.1177/0013161X03261742.
- Belsley, D., Kuh, E., and Welsch, R. (1980). *Regression diagnostics: Identification influential data and sources of collinearity*, New York: John Wiley & Sons, Inc.
- Bennis, W. (1997). Managing people is like herding cats. *Executive Excellence*, 14(11). p. 20.
- Berger, G. (2009). High school teachers' perceptions of school changes and its implications for school climate. Ed. D. dissertation, The University of Texas at San Antonio, United States -- Texas. Retrieved November 24, 2011, from Dissertations & Theses: Full Text. (IBSN 9781109123050).
- Birky, V., Shelton, M., & Headley, S. (2006). An administrator's challenge: Encouraging teachers to be leaders. *NASSP Bulletin*, 90(2), 87101.
- Bolman, L. G. & Deal, T. E. (2003). *Reframing organizations: Artistry, choice and leadership*. San Francisco: Jossey-Bass, pp. 197-198.
- Boyle, B., Lamprianou, I. & Boyle, T. (2005). A longitudinal study of teacher

- change: What makes professional development effective? Report of the second year of study. *School Effectiveness and School Improvement*, 16(1), 1-27.
- Bozonelos, J. (2008). Retention in special education: Reducing attrition through supportive administrative interventions. *International Journal of Learning*, 15(1), 149-157.
- Butt, G., & Lance, A. (2005). Secondary teacher workload and job satisfaction: Do successful strategies for change exist? *Educational Management Administration & Leadership*, 33(4).
- Chirichello, M. (2008). Debunking the myths about change. *Principal*, 28-32.
- Cookson, P. W. (2009) What would Socrates say? *Educational Leadership*, 67(1), 8-14.
- Combs, C. (2007). The role of leadership capacity in sustaining the school improvement initiative of schoolwide positive behavior supports. Ed.D. dissertation, University of Missouri, Columbia. United States -- Missouri. Retrieved December 22, 2010, from Dissertations & Theses: Full Text. (Publication No. AAT 3322686).
- Covey, S. R. (1991). *Principle-centered leadership*. New York: Summit, pp. 302-312.
- Cuban, L. (1996). Myths about changing schools and the case of special education. *Remedial and Special Education*, 75-82.
- Deal, T. E., Peterson, K. D., & Office of Educational Research and Improvement (ED), (1990). *The principal's role in shaping school culture*. Washington, DC. Programs for the Improvement of Practice.

- Deming, W. E. (1986). *Out of the crisis*. Cambridge, MA: MIT Press.
- Dinham, S. (2004). Principal leadership for outstanding educational outcomes. Retrieved from http://gtansw.wikispaces.com/file/view/Leadership-Dinham_2.pdf.
- DiPaola, M. F. (in press). Conceptualizing and validating a measure of principal support. In Michael F. DiPaola & Patrick B. Forsyth (eds.) *Contemporary Challenges Confronting School Leaders*. Charlotte, NC: Information Age.
- Elmore, R. F. (2000). Building a new structure for school leadership. *American Educator*, 23(4), 6-13.
- Fraser, J. W. (2010). A tale of two futures. *Phi Delta Kappan*, 92(2), 29-32.
- Freidman, T. (2005). *The world is flat: A brief history of the 21st century*. NY: Farrar, Straus & Giroux.
- Frost, D., & Durrant, J. (2003). Teacher leadership in a culture of change. *School Leadership & Management*, 23(2).
- Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. London: Falmer Press.
- Fullan, M. (1998). The meaning of educational change: A quarter of a century of learning. In A. Lieberman, M. Fullan & D. Hopkins (eds), *International Handbook of Educational Change* 5(1), 23–36. Dordrecht, Boston and London: Kluwer Academic Publishers.
- Fullan, M. (2001). *Leading in a culture of change*. San Francisco: Jossey-Bass.
- Fullan, M. (2001). *The new meaning of educational change* (3rd ed). NY: Teachers College Press.

- Fullan, M., Cuttress, C., & Kilcher, A. (2005). Eight forces for leaders of change. *Journal of staff development*, 26(4), 548-64.
- Gall, M. D., Gall, J. P. & Borg, W. R. (2007). *Educational research--An introduction* (8th ed.). New York: Longman.
- Gardner, J. W. (1990). *On leadership*. New York: Free Press, pp. 124-132.
- George, D. & Mallery, P. (2009). *SPSS for windows step by step: A simple guide and reference 16.0 update*. 9th ed. Boston: Pearson.
- Goodson, I. F. (2001). Social histories of educational change. *Journal of Educational Change*, 2(1), 45-63.
- Hallinger, P. (November, 2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, 33, 329-351. doi: 10.1080/0305764032000122005.
- Hanson, M. (2001). Institutional theory and educational change. *Educational Administration Quarterly*, 37(5), 637-61.
- Hargreaves, A. (2005). Educational change takes ages: Life, career and generational factors in teachers' emotional responses to educational change. *Teacher and Teacher Education*, 21, 967-983.
- Hargreaves, A., & Goodson, I. (2006). Educational change over time? The sustainability and nonsustainability of three decades of secondary school change and continuity. *Educational Administration Quarterly*, 42(1), 3-41.
- Hausman, C. M. (2000). Portrait of the 'Ideal Principal': Context and Self. *NASSP Bulletin*, 84(617), 5.

- House, R. J. (1996). Path-goal theory of leadership: Lessons, legacy, and a reformulated theory. *Leadership Quarterly*, Fall 96, 323.
- House, R. J. (1981). A path-goal theory of leader effectiveness. *Administrative Science Quarterly*, 16, 321-338.
- Hoy, W. K., & Miskel, C. G. (1991). *Educational administration: Theory, research, and practice*. New York: McGraw Hill.
- Hoy, W. K., Smith, P. A., & Sweetland, S. R. (2002). The development of the organizational climate index for high schools: Its measure and relationship to faculty trust. *The High School Journal*, 85, 38-49.
- Hull, T. H., Balka, D. S., & Miles, R. H. (2010). Overcoming resistance to Change. *Principal Leadership*. 10.8. 36-37, 40-42.
- Hunt, J. W. (2008). A nation at risk and no child left behind: Déjà vu for administrators? *Phi Delta Kappan*. 580-585.
- Jenkins, L. (2004). Permission to forget and nine other root causes of educational frustration. *ASQ Quality Press*.
- Kearney, W. (2007). Principal influence: A study of its effect on school change. Ed.D. dissertation, The University of Texas at San Antonio, United States -- Texas. Retrieved December 30, 2010, from Dissertations & Theses: Full Text. (Publication No. AAT 3289296).
- Kearney, S., & Smith P. A. (2008). A theoretical and empirical analysis of change orientations in schools. In Wayne K. Hoy & Michael DiPaola (eds.). *Studies in School Improvement*. Greenwich, CN: Information Age.

- Kiess, H. O. & Green, B. A. (2010). *Statistical concepts for the behavioral sciences*. 4th ed. Boston: Allyn & Bacon.
- Kotter, J. P. & Cohen, D. S. (2002). *The heart of change; Real-life stories of how people change their organizations*. Boston, MA: Harvard Business School Press.
- Kouzes, J. M., & Posner, B. Z. (2007). *The leadership challenge*. 4th ed. San Francisco: JosseyBass,
- Kowalski, T. J. (2004). *Public relations in schools* (3rd ed.). Upper Saddle River, NJ: Pearson, pp. 19-21, 97-118, 192-195.
- Leithwood, K. & Jantzi, D. (2006). Transformational school leadership for large-scale reform: Effects on students, teachers, and classroom practices. *School Effectiveness and School Improvement*, 17(2), 201-227.
- Leithwood, K., Louis, K., Anderson, S., Wahlstrom, K. (2004). How leadership influences student learning: Review of research. Minnesota University & Ontario Institute for Studies in Education. *Wallace Foundation*.
- Littrell, P., Billingsley, B., & Cross, L. (1994). The effects of principal support on special and general educators' stress, job satisfaction, school commitment, health, and intent to stay in teaching. *Remedial and Special Education*, 15(5), 297-310.
- Maika, S. (2007). *The organizational climate of elementary schools and aspects of change orientation*. Ed.D. dissertation, The University of Texas at San Antonio, Texas. Retrieved November 20, 2010, from Dissertations & Theses: Full Text. (Publication No. AAT 3289294).

- Maxwell, J. (2005). *Developing the leader within you*. Nashville: Thomas Nelson.
- McEnery, D. (2005). Getting out of the way: A lesson in change. *Principal Leadership*, 5(9), 42-46.
- McLaughlin, L., & Hyle, A. E. (2001). The school principal as change agent: An explanatory case study. Paper presented at the Annual Meeting of the American Educational Research Association. Seattle, Washington.
- Mellencamp, A. (1992). Making connections through voice: Teacher receptivity to change. Burlington, CO: Vermont University.
- Miller, N. (2002). Insider change leadership in schools. *International Journal of Leadership in Education*, 5(4), 343-360.
- Pink, D. (2005). *A whole new mind: Why right-brainers will rule the future*. NY: The Berkley Group.
- Quinn, R. (1996). *Deep change: Discovering the leader within*. San Francisco: Jossey-Bass.
- Retallick, J., & Fink, D. (2002). Framing leadership: Contributions and impediments to educational change. *International Journal of Leadership in Education*, 5(2), 91-104.
- Reio, T. G. (2005). Emotions as a lens to explore teacher identity and change: A commentary. *Teaching & Teacher Education*, 21(8), 985-993.
doi:10.1016/j.tate.2005.06.008.
- Richardson, W. (March 2009). Becoming network wise. *Educational Leadership*, 26-31.
- Roettger, C. (2003). *Change: A teacher's perspective*. Ed.D. dissertation. Oklahoma

State University. Retrieved November 20, 2011, from Dissertations & Theses:
Full Text.

Roettger, C. (2006). Change from the heart. *The Journal for Quality & Participation*.

Rotherham, A. J. & Willingham, D. (2009). 21st century skills: The challenges ahead.
Educational Leadership, 67(1), 16-21.

Saginer, N. (2006). The principal as leader of change. *Teaching Science in the 21st
Century*. National Science Teachers Association, 163-176.

Sarason, S. (1998). World War II and schools. In A. Hargreaves, A. Lieberman, M.
Fullan & D. Hopkins (eds), *International Handbook of Educational Change*
5(1), 23–36. Dordrecht, Boston and London: Kluwer Academic Publishers.

Sergiovanni, T. J. (1992). *Moral leadership*. San Francisco: Jossey-Bass.

Sergiovanni, T. J. (1995). *The principalship: A reflective practice perspective*, 3rd ed.
Boston: Allyn & Bacon.

Sergiovanni, T. J. (2000). Changing change: Toward a design science and art. *Journal
of Educational Change*, 1(1), 57-75.

Schwarzer, R. & Leppin, A. (1991). Social support and health: A theoretical and
empirical overview. *Journal of Social and Personal Relationships*, 8, 99-127.

Schriesheim, C. A., Castro, S. L., Zhou, X., & DeChurch, L. A. (2006). An
investigation of path-goal and transformational leadership theory predictions
at the individual level of analysis. *Leadership Quarterly*, 17(1), 21-38.
doi:10.1016/j.leaqua.2005. 10.008.

- Simon, L. (2004). Stats 501 Regression Methods: Multicollinearity. Retrieved from http://online.stat.psu.edu/online/development/stat501/12multicollinearity/05multico_vif.html.
- Smith, P. & Maika, S. (2008). Change orientations: The effects of organizational climate on principal, teacher, and community transformation. *Journal of School Public Relations, (29)*. 476-498.
- Tschannen-Moran, B. & Tschannen-Moran, M. (2010). *Evocative coaching: Transforming schools one conversation at a time*. San Francisco: Josey-Bass.
- Trilling, B. & Fadel, C. (2009). *21st century skills: Learning for life in our times*. San Francisco: Jossey-Bass.
- Vecchio, R. P., Justin, J. E., & Pearce, C. L. (2008). The utility of transactional and transformational leadership for predicting performance and satisfaction within a path-goal theory framework. *Journal of Occupational & Organizational Psychology, 81(1)*, 71-82.
- Veel, L., & Bredhauer, M. (2009). Living local, thinking global: Creating and sustaining pedagogies. *International Journal of Learning, 16(9)*, 597-610.
- Waugh, R. & Godfrey, J. (1993). Teacher receptivity to system-wide change in the implementation stage. *British Educational Research Journal, 19, (5)*, 565-578.
- Wood, D. (2007). A grounded theory on teacher sensemaking processes in a climate of change. Ed.D. dissertation, University of Montana, United States -- Montana. Retrieved November 6, 2010, from Dissertations & Theses: Full Text.(Publication No. AAT 3258730).

- Wynn, S. R., Carboni, L. W., & Patall, E. A. (2007). Beginning teachers' perceptions of mentoring, climate, and leadership: Promoting retention through a learning communities perspective. *Leadership & Policy in Schools, 6*(3), 209-229. doi:10.1080/15700760701263790
- Yukl, G., & Lepsinger, R. (2006). Leading change: Adapting and innovating in an uncertain world. *Leadership in Action, 26*(2), 3-7.
- Zhao, Y. (2009). Needed: Global villagers. *Educational Leadership, Sept.* 60-65.
- Zimmerman, J. (2006). Why some teachers resist change and what principals can do about it. *NASSP Bulletin, 90*(3), 238-249. doi: 10.1177/0192636506291521.

APPENDIX A

Principal Support Scale (PSS)

Six Point Scale (Strongly Disagree - 1 to Strongly Agree – 2)

1. The principal gives me undivided attention when I am talking.
2. The principal is honest and straightforward with the staff.
3. The principal gives me a sense of importance- that I make a difference.
4. The principal supports my decisions.
5. The principal provides data for me to reflect on following classroom observations of my teaching.
6. The principal provides frequent feedback about my performance.
7. The principal helps me evaluate my needs.
8. The principal trusts my judgment in making classroom decisions.
9. The principal shows confidence in my actions.
10. The principal provides opportunities for me to grow professionally.
11. The principal encourages professional growth.
12. The principal provides suggestions for me to improve my instruction.
13. The principal provides time for various non-teaching responsibilities (e.g. IEPs, conferences, test students).
14. The principal provides adequate planning time.
15. The principal provides extra assistance when I become overloaded.
16. The principal equally distributes resources and unpopular chores.

© DiPaola (in press)

Permission to use for scholarly research

APPENDIX B

Faculty Change Orientation Scale (FCOS)

Six Point Scale (Strongly Disagree - 1 to Strongly Agree – 2)

1. In this school, faculty welcomes change
2. Faculty in this school embraces new ideas.
3. In this school, the principal balks at new suggestions.
4. This community pushes for innovation.
5. In this school, teachers are receptive to substantial changes.
6. In this school major change is resisted.
7. In this school, the principal is slow to change.
8. Teachers in this school readily accept changes to new rules and procedures.
9. In this school, the principal is committed to major change.
10. Faculty in this school rejects all but minimal changes.
11. In this school, the principal often resists changes suggested by parents.
12. The principal in this school embraces change initiatives.
13. The rhetoric of change in this school is strong, but actual change is negligible.
14. Faculty in this school would rather fight than switch.
15. In this school, the faculty relishes innovation.
16. In this school, suggestions by the PTA often produce change.
17. Faculty in this school is open to ideas of the parents.
18. Most community members are happy with their schools.
19. In this school, the principal is committed to no change.

© Smith & Hoy (2005)

Permission to use for scholarly research

APPENDIX C

Letter to Central Office Personnel

(Date)

Dear (School District Representative),

Doctoral candidates in the Educational Policy Planning and Leadership (EPPL) program at the College of William & Mary are conducting research in Virginia high schools. They are examining the relationships among school social processes and their relationships to student achievement. Data concerning the social processes are being collected through perceptions of high school teachers. The researchers are seeking a sample representative of Virginia high schools. Participation in the study is voluntary and involves classroom teachers at your respective high school(s) completing a short survey. The researchers will collect data either in person or through a designated faculty member. Completing the survey should take no longer than 10 minutes. Teacher responses to the questions on the survey will be kept confidential and no school or division will be named in the study. No data will be reported in the final study or any future reports linking your school to aggregated responses on the survey instrument. Upon request the researchers will provide school principals with a summary report of data collected.

If your school division agrees to participate in this study, please notify Karen Cagle at (telephone number) or (e-mail address).

Participants will be asked to complete one of two survey forms. Attached is a copy of the two questionnaires for your review and consideration. If you have any questions regarding this study and/or with participation in this study, please contact Dr. Michael DiPaola, project manager and dissertation chairperson, at (telephone number) or (e-mail address). This study has been approved by the Human Subjects Committee at the College of William & Mary. All data collected are confidential and only aggregated data from all schools sampled will be reported in the study.

Sincerely,

Karen Cagle

Vita

Karen Elmore Cagle

Birthdate	May 29, 1963	
Birthplace	Hampton, VA	
Education	2006 - 2012	The College of William and Mary Williamsburg, Virginia Doctor of Education
	2004 - 2006	Walden University Minneapolis, Minnesota Master of Science in Integrating Technology in the Classroom
	1993-1996	Francis Marion University Florence, South Carolina Bachelor of Science in Elementary Education
Professional Experience	2008 – present	Middle School Assistant Principal York County School Division Yorktown, Virginia
	2003 – 2007	Educational Technology Facilitator York County School Division Yorktown, Virginia
	2001 – 2003	Elementary School Teacher York County School Division Yorktown, Virginia
	1999 - 2001	Elementary School Teacher Fairfax County School Division Fairfax, Virginia