2008

The Relationship Between School Culture And Third-grade Fcat Reading Proficiency In Seminole County Public Elementary Schools

Kelley Novak
University of Central Florida

THE RELATIONSHIP BETWEEN SCHOOL CULTURE AND THIRD-GRADE FCAT READING PROFICIENCY IN SEMINOLE COUNTY PUBLIC ELEMENTARY SCHOOLS

by

KELLEY KATHLEEN NOVAK
B.A. University of Florida, 1998
M.A. University of Florida, 1999

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the Department of Educational Research, Technology, and Leadership
in the College of Education
at the University of Central Florida
Orlando, Florida

Summer Term
2008

Major Professor: Rosemarye Taylor

ABSTRACT

This study aimed to determine the relationship between school culture and student achievement. Elementary school teachers (N=574) from 27 schools in suburban Seminole County, Florida completed the School Culture Triage Survey to generate a school culture score. The participating schools were ranked and placed in categories representing the top 33% (N=9), middle 33% (N=9), and bottom 33% (N=9) of the population based on their culture score.

School culture data were analyzed and correlated with third grade student achievement data, as measured by the 2007 Florida Comprehensive Assessment Test (FCAT) Reading to determine if there were any relationships between (a) school culture and student achievement; (b) the three key components of school culture (collaboration, collegiality, and self-determination/efficacy) and student achievement; and (c) principal tenure and school culture. Additional data analysis served to determine if there were any experiential or demographic differences among the teachers from the schools falling in the top, middle, and bottom 33% on the School Culture Triage Survey. To learn more about principal beliefs with regard to school culture and student achievement, principal interviews were conducted with some principals (N=8) from the participating schools.

Through a review of the research results and related literature, the researcher concluded that a relationship between the overall school culture and student achievement did not exist. Further analysis revealed that there were no relationships between student achievement and collaboration, collegiality, and self-determination/efficacy, or between school culture and principal tenure for the schools participating in this study.

This work is dedicated with unremitting love and gratitude to my three "boys"

Jeff, Braden, and Cole Novak.

Jeff - your unrelenting encouragement and unconditional love and friendship has been my rock throughout this process. You are my North Star and with you by my side I know that all my hopes and dreams are within reach.

Braden and Cole – From the mouths of babes, I have gained more wisdom and perspective than I could have ever imagined. Your absolute love and joy of all things big and small has been a constant reminder of what is wonderful in this life.

ACKNOWLEDGMENTS

When pursuing and accomplishing any goal, one must have a strong foundation of support. I am most fortunate to have had an interminable amount of encouragement, support, guidance, and love from numerous family members, friends, and academic advisors to which I could not have reached the end of this adventure without.

I offer my sincere appreciation to Dr. Rosemarye Taylor, my advisor and committee chair, for her role as a trusted mentor throughout my journey to and through dissertation. Dr. Taylor's genuine understanding and guidance throughout the academic process made it possible for me to persist when everyday life got in the way. My gratitude is also extended to my committee members, Dr. Carolyn Hopp, Dr. Conrad Katzenmeyer, and Dr. George Pawlas, whose knowledge and expertise are woven throughout the pages of this study. Your support and guidance throughout the construction of this document is most appreciated.

I would like to thank Dr. Douglas Magann, a former professor and advisor, for his part in establishing the itinerary for my trip through dissertation. Additional gratitude is extended to Dr. Robert Lange and Mr. Jimmy Moore for their guidance in the data analysis process. I sincerely appreciate Dr. Christopher Wagner and the Center for Improving School Culture for allowing me to use the School Culture Triage Survey and for his continued support throughout my writing process.

I extend my gratitude to the leaders and employees of Seminole County Public Schools for allowing me the opportunity to complete my research. This appreciation is extended to my supervising principal, Ms. Sharon O'Rear, as well as the elementary

executive directors, Mrs. Beverly Perrault and Dr. Geraldine Wright, for their support and assistance with the survey distribution.

Finally, without the love and support of my family and friends, success could not be a reality. For the past six years I have been driven to complete my educational goals through the well wishes and encouragement of my friends and family. I am grateful for the assistance that Jim and Rita Brady and Stacey and Jason Goodman offered when assembling my survey instruments. Two-thousand sets of survey instruments makes for a lot of paper cuts! I am thankful for my brothers, Michael and Gregory Brunt, who taught me perseverance and determination from very early on! Additional thanks goes to Irwin, Mary, Debi, Lisa, and Michael for being my cheerleaders along the way!

A most gracious thank you is extended to my parents, Bruce and Karleen Brunt, for instilling in me a love for learning and the belief that I could do and be anything. The confidence I have to achieve my goals is a direct result of their unrelenting love and guidance. Their actions have become the model for my own life. Thank you for your support when this dissertation load became heavy. I can never replace the miles put on your car when you came to watch the boys so I could write.

Finally, I am most grateful for the love and support of my husband, Jeffrey, and my sons, Braden and Cole. Thank you for allowing me the opportunity to step out of my roles as ‘wife’ and ‘mommy’ to pursue my educational and professional goals. You’re the BEST!

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE: PROBLEM STATEMENT AND DESIGN COMPONENTS

Introduction

The American people and the public education system have long been wrapped up in a web of controversial issues surrounding the state of education. While the quality of American public education has consistently been up for debate, many new heated discussions arose following current President Bush's enactment of the *No Child Left Behind Act of 2001*. This educational reform act was "designed to improve student achievement and change the culture of America's schools" and with it came many new standards and accountability issues for the public school system (U. S. Department of Education, 2004a).

In an effort to meet these new standards, enhance student achievement, and prepare students for the competition of the global market, American public schools initiated numerous reform movements. The focus of these movements included the implementation of rigorous curricula, research-based instructional models, alternative educational settings, and the intertwining of corporate America and public education through school choice and privatization. Many of these reforms incorporated high stakes evaluations and fostered competitive environments among schools. In most instances, these reforms ignored what Wagner and Masden-Copas (2002) referred to as the 'missing link' often overlooked when addressing school improvements and student achievement: culture (p. 42).

Researchers argue that school culture, both positive and negative, is a crucial component of any reform movement, and the role it plays in student achievement often goes unnoticed (Barth, 2002; Beaudoin & Taylor, 2004; Deal & Peterson, 1999, 2002; Gallego, Hollingsworth, & Whiteneck, 2001; Peterson & Deal, 1998; Wagner & Masden-Copas, 2002). As attention to student achievement and preparation for success in the global market expands, educational reforms will continue to be initiated. However, several researchers argued that school reform, devoid of focus on the transformation of the educational culture of the classroom, school, or district, will not succeed (Deal & Peterson, 1999, 2002; Gallego, Hollingsworth, & Whiteneck, 2001; MacNeil, 2005; Wagner & Masden-Copas, 2002). An organization's culture, and subsequent climate, impacts the school community, the quality of leadership, relationships among the school population, and the ability to work together toward improvement, achievement, and overall school success.

Statement of the Problem

Through identifying school culture using the School Culture Triage Survey, ranking this school culture in the top, middle, and bottom 33%, and looking at the relationships between these rankings and student achievement, this study served to determine the extent to which the health of a school, its culture, is related to student achievement. Further analysis sought to define how each of the key components: collaboration, collegiality, and self-determination/efficacy contributed to student achievement, how principal tenure was related to school culture, and examine the role

that demographics and experience played in the school culture rankings. Additional data collection through follow-up principal interviews served to reveal more about principal beliefs regarding the relationship between school culture and student achievement.

Purpose of the Study

The purpose of this study was to further investigate the link between school culture and student achievement as measured by the 2007 Florida Comprehensive Assessment Test (FCAT) Reading component. Since student achievement and educator accountability for student achievement are at the forefront of today's reform movements, this study sought to investigate how school culture specifically relates to the reading achievement of third grade students taking the FCAT and scoring a level 3 and above, thus reaching proficiently. The significance of proficiency in student achievement and educator accountability have dominated modern school reform, consequently shifting the focus of attention on school culture and its role and impact on student growth to the background. This notion conflicts with the current eagerness to implement new reform measures in today's public schools as supported by Hinde (2004) who stated "the bottom line for school change is that in order for any change to be effected it must correspond to the culture of the school" (p. 4).

A dissertation completed by Cunningham (2003) identified a strong relationship between school culture and student achievement in elementary schools. Specifically, she noted that "schools with higher scores on the School Culture Survey also had higher percentages of students scoring at levels 3 and above on the 2002-2003 fourth grade

FCAT Reading," while "those schools with lower scores on the School Culture Survey had lower percentages of students scoring at levels 3 and above on the …FCAT Reading" (p. 86). These findings support the notion that school culture relates to student achievement outcomes, thus reinforcing the need to further investigate the effects of culture on student achievement.

This study is a replication of Cunningham's research (2003) with some modifications. Cunningham's study was completed in the Orange County Public School System, Orlando, Florida. This urban school district is the fifth largest of Florida's 67 public school districts, and the 15th largest in the nation. Cunningham's dissertation focused on the culture of the elementary schools in this district and its relationship to the academic performance of fourth grade students taking the reading section of the Florida Comprehensive Assessment Test (FCAT) in 2002.

This study shared an identical purpose while focusing on the culture of the elementary schools and the proficiency of third grade students taking the 2007 FCAT Reading in the neighboring public school system of Seminole County Public Schools, Sanford, Florida. This district has varying demographics, is about one-third the size of the district in the original study, and has devoted resources to the topic of school culture through the development of a school mentor program. Furthermore, schools have become more skillful in preparing for the FCAT so the continued relationship between school culture and results on the measure may be different. In addition to Cunningham's exploration of the relationship between culture and student achievement with regard to the years of experience, racial diversity, and gender of the elementary school teachers,

this study sought to identify the roles that the highest level of degree earned and teacher certification play in this relationship. Additional research sought to identify how the tenure of the supervising principal at his/her current school placement relates to the school's culture, as well as further investigated principal's perspectives regarding school culture.

Definition of Terms

Alternative Certification - The means of obtaining a teaching certificate that is a departure from the traditional undergraduate route through teacher education programs offered at colleges and universities.

Affiliation – A component of collegiality, affiliation is "when relationships between all Members of the school community demonstrate harmony, respect, mutual support, and enjoyment of each other's company" (Philips & Wagner, 2003, p. 5).

Annual Yearly Progress (AYP) – "An individual state's measure of progress toward the goal of 100 percent of students achieving to state academic standards in at least reading/language arts and math. It sets the minimum level of proficiency that the state, its school districts, and schools must achieve each year on annual tests and related academic indicators" (U.S. Department of Education, 2008, http://www.ed.gov/nclb/accountability/ayp/edpicks.jhtml?src=az).

Collaboration - To work together, especially in a joint intellectual effort (American Heritage Dictionary, 2006). A component of collegiality, in the school setting it is "the degree to which staff members work together to solve professional issues, and to encourage and inspire each other" (Phillips & Wagner, 2003, p. 5).

Collaborative Culture – Cultures whereby the basic norms, values, assumptions, and beliefs of the members of the culture foster high levels of collegiality and collaboration (Peterson, 1994).

Collegiality - Cooperative interaction among colleagues (Dictionary.com, 2006). Collegiality is comprised of professional collaboration and affiliation and exists when people feel valued and included (Phillips & Wagner, 2003).

Florida Comprehensive Assessment Test (FCAT) - The FCAT is a test given to Florida students in grades three through ten to measure what they know and are able to accomplish in reading, writing, mathematics, and science. Designed as part of Florida's plan to improve student achievement, the FCAT measures student achievement on Florida's education content standards, called the *Sunshine State Standards* (Florida Department of Education, 2004).

FCAT Proficiency – The FCAT scores are reported as one of five achievement levels, numbered 1-5. Students scoring at level 3 and above on the FCAT are considered on grade level and proficient readers. Students scoring at level 1 or 2 are considered below-grade level and may be subject to retention.

No Child Left Behind Act of 2001 (NCLB) – "A landmark in education reform designed to improve student achievement and change the culture of America's schools…With the passage of No Child Left Behind, Congress reauthorized the Elementary and Secondary Education Act (ESEA) – the principal federal law affecting education from kindergarten through high school" (U. S. Department of Education, 2005, http://www.ed.gov/nclb/overview/intro/index.html).

Organizational Climate – "Atmosphere, personality, tone, or ethos…the characteristics of the total environment" (Owens & Valesky, 2004, p.187).

Organizational Culture – "A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein, 1992, p. 12). Also noted referred to as 'the way we do things around here' (Deal & Peterson, 1999).

Proficiency – "Skillfulness in the command of fundamentals deriving from practice and familiarity" (Dictionary.com).

School Climate - The shared perceptions of the behaviors of the members of the school or organization (MacNeil, 2005).

School Culture – "Beliefs, attitudes, and behaviors which characterize a school" (Phillips, 1993, p.1).

Self-Determination/Efficacy – "People's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives (Bandura, 1994, p.71). In the context of schools, "efficacy is demonstrated when staff members work to improve their skills as true professionals, and not because they see themselves as helpless members of a large, uncaring bureaucracy" (Phillips & Wagner, 2003, p. 7).

Student Achievement – A student's demonstration of accomplishment on the Florida Sunshine State Standards as measured by performance on the Florida Comprehensive Achievement Test.

Traditional Certification - The means of obtaining a teaching certificate through successful completion of a traditional undergraduate teacher education program offered at a colleges or university.

Limitations

The results for this study were limited to the accuracy and thoroughness of the participants when responding to the self-administered survey and the follow-up interviews by the researcher. Further limitations fell under the collection and assessment of student achievement data as obtained through the FCAT Reading Test and posted on the Florida Department of Education website.

Delimitations

This study was delimited to the collection and analysis of data obtained through the responses of all identified elementary school teachers and administrators employed by Seminole County Public Schools, Seminole County, Florida during the 2006-2007 school year. The respondents utilized a self-administered survey instrument to document their answers. Additional responses were collected through interviews with eight administrators whose school culture scores represented a sampling across the means.

Assumptions

The specific assumptions of this study were:

1. It was assumed that the respondents were teachers employed by Seminole County Public Schools during the 2006-2007 school year.
2. It was assumed that the participants responded accurately and honestly to the questions on the School Culture Triage Survey.
3. It was assumed that the survey sample was representative of the population of elementary school teachers and administrators employed by Seminole County Public Schools.
4. It was assumed that the administrators selected for follow-up interviews accurately and thoroughly responded to the questions.
5. It was assumed that the survey instrument, School Culture Triage Survey, was valid and reliable and was suitable for determining the culture of a school.

6. It was assumed that the Florida Comprehensive Assessment Test (FCAT) adequately measured student achievement.

Significance of the Study

A 2002 national longitudinal study of 72,000 students followed from 7th through 12th grades revealed that "a good classroom, managed by caring adults is 'the single most important' factor affecting students' sense of well being" (Brucato, 2005, p. 4). This statistic offered telling information about the importance of school culture and climate with regard to how students' perceive school, and subsequently their ability to achieve success in school.

School culture and climate lay the groundwork for how individuals feel when they walk into a school building. These feelings, both positive and negative, can become the driving force behind how people behave, respond to school, and ultimately how motivated they are to achieve success. These behaviors associated with culture, climate, and the numerous other variables outlined throughout this research study, play a vital role in shaping the culture of the school. It was hoped that the results of this study would further contribute to the plethora of research that suggests the need to focus on school culture when addressing the achievement and success of student learning. Furthermore, the researcher anticipated that the information obtained through the interview component of the data collection process would yield positive findings with regard to assessing and implementing programs to enhance the school culture and climate, thus positively impacting student achievement.

Conceptual Framework

In an effort to achieve the new challenges and standards set forth by the *No Child Left Behind Act of 2001*, numerous reform movements have been established. States and school districts have placed their curriculum and the subsequent instructional methods necessary for implementation under the microscope in order to improve the quality and efficiency of education. Professional development offices and programs have become infused with new initiatives designed to improve reading, math, and overall student achievement. Districts have introduced alternative educational settings such as charter and voucher programs, and the government has increased its interest in the encouragement of school choice programs through its push towards privatization and for-profit educational management organizations (U. S. Department of Education, 2002; Goldwater Institute, 2004; Levin, 2003).

According to Gallego, Hollingsworth, and Whiteneck (2001), there is a wealth of school reform literature to support the notion that the American public believes schools are in need of reform. Although policymakers, schools, and the American public in general have been striving to make schools better through legislative implementations and other reform movements, several researchers argue that this type of school reform, devoid of focus on the transformation of the educational culture of the classroom, school, or district, will not succeed (Deal & Peterson, 1999, 2002; Gallego, Hollingsworth, & Whiteneck, 2001; MacNeil, 2005; Wagner & Masden-Copas, 2002).

Deal and Peterson (2002) maintained that the newly tightened standards, increased accountability, and widespread use of rewards and restrictions are short term

solutions. Arguing that these practices aim to raise student achievement and test scores through the use of pressure and secondary procedures rather than addressing the factors that affect schools, they stated that, "in the long term, such external demands will never rival the power of cultural expectations, motivations, and values" (Deal & Peterson, 2002, p. 7).

Research Questions

This study was guided by the following research questions:

1. To what extent do schools scoring in the top 33%, the middle 33%, and the bottom 33% on the School Culture Triage Survey differ on: (a) total years of teaching experience of teachers; (b) years of teaching experience of teachers at present school; (c) highest level of degree earned; (d) method by which teaching certificate was obtained; (e) gender of the teachers; and (f) racial diversity (mix) of the teachers.
2. What relationship, if any, exists between the overall school culture as measured by the School Culture Triage Survey, and student achievement as measured by the percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading?
3. What relationships, if any, exist between each of the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) and student achievement? School culture is measured by the School Culture

Triage Survey. Student achievement is measured by the percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading.

4. What relationship, if any, exists between a principal's tenure at a particular school and school culture as measured by the School Culture Triage Survey?

The following interview questions were asked of principals from the participating schools:

1. To what do you attribute your school culture?
2. What have you done to shape the culture of the school?
3. What are the targets you have for continuing to foster and develop a healthy school culture?
4. To what extent do you feel school culture impacts student achievement?
5. To what extent does student achievement impact school culture?

Population

The target population for this study included all elementary teachers employed by Seminole County Public Schools in Seminole County, Florida during the 2006-2007 school year. This population consisted of approximately 1250 teachers in 37 elementary schools across the county. After distribution and completion of the survey instrument, the population for this study included teachers (N=574) from 27 schools (73%). Additional information was gathered through a brief interview with eight principals from

the participating elementary schools. These administrators were invited to participate in the interview following the collection and analysis of data.

Instrumentation

School culture data from Seminole County, Florida elementary school teachers were collected through completion of a slightly modified version of Wagner and Masden-Copas' (2002) School Culture Triage Survey (Appendix B). Permission to use this instrument was obtained by the researcher from one of its authors, Dr. Christopher Wagner of the Center for Improving School Culture (Appendix A). The instrument consisted of 23 items in total. For the purpose of this study, the initial 17 survey items were unchanged from the authors' original instrument, while six additional questions soliciting demographic information were added by the researcher.

Additional data were collected through interviews with participating principals. The interview questions were developed after an analysis of the school culture data was complete. They focused on the administrator's beliefs about school culture, the role it plays in student achievement, and the extent to which they believe it contributes to their school's success.

Both the teacher and principal respondents were informed that their answer choices were confidential and at no time were teachers asked to provide their names. To further ensure confidentiality, each school's survey instruments were coded with a number assigned by the researcher in order to identify participating schools.

Data Collection

Participant contact for data collection was initiated during a brief presentation at a district-wide elementary principal's meeting. Following receipt of permission from the Seminole County Public Schools' Office of School Improvement (Appendix K) and the executive directors for elementary education (Appendix L), the research materials were distributed at a monthly elementary principal's meeting. Each elementary principal received a research information packet which included detailed information about the research study, and the survey instrument to be distributed to teachers (Appendices B, C, D, & E). These information packets included all the necessary consent documentation which served to provide details about respondent participation, the confidential nature of the study, and information about data reporting process. Because the survey instrument was being passed down to the teachers via the elementary school principal, the research packets contained additional consent information for each supervising principal to review. As a means of thanking the principals for considering participation in the research study, each research packet also included a complimentary copy of Phillips and Wagner's (2003) text, *School Culture Assessment: A Manual for Addressing and Transforming School-Classroom Culture* to use for their own school culture research.

Following the initial contact and delivery of survey instruments, the researcher monitored the status of participation for each elementary school. A few follow-up questions about the return of materials were initiated by the participants. After gathering the data and completing an initial analysis to determine a relationship between school culture scores and student achievement, the researcher chose eight principals from the

participating schools to participate in a follow-up interview. These principals were chosen to represent a sample from each of the three groups of schools; those falling in the top 33%, middle 33%, and bottom 33% according to their culture score on the School Culture Triage Survey. A sample of administrators (N=8) from these schools were contacted about participating in a brief interview in an effort to garner more information about how they specifically felt about school culture. Through gathering this qualitative data in addition to the quantitative data obtained from the survey instrument, the researcher hoped to better understand how culture influenced the participating schools and their achievement gains. Administrators from the participating schools were contacted again upon final completion of this study. This contact was established with the purpose of thanking them for their participation and alerting them to the fact that the research results were ready for review if they wished to follow-up on the study. The offer was extended as an opportunity to review the final, cumulative research results. Due to research procedures associated with anonymity and confidentiality, participating schools were not informed about their individual school culture outcomes.

Data Analysis

At the conclusion of the survey window, the results were hand-entered into a spreadsheet designed to tally results for each participating elementary school. This spreadsheet data was completed using Statistical Package for Social Sciences, Version 11.5 (SPSS). Further analysis was completed in an effort to determine which schools comprised the top 33%, the middle 33%, and bottom 33%. Student achievement data

were obtained from Seminole County's third grade students taking Florida's FCAT Reading during the 2006-2007 school year. These data were entered into SPSS and analyzed to determine how a school's culture and the percentage of students student's scoring at level 3 and above on the FCAT Reading Test were related. A Pearson's Product Moment Correlation was used to determine if a relationship existed between the overall school culture and student achievement. Pearson's Product Moment Correlation was also run to establish what, if any, relationships existed between the three key areas of school culture and student achievement, as well as the relationship between principal tenure and school culture. Further descriptive statistics were run to uncover the role that specific experiences and demographics played throughout the ranked schools. The data inquiry included an analysis of the relationships between a school's score on the School Culture Triage Survey and the variables of (a) total years of teaching experience of teachers; (b) years of teaching experience of teachers at present school; (c) highest level of degree earned; (d) method by which teaching certificate was obtained; (e) gender of the teachers; and (f) racial diversity (mix) of the teachers.

Organization of the Study

Chapter 1 of this study sought to introduce the topic, outline the problem, purpose, and research questions, as well as provide information about the research methodology. Chapter 2 provides the reader with an in-depth review of literature and additional relevant research on the study topic. The specific data collection procedures and methods of data analysis are outlined in Chapter 3. In Chapter 4 the results of the

data analysis are thoroughly presented, and Chapter 5 provides a summary discussion of the findings, implications for practice, and suggestions for future research.

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

This chapter was designed to provide the reader with a detailed foundation for the elements and functions of organizational and school cultures. A clear understanding about the constructs of culture is central to the reader's ability to grasp the function culture plays within organizations, specifically schools.

This chapter is composed of five distinct sections, one providing the underpinning for the next. Contained within some sections, are sub-sections designed to present more explicit information on the topics. The first section of this chapter provides a succinct explanation of the school reform initiatives currently in place, and works to set the tone for the necessity of further exploration of school culture. The second section supplies the reader with knowledge about the concept of organizational culture. Within this section, the reader is exposed to the definitions, functions, elements, and performance outcomes associated with organizational culture. The next section presents details about school culture and the resulting impact it has on schools and student achievement. The role of the leader in establishing and sustaining school culture is the focus of the fifth section, while the sixth and last section was included to provide background information about the accountability systems and student achievement measures in place in Florida, the location for the present study.

School Reform Initiatives and the Study of Organizational Culture

Since the establishment of public education during the early colonial period, America has provided a free and public education for its people with the mission of ensuring national unity, increasing opportunities for socio-economic mobility, and educating the succeeding generations of young people with the skills necessary to thrive in the democracy that is America (Hlebowitsh & Tellez, 1997; Public Broadcasting System, 2001). In the years since, Americans have witnessed many reforms in the public school system. These reforms have included, but are not limited to, altered and improved methods of instruction, additions and deletions to the core curriculum, and transformations to the overall operations and management of public schools (Public Broadcasting System, 2001; Ravitch, 1983; Tyack & Cuban, 1995). Although educational reform and continuous alterations have become commonplace in the public education system, it appears that the original goal of promoting educational excellence for all Americans has remained intact (US Department of Education, 2004b).

Since its inception, the American public school system has operated as a governmental agency managed in combination by federal, state, and local authorities. This system, amended through the years to include all individuals, has continuously sought to meet the changing needs of America's youth and further improve student achievement (Public Broadcasting System, 2001; Ravitch, 1983; Tyack & Cuban, 1995). Although the public education system has faced many obstacles since its establishment, events of the past 25 years have been especially pressing. With the release of *A Nation at Risk* (1983), *Goals 2000*, and the *No Child Left Behind Act of 2001,* the state of public

education has been increasingly subject to criticism. The magnitude of this judgment has at times led to the notion that education as a public enterprise could potentially be in jeopardy (Public Broadcasting System, 2001; Ravitch, 1983; Tyack & Cuban, 1995; US Department of Education, 1994).

The *No Child Left Behind Act of 2001,* often referred to as *NCLB*, served to establish new educational policies in an effort to increase student academic achievement, as well as require states and schools to be more accountable for their students' learning (ECS, 2004; Education Week, 2004a; US Department of Education, 2004a; 2004b). Signed into law in 2002 as a reauthorization to the 1965 and 1994 Elementary and Secondary Education Act, this piece of legislation outlined the federal government's expectations and goals for educating America's youth (Education Week, 2004a). The bill focused on the execution of set policies designed to ensure that public schools are making strides to improve annual student achievement, as well as ensure that state education systems are addressing the student's and public's educational needs. The tenets at the forefront of *NCLB* include annual testing to demonstrate achievement at a "proficient" level, implementation of "scientific, research-based" curriculum, employment of "highly-qualified" teachers, and annual reporting of progress in regards to overall achievement by students in various sub groupings (ECS, 2004; Education Week, 2004a).

In addition to creating standards and evaluation methods to increase student achievement, *NCLB* was designed to ensure accountability by states and schools (US Department of Education, 2004a, 2004b). These accountability measures were evident in the bill's requirement that schools show Annual Yearly Progress, or AYP (Education

Week, 2004a). If AYP is not met, then schools are subjected to several levels of support and consequences. These AYP conditions were designed to help student's increase their academic achievement, as well as drive schools to improve their services. If a school does not show AYP, then the program stipulations may require schools to make provisions for "supplemental educational services," such as private tutoring and curricular assistance (Loschert, O'Neil, & Winans, 2004). After repeated failures to make AYP, schools will have to allow students and parents the option to choose another public or charter school in the district, or they may be required to provide students with a tuition voucher to attend a private school. Finally, if after several attempts to show AYP fail, a school may be subjected to a governance takeover. This change in control could include a transfer of school authority from public administration and management to management by a private company (ECS, 2004; Education Week, 2004a; U.S. Department of Education, 2004b).

Although only a brief tutorial, after previewing the abovementioned educational reforms and legislation shaping today's public education system, it is hoped that one can better understand the high stakes arena that educational stakeholders are currently positioned in. Faced with the yearly demonstration of successful academic proficiency and achievement gains by all students, schools and their leaders are initiating instructional and curriculum changes across the board. These changes have created increased needs for professional development, instructional techniques to meet all learners, and highly skilled educational leaders prepared to positively facilitate the change process. However, numerous researchers would agree that these changes,

attempted in the absence of consideration for an organization's culture, will not be successful (Deal & Peterson, 1999, 2002; Gallego, Hollingsworth, & Whiteneck, 2001; MacNeil, 2005; Wagner & Masden-Copas, 2002).

In support of this belief are the research findings of Wood, Lawrenz, Huffman, and Schulz (2006). In a study seeking to investigate which school-level variables, at the principal, teacher, and student level, would most affect student achievement in the area of science, the researchers found that "none of the variables showed any predictive relationships with student achievement" (p. 237). This finding, coupled with the fact that each level of responding participants, principals, teachers, and students, offered a different view of the school environment, suggested that:

> Current federal policies, such as NCLB, are inappropriate and unlikely to lead to improvements in science education in the USA and also suggests that further investigation of school culture is needed to determine appropriate changes that might lead to real improvements in achievement (Wood, Lawrenz, Huffman, & Schulz, p. 251).

The results of this study reinforced the need to delve deeper into the notion that organizational culture, specifically school culture, plays a vital role in the academic achievement of America's students.

Organizational Culture

The Definition and Function of Culture

Deal and Kennedy (1982) asserted that understanding culture is significant because "a strong culture is a powerful lever for guiding behavior; it helps employees do

their jobs a little better, especially in two ways" (p. 15). First, these researchers claimed that a strong culture is a system whereby members of an organization are aware of the informal rules of how they are to act most of the time. They contended little time is wasted by employees who know what is expected of them, thus efficiency is maximized. Secondly, Deal and Kennedy maintained that "a strong culture enables people to feel better about what they do, so they are more likely to work harder" (p. 16).

The definition of culture cannot be isolated into a few clear-cut, fine-tuned words and phrases, rather culture, when related to schools, businesses, and organizations as a whole can encompass several connotations. Put simply, the culture of an organization brings meaning to the phrases 'who we are' and 'the way we do things around here' (Barth, 2001, 2002; Deal & Peterson, 1999; Goldring, 2002; MacNeil, 2005). As early as 1932, Willard Waller, an educational sociologist, recognized a school's culture as an entity with set rituals and morals, which serves to shape relationships and behavior (Deal & Peterson, 2002). Ouchi (1981) saw culture as "systems, ceremonies, and myths that communicate the underlying values and beliefs of the organization to it employees," (p. 41), whereas Lorsch (1985) defined culture as "the beliefs top managers in a company share about how they should manage themselves and others" (p. 84). Hoy, Tarter, and Kottkamp (1991) cited Wilkins and Patterson's belief that "an organization's culture consists largely of what people believe about what works and what does not," whereas the same authors quoted Martin as stating, "culture is an expression of people's deepest needs, a means of endowing their experiences with meaning" (p. 5).

Although there appears to be some variation in semantics when determining a definition for culture, some common ground has been established. This shared position suggests that culture embodies a complex web of norms, values, traditions, beliefs, behaviors, ceremonies, rituals, myths, and symbols, which are embedded within the heart of an organization (Barth, 2001, 2002; Bolman & Deal, 1997; Deal & Peterson, 1999, 2002; Peterson & Deal, 1998). Peterson and Deal asserted that this concept of culture has been "built up over time as people work together, solve problems, and confront challenges" and that "this set of informal expectations and values shapes how people think, feel, and act in schools…binding schools together and making them special" (p. 28). They further contended that "school culture influences what people pay attention to (focus), how they identify with the school (commitment), how hard they work (motivation), and the degree to which they achieve their goals (productivity)" (Deal & Peterson, 2002, p. 10). Regardless of which vocabulary word or expression is used to convey the meaning of culture, Bolman and Deal (1997) summarized culture as "both a product and a process. As a product, it embodies accumulated wisdom from those who came before us. As a process, it is continually renewed and re-created as newcomers learn the old ways and eventually become teachers themselves" (p. 217).

In addition to defining culture, it is important to understand what strong cultures consist of and how they function within organizations. Schein (1999) stated that "culture is a property of a group. Wherever a group has enough common experience, a culture begins to form" (p.13). This statement reinforces the idea that culture is omnipresent; it exists in every enterprise at every level. Culture is evident in the decisions of individual

leaders, through the behaviors of small groups, and in the mottos of large corporations. Organizational culture arises from the actions, feelings, and ideas of the individuals in a group, as well as the individuals themselves. Since each individual brings their own particular experiences to the group domain, in many ways organizational culture is the meshing of individual cultures into a shared culture of the organization as a whole (Schein, 1999).

Robbins (1989) did extensive research on the role of culture in organizations, focusing specifically on the function culture plays in organizations. Robbins' research uncovered six important functions performed by an organization's culture. These functions of culture included: (a) a boundary-definer and an element that distinguishes one organization from another; (b) a creator of an organization's identity; (c) a facilitator in the establishment of group commitment; (d) a stabilizer of the social system; (e) a bond that holds the organization together and sets the standard for behavior; and (f) a mechanism that leads and shapes the opinions and actions of the organization's members (p. 472).

As an appendage to Robbins' (1989) findings on cultural functions, Schein (1985) as cited by Kilman, Saxton, and Serpa (1985), found that in order for culture to function effectively within an organization, a group must have six features in common. These features were (a) a common language and shared concepts; (b) a method of recruitment and training of members; (c) a way of distributing power, status, and resources; (d) a shared climate; (e) criteria for rewards and consequences; and (f) coping strategies when the organization hits turbulent or unpredictable times (p.20). Schein (1985) noted that

these features, along with external issues inherent in any organization, such as a mission, a means of accomplishing said mission, and analysis and renovation of the mission as needed, must be present and commonly shared amongst the members in order for a positive organizational culture to flourish.

The Distinction between Culture and Climate

The terms culture and climate are often used interchangeably in educational and organizational settings, nonetheless researchers have determined that there is a distinction between the two, however slight it may be (MacNeil, 2005). Hoy, Tarter, and Kottkamp (1991) differentiated culture and climate through discerning their intellectual traditions. They believed that the components of culture, primarily shared assumptions, came from anthropological and sociological viewpoints, while the features of climate, notably shared perceptions, were more aligned with a psychological perspective. Plainly defined, the study of culture focuses on the shared values, norms, and assumptions as they relate to the social structure within the whole organization, whereas climate is "defined by the shared perceptions of the behaviors of the members of the school or organization" (MacNeil, p. 295). Although miniscule, MacNeil noted Hoy and Feldman's belief that "this difference is meaningful and crucial because shared perceptions of behavior are more readily measured than shared values" (p. 295). Because of this, and the fact that measurements for climate are more descriptive and less symbolic than the shared values used to decipher culture, climate appears to be the paradigm more often used when evaluating a school's organizational health (MacNeil).

When reviewing the distinction between culture and climate one would be remiss to not take a moment to reflect on the argument that one of these constructs, culture or climate, may be considered a superior measure over the other when determining organizational health. As with most things, researchers share varying opinions on this subject. Hoy and Tarter (1997) asserted that "both concepts are attempts to identify significant properties of organizations," (p. 6); however they contended that culture is not easily described or measured without the trained expertise of an anthropologist. Hoy and Hoy (2006) felt that climate could be visualized and analyzed from a variety of perspectives, thus making it more manageable to study.

In deference to the ease of measurement when studying climate, many researchers have still felt that determining a link between culture and performance and impact was a suitable choice (Collins & Porras, 1994; Cunningham 2003; Deal & Peterson, 1999; 2002; Goldring, 2002; Hansen & Child, 1998; Kotter & Heskett, 1992; Melton-Shutt, 2004; Phillips & Wagner, 2003; Schein, 1985, 1992, 1999). These research decisions have been based on the fact that there is a direct link between the climate and culture of organization as an organization's climate is a product of the overall culture (Hoy & Tarter, 1997; MacNeil, 2005; Owens & Valesky, 2007). When overcoming the concerns for properly measuring organizational culture, researchers in many instances have chosen to use qualitative research, sometime in combination with quantitative measures, in order "to talk at length with people; to find out what they think is important to talk about; to hear the language they use; and to discover the symbols that reveal their assumptions" (Owens & Valesky, p. 205).

Although the difference between a school's culture and climate has been established, one must understand how each construct impacts the other. Since culture embodies the overall atmosphere and social structure of a school, it is often described using metaphors and analogies (Deal & Peterson, 1999; MacNeil, 2005). Popular organizational descriptions of culture, which can clearly communicate what is good or bad, healthy or unhealthy about an organization, include images of schools as theaters, factories, prisons, and machines (MacNeil). These metaphors directly impact the climate, or behaviors that define a school. MacNeil described climate as "the heart and soul of the school and the essences of the school that draws teachers and students to love the school and want to be a part of it" (p. 295). Consequently, he noted that culture that is viewed as negative or communicates too much of a business oriented metaphor will have a negative impact on the climate and daily interactions of the school, while a positive culture fosters a positive climate. When determining the health of a school, both culture and climate can be examined. These components may be combined, looked at separately, compared to one another, or observed within a relationship to or with other variables.

This literature review focused primarily on culture and its effect on schools; however, since the concept of climate is a direct outcome of school culture, the two terms will intertwine at times, leaving little distinction between them other than to note their powerful effects on schools, leadership, and achievement.

The Elements of Organizational Culture

In their text, *Organizational Behavior in Education*, Owens and Valesky (2007) devoted an entire chapter to the concept of organizational culture in an effort to educate future school leaders on the importance of the topic. In this chapter, they summarized Schein's assertion that organizational culture is "the body of solutions to external and internal problems that has worked consistently for a group and that is, therefore, taught to new members as the correct way to perceive, think about, and feel in relation to those problems" (p. 192). Through a review of this statement and the preceding definitions and functions of culture, one can deduce that culture's existence within organizations can be quite influential, and can deeply impact an organization's livelihood, as well as the relationships of its members.

The concept of organizational culture has been thoroughly researched throughout history (Deal & Kennedy, 1982; Deal & Peterson, 1999, 2002; Peters & Waterman, 1982; Schein, 1985, 1992, 1999). In addition to forming a definition for organizational culture, researchers have worked to learn more about this essential organizational component. These research inquiries have included, but are not limited to, the identification of various components of culture, determinations about how culture positively and negatively impacts organizations, the role of leaders in establishing and maintaining culture, and techniques for changing the culture to meet organizational needs. The purpose of these research inquiries can be reinforced through Schein's (1999) belief that organizational culture "matters because cultural elements determine strategy, goals, and modes of operating" (Schein, 1999, p. 14).

The constructs of organizational culture have been published by numerous researchers and are found to be as varied in depth and breadth as the researchers themselves. Schein (1992; 1999) identified three levels of culture ranging from explicit, visible, and tangible artifacts, to assumptions, which are considered implicit and more difficult to decipher. These levels of culture included: (a) artifacts; (b) espoused values; and (c) shared tacit, or basic, assumptions. The first level, artifacts, included concrete, physical, and observable aspects of organizations, such as the physical environment, products, the manner of dress, methods of communication, and use of myths, rituals, and ceremonies. These organizational attributes are concrete and easily observed; however, their meaning may be difficult to interpret. The next level, espoused values, focused on how individual values of people in organizations can become infused in the values of the organizations as a whole once similar assumptions have been established. Shared tacit, or basic assumptions, comprised the third level of Schein's components of culture. Understanding this level of culture was deemed especially important in Schein's (1992) research. He asserted that

> If one does not decipher the pattern of basic assumptions that may be operating, one will not know how to interpret the artifacts correctly or how much credence to give to the articulated values. In other words, the essence of culture lies in the pattern of basic underlying assumptions, and once one understands those, one can easily understand the other more surface levels and deal appropriately with them (p. 26).

Leaders in research on organizational culture, Bolman and Deal (1997) provided their input on the subject in their book, *Reframing Organizations: Artistry, Choice, and Leadership.* Through their research, Bolman and Deal worked to "make sense of

organizations" (p. 13). In doing so, they found that organizations could be categorized into four frames, or perspectives. They contended that leaders regularly use these frames as lenses through which organizational decisions are made, thus ultimately impacting the mission of the organization. Of these four frames, structural, human resource, political, and symbolic, the fourth one, symbolic, was heavily rooted in the function that culture plays within organizations. This frame's foundation and constructs brought attention to the culture of organizations.

The symbolic frame perceived life as always flowing, changeable, and unpredictable. Symbols and meaning within an organization were born at the hands of the leaders, decision-makers, and constituents of the organization. They helped define the members of the organization, as well as guide its functions. More specifically, the symbolic frame focused on symbols and how they influence and shape an organization. Bolman and Deal (1997) asserted that there were five different types of symbols within organizations. These symbols included: (a) myths, which explain and express the meaning behind the story; (b) stories and fairy tales that provide reassurance and hope, as well as give information and values to bring about tradition; (c) rituals, developed to give structure and meaning to everyday life; (d) ceremonies are infrequent events held to mark special occasions that serve to "socialize, stabilize, reassure, and convey messages" (p. 227); and (e) metaphor, humor, and play, are used as amusement to explain and overcome difficult issues.

These symbols, such as mottos, logos, and figures, had been known to provide direction and support to the organization and its members in times of doubt, define

character, and create an organization's identity. Furthermore, the use of symbols helped the organization "find meaning in chaos, clarity in confusion, and predictability in mystery" (Bolman & Deal, 1997, p. 219). Entwined with the concepts of meaning, faith, and belief, the symbolic framework attempted to explain and clarify the meanings and values that give powerful life to symbols inherent in organizations (Bolman & Deal). Additionally, symbols play an important role in determining and defining an organization's culture, "the interwoven pattern of beliefs, values, practices, and artifacts that define for members who they are and how they are to do things" (Bolman & Deal, p. 217).

The basic concepts presented in the symbolic framework were supported by ideas and beliefs of several other disciplines of work, including anthropology, sociology, political science, and the study of organizational theory (Bolman & Deal, 1997). Each of these fields of study have examined how symbols impact and/or control culture and human responses. The symbolic frame included six core assumptions. These assumptions were 1) an event's meaning is more important than actual event; 2) people interpret experiences in a variety of ways, so events can have multiple meanings; 3) life's unclear and tentative, so questions related to what, why, and what is next remain obscure; 4) uncertainty and ambiguity often undermined rational analysis, problem solving, and decision making; 5) when uncertainty and ambiguity are present, organizations and individuals created symbols to help restore stability, provide direction and support, increase predictability, and secure hope and; 6) what was expressed and processed in an event is more important that what was produced (Bolman & Deal).

Further research was conducted by Chatman and Jehn (1994) to determine the relationship between technology, growth, and organizational culture. After examining the cultures of fifteen firms across four different industries, these researchers identified seven basic elements that reinforce the shared values found at the core of culture, thus instrumental in shaping the culture of organizations. These components included 1) innovation, the degree of expectation that employees show creativity and take risks; 2) stability, the extent to which behaviors focus on the status quo over change; 3) attention to detail, the level of concern for precision; 4) outcome orientation, the extent to which the leaders focus on results; 5) people orientation, the attention leaders place on individuals when making decisions; 6) team orientation, the amount of importance placed on collaboration and collegiality; and 7) aggressiveness, the degree to which management expects workers to be competitive (Chatham & Jehn). When these elements are present, commonly defined and understood by the members of the organization, and actively initiated, a culture of common assumptions is at work, thus the construction of an organizational culture has begun.

When attempting to makes sense about the various elements of organizational culture and its significance in organizational success, Schein (1999) offered some insight. He emphasized that "the biggest risk in working with culture is to over-simplify it and miss several basic facts that matter" (p. 25). These facts affirmed that (a*) culture is deep*, "if you assume you can manipulate it, you are sure to fail" (p. 25); (b*) culture is broad*, because it is formed by the beliefs and assumptions present in the daily life of the organization and its members, it can be difficult to decode; and (c) *culture is stable*, it is

meaningful and brings a sense of predictability to life, thus causing anxiety and resistance when approaching change.

Organizational Culture and Performance

In the Introduction of their text, *Gaining Control of the Corporate Culture*, Kilman, Saxton, and Serpa (1985) stated, "there is not much point in attempting to study or change a thing called culture if it does not affect what goes on in organizations" (p. 3). Since culture is a defining element of every organization, be it in a public school, a private corporation, or a political arena, its presence and impact has been widely researched (Collins & Porras 1994; Deal & Kennedy, 1982; Kotter & Heskett, 1992; Peters & Waterman 1982; Rollins & Robbins, 1998; Schein 1985, 1992). These studies have viewed the role that culture has had in establishing, maintaining, and changing organizational structures. Evidence of the influence that culture has had on organizations has been gathered from the public and private sectors, in both corporate and educational settings, and the outcomes are clear: culture does impact organizational success and behavior.

Kilman, Saxton, and Serpa (1985) shared three connected elements of impact: direction, pervasiveness, and strength. They noted that the "direction of impact is the course the culture is causing the organization to follow" (p.3). The direction of the culture determines to what extent the culture is influencing behavior, either positively or negatively, thus moving the organization on the right or wrong course. For example, is the culture reinforcing actions that help the organization meet its goals, or is there a

negative culture that is causing employees to act against the vision of the organization? The degree to which the organization's culture is shared amongst its members describes the impact of its pervasiveness. Disjointed organizational culture and the lack of commonly held beliefs act as barriers to organizational success. The final impact element is referred to as the strength of impact. This level of impact constitutes the amount of pressure that an organization's culture applies to its members. If the culture has a strong positive hold on its members to behave in a certain manner and work to achieve a common goal, then the vision of the organization is more likely to be achieved. The extent to which these three aspects of impact intertwine can be a determining factor for organizational success. Kilman, Saxton, and Serpa claimed that "a culture has a positive impact on an organization when it is points behavior in the right direction, is widely shared among the members of work groups, and puts strong pressure on group members to follow the established guidelines" (p. 4). Conversely, when the opposite impact elements are present, a negative culture results.

The findings published in Peters and Waterman's (1982) book, *In Search of Excellence,* offered support for the positive impact that culture has on organizations. This book outlined the research the authors gathered when they set out to determine common characteristics found among 62 of the most successful U.S. corporations of the time including, Xerox, Hewlett Packard, General Motors, McDonalds, and Delta Airlines. This research revealed eight management techniques commonly practiced by these companies (Owens & Valesky, 2007; Peters & Waterman, 1982). Through their discussions about these eight specific attributes, Peters and Waterman (1982) continually

referred to the underlying role that organizational culture played in these companies. They stated that "without exception, the dominance and coherence of culture proved to be an essential quality of the excellent companies" (p. 75). They further asserted that the stronger the culture, the less need there was for organizational procedures, rules, and strict structures, rather there was a sense that "people way down the line know what they are supposed to do in most situations because the handful of guiding values is crystal clear" (p. 76).

Another attempt to demonstrate a relationship between organizational culture and performance was outlined by Gordon (1985). This research was designed to determine "how much influence a company's business has upon its culture" (p. 105-106). To gather this information, the researcher compared utility companies to manufacturing companies, referred to as dynamic-marketplace companies, on a battery of cultural issues. These issues included eleven dimensions of culture, including clarity of direction, performance emphasis, and encouragement of initiatives, to name a few. The findings of this study suggested that particular cultural issues can be identified as impacting company success more than others. More specifically, it was concluded that "the cultures of these successful companies are oriented toward a high degree of interdependence and long employee tenure, both of which cushion the company against radical change" (p. 109).

During the late 1980s and early 1990s, Kotter and Heskett (1992) conducted extensive research on the link between culture and performance. Through the completion of four main studies to determine (1) the extent to which companies associate performance with strong cultures, (2) how various culture performance theories pan out

(3) how the fit of the culture interacts with the environment, and (4) how companies exhibiting performance-enhancing cultures compared to those without these cultures, these researchers discovered that culture is a vital component of organizational performance. More specifically, they found that that companies with performance-enhancing cultures, strong cultures that focus on employees, customers, and stockholders, and value leadership and structures that support change, "outperformed the others [nonperformance-enhancing cultures] by a wide margin in four performance measures" (p. 19). These four performance measures included: revenue growth, employment growth, stock price growth, and net income growth.

Similarly, Collins and Porras (1994) studied the a group of visionary companies in contrast to a comparison company to determine what set the companies apart in each of these groups. Through their research, Collins and Porras (1994) identified five categories the visionary companies possessed that distinguished them from the comparison companies. They determined that the high performing companies had systems in place which served to preserve the nucleus of their principles while also demonstrating progress over time. One of these five categories, the presence of "'cult-like' cultures- characterized by a fervently held ideology, strong indoctrination of employees into the core ideology, tightness of fit, and a strong sense of elitism" (Rollins & Roberts, 1998, p. 19) was consistently observed in the visionary corporations over the characteristics present in the other set of corporations.

When investigating the culture of organizations, schools and educational settings are put under the microscope as often, if not more so, than corporations. Because

organizational culture has proven to have a deep impact on performance at the corporate level, (Collins & Porras, 1994; Gordon 1985; Kotter & Heskett, 1992; Peters & Waterman, 1982) it would be logical that a similar impact would be noted at the school level, thus advocating the need to explore the culture of schools.

School Culture

There are numerous elements to consider when addressing the creation of a positive school culture that in turn fosters successful school reform and ensures student success. Researchers Deal and Peterson (1999, 2002) have done extensive work in the area of school culture, and have identified several key features that when fostered, promote a positive cultural environment. Comparable to Bolman and Deal's 1997 assessment of the components of culture through their formation of the symbolic frame, Deal and Peterson (1999, 2002) explored the key features of school culture and offered their own detailed descriptions. These four elements, which include (1) vision and values; (2) rituals and ceremonies; (3) history and stories; and (4) architecture, artifacts, and symbols, are positioned on the foundation of myths. According to Deal and Peterson (1999), "myth sits at the center of what life in the school is all about. It looms as the school's existential anchor – its spiritual source, the wellspring of cultural traditions and ways" (p. 23). The sense of purpose and direction a school feels is included in its myth, and the concepts of vision, values, mission, purpose, beliefs, norms, and assumptions all translate the meaning behind the myth, or the "story behind the story" (p. 23).

A school's vision and values are identified through its mission and purpose; the heart and soul of a school's culture (Deal & Peterson, 1999, 2002; MacNeil, 2005). Aside from the written mission statement and complex purposes that many schools hang in the front office, the mission and purpose of a school can be revealed through the actions, motivations, attitudes, and daily behavior of the staff, teachers, students, and parents. Through the cooperative goal setting and understanding of 1) values, or a shared sense of what is important; 2) beliefs, "consciously help cognitive views about truth and reality;" 3) norms, the expectations a group has about social life, specifically dress code, language, and behavior; and 4) assumptions, the "system of beliefs and perceptions that guide and influence behavior," schools can effectively develop and cultivate their mission and purpose, thus commencing the steps to a positive school culture (Deal & Peterson, 2002, p. 14-15).

Rituals and ceremonies make up the second element of Deal and Peterson's (1999; 2002) creation of a positive school culture. Whereas vision and values laid the groundwork in the establishment of a school's shared mission and purpose, rituals and ceremonies are designed to afford school member's time to "keep us connected, foster renewal, and provide opportunities to bond with others" while also using traditions to "mark the passage of time, honor the accomplishment of valued goals, and celebrate new hopes and dreams" (Deal & Peterson, 2002, p. 29). Through organizing rituals, or daily routines that can be tied to a deeper meaning, creating traditions to add to the history and gusto of schools, and celebrating success and special transitions throughout the school

year with ceremonies, schools are enabled to further communicate the essence of culture (Deal & Peterson, 1999; 2002).

Since school culture is developed and cultivated over time, the importance of history and stories, Deal and Peterson's (1999, 2002) third cultural element, seems apropos. The researchers note that a school's culture changes over time as "people cope with problems, stumble onto routines and rituals, and create traditions and ceremonies to reinforce underlying values and beliefs" (Deal & Peterson, 1999, p. 49). This fact requires that school leaders, when attempting to better understand or restructure a school's culture, pay close attention to the school's history and how it has shaped the present culture of the school. Used as means to highlight a school's history, as well as communicate current information, stories play a vital role in the creation of a positive school culture. Through storytelling, schools can enlighten new staff members, provide comic or dramatic relief, impart knowledge, and reinforce the mission and purpose of the organization (Deal & Peterson, 1999; 2002). All of which further supports the positive school culture many agree is vital when seeking success.

Unlike Bolman and Deal's (1997) symbols of organizations, which were ethereal, flowing, and unpredictable, the symbols, architecture, and artifacts described by Deal and Peterson (1999; 2002) are concrete and tangible. For the most part, this fourth feature of school culture refers to the school's environment and the role it plays in communicating a positive sense of culture. This environment, also called the architecture, can include the cleanliness of the school facility, the attention to decorations with regard to student and staff recognition, and the overall aura of the environment, specifically its ability to

positively convey the established mission and purpose of the organization. In addition to architecture, symbols and artifacts, such as logos, mottos, banners, trophies and awards, student work, and various other collectibles instill pride and motivation in the school community, thus enhancing its culture (Deal & Peterson, 2002). Another type of symbol which Deal and Peterson (1999) refer to as a "living logo," can positively impact schools (p. 65). These symbols are not physically touchable; rather they communicate meaning through the daily actions and routines of the school's leaders. These thirteen symbols, which are carried out both formally and informally daily through words, nonverbal gestures, and actions "transmit meaning and values in all the seemingly mundane things they [leaders] do" (p. 65). These symbols included: symbols of action, school tour, intellectual engagement, writing, communicating ideas, advocacy, collegial sharing, warm greetings, song, joy, laughter, and fun, storytelling, recognition, and professional learning.

In addition to the cultural elements developed by Bolman and Deal (1997) and Deal and Peterson (1999; 2002), Goldring (2002) investigated the development of school culture and introduced three levels and six key traits of culture. She broke culture into (1) things that can be observed, "such as the way time and space is arranged, meetings are organized, budgets decided, communication and conflicts managed, and celebrations held" (p. 33); (2) the values we believe, which can be noted by way of behaviors and relationships, as well as viewed through symbols; and (3) the assumptions generated by the group over time that indicate who is accepted and how information if shared. Additionally, she maintained that there were six traits that culture could be influenced by.

These traits, each appearing at all three levels of culture, included: a shared vision, traditions, collaboration, shared decision-making, innovation, and communication (Goldring). According to Goldring, these traits were highly visible at high-achieving schools versus similar schools in the area not demonstrating the same level of success.

Research efforts by Saphier and King (1985) determined that "if certain norms of school culture are strong, improvements in instruction will be significant, continuous, and widespread; if these norms are weak, improvements will be at best infrequent, random, and slow" (p.67). These norms, twelve in all, support and maintain strong cultures. The extent to which they are present within the school greatly impacts the ability for the school change process to have an enduring effect. Saphier and King's twelve norms were (1) collegiality; (2) experimentation; (3) high expectations; (4) trust and confidence; (5) tangible support; (6) reaching out to the knowledge bases; (7) appreciation and recognition; (8) caring, celebration, and humor; (9) involvement in decision making; (10) protection of what's important; (11) tradition; and (12) honest, open communication (p. 67).

Further research on the elements of school culture revealed additional indicators of healthy school culture. For his part, Simpson (1990) spent time observing the elements of culture present in a successful elementary school in suburban Detroit. Through his observations, Simpson found the concepts of (1) sharing and collegiality; (2) empowerment; and (3) leadership to be the defining elements that maintained the success of this particular school. Research conducted by Wagner and Masden-Copas (2002), Phillips and Wagner (2003), and Wagner (2004; 2006) uncovered a strong relationship

between culture and student achievement when the indicators of collaboration, collegiality, and efficacy, were present and assessed within a school environment. Wagner (2006) asserted that when "teachers and other staff meet regularly to solve instructional, organizational and/or curricular issues …working together, supporting one another, feeling valued and included …(and feel) there is a sense of career satisfaction" school culture is supported thus fostering student achievement (Wagner, p.12-13).

The terms and phrases used to define school culture and its components are copious, each bringing a new dimension to its meaning. For the purpose of this study, the three indicators of culture: collaboration, collegiality, and efficacy, coupled with Phillip's (1993) determination that culture is the "beliefs, attitudes, and behaviors which characterize a school" (p. 1) will be used to define school culture.

Collegiality, Collaboration, and Self-determination/efficacy

In their review of effective schools, Purkey and Smith (1983) sought to reveal the various components of schools which had proven to affect academic achievement, thus resulting in the institution's designation as 'effective.' Through this review the researchers gathered related literature on the subject of school effectiveness and reported a list of characteristics commonly found at effective schools. Included in this list were variables associated with school culture and climate. These variables included: "collaborative planning and collegial relationships; sense of community, clear goals and high expectations commonly shared; and order and discipline" (Purkey & Smith, 1983, p. 444-445). The presence of these variables in so called 'effective school' supported the

notion that the constructs of collegiality, collaboration, and self-determination/efficacy are key components evident in schools with strong cultures. Current leaders in the assessment of school culture, Phillips and Wagner (2003) upheld Purkey and Smith's (1983) earlier findings with their assertion that "the two most important variables in assessing the culture of a school, classroom or entire school district are collegiality and efficacy" (p. 4). A third factor, collaboration was also included in research about strong cultures. This factor was included as a sub-component of Phillips and Wagner's (2003) definition of collegiality.

Barth (1990) characterized collegiality as "the flip side of parallel play" (p. 31). While conjuring up the image of children playing with each other rather than alongside one another focused on their own agendas, one can obtain a sense of collegiality. Phillips and Wagner (2003) felt that collegiality was comprised of two main elements: professional collaboration and affiliation. "Professional collaboration is the degree to which staff members work together to solve professional issues, and to encourage and inspire each other" while affiliation is present when "relationships between all members of the school community demonstrate harmony, respect, mutual support, and enjoyment of each other's company" (Phillips & Wagner, p. 5).

An operational definition of collegiality was offered by Judith Warren Little in the early 1980s, and discussed by Barth (1990) in his text, *Improving Schools From Within*. Barth (1990) related collegiality to the presence of four specific behaviors. These behaviors required that the adults in schools (1) talk about practice; (2) observe each other engaged in teaching; (3) plan curriculum together; and (4) teach each other about

what they know about the art of teaching and learning (p. 31). Additional observational research conducted by Barth (2006) concluded that educators who exhibited collegial relationships regularly talked about practice and shared their craft knowledge. Further research by Barth (2006) revealed that collegiality was rooted in environments where educators supported each other's cause and acted as cheerleaders for one another. In each description of collegiality, the researchers were sure to note that effective collegiality was fostered when collegial practices were engaged in on a frequent and continuous basis (Barth, 1990; 2006; Phillips & Wagner, 2003).

A behavior often associated with collegiality, collaboration is the act of working together to meet goals, solve problems, and provide support and encouragement. Barott & Raybould (1998) asserted that "in changing schools into more collaborative organizations, we are asking people to share information, decision making, work together, or co-labor" (p. 29). Schools and organizations whereby the behaviors associated with collaboration are present and positively impacting the culture are often referred to places with 'collaborative cultures'.

Throughout the research on collaboration, the influence it has on schools and its members is abundant. For his part, Peterson (1994) asserted that

> In collaborative school cultures, the underlying norms, values, beliefs, and assumptions, reinforce high levels of collegiality, team work, and dialogue about problems of practice. In short, collaboration can affect the quality of teaching in urban settings by enriching the work of teachers (p. 2).

In his research on collaborative cultures, Peterson made a case for the importance of collaborative cultures in schools by reporting that the collaborative nature of the relationships within the school building fostered quality work and effective instruction.

He further noted that schools with collaborative cultures possess (a)more complex problem solving; (b) stronger professional networks to share information; (c) greater risk-taking and experimentation; (d) a richer technical language shared by the educators which allows them to share professional knowledge more quickly; and (e) more job satisfaction and identification with the school (p. 3). Additionally, the existence of characteristics commonly found in collaborative cultures supported three of the four basic human needs in organizations as proposed by Peters and Waterman (1982). These three elements included: (1) an element of control; (2) meaning in a situation; and (3) positive support (p. 46).

The rationale for creating collaborative cultures to improve student achievement is well documented (Peterson, 1994). Lauer and Matthews (2007) documented one Colorado school's transformation from a low-performing, at-risk school to a high-performing school over the course of five years all due to a shift toward collaboration. Du Four (2004) reported that a team of teachers from an elementary school in rural Virginia relied on collaboration to drive their school improvement goals. In this example, Du Four noted that the "teachers work in teams, engaging in an ongoing cycle of questions that promote deep team learning. This process, in turn leads to higher levels of student achievement" (p. 8). Another instance where collaboration was studied as a variable influencing student achievement was performed by Goddard, Goddard, and Tschannen-Moran (2007). Through their collection of collaboration data from 452 teachers and student achievement data from over 2,500 students, these researchers

concluded that collaboration among teachers was linked with increased levels of student achievement.

The third key component of school culture, as noted by Phillips and Wagner (2003), is self-determination/efficacy. Self-efficacy, as defined by Bandura (1994) is related to "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives (p.71). According to Phillips and Wagner (2003), self-determination/efficacy was present in schools where staff members worked to increase their aptitude and skills as professionals because they felt compelled to do so, not because they viewed themselves as victims of a larger society. These researchers further expanded on the idea of self-efficacy by noting that it existed in environments where (a) participants feel ownership; (b) participants can influence some important decisions; (c) participants generally are proactive and thus avoid problems; (d) participants solve problems; and (e) participants use their combined wisdom to create appropriate new approaches (p. 8).

The presence of self-efficacy amongst teachers in a school has been documented as influencing student achievement (Goddard, Hoy, & Hoy, 2000, 2004; Sottile, Carter, & Murphy, 2002). The role self-efficacy played in increasing student achievement was not directly cause-effect in nature; rather, it was the resultant outcome of the positive teacher feelings associated with self-efficacy which improved teaching, therefore affecting the achievement of students. Goddard, Hoy, and Hoy (2000; 2004) presented examples of this notion. Through analyzing past research on teacher practices and self-efficacy, as well as collecting new teacher self-efficacy data from elementary schools,

these researchers revealed that collective efficacy and the resulting enhanced self-efficacy beliefs had a positive effect on student achievement. Comparably, Sottile, Carter, and Murphy (2002) conducted a study on the impact of self-efficacy on school culture and student achievement. The results of this study unveiled that "a positive sense of self-efficacy including a positive teaching self-efficacy, will affect math and science achievement, and tends to develop positive social interactions (p. 11). Furthermore, these researchers asserted that the positive emotions derived from the increased student achievement and social interactions had a chain-reaction effect throughout the school, consequently positively impacting the school's culture.

As substantiated in the preceding documentation, the three key components of school culture: collegiality, collaboration, and self-determination/efficacy, when present in schools, positively affected school culture. These three components, by and large, were marked in the behaviors and attitudes demonstrated by the teachers and leaders of schools. The end results of these behaviors though, when positively incorporated into the school setting, were proven to impact school culture. The information provided in the next section expands on the impact that various components of culture, when tended to in schools, will have on the culture as a whole.

The Impact of Culture on Schools

Beyond identifying the key concepts and traits used to identify and create a positive cultural climate in schools, much research has been dedicated to acknowledging the impact that the presence or absence of these components actually has on the school

environment. Phillips and Wagner (2003) declared that "positive learning can only take place in a positive culture. A healthy school culture will affect more student and teacher success than any other reform or school improvement effort currently being employed" (p. 3). Likewise Peterson and Deal (1998) stated that "strong positive cultures are places with a shared sense of what is important, shared ethos of caring and concern, and a shared commitment to helping students learn" (p. 29). To support this point, Deal and Peterson (1999) documented many features that exist in schools where a powerful, positive, and cooperative culture is present. These characteristics, which Deal and Peterson (1999) claim to "effect every part of the enterprise"(p. 7-8) delineated that positive cultures (a) cultivate productivity and efficiency because teachers in these environments are able to persevere and improve when outcomes are uncertain; (b) improve communication and collaboration amongst school members, thus increasing problem solving; (c) encourage a focus on change and progress through innovation and experimentation; (e) develop an improved sense of dedication and sense of belongingness which contributes to the establishment of community; (f) increase the overall enthusiasm and fervor felt for the school; and (g) strengthen the daily attention to job details that bring meaning and value to the organization.

Similar to Deal and Peterson's (1999) findings, MacNeil (2005) outlined numerous traits and descriptors that were evident in schools where the culture was regarded as healthy. These characteristics consisted of shared feelings and support for the school's goals and objectives, effective and accurate communication across and within grade levels, empowered teachers and staff who recognized a successful balance

of power between themselves and their leader, job satisfaction and motivational factors were enjoyed, a shared mission and purpose were identified through the desire to be a part of the team, and the culture was unchanged by and able to meet the challenges of both internal and external demands, stress, and negativity. These features, when working simultaneously and in combination with one another, not only promoted a positive culture resulting in a healthy school environment, they were also recognized as key elements for leaders to consider when attempting to improve a school's culture.

Hansen and Child (1998) also observed the common elements present in a school with a positive culture and climate. They determined that there were five elements in place that effectively led to a positive cultural outcome. These elements, included attention to places, policies, programs, processes, and people. Through creating an environment where students and staff could sense a positive personality, the policies advocated for a win/win result, the programs focused on student needs and talent, participatory and collaborative decision making existed, and people felt appreciated, supported, and understood, Hansen and Child found a positive climate could flourish. These researchers advocated that "to make schools more attractive and inviting, we can begin by looking at how we change the places, policies, programs, processes, and people within those schools" (p. 17).

Just as one can identify the common features present in schools where positive culture and climates exist, there are particular features one can recognize in schools with negative cultures. These environments, referred to as "toxic" by Peterson and Deal (1998), "are schools where staffs are extremely fragmented, where the purpose of serving

students has been lost to the goal of serving adults, where negative values and hopelessness reigns" (p. 28). The key characteristics commonly found in school environments with toxic cultures include (1) attention to negative and/or negligible values and outcomes; (2) a lack of positive symbols and goals leading to a disjointed school staff and population; (3) disgruntled staff that transfers negative feelings to students; and (4) an overall pessimistic environment where a sense of negativism and hopelessness rule (Deal & Peterson, 1999). Research indicates that these types of cultures are caustic for the adults working in them, and are even more damaging to the students they work with. Therefore, it is with these powerful outcomes in mind that numerous initiatives and methods for steering these school environments into the positive direction have moved to the forefront of leadership programs nationwide (Barth, 2001, 2002; Beaudoin & Taylor, 2004; Brucato, 2005; Deal & Peterson, 1999, 2002; Goldring, 2002; Hansen & Child, 1998; MacNeil, 2005; Peterson & Deal, 1998).

The presence of a positive school culture or climate has shown to have a deep impact on schools and their inhabitants. Cohen, Shapiro, and Fisher (2006) reported that students in positive school climates were less likely to have disciplinary actions against them, while Frieberg (1999) stated that "various school and classroom climate factors can create a fabric of support that enables all members of the school community to teach and learn at optimum levels" (p. 22). A study completed by Esposito (1999) determined that a by and large a school's climate impacts students' academic and social growth, even when external influences such as socio-economic status and family educational level are considered. Additional research reported by Bowman (2002) found that "a sense of

'connectedness' to schools is critical to a teenager's well-being" (p. 16). This finding went on to support the idea that the environment of schools, its culture and climate, can have an impact on students' emotional and physical development.

Deal and Peterson (1999) reviewed numerous ways in which culture impacts schools. They noted that positive cultures value collegiality and collaboration, which in turn improves communication and professional decision making among school staff. This increased level of cooperation and communication increases the effectiveness of schools. Because positive school cultures unite staff members and students under the assumption of common vision and values, members of these environments are motivated and committed to the goals of their organizations, first and foremost student success. In summation, Deal and Peterson (1999) offered some insight into the far-reaching influence that culture has on schools:

> School culture affects every part of the enterprise from what faculty talk about in the lunch room, to the type of instruction that is valued, to the way professional development is viewed, to the importance of learning for all students. Strong, positive, collaborative cultures have powerful effects on many features of schools (p. 7).

While the overall effects of schools where strong cultures reside are clearly evident, positive influences with regard to student achievement reinforce the vision and mission of America's public schools. The next section will outline the ways in which school culture positively promotes this goal.

The Impact of Culture on Student Achievement

The impact that school culture has on numerous aspects of schools is without question, significant. Upon review of the preceding section, one can see how culture and its subsequent climate, can influence school and student effectiveness in numerous ways. Of all the perspectives researchers have taken to better understand the role of culture in schools, student achievement, is paramount. Evidence of the positive relationship between culture and academic achievement is supported in the research conducted by Phillips (1993). Additional information connecting school culture to parent and community involvement, as well as staff satisfaction was also revealed in these studies (Wagner, 2006).

Hoy and Hannum (1997) also discovered a strong correlation between these two attributes in their study on the climate of middle schools and academic achievement. The researchers sampled teachers from 86 middle schools on a series of tools designed to analyze school climate, expressly these survey instruments contained six dimensions that are commonly affiliated with school health. These dimensions included: academic emphasis, teacher affiliation, collegial leadership, resource support, principal influence, and institutional integrity (Hoy & Hannum). These cultural traits were then linked with the outcomes of the eighth-grade state assessment. As a result of this study, Hoy and Hannum found that school health and student achievement were positively related. A summation of their findings and a clear image of a positive school environment are revealed in the following statements:

> A healthy middle school is a place where teachers like the school, the students, and each other and are enthusiastic about their work (high Teacher Affiliation). Teachers see students as serious and diligent in their learning (high Academic Emphasis). They see the principal as their ally in the improvement of instruction; the principal is friendly, open, respectful, supportive, and yet establishes – and is committed to – high standards of teacher performance (strong Collegial Leadership). The principal also has influence with organizational superiors and is seen as someone who can deliver (high Principal Influence) and who can get teachers the instructional materials they need (high Resource Support). Finally, teachers are protected from unreasonable outside pressure (high Institutional Integrity) (p. 303-304).

Van Der Westhuizen, Mosoge, Swanepoel, and Coetsee (2005) performed extensive research on culture and academic achievement to determine if a relationship existed between the two. This study, conducted in South Africa, included a sample population of 341 secondary schools. Qualitative data were collected as all members of the schools, leaders, educators, and learners, took part in semi-structured interviews, while the researchers collected additional observational notes. As a means of determining how culture specifically impacted achievement, these data were divided into several categories of culture. Seven of these categories included: philosophy; value; vision and mission; aims and objectives; symbols, rituals, and ceremonies; curriculum; and facilities. The culture data was then correlated to achievement data obtained from the region's Grade 12 national exam whereby schools were ranked and categorized as high-, average-, or low-performing.

The findings of this study unveiled a strong correlation between the presence of strong cultural elements and achievement by students at the high-performing schools. The researchers noted that members of high-performing schools held strong personal

convictions for student success and placed an emphasis on academic achievement. The high-performing schools had a strategic educational plan with a core vision and mission in place, their behaviors supported the strong value they placed on education, and they utilized symbols, stories, and rituals to support these values. Furthermore, the members of these schools were more actively involved with extra-curricular activities, and they offered more time and attention to the upkeep of the school facilities. The researchers countered that the exact opposite attributes were visible at the low-performing schools (Van Der Westhuizen et al., 2005). Through their discussion, Van Der Westhuizen et al. (2005) professed that the environments of poor performing schools appeared to lack very few, if any, elements that could contribute to a strong culture. Their findings suggested that "it is clear that organizational culture is one of the elements that contribute to the effective functioning of an organization such as a school" (p. 105).

Studies completed by Gruenert (2005) and Macneil, Prater, and Busch (2007) included findings which further support the strong relationship between school culture and academic success. Gruenert (2005) set out to determine how "student performance in both math and language arts is positively correlated with a collaborative school culture – places where teachers works together in a collegial climate" (p. 46). This research focused on understanding how the presence of common elements of collaborative cultures (collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership) effected student achievement outcomes. After collecting school culture data from 81 Indiana schools and correlating the data with math and language arts achievement data obtained from the Indiana State

tests, Gruenert (2005) found that schools with higher assessment scores were the schools where more collaborative culture attributes were in place. Macneil, Prater, and Busch sought to determine if school climates were notably different in schools categorized as Exemplary, Recognized, or Acceptable, as a result of their performance on the Texas Assessment of Academic Skills (TAAS). Comparable to Gruenert (2005), Macneil, Prater, and Busch discovered that "Exemplary schools were found to possess healthier climates than acceptable schools, which report lower organizational health scores" (p. 7).

Finally, similar research studies completed by Cunningham (2003) and Melton-Shutt (2004), revealed a strong link between school culture and academic achievement as measured by state assessment data. Cunningham surveyed teachers from 61 elementary schools in Orange County, Florida using the *School Culture Triage Survey* to determine a school culture score for each school. After ranking these schools according to their culture score, Cunningham used fourth grade test results from the state's FCAT to see if a connection between the two existed. The findings of her study revealed that the schools with the highest scores on the culture assessment had more students achieve proficiency on the FCAT. In fact, the average number of students enrolled in high culture schools and achieving proficiency was over 20% higher than the average number of students achieving proficiency at the schools receiving the lowest scores on the culture assessment. Additional analysis performed by Cunningham revealed a significant relationship between the school culture constructs of collegiality and self-determination/efficacy. Cunningham claimed that "the percentage of students scoring at levels 3 and above on the 2002-2003 4^{th} grade FCAT Reading could be predicted from

scores on the collegiality portion of the School Culture Survey" (p. 67). The same was true for the element of self-determination/efficacy.

Melton-Shutt (2004) also utilized the *School Culture Triage Survey* and student achievement data in an effort to better understand how the assessment of culture behaviors, collegiality, collaboration, and self-determination, influenced and acted as a predictor of student achievement. Using the five categories of accountability scores assigned as outcomes on the Kentucky Commonwealth Assessment Test as well as culture data collected from 66 elementary schools, Melton-Shutt ascertained that "schools with the highest school culture scores were also the schools found in the highest academic performance category" (p. vi-vii). Like Cunningham (2003), Melton-Shutt found the culture element of self-efficacy to be a significant behavior when predicting achievement on the Kentucky state test.

The Role of Leadership in School Culture and Climate

School culture and climate do not arrive overnight nor do they arbitrarily exist in a school environment. They have been fostered over time, either in the positive or negative direction, and have been constantly cultivated. Deal and Peterson (1999) maintained that "culture arises in response to persisting change, novel changes, challenging losses, and enduring ambiguous and paradoxical puzzles" (p. 65). In keeping with this mix of variables, it is important to note that a school's culture is shaped by the people in it; however, after the culture has been defined, it shapes the people (Deal & Peterson 1999, 2002; Owens & Valesky, 2007; Schein, 1992, 1999). When determining

who played a role in the development of a school's culture, many people and variables can be considered. Anyone from the policymakers, legislation, administration, teachers, staff, parents, students, volunteers, and community members contribute to a school's culture. This is in addition to the attitudes, values, beliefs, social structure maintained by the general community and public.

As a guiding force with schools and organizations, leadership at all levels is a critical component when creating and shaping the culture and climate; however, leadership in schools does not begin and end in the front office. As Peterson and Deal (1998) point out

> School leaders from every level are key to shaping school culture. Principals communicate core values in their everyday work. Teachers reinforce values in their actions and words. Parents bolster spirit when they visit schools, participate in governance, and celebrate successes. In the strongest schools, leadership comes from many sources (p. 30).

The leadership within a school includes the administration, teachers, staff, parents, and even the students. Each of these groups is a stakeholder in the outcomes achieved by the organization, and each plays a role in creating a climate that strives towards improvement and success. Recent research by Eilers and Camacho (2007) supported the notion that all leaders and stakeholders of schools are influential in maintaining a positive culture which impacts achievement. Eilers and Camacho (2007) found that a struggling school could make dramatic gains "with the placement of a proactive principal and internal specialized supports accompanied by district office support" (p. 616). Furthermore, the researchers claimed that the district's implementation plan revealed a positive increase in school

culture data in the areas of professional communities of practice, collaborative leadership, and evidence-based practice.

However true this is, when seeking out ways of creating, shaping, or improving school culture and climate, the actions of the leader(s) are fundamentally some of the most important. This point is supported by Sergiovanni's (1990) statement that "symbolic and cultural leadership can help communicate messages to parents, students, and staff that highlight the values, principals, and directions that are considered important to the leader and the school" (p. 85). Waters, Marzano, and McNulty (2004) examined the role of school leaders and how their practices correlate to student achievement. Through their research they have been able to identify twenty-one key factors that are highly correlated to student success; the first of these key areas being culture. Other key factors identified by Waters et al. included order, discipline, resources, curriculum, knowledge of curriculum, instruction, and assessment, focus, visibility, contingent awards, communication, outreach, input, affirmation, relationship, change agent role, optimizer role, ideas and beliefs, monitoring and evaluation, and flexibility (p. 49).

In order to shape and promote positive school cultures, leaders have many options. Marshall (2005) claimed that there were three "simple practices that foster positive school climates – where both teachers and students want to be" (p. 28). By focusing on activities and daily routines that include the practices of positivity, choice, and reflection, he observed administrators, teachers, supervisors, and parents who became more efficient, productive, responsible, and positive about their working environment. Trubowitz (2005) believed that leaders can make strides towards increasing positive

school cultures through re-examining how the structures of communication, reflection, collaboration with outside entities, and respect with regard for teacher autonomy impacts relationships between and amongst teachers and leaders. He advocated that leaders promote more collegiality and cooperation as a means of further developing a positive school climate. Additionally, Sergiovanni (2005) suggested that the four leadership virtues of hope, trust, piety, and civility form the heart of leadership practice. He claimed that when these four virtues are at the forefront of a leader's mind as he/she attempts to shape or cultivate the school culture their implementation will provide "the leverage needed for improving even the most challenging schools" (p. 112).

In their text, *First, Break All the Rules*, Buckingham and Coffman (1999) declared that effective managers and administrators use four keys when managing a successful organization. When applied by leaders, these four keys, which included selection of talent, setting experiences, motivation, and developing people, acted as a vehicle to meet the needs and goals of the organizations, while also effectively utilizing employee talent and productivity. Buckingham and Coffman asserted that the most effective leaders are able to constantly and consistently turn three of these keys all at once. After carefully selecting the talent to increase the performance and productivity of their organizations, superstar managers focus on the keys of 1) setting experiences, 2) motivation, 3) and developing people. As revealed by Buckingham and Coffman and the Gallup organization, the keys of management and leadership are essential for leaders to utilize in developing and maintaining a productive and happy work environment. When

combined with the cultivation of a positive school culture and climate, these principles contribute to successful schools.

Barth (2001; 2002) contributed to the role leadership plays in creating school culture by proposing that leaders first be aware of the school's culture before making any changes. He advocated that school leaders make a concerted effort to find out about the school culture through asking their staff, clientele, and themselves questions about the state of culture and climate at their school. Furthermore he introduced the concept that "an important part of awareness is attending to 'nondiscussables.'" (2002, p. 7). These nondiscussables make up the frequently discussed and important conversations that due to their provocative nature, teachers and staff have in private, and Barth (2002) encouraged leaders to address them head on before they become toxic within the culture. He claimed that by acknowledging and discussing them, they will dwindle, and the "fewer the nondiscussables, the healthier the school" (p. 7). He further supported the leadership role by acknowledging that in order to change the toxic elements that can become infused within a culture takes courage and talent on the part of the leader. He postulated these leadership traits by recognizing twelve leadership qualities that "dramatically affect the capacity of a school to improve and promote learning" (p. 7). These cultural norms included collegiality, experimentation, high expectations, trust and confidence, tangible support, reaching out to experts, appreciation and recognition, celebration and humor, shared decision making, protection of values, traditions, and honest and open communication.

Akin to Barth's (2001, 2002) belief that leaders have an awareness of, and a commitment to, addressing cultural issues, Deal and Peterson (1999, 2002) agreed that leaders need to first make every effort to understand and reflect on a school's culture, prior to making any evaluations and plans for change. They maintained that leaders use their five senses to interpret the history of the school and how it has impacted the school's present culture. This practice can be completed by asking key questions with regard to the elements of culture; vision and values, ritual and ceremony, stories, and artifacts and symbols. Once these questions have been answered and reflected upon, "valuable aspects of the school's existing culture can be reinforced, problematic ones revitalized, and toxic ones given strong anecdotes" (p. 87).

Through their research on school leadership and it impact on culture and climate, Deal and Peterson (1999, 2002) created 'players' to represent the symbolic roles that leaders take on. These roles, which can be performed by people at various levels of leadership from teachers to community members, are in addition to the managerial roles that principals commonly assume. They are comprised of the leader as historian, anthropological sleuth, visionary, symbol, potter, poet, actor, and healer. Each role played by leaders, both managerial and symbolic, are situational and dependent on the current state of the culture. Nonetheless, Deal and Peterson (2002) pointed out that "both roles are key to building successful schools, and both sets of roles can shape the culture" (p. 108).

In contrast to the positive symbolic and managerial roles leaders play, Deal and Peterson (1999) also identified negative roles found to contribute to the toxic elements of culture. These roles, saboteur, pessimistic storyteller, keepers of the nightmare, negaholics, prima donnas, space cadets, martyrs, and deadwood, can also be played by leaders at various positions of power. When present these roles "can have a devastating impact on the school" as they drag down others and lead to a negative atmosphere that can be difficult to tame (p. 122). The researchers recommended that leaders attempt to defeat a negative, toxic environment by trying to understand it, reflecting on the role they played in its existence, celebrating the positive contributions made by members and putting an end to the dying ceremonies, by transforming and renewing stories, and focusing on the members who bring life and enthusiasm to the school culture (Deal and Peterson, 2002). Leaders need to use their influence and positional power to "help their staff members overcome adversity, avoid negative rationalizations, and provide positive closure to conflict" (p. 89).

Throughout the research, the influence that the three key components of culture- collegiality, collaboration, and self-determination/efficacy- have had on leadership and culture was apparent. Gruenert (2000) in an attempt to guide school leaders toward the establishment of collaborative cultures suggested the implementation of four practices. The practices required that the principal (1) learn about school culture; (2) collect culture data and assess it; (3) create a planned approach to foster collaboration; and (4) provide rewards for those teachers who practice collaboration (Gruenert, 2000). Similarly, Little (1981, as cited in Barth, 1990) explained that the presence of collegiality in schools was

closely associated with four specific behaviors of the principal. These behaviors necessitated that the principal: (1) explicitly state expectation for cooperation among staff; (2) model collegiality; (3) reward collegiality; and (4) protect teachers who engage in collegial relationships and risk reprisal from non-collegial peers (Barth, 1990, p. 33). Finally, a leader's actions could easily influence their teachers' sense of self-efficacy, or feelings of control and ownership, within the educational environment. When teachers felt valued and appreciated by their principals, were provided space and discretion to manage their classrooms, and felt a sense of power over their jobs, the development of a positive self-efficacy was fostered (Goddard, Hoy, & Hoy, 2000, 2002; Sottile, Carter, and Murphy, 2002). In each of these cases, the behaviors and attitudes of the school leader had an impact on the creation and nourishment of the school's culture.

Florida Accountability Standards and the Florida Comprehensive Assessment Test

Educators and students in the state of Florida were not immune to the school reform initiatives flooding the educational arena. The high standards and accountability measures brought forth by *NCLB* added momentum and value to a system of education already heavily weighted with standards and measurement. The high stakes testing and accountability called for by NCLB changed the landscape of education in the state of Florida, further drawing attention to the idea that awareness about school culture was paramount.

The initiation of assessment standards arose in Florida in 1971 when "the Educational Accountability Act was enacted (Section 229.57, F.S.) to implement the

Commissioner's plan for educational assessment in Florida, called the Statewide Assessment Program" (Florida Department of Education, 2004, p. 1). Over the course of the succeeding years, this act was amended numerous times to include assessments at various grade levels over multiple subject areas. These assessment measures were energized in 1996 with the implementation of the Sunshine State Standards. These standards, developed in 1996 by the Florida Department of Education in consultation with curriculum specialists and classroom teachers and adopted by the State Board of Education, outlined specific curriculum criteria for seven subject areas and are the basis of curriculum and instruction in Florida's public schools (Florida Department of Education, 2004). In accordance with these new standards, "new legislation (Section 229.565,F.S) recognized the Performance Standards as the academic standards for Florida students and authorized the Florida Comprehensive Assessment Test (FCAT)" (Florida Department of Education, 2004, p. 3). The FCAT test was field-tested in 1997 and was officially administered to students in grades 4, 5, 8, and 10, in 1998. The content areas of the FCAT focused primarily on reading and math with science and writing being assessed at particular grade levels. As of 2007, the FCAT was administered to all students in grades 3-10 (Florida Department of Education, 2004).

Results obtained from the FCAT were reported in several different manners. Students taking the test received scale scores, developmental scale scores, and achievement levels, while annual learning gains were also calculated. In most instances, proficiency on the FCAT was measured by the achievement levels. These were "divided into five categories from 1 (lowest) to 5 (highest)" (p 8), whereby an achievement level

of 3 and above was considered proficient or above (Florida Department of Education, 2004). Students earning an achievement level of 1 or 2 were deemed non-proficient. Students in the 3rd grade were required to score a level 2 or higher on the FCAT in order to be promoted, while 10th grade students had to earn the same results in order to graduate.

Florida's FCAT served as the foundation for its accountability system, the Bush/Brogan A+ Plan. Passed into legislation in 1999, the A+ Plan included features designed to monitor student achievement and academic gains, provide choices for parents and resources for schools, and reward schools showing progress while closely monitoring schools who failed to demonstrate growth (Florida Department of Education, 2004). The bulk of this growth and achievement was measured by student outcomes on the FCAT. At the core of the A+ plan was the system of grading schools based on their performance. Schools demonstrating progress on the FCAT and meeting the required elements of the plan were given a grade of "A" at one end, whereas schools that failed to show adequate progress were given a grade of "F" at the other end, with grades of B,C, and D, given out in between. Along with these grades, the Florida Department of Education provided rewards or sanctions. Schools earning a grade of "A" received bonus funds to be utilized by the members of the school staff or to support curriculum and instruction. Schools receiving lower grades were required to implement strategies for change in order to increase achievement. Schools receiving a grade of "F" for two or more years were subject to strict reform and could possibly face a leadership succession by the Florida Department of Education.

In summation, in Florida, the accountability standards outlined by the FCAT and the A+ Plan were closely aligned with the requirements set forth by NCLB. Schools were required to demonstrate Annual Yearly Progress (AYP) as measured by the FCAT and other A+ Plan features. Failure to show progress may have resulted in a school not making AYP, while also receiving a low grade from the state. According to former Florida Commissioner of Education, Jim Horne, this system, with its high stakes FCAT, financially tied A+ Plan, and alignment to the Sunshine State Standards, "plays a key role in the ongoing effort to raise standards" and "the result is an improved education for Florida's children and increased accountability for its schools" (Florida Department of Education, 2004, p. 1).

Summary

The information presented in this chapter served to provide a theoretical basis for organizational culture and the influence is has on the organizations as a whole, the organization's performance, and the role that the organization's leader has in establishing and sustaining the culture. As an educational organization, schools possess a culture of their own. As evidenced by the research presented in this chapter, these cultures have been instrumental in determining the health of the school, strong or weak, negative or positive, and have had an ensuing impact on many variables within the school building. Of primary importance was the noted impact that school culture has had on student achievement. This resulting impact is especially paramount today given the myriad school reform measures currently being employed.

This review of literature was comprised of five primary sections with several sub-sections spread throughout. The first section aimed to inform the reader about the need to investigate the impact culture has on schools amidst the strong accountability standards and school reform initiative set forth by NCLB. The second section was designed to share the theoretical framework for school culture by explaining the concept and definition of organizational culture. This section contained information about the function and elements of organizational culture, as well as the impact culture has on performance. This section also highlighted the differences between culture and climate; two highly researched variables. Section three was dedicated to informing the reader about school culture and the ensuing impact it has on schools and student achievement. The next section outlined the role that school leaders play in establishing and maintaining the culture of their schools. The final section of this chapter was included to enlighten the reader about the specific accountability standards and student achievement measures in place in Florida, the location of this research study.

CHAPTER THREE: METHODOLOGY

Introduction

This chapter describes an overview of the methodology and procedures utilized to study the link between school culture and student achievement as measured by third grade students scoring a level 3 and above on the 2007 FCAT Reading. Specifically, the data analysis served to determine what relationship, if any, existed between the overall school culture and student achievement, as well as determine what relationships, if any, were found among each of the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) and student achievement. Further analysis sought to investigate the influence that experience and demographics, as well as principal tenure have on school culture scores. The statistical procedures used for analysis along with rationale validating the procedural choices are also included.

This chapter is organized into eight sections. The problem statement can be found in section one. Section two describes the population for this study. Sections three and four comprise the data collection process and instrumentation used to gather research. The research questions and follow-up principal interview questions can be found in sections six and seven, while a summary of this chapter is located in section eight.

Problem Statement

Through identifying school culture using the School Culture Triage Survey, ranking this school culture in the top 33%, middle 33%, and bottom 33%, and looking at the relationship between these rankings and student achievement, this study served to determine the extent to which the health of a school, its culture, is related to student achievement. Further analysis sought to define how each of the key components: collaboration, collegiality, and self-determination/efficacy contributed to student achievement, how principal tenure is related to school culture, and examine the role that demographics plays in the school culture rankings.

Population

The target population for this study included all elementary teachers employed by Seminole County Public Schools in Seminole County, Florida. This population consisted of approximately 1250 teachers in 37 elementary schools across the county. Of the 37 elementary schools invited to participate, surveys were received from 593 teachers at 30 of the 37 schools. After the surveys were reviewed to ensure they met the inclusion criteria, the researcher determined that teacher surveys from 27 elementary schools (73%) would be included (N=574) in the study. Additional information was gathered through a brief interview, via written response or phone conversation, with eight principals from the participating elementary schools. These administrators were invited to participate in the interview following the collection and analysis of data as their participation was included to represent the range of school culture means across the three ranked groups.

Seminole County, one of sixty-seven counties in the state of Florida, is located in Central Florida between Orlando and Daytona Beach. Seminole County, a bedroom community for the larger Orlando area, had a population of over 400,000 residents residing in seven cities and numerous unincorporated areas (Wikipedia.com, 2008a). According to the 2000 Census, the racial makeup of Seminole county was 82.41% White, 11.15% Hispanic, 9.52% African-American, 2.50% Asian, and 3.40% from other races (Wikipedia.com, 2008a). In 2008, Seminole County had a suburban make-up with little industry.

One of the larger employers of Seminole County, Seminole County Public Schools (SCPS) had 9,574 employees, with 4,529 of them being teachers, and almost 45% of these teachers holding a Master's degree or higher as of June 2007. During the 2006-2007 school year, SCPS enrolled 65,692 students in kindergarten-12th grade in 58 public schools and 19 charter, alternative, and special school center sites (Seminole County Public Schools, 2007). The racial make-up of the students from SCPS was as follows: 59.59% White, 17.56% Hispanic, 13.35% African-American, 3.68% Asian, 5.47% Multi-Racial, and 0.25% other races (Seminole County Public Schools, 2007a).

When reviewed in conjunction with larger school districts across the state of Florida, such as Miami-Dade, Broward, and Orange Counties, Seminole County Public Schools may be considered a small school district; however, in 2008, Seminole County Public Schools was the 11th largest district of the 67 school districts in the state of Florida and was ranked #51 for the largest school districts in the United States (Wikipedia, 2008b). Although Seminole County Public Schools is relatively large in size, the

personnel who comprise this district have worked diligently to create a collaborative and collegial work environment. The published mission of the Seminole County Public Schools was "to ensure that all students acquire the knowledge, skills, and attitudes necessary to be successful in adult life" (Seminole County Public Schools, 2007b). Accustomed to setting high standards and achieving success, 97% of Seminole County's schools earned an 'A' or 'B' on the Florida A+ school grading plan for the 2006-2007 school year (Seminole County Public Schools, 2007c).

Data Collection

Interest in this study and participant contact were initiated during a brief presentation at a district-wide elementary principals' meeting on April 10, 2007. The researcher was granted permission to distribute the research materials at one of these monthly meetings with the goal of explaining the research, its purpose, the significance of the study, as well as to explain what participation on the part of the administrator and teacher entailed (Appendices C, D, E, & L). With the assistance of the district elementary executive directors, each elementary principal received a research information packet. These packets included the highlighted study information and the survey instrument to disseminate to teachers. Attached to each survey instrument was a participation consent form (Appendix E), which served to explain the purpose of the study, what their participation involved, and how their individual responses would be kept confidential. Each survey instrument also included an envelope for each participant

to enclose and seal their completed survey in prior to turning it in to the researcher. This envelope provided additional confidentiality for the participants

These information packets included a waiver of consent form for each administrator (Appendix D). This document further outlined the extent of their participation and served as a means to secure their consent to participate. Additionally, as a gift of gratitude for considering participation, each administrator received a complimentary copy of Phillips and Wagner's (2003) text, *School Culture Assessment: A Manual for Addressing and Transforming School-Classroom Culture* to use for their own school culture research.

Following the presentation and distribution of materials, the principals were strongly encouraged to share the research study and survey instrument with their teaching faculties at an upcoming faculty meeting in anticipation that they would participate. The decision to allow their teachers to participate, as well as the method whereby the participating principal decided to distribute the survey instrument, whole group, small group, or individually through faculty mailboxes, was left up to each individual principal. The researcher ensured that each principal was provided with enough survey instruments for his/her faculty and shared the contact information in the event that questions about participation of additional materials were needed. Additionally, the researcher provided each school with a self-addressed and stamped mailing envelope in which to return the completed surveys.

Upon receiving the survey instrument, the participants recorded their responses to the survey questions by indicating the degree to which the statements most closely aligned with the practices at their school (1= Never, or Almost Never, 2= Rarely, 3= Sometimes, 4= Often, and 5= Always, or Almost Always). The responses were indicated by circling one of the choices provided. The respondents were informed that their answers were confidential and at no time were the respondents asked to provide their names. To further ensure confidentiality, each school's survey instruments were coded with a number that the researcher assigned in order to identify participating schools. Furthermore, throughout the research process, school names were not used as identifiers. The final research report does not address individual schools; rather schools are grouped by their rankings on the School Culture Triage Survey. These rankings mean that schools are only referred to as those ranking in the top 33%, middle 33%, and bottom 33% on the School Culture Triage Survey. Following the initial contact and delivery of survey instruments at the principals' meeting, the researcher monitored the status of participation of each elementary school. A few follow-up questions regarding the return of materials were initiated by the participants.

At the close of the data collection process for teachers responding to the School Culture Triage Survey, the researcher obtained the student achievement data from the Florida Department of Education website and began the analysis of data. During this time, the researcher grouped the schools into the top 33%, middle 33%, and bottom 33% based on their school culture scores. From these groups, eight principals that were representative of the three ranked groups were contacted about participating in a follow-

up interview. Every principal agreed to participate and was provided with consent document (Appendix F) and the five interview questions (Appendix G). Given the option to respond orally or in writing, the researcher spoke with one principal in person, one over the telephone, and the remaining six submitted written responses to the questions. Like the teacher responses, the information gathered from the principals was confidential and was reported without names or designation towards a group based on the school culture score. Each participating principal was presented with a gift certificate for Bruster's Ice Cream in appreciation for their time.

Following the completion of the study, the researcher contacted the participating school administrators to offer thanks for their participation and inform them that the research study was complete should they want to review it. The results for individual schools are to remain confidential indefinitely.

Instrumentation

The collection of school culture data began when Seminole County elementary school teachers were given a slightly modified version of Wagner and Masden-Copas' (2002) School Culture Triage Survey (Appendix B) by their supervising administrator. Christopher Wagner of the Center for Improving School Culture Permission, and one of the survey's authors, granted the researcher permission to use this instrument (Appendix A). The instrument consisted of 23 items in total. Items 1-17 were unchanged from the authors' original instrument, while six questions soliciting demographic information were added by the researcher.

Items 1-17 examined the culture of the school through statements covering the key culture constructs of collaboration, collegiality, and self-determination/efficacy. For each of these items, the respondents circled their responses on a 1-5 Likert Scale to indicate the degree to which the statements most closely aligned with the practices at their school (1= Never, or Almost Never, 2= Rarely, 3= Sometimes, 4= Often, and 5= Always, or Almost Always). Items 18-23 pertained to demographic information including years working in education, years working in the current school, highest education degree earned, method of obtaining teaching certification, gender and race. Two of these questions required the respondent to provide a written response, while the other four were multiple choice type questions.

Additional data were collected through interviews with participating principals. The interview questions were developed following an analysis of the school culture and achievement data. The content of the questions focused on how the administrator specifically felt about school culture, the extent to which he/she attributed culture to student achievement, and methods whereby cultural and cultural changes were infused throughout the school in order to support change while maintaining success (Appendix G).

The respondents were informed that their answer choices were confidential and at no time were the teacher respondents asked to provide their names. To further ensure confidentiality, each school's survey instruments were coded with a number that the researcher assigned in order to identify participating schools.

Research Questions

This study will be guided by the following research questions:

1. To what extent do schools scoring in the top 33%, the middle 33%, and the bottom 33% on the School Culture Triage Survey differ on: (a) total years of teaching experience of teachers; (b) years of teaching experience of teachers at present school; (c) highest level of degree earned; (d) method by which teaching certificate was obtained; (e) gender of the faculty; and (f) racial diversity (mix) of the teachers.
2. What relationship, if any, exists between the overall school culture as measured by the School Culture Triage Survey, and student achievement as measured by the percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading?
3. What relationships, if any, exist between each of the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) and student achievement? School culture is measured by the School Culture Triage Survey. Student achievement is measured by the percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading.
4. What relationship, if any, exists between a principal's tenure at a particular school and school culture as measured by the School Culture Triage Survey?

Follow-Up Interview Questions with Administrators

In addition to the quantitative data collected through the School Culture Triage Survey and achievement scores from the FCAT, the researcher sought to identify common patterns of behavior and beliefs expressed by principals of the participating schools. These qualitative data were collected through a brief interview. The guiding interview questions were:

1. To what do you attribute your school culture?
2. What have you done to shape the culture of the school?
3. What are the targets you have for continuing to foster and develop a healthy school culture?
4. To what extent do you feel school culture impacts student achievement?
5. To what extent does student achievement impact school culture?

Data Analysis

Upon completion of the survey window, the surveys were examined to ensure they were properly completed and that respondents' answered at least 15 of the 17 initial survey questions (88%). A minimum number of responses for the seven remaining demographic questions was not established. The results were hand-entered into a spreadsheet designed to tally results for each participating elementary school. This spreadsheet data were completed using Statistical Package for Social Sciences, Version 11.5 (SPSS). Data analysis was completed in an effort to determine which schools comprised the top 33%, the middle 33%, and bottom 33% of school culture scores.

Student achievement data of Seminole County's third grade students taking Florida's FCAT Reading during the 2006-2007 school year were obtained from the Florida Department of Education website (www.fldoe.org). These data were entered into SPSS and analyzed to determine how a school's culture and its student achievement on the 2007 FCAT Reading were related.

Data Analysis for Research Question 1

Data analysis for Research Question 1 focused on the extent to which schools scoring in the top 33%, the middle 33%, and the bottom 33% on the School Culture Triage Survey differ on: (a) total years of teaching experience of teachers; (b) years of teaching experience of teachers at present school; (c) highest level of degree earned; (d) method by which teaching certificate was obtained; (e) gender of the teachers; and (f) racial diversity (mix) of the teachers.

After collecting the data, each participating schools' culture data were analyzed to determine a mean culture score. The researcher arrived at this score by calculating the sum of points chosen by the participants for each of the 17 survey items and then dividing this total by the number of participants from each school. Following this procedure, the schools were ranked according to their mean culture scores and placed into one of three groups. These groups comprised of the schools fitting into the top 33% (N=9), middle 33% (N=9), and bottom 33% (N=9) as measured by their school culture score.

Each of the three groups was subject to an analysis of descriptive statistics for each of the six experiential/demographic variables included on the survey. These survey

items were included to uncover the role specific demographics played throughout the ranked schools. For comparison purposes, a mean value was determined for each of these variables. The data inquiry included an analysis of the relationships between a school's score on the School Culture Triage Survey and the variables of (a) total years of teaching experience of teachers; (b) years of teaching experience of teachers at present school; (c) highest level of degree earned; (d) method by which teaching certificate was obtained; (e) gender of the teachers; and (f) racial diversity (mix) of the teachers. In an attempt to uncover any further differences not explained through the descriptive analyses, an Analysis of Variance (ANOVA) was calculated for each of the experiential/demographic variables.

Data Analysis for Research Question 2

Research Question 2 was aimed at establishing the relationship, if any, that existed between the overall school culture as measured by the School Culture Triage Survey, and student achievement as measured by the percentage of third grade students scoring a level 3 or above on the 2007 FCAT Reading. The school culture data were divided into groups as follows: top 33% of school culture scores (N=9), middle 33% of school culture scores (N=9), and bottom 33% of school culture scores (N=9). A Pearson's Product Moment Correlation was used with these groups to establish what, if any, significant relationship existed between student achievement as measured by the percentage of students scoring a level 3 or above on the 2007 third grade FCAT Reading

and the groups established by the cultures scores derived from the School Culture Triage Survey.

Data Analysis for Research Question 3

Research Question 3 sought to determine what relationships, if any, existed between each of the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) and student achievement. School culture was measured by the School Culture Triage Survey, and student achievement was measured by the percentage of third grade students scoring a level 3 or above on the 2007 FCAT Reading as published by the Florida Department of Education. Pearson's Product Moment Correlation was run to determine what relationships, if any, existed between the three key areas of school culture and student achievement.

Data Analysis for Research Question 4

The fourth and final research question was designed to determine what relationship, if any, existed between a principal's tenure at a particular school and school culture as measured by the School Culture Triage Survey. An analysis of this question included a Pearson's Product Moment Correlation to conclude what relationship, if any, existed between the culture scores on the School Culture Triage Survey and the number of years a principal has been the leader of the school.

Data Analysis for Principal Interviews

Principal leaders (N=8) from participating schools took part in follow-up interviews as a means of gathering additional information about their school's culture and its subsequent impact on student achievement. The focus of the interview questions was to establish common practices employed by principals of schools with high culture scores and high achievements compared with leaders of schools with low culture scores and low achievement. Additional inquiry served to establish patterns of behavior for any schools that were outliers with regard to culture scores and student achievement. The data collected through the interviews were carefully reviewed and analyzed in search of common patterns of beliefs. The idea behind this data analysis was to establish types of behaviors, when increased or decreased by school leaders, which can have an impact on school culture and student achievement.

Summary

This chapter described the methodology and procedures utilized in analyzing the overall culture of elementary schools in Seminole County, Florida and how the cultures impacted those schools' student achievement as measured by third grade students taking FCAT Reading. The analysis described in the this chapter also served to establish how certain experiential/demographic variables, principal tenure, and the three key components of school culture (collegiality, collaboration, and self-determination/efficacy) related to schools ranking in the top, middle, or bottom third of the whole based on their school culture scores. In addition to describing these data

analysis and the analysis associated with follow-up interviews with principals, this chapter provided information about the population, instrumentation, and procedures of data collection. Chapter Four highlights the analysis of data for the participating schools and introduces the results of the study. Chapter Five includes a thorough discussion of the research findings and implications for future research.

CHAPTER FOUR: ANALYSIS OF THE DATA

Introduction

This study was designed to collect quantitative and qualitative data concerning the relationship between the overall culture of elementary schools, as perceived by teachers, and the reading achievement demonstrated by third grade students at these schools. The results of this study were intended to contribute to the existing research on school culture and its role in student achievement. Additionally, it was hoped that the data results complemented the extensive exploration of the relationships between collaboration, collegiality, self-determination/efficacy, and to student achievement. Further qualitative data gathered from participating principals were intended to reveal principal beliefs about how school culture and student achievement may be related. This study was centered on the following four questions:

1. To what extent do schools scoring in the top 33%, the middle 33%, and the bottom 33% on the School Culture Triage Survey differ on: (a) total years of teaching experience of teachers; (b) years of teaching experience of teachers at present school; (c) highest level of degree earned; (d) method by which teaching certificate was obtained; (e) gender of the teachers; and (f) racial diversity (mix) of the teachers.
2. What relationship, if any, exists between the overall school culture as measured by the School Culture Triage Survey, and student achievement as measured by the percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading?

3. What relationships, if any, exist between each of the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) and student achievement? School culture is measured by the School Culture Triage Survey. Student achievement is measured by the percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading.
4. What relationship, if any, exists between a principal's tenure at a particular school and school culture, as measured by the School Culture Triage Survey?

This chapter is organized into seven sections. The first section provides a review of the reliability analysis performed on the survey instrument. Section two includes an overview of the research population and describes the demographic characteristics revealed through the descriptive analysis. A thorough data analysis for each of the four research questions can be found in sections three through six, while section seven contains the analysis of data for the interviews conducted with eight principals from a sample of the participating schools. The data discussed in sections two through six were gathered from the teacher responses recorded on the self-administered School Culture Survey. The qualitative analysis of principal data was retrieved from the five-question interview conducted with principals by the researcher.

Reliability Analysis of Survey Instrument

The School Culture Triage Survey was found in a publication aimed at assessing school culture and has been used in various research studies (Cunningham, 200 Melton-Shutt, 2004; Wagner, 2004; Wagner & Masden-Copas, 2002). This fact supported the supposition that the survey instrument's reliability as a measurement of school culture had been established; however to ensure reliability of the instrument in this study, the researcher conducted a reliability analysis. Total question reliability (N=17) revealed a Cronbach's Alpha of 0.925. Additional reliability analyses were completed for each of the three components of the survey: collaboration, collegiality, and self-determination/efficacy. Survey items focusing on collaboration (N=5) had a Cronbach's Alpha of .743. Collegiality related survey items (N=6) showed a Cronbach's Alpha of .887, while self-determination/efficacy survey items (N=6) had a Cronbach's Alpha of .879.

An inter-correlation test for each of the subscales (N=27) was also computed. The Pearson's Product Moment Correlation test revealed that the correlation between collaboration and collegiality was significant ($r = 0.95$, $p = 0.0$). It was found that the correlation between collaboration and self-determination/efficacy was significant ($r = 0.97$, $p = 0.0$). In addition to these findings of significance, the correlation test between collegiality and self-determination/efficacy was also significant ($r = 0.98$, $p = 0.0$). Each of these reliability results supports the presumption that the School Culture Triage survey had high internal consistency reliability in determining school culture.

Population and Demographic Characteristics

The population for this study included all elementary teachers employed by Seminole County Public Schools in Seminole County, Florida during the 2006-2007 school year. This population consisted of approximately 1250 teachers in 37 elementary schools across the county. Of the 37 elementary schools invited to participate, teachers from 30 of the schools returned surveys, while seven schools chose not to participate. After reviewing the survey responses, the researcher concluded that three of the schools did not have enough completed surveys to be included in the study. As a result, surveys were completed by teachers at 27 of the 37 schools (73%) for a total of 574 teacher surveys included in the data analysis. School culture data analyses were completed after ranking the schools and placing them in one of three groups based on culture scores: top 33% (N=9), middle 33% (N=9), and bottom 33% (N=9). Additional information was gathered through a brief interview with eight principals from the participating elementary schools. These administrators were invited to participate in the interview following the collection and analysis of data. Principals representing each ranked group were included in this analysis.

Research Question 1 sought to reveal demographic and descriptive information about the population included in this research study. Survey items 18-23 on the School Culture Triage Survey (years of teaching experience, years teaching at current school, race, gender, level of education, and method of obtaining teaching certificate) were included to learn more about the professional and personal background of the respondents, and determine how these variables differed on the School Culture Survey

among the top 33%, middle 33% and bottom 33%. Tables and figures 1 through 6 display the percentages collected through a descriptive analysis for each of the demographic questions asked in survey items 18-23.

Research Question 1

To what extent do schools scoring in the top 33%, the middle 33%, and the bottom 33% on the School Culture Triage Survey differ on: (a) total years of teaching experience of teachers; (b) years of teaching experience of teachers at present school; (c) highest level of degree earned; (d) method by which teaching certificate was obtained; (e) gender of the teachers; and (f) racial diversity (mix) of the teachers.

Table 1 and Table 2 present the mean number of total years of teaching experience of the teachers who participated in the study, as well a breakdown of years of experience into various ranges. The data presented in Table 2 is also displayed in Figure 1. For this survey item, respondents were given the opportunity to write in the number of years they had worked in education. The range for this question was from one year (first year) to 47 years in education. To narrow down this large range, the researcher reported the years in education as follows: 1-2 years; 3-9 years; 10-14 years; and 15 years or more. These ranges are identical to the ranges used in Cunningham's (2003) study. The participating schools were grouped by the top 33% (N=9), middle 33% (N=9), and bottom 33% (N=9) as determined by their mean scores on the School Culture Triage Survey.

Teachers from the schools scoring in the top 33% on the School Culture Triage Survey had a mean of 13.51 years in education. Teachers working in the schools scoring in the middle 33% for culture had a mean of 13.27 years of experience, while teachers

working in the schools that made up the bottom 33% of culture scores had a mean of 15.17 years of teaching experience.

Table 1
Mean Total Years of Teaching Experience for Three Ranked Groups

Schools' Culture Score Range	N	Mean	Standard Deviation
Top 33%	9	13.51 Years	10.08 Years
Middle 33%	9	13.27 Years	10.61 Years
Bottom 33%	9	15.17 Years	10.22 Years
Total	27	13.97 Years	10.35 Years

Note: Not all respondents answered all survey items.

Schools scoring in the top 33% on the School Culture Triage Survey had 9.9% of teachers with 1-2 years of total teaching experience, 35.2% of teachers with 3-9 years of total teaching experience, 14.2% of teachers with 10-14 years of teaching experience, and 40.7% of teachers with 15 or more total years of working in education.

Schools scoring in the middle 33% on the School Culture Triage Survey had 12.4% of teachers with 1-2 years of total teaching experience, 35.0% of teachers with 3-9 years of total teaching experience, 9.2% of teachers with 10-14 years of teaching experience, and 43.3% of teachers with 15 or more total years of working in education.

Schools scoring in the bottom 33% on the School Culture Triage Survey had 5.6% of teachers with 1-2 years of total teaching experience, 30.3% of teachers with 3-9 years

of total teaching experience, 14.4% of teachers with 10-14 years of teaching experience, and 44.8% of teachers with 15 or more total years of working in education.

An Analysis of Variance (ANOVA) was calculated to determine if any further differences existed between the groups and total years of teaching experience and may have been undetected through the descriptive analysis and table/figure displays. An alpha level of 0.5 was used for all statistical tests. No statistical difference was found, $F(47, 514) = 1.08$, $p = 0.34$.

Table 2
Percentage of Total Years of Teaching Experience of Teachers

Schools' Culture Score Range	1-2 years	3-9 years	10-14 years	15+ years
Top 33%	9.9%	35.2%	14.2%	40.7%
Middle 33%	12.4%	35.0%	9.2%	43.3%
Bottom 33%	5.6%	30.3%	14.4%	49.7%

Note: Not all respondents answered all survey items.

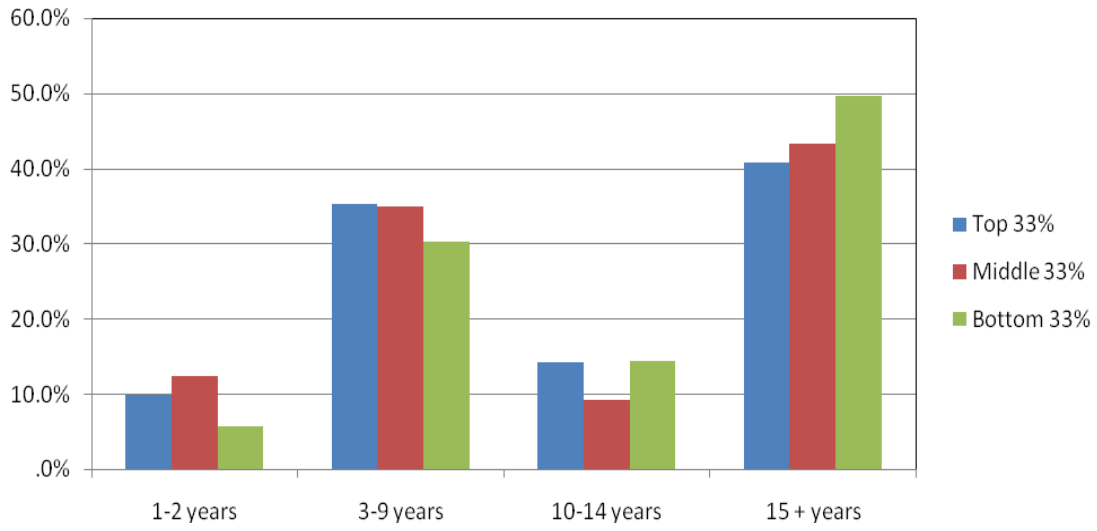

Figure 1
Percentage of Total Years of Teaching Experience of Teachers

Table 3 and Figure 2 show each of the ranked groups and the mean years of teaching at the present school, while Table 4 displays the ranked groups and the years of teaching at the present school broken down into smaller ranges. Similar to survey item 18, survey question 19 was open ended allowing the respondent to write in the number of years he/she has worked in the present school. The range for this question was from 1 year (first year) to 36 years working in their present school. The years at present school were categorized in the following sets in order to narrow down the large range: 1-2 years; 3-9 years; 10-14 years; and 15 years or more. The participating schools were grouped by the top 33% (N=9), middle 33% (N=9) and bottom 33% (N=9) as determined by their mean scores on the School Culture Triage Survey.

Teachers from the schools scoring in the top 33% on the School Culture Triage Survey had of a mean of 5.89 years of teaching experience at their present school. The teaching population representing the middle 33% on the School Culture Triage Survey

had a mean of 6.26 years of teaching experience at their present school, while the teachers comprising the schools scoring in the bottom 33% on culture had a mean of 7.10 years of teaching experience at their present school.

Table 3
Mean Total Years of Teaching at Present School for Three Ranked Groups

Schools' Culture Score Range	N	Mean	Standard Deviation
Top 33%	9	5.89 Years	6.06 Years
Middle 33%	9	6.25 Years	7.06 Years
Bottom 33%	9	7.10 Years	7.10 Years
Total	27	6.43 Years	6.76 Years

Note: Not all respondents answered all survey items.

Schools scoring in the top 33% on the School Culture Triage Survey had 31.5% of teachers with 1-2 years of teaching experience at their present school, 46.3% of teachers with 3-9 years of teaching experience at their present school, 9.9% of teachers with 10-14 years of teaching experience at their present school, and 12.3% of teachers with 15 or more of teaching at their present school.

Table 4
Percentage of Years of Teaching at Present School

Schools' Culture Score Range	1-2 years	3-9 years	10-14 years	15+ years
Top 33%	31.5%	46.3%	9.9%	12.3%
Middle 33%	39.6%	35.0%	9.7%	15.7%
Bottom 33%	23.1%	47.7%	10.3%	19.0%

Note: Not all respondents answered all survey items.

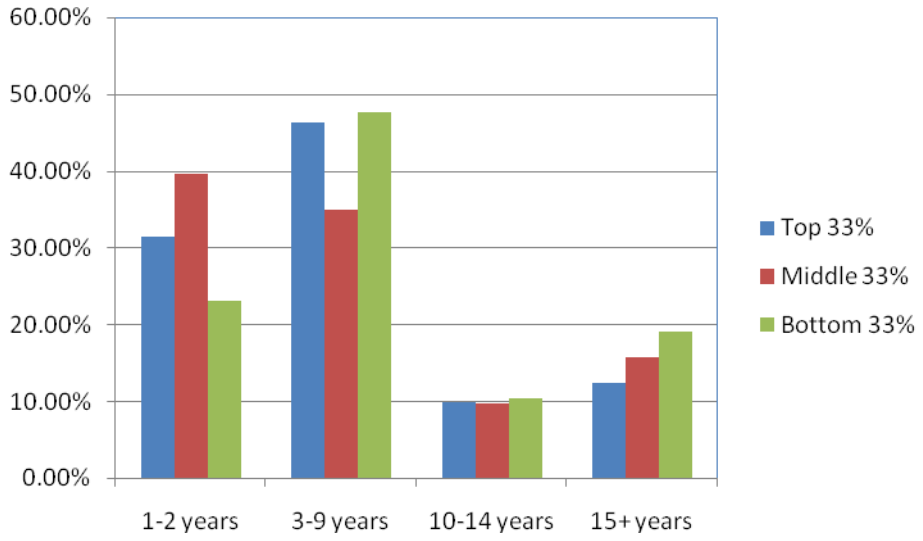

Figure 2
Percentage of Years of Teaching Experience of Teachers at Present School

Schools scoring in the middle 33% on the School Culture Triage Survey had 39.6% of teachers with 1-2 years of teaching experience at their present school, 35.0% of teachers with 3-9 years of teaching experience at their present school, 9.7% of teachers with 10-14 years of teaching experience at their present school, and 15.7% of teachers with 15 or more of teaching at their present school.

Schools scoring in the bottom 33% on the School Culture Triage Survey had 23.1% of teachers with 1-2 years of teaching experience at their present school, 47.7% of teachers with 3-9 years of teaching experience at their present school, 10.3% of teachers with 10-14 years of teaching experience at their present school, and 19.0% of teachers with 15 or more years of teaching at their present school.

An Analysis of Variance (ANOVA) was performed to determine if any further differences existed between the groups and years of teaching experience at the present school. These differences may have been undetected through the descriptive analysis and table/figure displays. An alpha level of 0.5 was used for all statistical tests. No statistical difference was found, $F(36, 520) = 0.64$, $p = 0.95$.

The percentages for the highest level of education attained by the participating teachers are displayed in Table 5 and Figure 3. The levels of degrees presented to the participants in survey item 20 included bachelors, masters, specialist, and doctorate. The participating schools were grouped by the top 33% (N=9), middle 33% (N=9) and bottom 33% (N=9) as determined by their mean scores on the School Culture Triage Survey.

Schools scoring in the top 33% on the School Culture Triage Survey had 58.0% of teachers with a bachelor's degree, 35.2% of teachers with a master's degree, 4.9% of teachers with a specialist degree, and 1.8% of teachers who earned a doctorate degree.

Table 5
Percentage of Highest Level of Degree Earned by Teachers

Schools' Culture Score Range	Bachelors	Masters	Specialist	Doctorate
Top 33%	58.0%	35.2%	4.9%	1.9%
Middle 33%	58.5%	37.8%	2.8%	0.9%
Bottom 33%	52.3%	44.6%	2.1%	1.0%

Not all respondents answered all survey items.

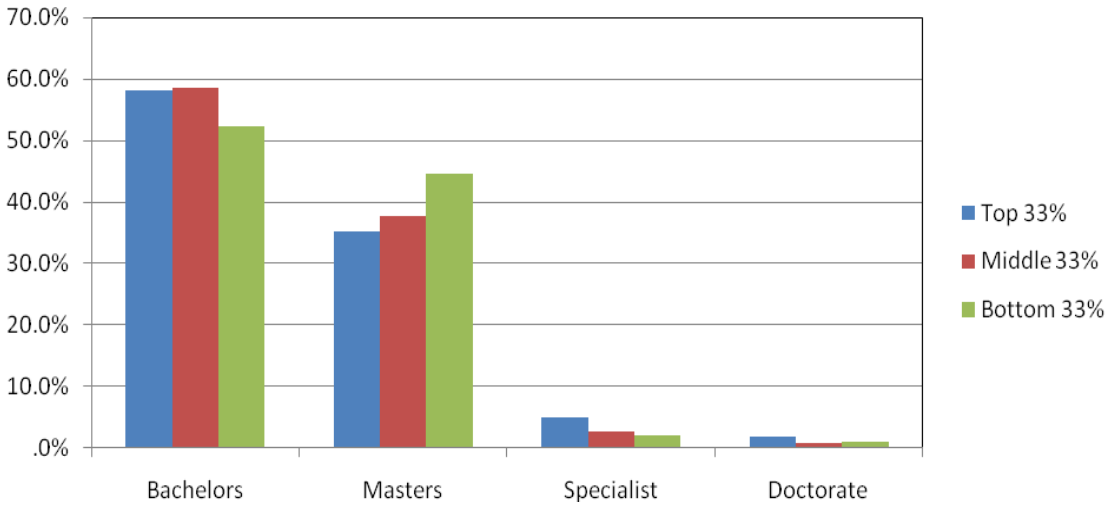

Figure 3
Percentage of Highest Level of Degree Earned by Teachers

Schools scoring in the middle 33% on the School Culture Triage Survey had 58.5% of teachers with a bachelor's degree, 37.8% of teachers with a master's degree, 2.8% of teachers with a specialist degree, and 0.9% of teachers who earned a doctorate degree.

Schools scoring in the bottom 33% on the School Culture Triage Survey had 52.3% of teachers with a bachelor's degree, 44.6% of teachers with a master's degree, 2.1% of teachers with a specialist degree, and 1.0% of teachers who earned a doctorate degree.

An Analysis of Variance (ANOVA) was calculated to determine if any further differences existed between the groups and the highest level of degree earned by the participating teachers as these differences may have been unnoticed through the descriptive analysis and table/figure displays. An alpha level of 0.5 was used for all statistical tests. No statistical difference was found, $F(3, 568) = 1.75$, $p = 0.15$.

Table 6 presents the percentages for the method whereby the respondents' obtained their teaching degree: traditional route via a college or university degree in education, or the alternative certification route. Figure 4 provides a visual representation of this analysis. The participating schools were grouped by the top 33% (N=9), middle 33% (N=9) and bottom 33% (N=9) as determined by their mean scores on the School Culture Triage Survey.

Schools scoring in the top 33% on the School Culture Triage Survey had 93.2% of teachers earn a teaching certificate through the traditional degree route, while 6.8% of teachers received their teaching certificate through the alternative certification route. Schools scoring in the middle 33% on the School Culture Triage Survey had 95.8% of teachers earning their teaching certificate through the traditional degree route, and 4.2% of teachers earned their teaching certificate via alternative certification. Schools scoring in the bottom 33% on the School Culture Triage Survey had 95.9% of teachers with

teaching certificates earned through a traditional education degree method, and 4.1% of teachers earning their teaching certificate through alternative certification. An Analysis of Variance (ANOVA) determined that no further differences existed between the groups and the method whereby the teacher certificate was obtained, $F(1, 570) = 1.26$, $p = 0.26$. An alpha level of 0.5 was used for all statistical tests.

Table 6
Percentage of Method of Obtaining Teaching Certificate

Schools' Culture Score Range	Traditional	Alternative
Top 33%	93.2%	6.8%
Middle 33%	95.8%	4.2%
Bottom 33%	95.9%	4.1%

Note: Not all respondents answered all survey items.

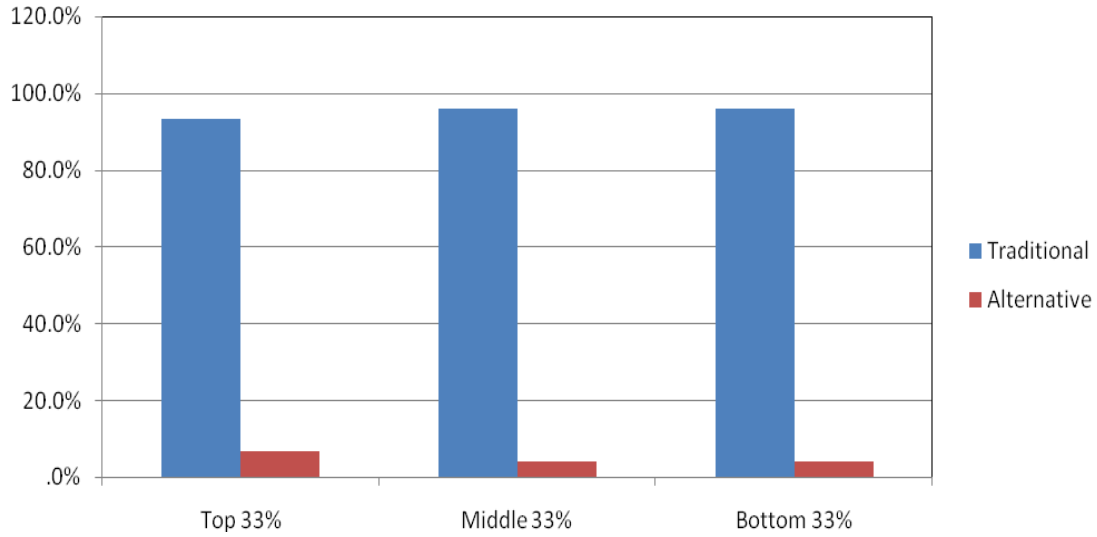

Figure 4
Percentage of Method of Obtaining Teaching Certificate

Table 7 and Figure 5 depict the gender of the participating teachers in each group of responding schools. The participating schools were grouped by the top 33% (N=9), middle 33% (N=9) and bottom 33% (N=9) as determined by their mean scores on the School Culture Triage Survey.

Schools scoring in the top 33% on the School Culture Triage Survey had 95% female teachers, and 5.0% male teachers. Schools scoring in the middle 33% on the School Culture Triage Survey had 95.4% female teachers, and 4.6% male teachers. Schools scoring in the bottom 33% on the School Culture Triage Survey had 95.8% female teachers, and 4.2% male teachers. An Analysis of Variance (ANOVA) was run to determine if any further differences between the groups and gender may have been concealed in the descriptive analysis found that no significant difference existed, $F(1, 564) = 0.12$, $p = 0.72$. An alpha level of 0.5 was used for all statistical tests.

Table 7
Percentage of Gender of Teachers

Schools' Culture Score Range	Female	Male
Top 33%	95.0%	5.0%
Middle 33%	95.4%	4.6%
Bottom 33%	95.8%	4.2%

Note: Not all respondents answered all survey items.

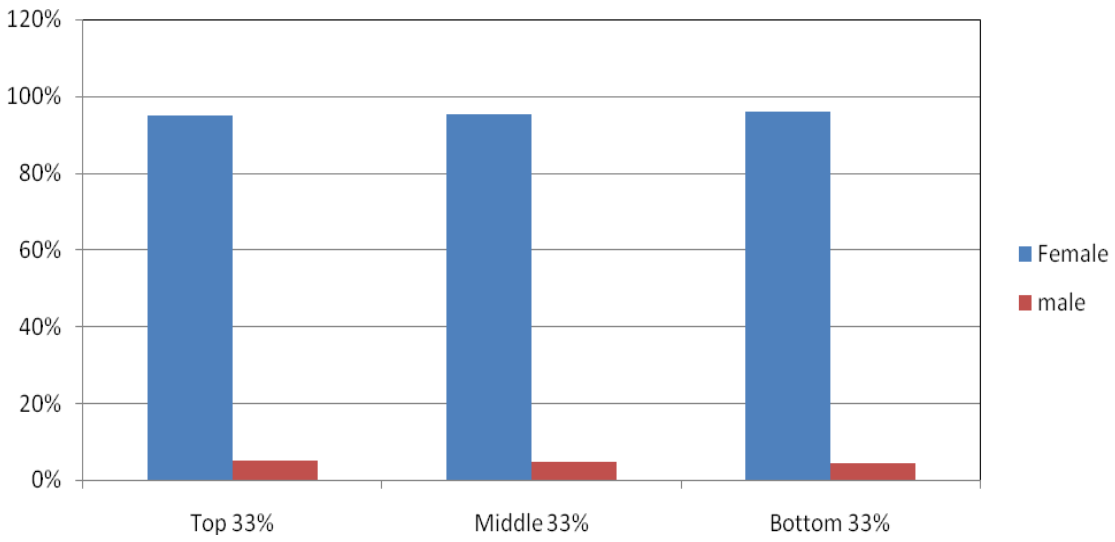

Figure 5
Percentage of Gender of Teachers

The racial diversity (mix) of the respondents from the participating schools is described in Table 8 and Figure 6. Survey item 23 included the following five categories of racial diversity: Asian, Black, Hispanic, White, and Other. The participating schools were grouped by the top 33% (N=9), middle 33% (N=9) and bottom 33% (N=9) as determined by their mean scores on the School Culture Triage Survey.

Schools scoring in the top 33% on the School Culture Triage Survey had 1.3% Asian teachers, 3.8% Black teachers, 4.4% Hispanic teachers, 89.9% White teachers, and 0.6% of teachers identifying with the category Other.

Schools scoring in the middle 33% on the School Culture Triage Survey had 0.9% Asian teachers, 4.7% Black teachers, 3.7% Hispanic teachers, 89.3% White teachers, and 1.4% of teachers identifying with the category Other.

Schools scoring in the bottom 33% on the School Culture Triage Survey had 1.1% Asian teachers, 3.8% Black teachers, 3.2% Hispanic teachers, 89.8% White teachers, and 2.2% of teachers identifying with the category Other.

An Analysis of Variance (ANOVA) was performed to determine if any further differences existed between the groups and the ethnicity of the participating teachers that may have been undetected through the descriptive analysis. An alpha level of 0.5 was used for all statistical tests. No statistical difference was found, $F(4, 555) = 0.43$, $p = 0.79$.

Table 8
Percentage of Racial Diversity (mix) of Teachers

Schools' Culture Score Range	Asian	Black	Hispanic	White	Other
Top 33%	1.3%	3.8%	4.4%	89.9%	0.6%
Middle 33%	0.9%	4.7%	3.7%	89.3%	1.4%
Bottom 33%	1.1%	3.8%	3.2%	89.8%	2.2%

Note: Not all respondents answered all survey items.

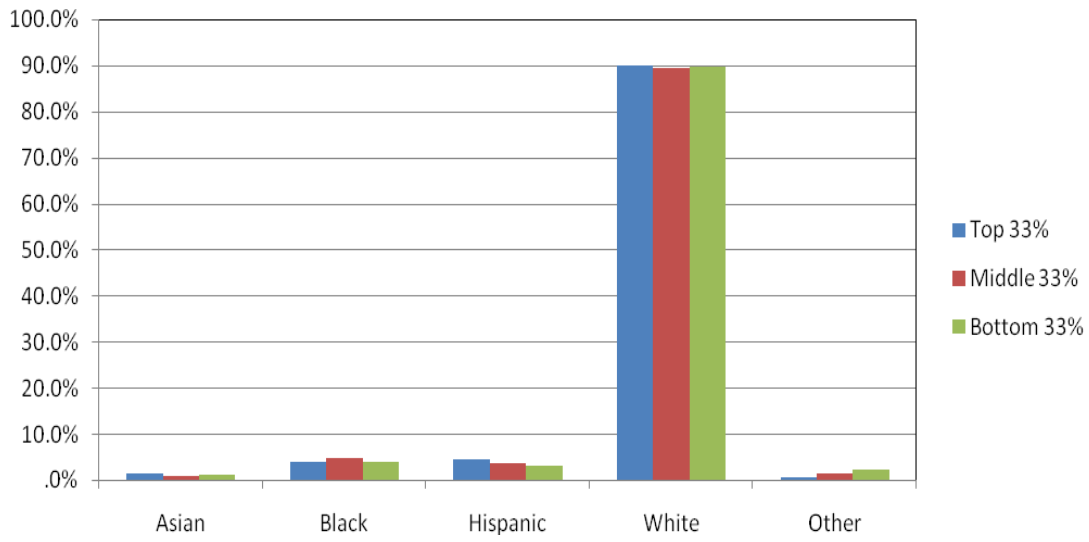

Figure 6
Percentage of Racial Diversity (mix) of Teachers

Research Question 2

What relationship, if any, exists between the overall school culture as measured by the School Culture Triage Survey, and student achievement as measured by the percentage of third grade students scoring at level 3 or above on the 2007 FCAT Reading?

Research Question 2 sought to reveal any relationship between the participating schools' overall school culture scores and student achievement. School culture scores were collected from data provided by teachers completing the School Culture Triage Survey, and student achievement scores were gathered from the Florida Department of Education's website list of participating schools' percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading.

School culture scores were ranked and three groups were formed for the analysis. The schools were groups by those scoring in the top 33% (N=9), middle 33% (N=9) and

bottom 33% (N=9) on the School Culture Triage Survey. Table 9 and Figure 7 present the mean culture scores for each of the three groups. The mean school culture score for the 9 schools ranked in the top 33% of the population was 4.03. The mean school culture score for the 9 schools making up the middle 33% of the population was 3.69, and the mean school culture scores for the 9 schools comprising the bottom 33% of the population was 3.33.

Table 9
Mean Culture Scores for Schools in the Three Ranked Groups

Schools	Mean Culture Score	N	Standard Deviation
Top 33%	4.03	9	0.16
Middle 33%	3.69	9	0.10
Bottom 33%	3.33	9	0.13
Total	3.68	27	0.32

Note: 88% of Survey Items had to be answered for inclusion in the data set.

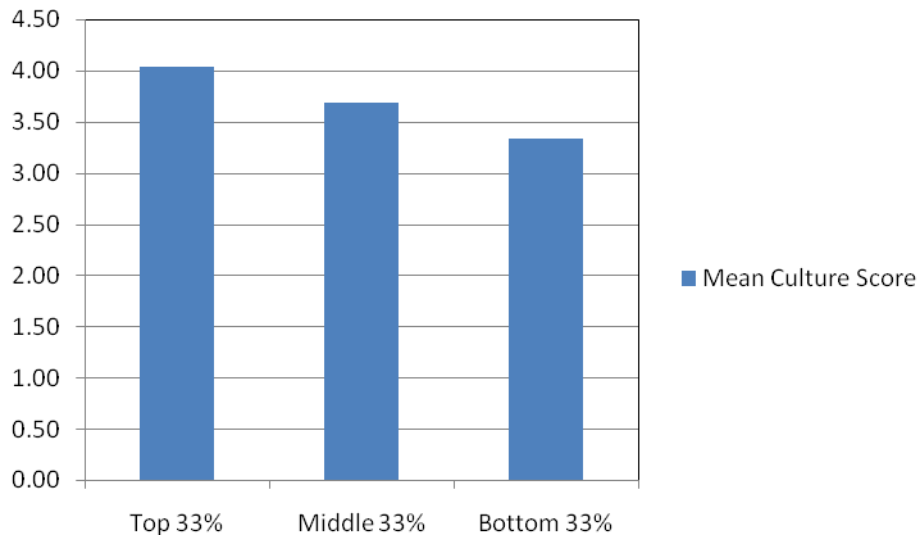

Figure 7
Mean Culture Scores for Schools in the Three Ranked Groups

Student achievement scores were collected for each ranked school and averaged to determine an average percentage of students' scoring at level 3 and above on the FCAT for each group. Schools scoring in the top 33% on the School Culture Triage Survey had an average of 79.3% of students scoring at levels 3 and above on the 2007 FCAT Reading. Schools scoring in the middle 33% on the School Culture Triage Survey had an average of 77.5% of students scoring at levels 3 and above on the 2007 FCAT Reading. Schools scoring in the bottom 33% on the School Culture Triage Survey had an average of 82.3% of students scoring at levels 3 and above on the 2007 FCAT Reading. Table 10 and Figure 8 provide a visual representation of school culture groups and student achievement as measured by students' scoring at level 3 and above on the 2007 FCAT Reading.

Table 10
Third Grade FCAT Reading Proficiency between the Three Ranked Groups

Schools' Culture Score Ranges	FCAT Proficiency	N	Standard Deviation
Top 33%	79.3%	9	7.26
Middle 33%	77.5%	9	9.44
Bottom 33%	82.3%	9	8.27
Total	79.74%	27	8.29

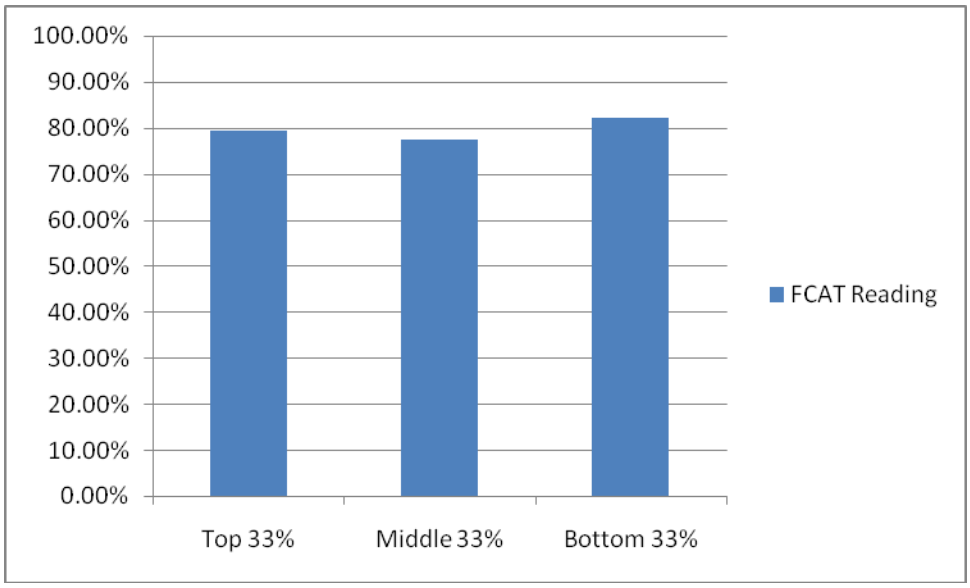

Figure 8
Third Grade FCAT Reading Proficiency between the Three Ranked Groups

A Pearson's Product Moment Correlation was completed to determine what, if any, relationship existed between the schools' percentages of third grade students scoring at level 3 and above on the 2007 FCAT Reading and school culture based on the ranked groups formed from the School Culture Triage Survey scores. An alpha level of .05 was

used for all statistical tests. No statistical difference was found ($r = 0.15$, $p = 0.45$). Further analysis of the total (pool) standard deviation and effect size of differences between groups returned the following information. The difference between the top 33% scoring culture group and middle 33% scoring culture group was 1.8. This number was divided by the total standard deviation 8.29 yielding a small effect size of 0.217. The effect size calculation between the top scoring culture group and bottom scoring culture group was -3.0/8.29 for a moderate effect size of -0.36. A final analysis of the effect size of the difference between the middle 33% scoring culture group and the bottom 33% scoring culture group was -4.8/8.29, for a strong effect size of -0.58.

Research Question 3

What relationships, if any, exist between each of the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) and student achievement? School culture is measured by the School Culture Triage Survey. Student achievement is measured by the percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading.

Pearson's Product Moment Correlation was performed to determine a relationship between each of the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) as measured on the School Culture Triage Survey and student achievement as measured by students scoring at level 3 and above on the 2007 FCAT Reading.

The Pearson's Correlation between the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) culture and student achievement revealed no significant relationships. The correlation calculations for each

of the three key areas of school culture and student achievement were as follows: collaboration ($r = -0.28$, $p = 0.15$), collegiality ($r = -0.18$, $p = 0.37$), and self-determination/efficacy ($r = -0.24$, $p = 0.23$).

Research Question 4

What relationship, if any, exists between a principal's tenure at a particular school and school culture as measured by the School Culture Triage Survey?

To determine if there was a relationship between the number of years a principal has been the leader of a particular school (tenure) and the school's overall culture, a Pearson's Product Moment Correlation was computed. The results of this test found that there was no statistically significant relationship between principal tenure and school culture ($r = -0.29$, $p = 0.14$). A further descriptive analysis of these data revealed a mean tenure of 3.26 years for the principals from the participating schools, and a strong positive skew.

Follow-Up Interviews: Principal Beliefs About School Culture and Student Achievement

The researcher sought to identify common patterns of behavior and beliefs expressed by principals of the participating schools. These qualitative data were collected through a brief interview with principals (N=8) from each of the three ranked groups. The guiding interview questions were:

1. To what do you attribute your school culture?
2. What have you done to shape the culture of the school?

3. What are the targets you have for continuing to foster and develop a healthy school culture?
4. To what extent do you feel school culture impacts student achievement?
5. To what extent does student achievement impact school culture?

Following the interviews, the researcher analyzed the principal responses. The responses were reviewed for similarities and differences in beliefs shared by the principals and were compared both within and between the groups. The patterns of beliefs and similarities/differences in responses among the principals from each of the three ranked groups are revealed below.

Interview Question 1

To what do you attribute your school culture?

Responding principals representing schools scoring in the top 33% on the School Culture Triage Survey expressed that their beliefs in a strong vision, a leadership style based on the principles of servant leadership, and high expectations for collaboration and a team approach were major contributors to their school culture. Additional common factors attributed to their school culture were related to their hiring practices and employing faculty with various traits and experiences that will strengthen the established culture.

Common beliefs from principals representing schools scoring in the middle 33% on the School Culture Triage Survey were that of collaboration, cooperation, and team building which was implemented to foster shared experiences.

Common values attributed to the school culture expressed by principals from schools scoring in the bottom 33% of school culture scores took into account the shared values, vision, and traditions, the leadership style of the principal, and the characteristics of the school and community population.

Interview Question 2

What have you done to shape the culture of the school?

Principals from schools in the top 33% of school culture scores noted that they had shaped the culture of the school through the creation of shared experiences by the staff both on and off the school campus and during and after the school year. They commonly spoke of using team building activities, involving everyone in decision-making and planning, and continuing their approach to hiring new staff as methods of supporting their vision and values.

Similarly, principals representing schools scoring in the middle 33% of school culture scores spoke about a fostering the common vision through celebrations and activities. They also described their attention to expectations and structure, instructional leadership, and the nurturing of mutual respect and positive communication as actions aimed at shaping the school culture.

Responses expressed by principals from schools scoring in the bottom 33% of school culture scores also focused on the implementation of activities designed to bring the faculty and community together to celebrate one another. Another common practice

noted by these respondents was the purposeful consideration for the school culture and devising methods of both establishing it and changing it.

Interview Question 3

What are the targets you have for continuing to foster and develop a healthy school culture?

Responding principals from the schools scoring in the top 33% of school culture score commonly focused on their drive to continue implementing activities which supported their established vision and values. These principals frequently noted that their targets for continuing to foster and develop a healthy school culture were centered on keeping their faculty focused and interested in the values and vision which were already established and recognized.

The targets for continuing to foster and develop a healthy culture, as described by principals from schools scoring in the middle 33% of school culture scores were that of creating more opportunities for decision-making and open communication, focusing on the establishment of a collaborative environment, and continuing to monitor leadership styles and management expectations.

Respondents from schools scoring in the bottom 33% of school culture scores discussed continuing to focus on activities designed to increase teamwork and the creation of shared experiences by the faculty, students, and community. These principals' responses focused on creating opportunities for the school and community to work together.

Interview Question 4

To what extent do you feel school culture impacts student achievement?

The principals from all three ranked culture groups were in agreement when expressing their beliefs about the impact of school culture on student achievement. There was concurrence in the responses to this questions whereby each respondent noted their belief that school culture did have an impact on student achievement. Their various responses indicated they felt school culture unified the faculty and set the tone for student success.

Interview Question 5

To what extent does student achievement impact school culture?

Unlike the congruence in responses and patterns revealed in the previous four interview questions, the researcher discovered some differences in responses within and among the groups for this question. Principals from schools scoring in the top 33% of school culture scores had a variety of beliefs regarding the impact that student achievement had on school culture. These responses ranged from believing student achievement was the driving force behind school culture to believing that there was a relationship, but the impact is not as influential as it is for the reverse relationship: culture impacting achievement.

Respondents representing schools from the middle 33% of culture scores indicated that they believed student achievement did impact school culture. Differing opinions pointed out that when achievement was high it fostered positive feelings for the

staff, thus massaging the culture. However, on the other end, when achievement was low, it could negatively impact culture.

Principals from schools scoring in the bottom 33% of school culture scores also expressed contrasting beliefs about the impact of student achievement on culture. The analysis revealed that some felt that there was a direct relationship between student achievement and school culture. Meanwhile, others felt the impact was not as great as when looking at the impact of culture on achievement or when looking at the impact when it is related to the results of the achievement, high or low.

Summary of Principal Interview Questions

The information gathered from the principal interviews revealed many similarities in beliefs among principals from each of the tree ranked groups based on culture scores. When asked about the characteristics they attributed to their school's culture, every principal, in their own words, included variables associated with vision, values, collaboration, cooperation, and shared experiences often found through the shared expectations, traditions, and history of the school. Each principal had their own strategy for tending to the culture of their schools and all respondents appeared to show appreciation for the value culture had in their institution. Furthermore, every respondent, regardless of school culture score, stated their belief that school culture highly impacted student achievement.

Slight differences in the responses from the principals became evident through an analysis of interview questions one, two and three. A trend that was discovered through

these questions was the degree of specificity and purposeful planning discussed by the principals from the high culture schools compared to the schools falling in the middle and bottom 33%. Principals from the high culture schools attributed a large portion of their culture to the vision they had established for their school. This vision was initiated through their attention to hiring "the right people in the right jobs so everyone gets along and gets the job done." After hiring individuals they felt would contribute to their vision, principals from high culture schools focused on highly detailed and planned strategic activities and opportunities for the vision to flourish into a strong, positive culture. Similarly, in high culture schools, the targets for continuing to foster a healthy school culture were centered on maintaining interest and motivation for the established vision and values of the school environment. Although the responses of principals falling in the middle 33% and bottom 33% of school culture scores were indicative of thoughtful planning and the establishment of meaningful opportunities to foster school culture, they did not appear to be as deliberate in terms of building upon a premeditated vision. This trend and other similarities and differences are discussed further in chapter five.

Summary

This chapter presented the analysis of data and the demographic information collected from the population's responses on the School Culture Triage Survey compared to student achievement data obtained from third graders taking the 2007 FCAT Reading. The analysis of data was guided by four research questions designed to determine what, if any, relationships existed between the noted variables. Further analysis of data gathered

through a five question interview with principals from participating schools served to provide additional insight into the relationship between school culture and student achievement. A summary of these results and a discussion of the research findings, as well as implications for future research can be found in Chapter 5.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, & RECOMMENDATIONS

Introduction

This chapter provides a summary of the research findings, conclusions derived from the analysis of the research questions, and recommendations for practice and future research. In particular, this chapter contains a thorough discussion of the research analysis concerning the relationship between school culture and student achievement in Seminole County Public Schools, Seminole County, Florida. Conclusions and implications for this study were drawn by the researcher from the analysis of data and the wide body of research available on the subject of school culture and student achievement. Recommendations for future research are included to provide insight and perspective for researchers interested in learning more about how school culture and student achievement may be related.

This chapter is organized into seven sections. A restatement of the problem can be found in section one. Section two provides a review of the methodology used for this study. Sections three and four comprise the summary findings of the four research questions and a discussion of the data revealed through the follow-up principal interviews. Concluding statements are located in section five, while the implications of this study and recommendations for future research on the relationship between school culture and student achievement can be found in sections six and seven respectively.

Statement of the Problem

Through identifying school culture using the School Culture Triage Survey, ranking this school culture in the top, middle, or bottom 33%, and looking at the relationships between these rankings and student achievement, this study sought to determine the extent to which the health of a school, its culture, was related to student achievement. Further analysis sought to define how each of the key components: collaboration, collegiality, and self-determination/efficacy contributed to student achievement, how principal tenure was related to school culture, and examined the role that demographics and experience played in the school culture rankings. Additional data collection through follow-up principal interviews served to reveal more about principal beliefs regarding the relationship between school culture and student achievement.

Methodology

Population and Data Collection

The target population for this study included all elementary teachers employed by Seminole County Public Schools in Seminole County, Florida during the 2006-2007 school year. The overall teacher population of this district consisted of approximately 1250 teachers in 37 elementary schools. After distribution and completion of the survey instrument, the final population for this study included 574 elementary school teachers from 27 schools (73%). Additional information was gathered from eight principals from the school sample. These administrators were invited to participate in a brief interview following the collection and analysis of data.

Participant contact for data collection and the distribution of research materials took place during a brief presentation at a district-wide elementary principal's meeting in April of 2007. Each of the 37 Seminole County elementary principals received a research information packet which included detailed information about the research study, consent documentation, confidentiality procedures, and the survey instrument (Appendices B, C, D, & E). The principals were encouraged to distribute the research materials to their teachers, and directions for the return of the survey materials were provided. Each principal was provided with a complimentary copy of Phillips and Wagner's (2003) text, *School Culture Assessment: A Manual for Addressing and Transforming School-Classroom Culture* as a gesture of gratitude for considering participation.

Following the initial contact and delivery of survey instruments, the researcher monitored the status of participation for each elementary school. By June 2007, 30 schools had returned survey instruments to the researcher. After reviewing the surveys for completion and response rate, the researcher concluded that 27 schools had returned enough surveys to be included in the study (73%), while the three remaining schools did not have enough completed teacher surveys to adequately determine the school's culture. A total of 574 individual teacher surveys were collected from the participating schools.

Follow-up data regarding principal beliefs about the relationship between school culture scores and student achievement were requested through interviews with nine principals from the participating schools. The interviews were completed with eight of the nine principals contacted for follow-up information. These principals represented a

sample from each of the three groups of schools; those falling in the top 33%, middle 33%, and bottom 33% according to their culture score on the School Culture Triage Survey, however, they were not provided with any information about school culture scores for their school or any school in the study in order to ensure confidentiality. The principal response data were collected in April 2008. Each participant received a three dollar Bruster's Ice Cream gift card as a thank you for their participation.

Instrumentation

School culture data were collected through completion of a slightly modified version of Wagner and Masden-Copas' (2002) School Culture Triage Survey (Appendix B). Permission to use this self-administered, 23 item survey, was granted by its authors (Appendix A). Items 1-17, remained unchanged from the authors' original instrument and sought to examine the overall culture of schools through the three key culture constructs of collaboration, collegiality, and self-determination/efficacy. For each of these items, the respondents circled their responses on a 1-5 Likert Scale indicating the degree to which the practices at their school aligned with each statement (1= Never, or Almost Never, 2= Rarely, 3= Sometimes, 4= Often, and 5= Always, or Almost Always). Demographic information including years working in education, years working in the current school, highest education degree earned, method of obtaining teaching certification, gender, and race were added by the researcher and represented items 18-23 of the survey instrument.

Additional data were collected through interviews with participating principals. The interview questions were developed by the researcher following the review of literature on school culture and analysis of school culture data. These questions focused on the administrator's beliefs about school culture, the role it played in student achievement, and the extent to which they believed it contributed to their school's success.

Data Analysis

At the conclusion of the survey window, the results were hand-entered into a data spreadsheet found in Statistical Package for Social Sciences, Version 11.5 (SPSS). The culture data were sorted by each school's assigned identification number and were analyzed by translating each of the responses for the first 17 survey items into numerical values which represented the five-point Likert scale found on the survey instrument (1= Never, or Almost Never, 2= Rarely, 3= Sometimes, 4= Often, and 5= Always, or Almost Always). School culture scores were calculated by determining the mean score for each participating school. This was done by finding the overall school totals for each of the 17 survey items and then dividing this total by the number of respondent's for that school. The 27 participating schools were then ranked and assigned a group (top 33%, middle 33%, and bottom 33%) based on their mean score on the School Culture Triage Survey.

Similar analyses were performed when analyzing the differences among each of the school culture constructs: collaboration, collegiality, and self-determination/efficacy. A mean score for each of these areas was calculated for each participating school, while

question number four on principal tenure required that the average years of principal leadership at each school be calculated and related to school culture. Descriptive analyses were completed to determine the differences between each of the ranked school culture groups and demographic variables related to (a) total years of teaching experience of teachers; (b) years of teaching experience of teachers at present school; (c) highest level of degree earned; (d) method by which teaching certificate was obtained; (e) gender of the teachers; and (f) racial diversity (mix) of the teachers.

Student achievement data for each participating school were obtained from the Florida Department of Education's website (www.fldoe.org). Specifically, each participating schools' percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading were utilized in the analysis of student achievement data.

Summary and Discussion of Findings

This study was guided by four research questions. The following section reveals the summary, analysis, and discussion of findings obtained from the data for each of the questions.

Research Question 1

To what extent do schools scoring in the top 33%, the middle 33%, and the bottom 33% on the School Culture Triage Survey differ on: (a) total years of teaching experience of teachers; (b) years of teaching experience of teachers at present school; (c) highest level of degree earned; (d) method by which teaching certificate was obtained; (e) gender of the teachers; and (f) racial diversity (mix) of the teachers.

This question sought to determine the experiential and demographic differences among the responding teachers for each of the ranked school culture groups. The participating schools (N=27) were ranked and groups into thirds, top 33% (N=9), middle 33% (N=9), and bottom 33% (N=9), based on their mean culture score on the self-administered School Culture Triage Survey. The participating schools completed a total of 574 surveys and had the following teacher response rates: schools in the top 33% of culture scores on the School Culture Triage Survey (N=9) had an average response rate of 18 teacher responding per school; schools scoring in the middle 33% on the School Culture Triage Survey had an average response rate of 24 teachers per school; schools in the bottom 33% on the School Culture Triage Survey had an average return rate of 22 completed surveys per school.

Descriptive analyses were calculated for each of the groups and the six experiential/demographic variables: total years of teaching experiences, years of teaching experiences at present school, highest level of degree earned, method of obtaining teaching certificate, gender, and ethnicity. To ensure that differences that may not have been observed in the descriptive analysis could be further determined or explained, the researcher conducted an Analysis of Variance (ANOVA) for each of the experiential and demographic variables. Each of the calculated ANOVAs reflected the minor differences perceived in the descriptive analyses: no statistically significant differences between the groups and experiential/demographic variables existed.

Although the differences between the ranked groups and the experiential and demographic variables were not considerably significant, there were a few slight

differences worth drawing attention to. When reviewing the mean years of total teaching experience of the respondents in the three groups, it was noted that teachers from schools scoring within the bottom 33% on the School Culture Triage Survey had a mean of over one and a half more years of total teaching experience and a mean of almost one more year of teaching experience at their present school compared to the mean years of experience for teachers from schools scoring in the top 33% and middle 33% on the School Culture Triage Survey. Schools in the bottom 33% of scores on the School Culture Triage Survey had more teachers (64%) with ten or more years of total teaching experience compared with schools in the top 33% (52.9%) and middle 33% (52.5%). Similarly, when considering the total years of teaching experiences of the teachers at their present school, schools scoring in the bottom 33% on the School Culture Triage Survey had more teachers (29.3%) working ten or more years at their present school compared to schools with culture scores in the top 33% (22.2%) and middle 33% (25.4%). Conversely, schools scoring in the top 33% and middle 33% on the School Culture Triage Survey had more teachers that were newer to their present school. Schools in the middle 33% had the most teachers with 1-2 years of total teaching experience (12.4%) and 1-2 years of teaching experience at their present school (39.6%), while schools scoring in the top 33% on the School Culture Triage Survey had 9.9% of teachers with 1-2 years of total teaching experiences, and 31.5% of teachers working 1-2 years at their present school.

The findings related to the years of teaching experience of the teachers from the participating schools and the overall school culture did not reflect what was expected.

Research suggested that positive school cultures and effective schools were correlated with the presence of collaboration and collegiality, both of which positively develop over time when individuals get to know one another and are accustomed to working together (Barth 1990; 2006; Phillips & Wagner, 2003; Purkey & Smith, 1983). With the previous findings in mind, one would have expected that the schools scoring in the top 33% of school culture would have a teaching faculty with the most overall years of teaching experience and years working in the same school together, rather than the converse findings presented in this study. It would be assumed that teachers with more years of experience, both in the field and amongst one another, would have established more collaborative cultures and more developed collegial relationships, while teachers who have not worked in the field or with one another as long, would not have had as many opportunities to develop relationships that are as collaborative and collegial. It could not be determined from the data why the findings resulted in the opposite manner as would be expected based on the review of literature and available research on collaboration and collegiality within school organizations.

The descriptive data analysis concerning the culture scores of the participating schools and the variables related to highest level of degree obtained and method of earning teaching certificate, revealed minor differences among the groups. When reviewing highest level of educational degree obtained, schools scoring in the top 33% on the School Culture Triage Survey had more teachers with specialist and doctorate degrees (6.8% combined) compared to teachers with specialist and doctorate degrees from schools scoring in the middle 33% (3.7% combined) and bottom 33% (3.1% combined).

This finding supported the notion that a teacher's level of self-determination/efficacy may be a key component when determining their feelings about their school's culture (Phillips & Wagner, 2003). Self-efficacy, which is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives (Bandura, 1994, p.71), would be an expected characteristic present in individuals who have been motivated to earn more advanced degrees in their chosen field. Furthermore, the fact that schools with higher school culture scores have more teachers with specialist and doctorate degrees, however slight, supports the belief expressed by Phillips and Wagner (2003) that in the context of schools, "efficacy is demonstrated when staff members work to improve their skills as true professionals, and not because they see themselves as helpless members of a large, uncaring bureaucracy" (Phillips & Wagner, p. 7).

According to the National Center for Alternative Certification (2007), many educational studies generated during the 1990s reported huge anticipated teacher shortages across the nation, therefore creating a rush of teacher recruitment strategies. The focus of filling these projected staffing voids was on the establishment of alternative routes to teacher certification. Since 1983, state alternative certification programs have grown from being in only eight states (Education Weekly, 2008) to being in all 50 states and the District of Columbia in 2007, with "more than half of them being establishing in the last 15 years" (National Council for Alternative Certification, 2007, p. 2). Data reported by the National Council for Alternative Certification revealed that in 2006,

59,000 teachers nationwide were issued a teaching certification via an alternative certification route.

Teachers who enter alternative certification programs have already received a college or university degree; however, it was not in the field of education. These individuals often work in the field as teachers while taking classes toward a degree in education. For this reason, the number of classes taken and classroom experiences had by teachers working through alternative certification programs typically do not equate to the number of classes and classroom experiences of pre-service teachers going through a traditional college or university education program (Education Weekly, 2008). With this fact in mind, one might presume that teachers with an alternative certificate would not have the same pre-service teacher experiences and/or received the same level of preparedness compared with students working through a full-time college or university degree in education. This supposition might affect the levels of collaboration, collegiality, and self-determination/efficacy perceived by these teachers, thus impacting their perceptions of school culture. For this reason, the researcher was interested in the placement of teachers who were alternatively certified among the three ranked groups

When reviewing the data associated with the school culture groups and method whereby teaching certificate was obtained: a traditional college or university education program or through an alternative certification program, a minor difference among the groups presented itself. Schools scoring in the top 33% of culture scores had more teachers obtain their teaching certificates through alternative certification programs (6.8%) than schools scoring in the middle 33% (4.2%) and bottom 33% (4.1%). This

finding does not support the assumption that alternatively certified teachers perception of school culture may be related to the method whereby they earned their degree. This finding may be supported by the fact that many teachers entering the field through alternative certification have realized their motivation to become teachers after first working in another career. The notion that teaching was chosen as a second career for many of these individuals may positively contribute to their perceptions of the culture.

In addition to the level of intrinsic motivation that may be inherent to individuals obtaining their teaching certification through alternative certification methods, another explanation for the higher presence of alternatively certified teachers in schools scoring in the top 33% of culture scores may have been attributed to Seminole County Public Schools' teacher support programs. Teachers who are new to Seminole County attend a New Teacher Orientation, participate in a teacher induction program, and work with mentors to guide them in receiving materials and information that familiarize them with the district. In many instances, the mentors for these programs consist of teachers who are National Board Certified, thus teachers who are new to the field of education are provided supported by teachers who have shown mastery of and dedication towards the profession. The support offered through participation in these activities should subsequently impact a new teacher's feelings about their environment, therefore influence the school culture.

The descriptive data analysis regarding the culture scores of the participating schools and the variables related to gender and ethnicity revealed there were almost no differences among the groups. For the gender variable, each of the three groups had a

female composition in the 95%-96% range and a male composition in the 4%-5% range. When reviewing the racial makeup of the respondents from the participating schools, the groups were fairly equivalent. Each of the three groups had a White population in the 89% range and each of the other racial backgrounds was within one percentage point of each other. These results indicated that the makeup of the three ranked groups was similar.

Research Question 2

What relationship, if any, exists between the overall school culture as measured by the School Culture Triage Survey, and student achievement as measured by the percentage of third grade students scoring at level 3 or above on the 2007 FCAT Reading?

An analysis of research question 2 required that school culture data obtained through the teacher responses on the self-administered School Culture Triage Surveys be ranked and divided into the three designated groups: top 33% (N=9), middle 33% (N=9), and bottom 33% (N=9). The mean school culture score for the schools comprising the top 33% of the population was 4.03, while the mean school culture scores for the schools from the middle 33% and bottom 33% of the population were 3.69 and 3.33 respectively.

Student achievement scores were collected for each ranked school and averaged to determine an average percentage of students' scoring at level 3 and above on the FCAT for each group. Schools scoring in the top 33% on the School Culture Triage Survey had an average of 79.3% of students scoring at levels 3 and above on the 2007 FCAT Reading. Schools scoring in the middle 33% on the School Culture Triage Survey

had an average of 77.5% of students scoring at levels 3 and above on the 2007 FCAT Reading. Schools scoring in the bottom 33% on the School Culture Triage Survey had an average of 82.3% of students scoring at levels 3 and above on the 2007 FCAT Reading. A Pearson's Product Moment Correlation determined that no statistically significant relationship existed between third grade students scoring at level 3 and above on the 2007 FCAT Reading and school culture based on the ranked groups formed from the School Culture Triage Survey scores ($r = 0.15$, $p = 0.45$).

After reviewing the large body of research on the subject of school culture and student achievement, the outcomes of this data analysis were not what was expected. Throughout the literature and research on the relationships between school culture and student achievement, there were clear correlations between the two variables; namely high culture was related to high achievement and lower culture was related to lower achievement (Cunningham, 2003; Hoy & Hannum, 1997; Gruenert, 2005; Macneil, Prater, & Busch, 2007; Melton-Shutt, 2004; Van Der Westhuizen, Mosoge, Swanepoel, & Coetsee, 2005). It could not be determined from the data why the findings did not present themselves in the expected manner; however, some possible explanations are presented below.

One possible explanation for the conflicting findings could be the fact that Seminole County Public Schools had already distinguished itself as a high achieving Florida school district, thus high proficiency and high culture correlations may have already existed. Seminole County Public Schools had received a district grade of "A" since the Florida Department of Education started assigning grades after the 2003-2004

school year (Florida Department of Education, 2008). Additionally, Seminole County's elementary schools earned above average grades from the Florida Department of Education for the 2006-2007 school year. These school grades were as follows: 81.1% (30 out of 37) earned A's, 16.2% (6 out of 37) earned B's, and 2.7% (1 out of 37) earned a C. The fact that Seminole County Public Schools had demonstrated high proficiency with these above average measures of school effectiveness suggests a limited range of outcomes which may have suppressed the relationship with the culture scores.

A review of the culture scores for all three groups indicated that the mean culture score for the responding population was 3.68. Although this mean score took many variables into account, could not be fully explained, and presented some effect size differences between the groups, on the surface one could perceive that it is more positive than negative. Since the mean scores could have been between one and five, one being the lowest and five being the highest, it could be recognized that a total mean score of 3.68 was relatively positive.

A review of the student achievement data for Seminole County supported its high achieving status. The average percentage of proficient third graders for the population (N=27) of this study was 79.74% of third grade students scoring at levels 3 and above on the 2007 FCAT Reading. This average was ten percentage points higher than the 69% of third grade students across the state of Florida who scored at levels 3 and above on the 2007 FCAT Reading, while it hovered closely to the 80% of third grade students across Seminole County who scored a levels 3 and above on the 2007 FCAT Reading (Florida Department of Education, 2008).

Other possible causes of the converse findings, although unlikely given the replication factor of the study and reliability of the survey instrument, could be attributed to the sample size, methodology procedures, and/or instrumentation used.

Research Question 3

What relationships, if any, exist between each of the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) and student achievement? School culture is measured by the School Culture Triage Survey. Student achievement is measured by the percentage of third grade students scoring at level 3 and above on the 2007 FCAT Reading.

In order to determine if there was a relationship between each of the three key areas of school culture (collaboration, collegiality, and self-determination/efficacy) and student achievement, a mean score was calculated for each of the participating schools on these three subscales. These subscale scores were correlated to the student achievement data as measured by the percentage of students scoring at level 3 and above on the 2007 FCAT Reading using the Pearson's Product Moment Correlation test.

The findings of the Pearson's Correlation between collaboration and student achievement revealed no statistically significant relationship ($r = -0.28$, $p = 0.15$). The correlation calculation between collegiality and student achievement indicated that no statistically significant relationship existed ($r = -0.18$, $p = 0.37$). Likewise, the correlation test performed between self-determination/efficacy and student achievement found that there was no statistically significant relationship ($r = -0.24$, $p = 0.23$).

These results concluded that student achievement, the percentage of students scoring level 3 and above on the 2007 FCAT Reading, could not be predicted from the

scores reported on the three subscales represented on the School Culture Triage Survey: collaboration, collegiality, and self-determination/efficacy. Similar to the results discussed on research question two, these findings are not consistent with the literature and research on school culture and the roles played by the constructs of collaboration, collegiality, and self-determination/efficacy. It could not be determined from the data why these results did not complement the existing research on collaboration, collegiality and self-determination/efficacy as a key component of school culture and student achievement. It may be presumed that the aforementioned explanations presented in research question two influenced the expected outcomes of this question as well.

Research Question 4

What relationship, if any, exists between a principal's tenure at a particular school and school culture as measured by the School Culture Triage Survey?

A review of the literature on school culture, uncovered various research articles that focused on principal leadership as a contributing factor to a school's culture (Barth 2001; 2002; Buckingham & Coffman, 1999; Deal and Peterson, 1999, 2002; Eilers & Camacho, 2007; Peterson & Deal, 1998; Sergiovanni, 1990; Trubowitz, 2005; Waters, Marzano, & McNulty, 2004). These details lead the researcher to an interest in how the years of leadership a principal has accumulated at a particular school was related to the school's culture. A Pearson's Product Moment Correlation was computed to determine if there was a relationship between the number of years a principal has been the leader of a particular school (tenure) and the school's overall culture.

In keeping with the trend of the previous research questions, the findings of this data analysis also revealed that there was no statistically significant relationship between principal tenure and school culture ($r = -0.29$, $p = 0.14$). A histogram performed on the data analysis uncovered a strong positive skew for principal tenure, while a review of the mean for the number of years principals' from the participating schools had been assigned to their present school was low 3.26 years. This relatively small mean representing the number of years the participating principals had been the leaders of their schools could be hypothesized as a reason for these findings. It may be presumed that principals have not had enough time or opportunities to influence the culture of their schools over the long term since many of them had not been in the leadership role at that particular school for very long. Further longitudinal research that includes on-site observation and anecdotal record taking may be necessary to get a more authentic reading on the relationship between school culture and principal tenure. The following discussion about the follow-up principal interviews conducted during this research study may also contribute to this topic.

Principal Interviews

In order to gain more insight into principal beliefs and feelings about school culture and student achievement, a select number of principals (N=8) from the participating schools were invited to answer the following five questions:

1. To what do you attribute your school culture?
2. What have you done to shape the culture of the school?

3. What are the targets you have for continuing to foster and develop a healthy school culture?
4. To what extent do you feel school culture impacts student achievement?
5. To what extent does student achievement impact school culture?

Chapter four presented common patterns of answers that were discussed by the principals from each of the ranked culture group. The responses garnered from the principal interviews were analyzed in search of similarities and differences of the replies based on the placement of the principal's school in either the top 33%, middle 33%, or bottom 33% on the School Culture Triage Survey. The responses uncovered some patterns of beliefs shared by all of the principals, regardless of culture score placement, as well as patterns of beliefs within the three ranked groups based on culture scores.

When analyzing the principal responses regarding the factors they attributed to their specific school culture, there was consensus among the groups. Each group had individual principals responding that having a shared vision and values, concentrating on teamwork, and focusing on collaboration and cooperation were key components to their school culture. Although there was a good amount of similarities among the responses across the ranked culture groups, the researcher did make note of one difference in the type of responses given.

The researcher found that as the answers were reviewed from top to bottom, with principals' responses from high culture schools at the top and low culture schools at the bottom, the degree of details in the responses changed. Particularly, the responses provided from the principals whose schools had the highest culture were very detailed

and included specific initiatives created with the intent to build a strong cultural foundation. For example, respondents from high culture schools referred to planned activities created with the hope that specific outcomes would build upon the established culture. These principals noted precise plans for continuing to cultivate the positive culture that had been flourishing.

Responses from principals whose schools had moderate to low culture scores across the population, made note of initiatives and activities designed to address school culture, however, these actions were not as specifically explained and did not appear to go as deep into the components of school culture. The respondents from these groups shared ideas on nurturing their culture, but did not appear to be as well versed about their specific actions and the anticipated outcomes. This observation could support the notion that high culture schools may not have any more depth in their vision and values as reinforced by their leader; however, when compared to lower culture schools, high culture schools may have more culture-related structures and specific actions in place.

When examining what principals leading schools from across the cultural score continuum had done to shape the culture of their school, there was a collective pattern of responses. Principals from each of the three ranked culture groups discussed the implementation of team building activities and celebrations designed to create a sense of community. Shared decision making and the establishment of shared expectations for the school environment were also common responses given by respondents across the three groups. A difference the researcher noted across the groups was the focus of these activities and celebrations and the purposes behind them. Principals representing schools

with top culture scores discussed specific activities intended to further engage the faculty in shared learning experiences while also continuing to foster the established culture of the school. The activities noted by principals representing schools with lower culture scores were also intended to create shared experiences among the faculty, yet it was not inferred that these activities were designed to build upon an already established vision. Moreover, it appeared that the responses of principals from schools with higher cultures tended to include more group-directed initiatives, rather than a self-directed approach as included in some answers provided by the respondents from the middle 33% and bottom 33% groups.

An analysis of the specific targets principals from the three ranked groups had for fostering and developing a healthy school culture, the responses were varied. The responses provided by principals from schools scoring in the top 33% of culture scores were centered on continuing to do what they had already been doing, essentially massaging the established vision and values and designing activities to keep people on board with these tenets. Responses provided by principals from the middle 33% and bottom 33% of culture scores were more detailed and included specific actions designed with the intent to create more opportunities for team building, team work, communication, decision-making, and shared experiences in order to foster and develop a healthy culture. The differences in responses between the high culture schools and moderate to lower culture schools indicated that schools with high culture have already established their culture and therefore are continuing to work towards maintaining this culture. It was found that the responses from the principals of these schools were more

vague and abstract. Conversely, the responses from schools with moderate to lower culture scores were much more specific which suggested that these schools were still in the process of building their cultures and they were continuing to work towards creating opportunities for culture to thrive.

When reviewing the responses regarding principals' beliefs about the impact of school culture and student achievement, there was consensus across the three ranked groups. Every respondent remarked in agreement that school culture played a role in influencing student achievement. The responding principals not only concurred that school culture impacted student achievement; they noted that it was one of the most important factors attributed to student achievement. This shared belief among this population of school leaders was matched by the vast body of research on the subject of school culture and student achievement. The fact that each of the responding principals believed that school culture was important when addressing student achievement suggested that each of these individuals had put an emphasis on their school's culture, albeit to a different degree and from varying perspectives.

An analysis of the question regarding the extent that student achievement impacts school culture, the respondents' remarks were diverse. Similar to the previous question, every principal agreed that student achievement influenced school culture, yet the extent of this influence differed. Each respondent concurred that school culture thrived on student achievement, but some felt that this influence was not as strong as the reverse relationship. Specifically, principals from each of the three ranked groups discussed the notion that the level of student achievement directly impacted the school culture.

Responding principals representing each of the three culture groups noted that a high level of achievement could positively impact culture, while a lower level of achievement could have a negative impact on the school culture. This finding is analogous with the previous discussion suggesting that the principals took the schools' level of achievement into account when addressing their school's culture.

The diversity in responses indicated that school leaders, regardless of school culture score or achievement status, differed in their beliefs about the extent to which student achievement impacted culture. This diversion begs the question: which variable has the bigger impact? Does school culture impact student achievement or does student achievement impact school culture? The consensus among the responding principals was that school culture unquestionably influenced student achievement; however the inverse relationship was not as arguably definitive.

A trend that was uncovered through this analysis was the fact that principals from high culture schools, which did not demonstrate the same high levels of achievement found at the lower culture schools, expressed a stronger belief that student achievement impacted school culture compared to the principals responding from schools in the lowest 33% of school culture scores, who had higher levels of student achievement. This interesting detail, which would not be expected given the culture scores, student achievement data, and related literature, suggested that additional investigations into these relationships would be warranted.

The findings revealed through this qualitative data analysis supported the research that school leaders are key players in the establishment of school culture (Barth, 2001; 2002 ;Deal & Peterson, 1999; Eilers & Comacho,2007; Marshall, 2005; Sergiovanni, 1990; 2005; Trubowitz, 2005;). Barth (2001, 2002) maintained that leaders must be aware of their culture and demonstrate commitment to addressing the cultural issues at their schools. Similarly, Deal and Peterson (1999, 2002) argued that leaders must make every effort to understand and reflect on a school's culture as this behavior is essential before changes can be addressed. In congruence with the patterns revealed through the principal interviews, Trubowitz (2005) felt that leaders could work toward increasing positive school cultures through exploring how the structures of communication, reflection, collaboration, collegiality, and respect to further develop a positive school climate. In conclusion, the attributions of principals will guide their leadership and fuel what they feel is important to create a successful school. Whether the leadership focus is on student achievement, school culture, or the relationship each variable has on the other, the extent to which a school principal attributes success, will ultimately be at the heart of his/her leadership.

Conclusions

This study sought: (a) to determine the differences between the experiential background and demographic make-up of the three ranked groups; (b) to determine the relationship, if any, between participating Seminole County Schools' overall school culture and student achievement as measured by third grade students scoring at level 3 and above on the 2007 FCAT Reading; (c) to determine the relationships, if any, between

the three key components of culture (collaboration, collegiality, and self-determination/efficacy) and student achievement as measured by third grade students scoring at level 3 and above on the 2007 FCAT Reading; (d) to determine the relationship between principal tenure and school culture; and (e) to discover principals' beliefs about the relationship between school culture and student achievement. Following a thorough review of the literature on organizational culture, particularly school culture and its impact on a school and student achievement, and a complete analysis of the collected school culture and student achievement data, the researcher concluded the following:

1. An analysis comparing the demographic composition of the responding teachers from the participating schools and their school's placement in the top 33%, middle 33% and the bottom 33% of school culture scores was concluded to have no significant difference.
2. Although much of the makeup of the three ranked groups was homogeneous, especially for the variables associated with gender and ethnicity, some slight differences were found. It was found that teachers from schools scoring in the bottom 33% of culture scores on the School Culture Triage Survey had one to one and a half more years of total teaching experience and years of teaching experience at their present school. It was also noted that these schools had more teachers with ten or more years of teaching experience, both overall and within their present schools.

3. When reviewing the highest level of degree earned and the percentages of teachers with alternative certification, it was found that more teachers from schools in the top 33% on the School Culture Triage Survey had specialist and doctorate degrees and more teachers in this group obtained their teaching certificate via an alternative certification program.
4. It was found that that there was no statistically significant relationship between the overall school culture of participating Seminole County Public Schools' elementary schools as measured by the teacher responses recorded on the self-administered School Culture Triage Survey and student achievement as measured by the participating schools' percentages of third grade students scoring at level 3 and above on the 2007 FCAT Reading.
5. A relationship between the each of the three key components of culture (collaboration, collegiality, and self-determination/efficacy), and student achievement was not found to be statistically significant. Specifically, there was no statistically significant relationship between the collaboration scores on the School Culture Triage Survey and student achievement data on the 2007 FCAT Reading. There was no statistically significant relationship between the collegiality scores on the School Culture Triage Survey and student achievement data on the 2007 FCAT Reading. Likewise, there was no statistically significant relationship between the self-determination/efficacy scores on the School Culture Triage Survey and student achievement data on the 2007 FCAT Reading.

6. It was found that there was no statistically significant relationship between a participating school's mean culture score as measured by the School Culture Triage Survey and the number of years the principal of that school has been in his/her leadership role (tenure). Principal tenure for the participating schools was a mean of 3.26 years.
7. A qualitative analysis of participating principals' responses uncovered slight differences in beliefs held by principals' with varying mean school culture scores as measured by the School Culture Triage Survey. Principals' leading schools from all three ranked groups based on school culture made comparable remarks to the interview questions concerning their beliefs about school culture and student achievement. Differences in reference to the purposeful specificity of school culture plans and structures were noted; however, the respondents largely believed that the creation of shared visions and values were important.
8. An analysis of the principal interviews found that the respondents believed that school culture did impact student achievement and vice versa. There was consensus among the groups when discussing the impact of school culture on student achievement; however the same degree of decisiveness was not shared when discussing the impact of student achievement on school culture.

Implications and Recommendations

Wagner and Masden-Copas (2002) asserted that culture was the 'missing link' often neglected when student achievement reforms and school improvement models were embarked upon. In this time of substantial school reform movements to meet the changing needs of the global market, many researchers have argued that change without considering the transformation of the educational culture of the learning environment will most certainly fail (Deal & Peterson, 1999, 2002; Gallego, Hollingsworth, & Whiteneck, 2001; MacNeil, 2005; Wagner & Masden-Copas, 2002). These strong statements and the fact that many new national and state school reform and accountability measures have inundated schools and districts since the enactment of the No Child Left Behind Act of 2002 sparked the researcher's interest in the current study.

Past research studies examining the relationship between school culture and student achievement yielded results indicating a strong relationship between a school's culture and the achievement of its students (Cunningham, 2003; Hoy & Hannum, 1997; Gruenert, 2005; Macneil, Prater, & Busch, 2007; Melton-Shutt, 2004; Van Der Westhuizen, Mosoge, Swanepoel, & Coetsee, 2005;). In particular, these studies found that the higher the culture of the school, the higher the achievement of the students, and vice versa with lower culture and lower achievement. Moreover, several of the studies included results to support the research regarding the influence that collaboration, collegiality, and self-determination/efficacy have on school culture (Cunningham, 2003; Melton-Shutt, 2004), further bolstering Phillips and Wagner's (2003) belief that collegiality, which included the concept of collaboration, and self-efficacy were the "two

most important variables in assessing the culture of a school, classroom, or entire school district" (p. 4).

The findings of this study did not corroborate the aforementioned results, nor did they agree with the large body of research on the positive relationship between school culture and student achievement. As reported, the data collected from this study did not reveal any statistically significant relationships between school culture, the three key components of school culture, and student achievement, nor did any major findings with regard to teacher experiences and demographics among the ranked culture groups come to light. These findings, although unexpected and unmatched by the existing literature, and not anticipated by the researcher, did evoke some implications and considerations for future research on this topic.

The findings revealed in this research study suggested that there are no cut and dry relationships between school culture and student achievement. The fact that numerous other studies on the subject have produced what one may call "classical results:" high culture = high achievement, low culture = low achievement, the results of this study infer that there is more research to be done. These results indicated that a linear relationship between high culture and high achievement is not necessarily predictable; therefore more in-depth research on these relationships would enhance the current body of literature. The findings of this study support the notion that more data associated with school culture needs to be studied in order to shed more light on the 'how' and 'why' of these relationships. If there is truth to the literature's implication that

school reform, absent of attention to school culture, will not succeed, then continued analysis and understanding about these relationships should be paramount.

After reviewing the literature and analysis of data in this study, the researcher believes that future studies should include on-site observations, anecdotal records, and in-depth interviews with teachers and principals. These findings could serve to augment the quantitative data collected through culture surveys and student achievement data. This multi-pronged research approach may further explain the individual variables associated with culture that might not be exposed through a quantitative survey instrument. This type of analysis would also allow the researcher to observe staff development practices, which take into account the three key components of culture: collaboration, collegiality, and self-determination/efficacy. Other variations to this study, which could produce different results, further enhance the body of research on school culture and student achievement, and/or provide alternate explanations to the existing relationships revealed here and in other studies, are included in the Recommendations for Future Research section below.

Recommendations for Future Research

Future recommendations for research were based on the current data analysis. These recommendations include:

1. This study could be repeated using a population of middle school or high school teachers within the same school district, or in different districts and/or states.

2. This study could be repeated using a different area of student achievement, such as mathematics, science, or writing, or with students from fourth or fifth grades.
3. This study could be repeated using a different measure of student achievement, such as Dynamic Indicators of Basic Early Literacy Skills (DIBELS) or Scholastic Reading Inventory (SRI) scores in elementary school or SAT or ACT scores, or achievement in Advanced Placement or International Baccalaureate programs in high schools.
4. This study could be repeated with a population of first year teachers and post first year teachers to determine if school culture perceptions vary among these two groups.
5. This study could be repeated with a population of administrators and teachers to determine if school culture perceptions vary among the two groups.
6. This study could be repeated with a population of school district personnel to determine the culture of this group compared to student achievement across the district.
7. This study could be repeated with a population of teachers from middle school or high school and elementary school to determine if school culture perceptions and student achievement vary among the school settings.
8. This study could be repeated in the same school district in a few years and determine if the results are the same.
9. This study could be repeated in school district that has more economic diversity to determine if the same results would apply.

10. This study could be repeated using a larger sample size, perhaps with larger school districts, or with state and national populations.
11. This study could be conducted with an emphasis on the achievement of students with disabilities or students enrolled in the English Language Learners (ELL) program.
12. This study could be repeated to determine a relationship between school culture and other school effectiveness measures, such as parent involvement, community support, and teacher retention.
13. This study could be repeated to determine a relationship between the construct of school climate and student achievement, whereby schools respond to survey instruments designed to measure school climate.
14. This study could be conducted to determine a relationship between climate and culture and student achievement. The population could respond to different survey instruments designed to measure each construct and determine how each measure relates to student achievement.
15. This study could be repeated to determine how a principal's beliefs about school culture are related to a school's student achievement.
16. This study could be conducted to further determine which construct has more impact on the relationship between school culture and student achievement: does school culture impact student achievement or does student achievement impact school culture?

17. This study could be conducted as a longitudinal study looking at student achievement gains over a period of years and the relationship to school culture.
18. This study could be conducted in a similar fashion with the addition of a long-term qualitative component. Detailed observational data and anecdotal records would be collected in particular schools over a long period of time.
19. This study could be repeated using a pre- and post-data approach. School culture and student achievement data would be collected at the beginning of a school year or time frame. Professional practices designed to improve school culture would be implemented. Following implementation, school culture and student achievement data would be collected again and compared to determine any changes and relationships.

APPENDIX A: PERMISSION TO USE SURVEY INSTRUMENT

CENTER FOR IMPROVING SCHOOL CULTURE
CREATING BETTER PLACES TO LEARN
Box 51632
Bowling Green, KY 42104

November 06, 2006

Ms. Kelley Novak
Assistant Principal
Stenstrom Elementary School
1800 Alafaya Woods Blvd.
Oviedo, FL 32765

Dear Ms. Novak:

Thank for your interest in the School Culture Triage Survey. You have my permission to use the School Culture Triage Survey in your doctoral research.

I wish you the best in your research endeavors.

Kindest regards,

Christopher R. Wagner, Ph.D.
President

APPENDIX B: SURVEY INSTRUMENT

School Culture Triage Survey

Kelley Novak
University of Central Florida
Doctoral Candidate

I am at least 18 years of age and completing this survey constitutes my informed consent.

Directions: Please circle the number to the right of each of statement that most closely characterizes the practice in your school.

START HERE:

	N Never or Almost Never	R Rarely	S Sometimes	O Often	A Always or Almost Always
Professional Collaboration					
1. Teachers and staff discuss instructional strategies and curriculum.. issues.	1	2	3	4	5
2. Teachers and staff work together to develop the school schedule.....	1	2	3	4	5
3. Teachers and staff are involved in the decision-making process ..... with regard to materials and resources.	1	2	3	4	5
4. The student behavior code is a result of collaboration and ..... consensus among staff.	1	2	3	4	5
5. The planning and organizational time allotted to teachers and ..... staff is used to plan as collective units/teams rather than as separate individuals.	1	2	3	4	5
Affiliative Collegiality					
6. Teachers and staff tell stories of celebration that support the ..... school's values.	1	2	3	4	5
7. Teachers and staff visit/talk/meet outside of school to enjoy each ... others' company.	1	2	3	4	5
8. Our school reflects a true "sense" of community.	1	2	3	4	5
9. Our school schedule reflects frequent communication opportunities for teachers and staff.	1	2	3	4	5
10. Our school supports and appreciates the sharing new ideas by ..... members of our school.	1	2	3	4	5
11. There is a rich and robust tradition of rituals and celebrations, ... including holidays, special events, and recognition of goal attainment..	1	2	3	4	5
Self-Determination/Efficacy					
12. When something is not working in our school, the faculty and ..... staff predict and prevent rather than react and repair.	1	2	3	4	5
13. School members are interdependent and value each other	1	2	3	4	5
14. Members of our school community seek alternatives to problems/... issues rather than repeating what we have always done.	1	2	3	4	5
15. Members of our school community seek to define the problem/issue rather than blame others.	1	2	3	4	5
16. The school staff is empowered to make instructional decision ..... rather than waiting for supervisors to tell them what to do.	1	2	3	4	5
17. People work here because they enjoy and choose to be here.....	1	2	3	4	5

Please continue on the next page.

15

Continue Here

For items 18-23, please answer the question on the line provided or place an X in the appropriate box.

18. How many years have your worked in education? _____

19. How many years have your worked at your current school? _____

20. What is the highest level of education you have attained?
    - ☐ Bachelors
    - ☐ Masters
    - ☐ Specialist
    - ☐ Doctorate

21. By which method did you obtain your teaching certificate?
    - ☐ Traditional College/University degree in education
    - ☐ Alternative Certification

22. What is your gender?
    - ☐ Female
    - ☐ Male

23. What is your race?
    - ☐ Asian
    - ☐ Black
    - ☐ Hispanic
    - ☐ White
    - ☐ Other

Comments:

Thank you so much for your time

If you have any questions please contact:
Kelley Novak at ucfschoolculture@gmail.com

APPENDIX C: RESEARCH INTRODUCTION LETTER

The Relationship Between School Culture and learning Gains In Seminole County Public Schools' Elementary Schools 2005-2007
A Dissertation Study by Kelley Novak

April 10, 2007

Dear

My name is Kelley Novak and I am a doctoral candidate in the University of Central Florida's Educational Leadership program. I am also a fellow Seminole County Public School administrator working as the Assistant Principal at Stenstrom Elementary. I have completed my coursework towards graduation and am working towards completing my dissertation. I appreciate your time in reviewing my research study and your consideration for participation.

Enclosed you will find information and materials for my dissertation study. The data garnered from this research will provide information that will allow me and other researchers to better understand the influence school culture has on student achievement. In an effort to make collection of this data as simple as possible, I have assembled these informational and data collection packets. The packet contains the following:

- Informational Folder with Principal Consent Form
- A Complimentary Book
- 70 copies of the School Culture Triage Survey
- Self-addressed, stamped Priority Mail Envelope

I hope you will find these packets informational and user-friendly. If you have any questions, need additional information, or need more copies of the School Culture Triage Survey instrument, please do not hesitate to contact me. I can be reached at ucfschoolculture@gmail.com. Thank you again for your time and consideration.

Sincerely,

Kelley K Novak

APPENDIX D: ADMINISTRATOR COVER LETTER/CONSENT FORM

Kelley Novak
University of Central Florida
Doctoral Candidate

Dear Seminole County Public School Principals,

Thank you for taking the time to explore the components of my dissertation study and for considering participation by your school. I am sure you realize the crucial role that school culture plays in student achievement, and I hope you will consider allowing your teachers to participate in this study. Through a comprehensive investigation into the influence that school culture has on student achievement gains, school leaders and educators will become more informed about facilitating a positive school culture with the double benefit of increased student achievement.

This study is confidential. At no time will teachers be asked to present their names or any other identifying information. School names will not be included anywhere in the study, and the published research will not contain any school names, other than to note that all participating schools were schools in Seminole County, Florida. The only identifiers for schools will be noted in the assigned school code that I have marked on each survey instrument. This code was designed for the purpose of entering the survey responses into my database in order to keep each school's responses together. Additionally, each survey instrument will include an envelope to allow the participants to seal their completed responses in prior to turning them back into your designated return place. This will help ensure the confidential nature of the participants' responses. In order to maintain this confidentiality, it is suggested that you designate a place for the completed survey envlopes to be returned, rather than collecting them yourselves.

There are no anticipated risks or benefits for the teachers who choose to participate in this study. As compensation for your support and participation and the subsequent encouragement of your teachers to participate, I have provided you with a complimentary copy of the text, School Culture Assessment: A Manual for Addressing and Transforming School-Classroom Culture, by Phillips and Wagner (2003). This text was designed to guide school leaders through the process of cultivating a strong, positive school culture. Upon completion of this study, you will have the opportunity to receive a copy of the published results, as well as a copy of the aggregated results of the data collected for the county.

If you have any questions about this study or school culture, please contact me at ucfschoolculture@gmail.com. My faculty advisor, Dr. Rose Taylor, may be contacted at (407) 823-1469 or by email at rtaylor@mail.ucf.edu. Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participants' rights may be directed to UCF Institutional Review Board Office at the University of Central Florida, Office of Research and Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone numbers are 407-823-2901 or 407-882-2276.

After reviewing the components of my study, please take a moment to consider participating. Your participation simply requires that you distribute the included survey instruments to your instructional staff, collect them, and mail them back in the envelope provided. Please sign this informational letter and return it with the completed survey instruments. A second copy is provided for your records. By signing this letter, you are consenting to participation by allowing your teachers to complete the survey instruments should they choose to. You are free to withdraw your consent to participate at anytime without consequence.

Thank you for taking the time and consideration to assist me with my study. I sincerely appreciate your participation. Your time and effort in helping me gather information is greatly appreciated and will ultimately assist educational professionals, like you, to create and foster positive school culture where student achievement soars.

Sincerely,

Kelley K. Novak
Doctoral Candidate, University of Central Florida
Assistant Principal, Stenstrom Elementary

Please complete the information below and return it in the Priority Mail Envelope provided, along with the sealed envelopes holding the completed survey instruments.

_____ I have read the procedures reviewed above and give my permission for my teachers to participate.

_____ I would like to receive a copy of the published results of this study upon its completion.

_____ I do not wish to participate in this study and do not intend to distribute the survey instruments to my teachers.

_____ _____

Participant Date

_____ _____

School Name Contact Number

APPENDIX E: SURVEY COVER LETTER TO PARTICIPANTS

School Culture Triage Survey

Kelley Novak
University of Central Florida
Doctoral Candidate

March 2007

Dear Seminole County Public School Elementary Teacher,

You have been selected to participate in a confidential School Culture Triage Survey. Completion of the attached survey will assist me in identifying the relationship between school culture and student achievement as measured by the Florida Comprehensive Assessment Test (FCAT). Your participation and honest answers are crucial for assessing the influence that school culture has on achievement gains of students.

- The following questions ask about your perceptions and beliefs with regard to your school's culture, whereby culture is defined as "beliefs, attitudes, and behaviors which characterize a school" (Phillips, 1993, p.1).
- This study examines school culture by addressing beliefs and perceptions in the 3 key areas of school culture: professional collaboration, affiliative collegiality, and self-determination/efficacy. The information will be used to evaluate the impact that school culture and these 3 components have on student achievement gains. Data will be assessed to determine the most effective way for school organizations to create school environments where positive culture and increased student achievement gains are fostered.
- This survey is completely voluntary. You may choose not to participate or not to answer any specific questions. You may skip any question you are not comfortable answering. **You can decline to participate in this survey without any repercussions.** There are no anticipated risks. Do not take this survey if you are under the age of 18.
- The survey is confidential. You can be assured that your responses will never be matched with you. There is no place to provide your name. Please **DO NOT** write your name anywhere on the survey. The responses obtained from your school will be grouped together by a school identification code assigned by me. Upon completion of your survey, please seal it in the attached envelope prior to turning it in to the designated return spot.
- **Please answer questions honestly.** The survey will take approximately **10 minutes** to complete. If you choose to participate, please complete the survey right now, or anytime up until your principal has requested.
- Your privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, employees of the Department of Health and Human Services, the UCF Institutional Review Board and its staff, and other individuals, acting on behalf of UCF, may inspect the records from this research project.
- The results of this study may be published. However, the data obtained from you will be combined with data from others in the publication. The published results will not include your name or any other information that would personally identify you or your school in any way.
- If you have any questions about this survey or school culture, please contact me at ucfschoolculture@gmail.com.
- Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participants' rights may be directed to UCF Institutional Review Board Office at the University of Central Florida, Office of Research and Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone numbers are 407-823-2901 or 407-882-2276.

Thank you for taking the time and thought to complete this survey. I sincerely appreciate your participation. Your time and effort in helping me gather information is greatly appreciated and will ultimately assist educational professionals, like yourself, to create and foster positive school culture where student achievement soars.

Sincerely,

Kelley K. Novak

Kelley K. Novak, M Ed.

APPROVED BY
University of Central Florida
Institutional Review Board
CHAIRMAN

APPENDIX F: CONSENT FORM FOR PRINCIPAL FOLLOW-UP INTERVIEW

School Culture Research
Principal Interview: Consent to Participate

Kelley Novak
University of Central Florida
Doctoral Candidate

April 2008

Dear Seminole County Public School Principal,

Last April you elected to participate in a confidential research study aimed at identifying the relationship between school culture and student achievement as measured by the Florida Comprehensive Assessment Test (FCAT). At that time, your participation necessitated that you distribute the School Culture Triage Survey to the teachers at your school and follow-up with the collection and return of these survey instruments. I am pleased to report that I had a wonderful response to this initial research component as almost 600 teacher surveys from 30 elementary schools were returned. I greatly appreciate your consent to participate in the distribution and completion of the surveys for your teachers. As I work to draw this research study to a close, I hope you will consider participating in this next and final data collection process, a brief interview.

The data collected from the teachers' responses on the School Culture Triage Survey will be analyzed in correlation to FCAT Reading data for third grade students who took the 2007 FCAT. This information will be obtained from the Florida Department of Education website. The achievement data will be analyzed alongside the culture survey scores to determine if any relationships exist between a school's culture score and the reading achievement scores of that school over the past three years. This data collection process is quantitative in nature and seeks to determine if a statistically significant relationship exists between the variables of culture and achievement.

As a follow-up to the quantitative data analysis, my research is also focused on uncovering principal beliefs about school culture and learning more about the extent to which principals feel school culture and student achievement is related. Through the completion of a brief interview, I hope to gather information to identify common patterns of behavior and beliefs expressed by principals of the participating schools. It is my hope that you will consent to participate in this interview. Below you will learn more about the interview process, as well as how the information will be used. In appreciation for your consideration and participation, I have included a Bruster's Ice Cream Gift Card for your enjoyment.

- This attached document includes five questions which inquire about your school's culture, whereby culture is defined as "beliefs, attitudes, and behaviors which characterize a school" (Phillips, 1993, p.1). Specifically, the questions ask how you feel about school culture, the extent to which you attribute culture to student achievement, and methods whereby cultural and cultural changes are infused throughout your school in order to support change while maintaining success.
- The information you provide will be analyzed and compared with other principal responses in search of common patterns of beliefs and behaviors by principals from schools participating in this study.
- Completing these questions is completely voluntary. You may choose not to participate or not to answer any specific questions. You may skip any question you are not comfortable answering. **You can decline to participate in this interview without any repercussions.** There are no anticipated risks. Do not complete this interview if you are under the age of 18.
- **Please answer questions honestly.** The questions will take approximately **15 minutes** to complete. If you choose to participate, your prompt reply to the questions is appreciated.
- Your answers will be kept confidential. Confidentiality will be maintained by the researcher by keeping your response papers in a locked file. Email responses will be printed off the computer and then deleted from the computer. If you use email and decide to use a government-issued email address, your confidentiality cannot be guaranteed due to public records regulations found in the Sunshine Law. The researcher has provided a non-government issued email address for your return responses and you are encouraged to use your own non-government issued email address if want to guarantee confidentiality.
- Your privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, employees of the Department of Health and Human Services, the UCF Institutional Review Board and its staff, and other individuals, acting on behalf of UCF, may inspect the records from this research project.

1

- The results of this study may be published. However, the data obtained from you will be combined with data from others in the publication as a means of determining principal beliefs and behaviors in relation to school culture and student achievement. These beliefs and behaviors will be reported in the research as items that may attribute to culture and achievement. The published results will not include your name or any other information that would personally identify you or your school in any way.
- If you have any questions about this survey or school culture, please contact me at ucfschoolculture@gmail.com or by phone at 407-739-0476. My faculty advisor, Dr. Rose Taylor, may be contacted at (407) 823-1469 or by email at rtaylor@mail.ucf.edu. Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participants' rights may be directed to UCF Institutional Review Board Office at the University of Central Florida, Office of Research and Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone numbers are 407-823-2901 or 407-882-2276.
- After reviewing the above information and procedures, please take a moment to sign and complete the consent information listed below and provide it to the researcher as evidence that you consent to participate in this component of the research study. Please use the provided self-addressed, stamped mailing envelope to send this consent form back to the researcher.

Thank you for taking the time and consideration to assist me with my study. I sincerely appreciate your participation. Your time and effort in helping me gather information is greatly appreciated and will ultimately assist educational professionals, like you, to create and foster positive school culture where student achievement soars.

Sincerely,

Kelley K. Novak
Doctoral Candidate, University of Central Florida
Assistant Principal, Stenstrom Elementary

_____ I have read the procedures reviewed above and **give my consent** to participate by answering the attached questions.

_____ I am not interested in participating in this component of your study and **do not give my consent** to participate.

Comments:

_____

_____

_____ _____ _____
Participant Signature Print Name Date

_____ _____
School Name Contact Number

APPENDIX G: PRINCIPAL INTERVIEW QUESTIONS

School Culture Research
Principal Interview

Kelley Novak
University of Central Florida
Doctoral Candidate

Directions: Thank you for answering the questions below. You may choose to be as succinct or verbose as you would like. If you need more space, please feel free to respond on the back of this paper or attach your responses. Your responses will be analyzed with responses from other principals to uncover patterns of beliefs and behaviors expressed by principals from schools participating in this research study. Upon completion of these questions, please return your responses to the researcher via email or in the mailing envelope provided.

1. To what do you attribute your school culture?

2. What have you done to shape the culture of the school?

3. What are the targets you have for continuing to foster and develop a healthy school culture?

4. To what extent do you feel school culture impacts student achievement?

5. To what extent does student achievement impact school culture?

Additional Comments:

Thank you very much for your time!

Please return your responses via email to ucfschoolculture@gmail.com
Or via mail in the envelope provided to: Kelley Novak 4736 Northern Dancer Way Orlando, FL 32826

APPENDIX H: IRB PERMISSION FOR HUMAN SUBJECTS

University of Central Florida

Office of Research & Commercialization

March 23, 2007

Kelley Novak
124 Nandina Terrace
Winter Springs, FL 32708

Dear Ms. Novak:

With reference to your protocol #07-4224 entitled, "The Relationship between School Culture and Learning Gains in Seminole County Public Schools' Elementary Schools 2005-2007" I am enclosing for your records the approved, expedited document of the UCFIRB Form you had submitted to our office. **This study was approved on 3/20/2007. The expiration date for this study will be 3/19/2008.** Should there be a need to extend this study, a Continuing Review form must be submitted to the IRB Office for review by the Chairman or full IRB at least one month prior to the expiration date. This is the responsibility of the investigator.

Please be advised that this approval is given for one year. Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board through use of the Addendum/Modification Request form. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur.

Should you have any questions, please do not hesitate to call me at 407-823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

Barbara Ward

Barbara Ward
(FWA00000351 Exp. 5/13/07, IRB00001138)

Copies: IRB File
Rosemarye Taylor, Ph.D., Educational Research, Technology and Leadership

BW:bw

12201 Research Parkway • Suite 501 • Orlando, FL 32826-3246 • 407-823-3778 • Fax 407-823-3299

THE UNIVERSITY OF CENTRAL FLORIDA
INSTITUTIONAL REVIEW BOARD (IRB)

IRB Committee Approval Form

#07-4224

PRINCIPAL INVESTIGATOR(S): Kelley Kathleen Novak & Rosemarye Taylor, Ph.D.

PROJECT TITLE: The Relationship between School Culture and Learning Gains in Seminole County Public Schools' Elementary Schools 2005-2007

[X] New project submission
[ ] Continuing review of lapsed project #
[ ] Study expires
[ ] Initial submission was approved by full board review but continuing review can be expedited
[ ] Suspension of enrollment email sent to PI, entered on spreadsheet, administration notified _____

[ ] Resubmission of lapsed project #
[ ] Continuing review of #
[ ] Initial submission was approved by expedited review

Chair
[Y] Expedited Approval

Dated: 3/20/2007
Cite how qualifies for expedited review: minimal risk and #7

[ ] Exempt

Dated: _____
Cite how qualifies for exempt status: minimal risk and _____

[ ] Expiration Date: 3/19/2008

IRB Reviewers:

Signed: _____
Dr. Tracy Dietz, Chair

Signed: _____
Dr. Craig Van Slyke, Vice-Chair

Signed: _____
Dr. Sophia Dziegielewski, Vice-Chair

Complete reverse side of expedited or exempt form
[Y] Waiver of documentation of consent approved
[ ] Waiver of consent approved
[ ] Waiver of HIPAA Authorization approved

NOTES FROM IRB CHAIR (IF APPLICABLE): _____

APPENDIX I: IRB CONTINUING REVIEW APPROVAL NOTICE

University of Central Florida

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

EXPEDITED CONTINUING REVIEW APPROVAL NOTICE

From : **UCF Institutional Review Board**
FWA00000351, Exp. 5/07/10, IRB00001138

To : **Kelley Novak** and **Rosemarye Taylor**

Date : **February 19, 2008**

IRB Number: **SBE-07-04224**

Study Title: **The Relationship between School Culture and Learning Gains in Seminole County Public Schools' Elementary Schools 2005-2007**

Dear Researcher,

This letter serves to notify you that the continuing review application for the above study was reviewed and approved by the IRB Chair on **2/19/2008** through the expedited review process according to 45 CFR 46 (and/or 21 CFR 50/56 if FDA-regulated).

Continuation of this study has been approved for a one-year period. The expiration date is 2/18/2009. This study was determined to be no more than minimal risk and the category for which this study qualified for expedited review is:

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must receive a copy of the consent form(s).

All data must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Use the Unanticipated Problem Report Form or the Serious Adverse Event Form (within 5 working days of event or knowledge of event) to report problems or events to the IRB. Do not make changes to the study (i.e., protocol methodology, consent form, personnel, site, etc.) before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at https://iris.research.ucf.edu .

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 02/19/2008 03:09:59 PM EST

IRB Coordinator

APPENDIX J: IRB NOTICE OF APPROVAL OF ADDENDUM

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Notice of Expedited Review and Approval of Requested Addendum/Modification Changes

From: **UCF Institutional Review Board**
FWA00000351, Exp. 5/07/10, IRB00001138

To: **Kelley Novak** and **Rosemarye Taylor**

Date: **April 02, 2008**

IRB Number: **SBE-07-04224**

Study Title: **The Relationship between School Culture and Learning Gains in Seminole County Public Elementary Schools 2005-2007**

Dear Researcher:

Your requested addendum/modification changes to your study noted above which were submitted to the IRB on 04/02/2008 were approved by **expedited** review on 4/2/2008.

Per federal regulations, 45 CFR 46.110, the expeditable modifications were determined to be minor changes in previously approved research during the period for which approval was authorized.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must receive a copy of the consent form(s).

This addendum approval does NOT extend the IRB approval period or replace the Continuing Review form for renewal of the study.

On behalf of Tracy Dietz, Ph.D., IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 04/02/2008 02:26:15 PM EST

Joanne Muratori

IRB Coordinator

Internal IRB Submission Reference Number: 002719

APPENDIX K: PERMISSION FOR PARTICIPATION FROM DISTRICT

SEMINOLE COUNTY
PUBLIC SCHOOLS

WILLIAM VOGEL, Ed.D.
Superintendent

Educational Support Center
400 E. Lake Mary Boulevard
Sanford, Florida 32773-7127

RONALD L. PINNELL, Ed.D.
Executive Director of
Secondary Education

RAYMOND L. GAINES
Executive Director of
Secondary Education

Telephone: (407) 320-0039
Facsimile: (407) 320-0293
Suncom: 351-0038

Visit Our Web Site
www.scps.k12.fl.us

January 30, 2007

Ms. Kelley Novak
124 Nandina Terrace
Winter Springs, FL 32708

Dear Ms. Novak:

I am in receipt of the proposal and supplemental information that you submitted for permission to conduct research in the Seminole County Public Schools. After review of these documents, it has been determined that you are granted permission to conduct the study described in these documents under the conditions described herein.

Each school principal has the authority to decide if he/she wishes to participate in your study or if it is appropriate to release any requested information. Therefore, your first order of business is to contact the principal(s) of the school(s) that you wish to involve in your research to explain your project and seek permission to conduct the research at that particular school. Please do not use the SCPS email or courier mail to disseminate this information.

If necessary you are expected to make appointments in advance to accommodate the administration and/or staff for research time. Furthermore, any processing or comparison of data will be your responsibility and shall not impact our Testing Department.

Please forward a summary of your project to my office upon completion.
Good Luck!

Sincerely,

Ronald Pinnell/jr

Ronald L. Pinnell, Ed.D.
Executive Director
Secondary Education

RP/jr

APPENDIX L: PERMISSION FOR ADMINISTRATIVE DISTRIBUTION

Gmail Calendar Documents Photos Reader Web more ▾ kelleynovak@gmail.com | Settings | Older

Search Mail | Search the Web

Compose Mail
Inbox
Starred
Chats
Sent Mail
Drafts
All Mail
Spam (120)
Trash

Contacts

Chat
Kelley Novak
Jeff home
Balsams
Carrie
Dad-home
Dad-work
Debi
Greg
Irwin
Jeff work
kelley_novak
Linsey
Mike
Mom
Rita & Jim
Options Add Contact

Labels

Invite a friend
Give Gmail to:
98 left
Preview Invite

« Back to Inbox | Archive | Report Spam | Delete | More Actions

FW: Principal's Meeting

Kelley_Novak@scps.k12.fl.us to me 5/24/07

-----Original Message-----
From: Geraldine Wright
Sent: Thursday, February 15, 2007 4:46 PM
To: Kelley Novak
Cc: Beverly Perrault
Subject: RE: Principal's Meeting

Dear Kelly,

Bev and I talked about your project and will be happy to assist you. Since we do not normally put individuals on the Principals' Meeting Agenda, we thought that it would be more appropriate for the two of us to distribute the surveys at the next principals' meeting. We would make sure that principals get the surveys and would be glad to make any explanation that you would like for us to make. If this is agreeable to you, our next meeting will be held on March 8th at Lawton Elementary at 8:30 am.

Gen Wright

-----Original Message-----
From: Kelley Novak
Sent: Tuesday, February 13, 2007 8:51 AM
To: Geraldine Wright
Subject: Principal's Meeting

Good morning Dr. Wright,

I hope this email finds you well. Things are going well for me. I made it through my first FCAT testing window being on the administrative side and am pleased with how smoothly it went. Now on to the next set of tests!

I was hoping you could provide me with some assistance with my dissertation study. I received permission from Dr. Pinnell to conduct my research. As we had briefly discussed, SCPS does not allow use of the email or courier to disseminate information, and you had mentioned the possibility of me attending a principal's meeting to present and distribute my study. Is this still a possibility? I would only need about 5 minutes of time and would have all survey instrument packets ready to distribute. My intent is to get my survey out this spring and use this year's FCAT data to correlate with the survey results. With this timeline, and the permission to present, I was hoping the April meeting would be available. I appreciate your consideration in allowing me to attend.

If you agree that it would be fine for me to present to the principals, would you mind providing me with a consent statement? I am in the process of submitting my study to UCF's IRB department and would need the statement for my paperwork. It does not need to be a formal written letter, but can be a simple statement giving permission for me to present my study to the principals with the idea that they may choose to present my survey to their teaching faculties. This statement can be done via email and I would just print it off and add it to my IRB packet.

Again, I appreciate your time, consideration, and support as I continue down this journey. Having completed all my coursework and comprehensive exams, I am diligently working to complete this goal of mine. It's great to see all my hard work coming to fruition.

LIST OF REFERENCES

Bandura, A. (1994). Self-efficacy. [Electronic version]. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York, NY: Academic Press.

Barott, J. E. & Raybould, R. (1998). Changing schools into collaborative organizations. In Pounder, D. G. (Ed.s) *Restructuring schools for collaboration: Promises and pitfalls* (pp. 27-42). Albany, NY: State University of New York Press.

Barth, R. S. (1990). *Improving schools from within*. San Francisco, CA: Jossey-Bass.

Barth, R. S. (2001). *Learning by heart*. San Francisco, CA: Jossey-Bass.

Barth, R. S. (2002). The culture builder. *Educational Leadership, 59*(8), 6-11.

Barth, R. S. (2006). Improving relationships within the schoolhouse. *Educational Leadership, 63*(6), 8-13.

Beaudoin, M., & Taylor, M. (2004). *Creating a positive school culture: How principals and teachers can solve problems together*. Thousand Oaks, CA: Corwin Press.

Bolman, L. G, & Deal, T. E. (1997). *Reframing organizations: Artistry, choice, and leadership* (2nd ed.). San Francisco, CA: Jossey-Bass.

Bowman, D. H. (2002). School 'connectedness' makes for healthier student, study suggests. *Education Week*. Retrieved November 7, 2005 from: http://www.edweek.org

Brucato, J. M. (2005). *Creating a learning environment: An educational leader's guide to managing school culture*. Lanham, MD: Scarecrow Education.

Buckingham, M., & Coffman, C. (1999). *First, break all the rules*. New York, NY: Simon and Schuster.

Chatman, J. A., & Jehn, K. A. (1994). Assessing the relationship between industry characteristics and organizational culture: How different can you be? *The Academy of Management Journal, 37*(3), 522-553.

Cohen, J., Shapiro, L., & Fisher, M. (2006). Finding the heart of your school. *Principal Leadership [Middle School Edition], 7*(4), 26-31.

Collaborate. (n.d.). The American Heritage® Dictionary of the English Language, Fourth Edition. Retrieved November 01, 2006, from Dictionary.com website: http://dictionary.reference.com/browse/collaborate

Collegiality. (n.d.). *Dictionary.com Unabridged (v 1.0.1)*. Retrieved November 1, 2006, from Dictionary.com website: http://dictionary.reference.com/browse/collegiality

Collins, J. C., & Porras, K. I. (1994). *Built to last: Successful habits of visionary Companies*. New York, NY: Harper Business.

Cunningham, B. C. (2003). A study of the relationship between school culture and student achievement. Doctoral dissertation, University of Central Florida.

Deal, T. E., & Kennedy, A. A. (1982). *Corporate cultures: The rites and rituals of Corporate life*. Reading, MA: Addison-Wesley.

Deal, T. E., & Peterson, K. D. (1999). *Shaping school culture*. San Francisco, CA: Jossey-Bass.

Deal, T. E., & Peterson, K. D. (2002). *The shaping school culture fieldbook*. San Francisco, CA: Jossey-Bass.

Du Four, R. (2004). What is a "professional learning community"? *Educational* Leadership, 61 (8), 6-11. Retrieved February 6, 2006 from: www.ascd.org

ECS Report to the Nation (2004). State Implementation of the No Child Left Behind Act. Education Commission of the States. Retrieved October 22, 2004 from: http://www.ecs.org/ecsmain.asp?page=/html/IssueCollapse.asp

Education Week (2004a). Education Issues A-Z. No Child Left Behind. Retrieved October 22, 2004 from: http://www.edweek.org/rc/issues/no-child-left-behind/.

Education Week (2004b). Education Issues A-Z. Privatization of public education. Retrieved October 11, 2004 from: http://www.edweek.com/context/topics/issuespage.cfm?id=15

Education Week (2004 c). Education Issues A-Z. Alternative teacher certification. Retrieved May 11, 2008 from: http://www,edweek.org/rc/issues/alternative-teacher-certification/

Eilers, A. M., & Camacho, A. (2007). School culture change in the making: Leadership factors that matter. *Urban Education, 42*(6), 616-637.

Esposito, C. (1999). Learning in urban blight: School climate and its effect on the school Performance of urban, minority, low-income children. *School Psychology Review, 28*(3), 365-377.

Florida Department of Education (2004). Assessment and accountability briefing book: FCAT, school accountability, teacher certification tests. Retrieved February 24, 2008 from: http://fcat.fldoe.org/pdf/fcataabb.pdf

Florida Department of Education (2007). About the FCAT web brochure. Retrieved November 1, 2007 from: http://fcat.fldoe.org/aboutfcat/english/index.html

Florida Department of Education (2008). School accountability reports 1999-2007. Retrieved May 11, 2008 from: http://schoolgrades.fldoe.org/default.asp

Frieberg, H. J. (1998). Measuring school climate: Let me count the ways. Educational *Leadership,* 56(1), 22-26.

Gallego, M., Hollingsworth, S., & Whiteneck, D. A. (2001). Relational knowing in the reform of educational cultures. *Teachers College Record*, *103*(2), 240-266.

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal, 37*(2), 479-507. Retrieved February 16, 2008 from: http://www.jstor.org

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2004). Collective efficacy beliefs: theroretical developments, empirical evidence, and future direction. *Educational Researcher, 33*(3), 3-13.

Goddard, Y. L., Goddard, R. D., & Tschannen-Moran, M. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers College Record*, *109*(4), 877-896. Retrieved January 21, 2008 from: www.hwwilsonweb.com

Goldring, L. (2002). The power of school culture [Electronic version]. *Leadership*, (November/December 2002), 32-35.

Goldwater Institute (2004). Center for educational opportunity. Retrieved October 29, 2004 from: http://goldwaterinstitute.com.

Gordon, G. G. (1985). The relationship of corporate culture to industry sector and corporate performance In Kilman, R. H., Saxton, M. J., Serpa, R., & Associates. *Gaining control of the corporate culture* (pp. 103-125). San Francisco, CA: Jossey-Bass.

Gruenert, S. (2000). Shaping a new school culture. *Contemporary Education*, 71(2), 14-17.

Gruenert, S. (2005). Correlations of collaborative school cultures with student achievement. *NASSP Bulletin*, *89*(645), 43-55. Retrieved February 17, 2008 from: http://bul.sagepub.com

Hansen, J. M., & Child, J. (1998). Creating a school where people like to be [Electronic version]. *Educational Leadership, 56*(1), 14-17.

Hinde, E. R., (2004). School culture and change: An examination of the effects of school culture on the process of change [Electronic version]. *Essays in Education, 12*(3). Retireved November 6, 2006 from: http://www.usca.edu/essays/vol122004/hinde.pdf

Hlebowitsch, P. S., & Tellez, K. (1997). *American Education: Purpose and Promise*. Belmont, CA: Wadsworth Publishing Company.

Hoy, W. K., & Hannum, J. W. (1997). Middle school climate: An empirical assessment of organizational health and student achievement. *Educational Administration Quarterly, 33*(3), 290-311. Retrieved January 21, 2008 from: http://www.sagepub.com

Hoy, A. W., & Hoy, W. K. (2006). *Instructional leadership: A research based guide to learning in schools* [2nd Edition]. Boston, MA: Allyn and Bacon.

Hoy, W. K., & Tarter, C. J. (1997). *The road to open and healthy schools: A handbook for change*. Thousand Oaks, CA: Corwin Press.

Hoy, W. K., Tarter, C. J., & Kottkamp, R. B. (1991). *Open schools/healthy schools*. Newberry Park, CA: Sage Publications Inc., Corwin Press.

Kilman, R. H., Saxton, M. J., & Serpa, R. and Associates. (1985). *Gaining control of the corporate culture* (pp.1-16). San Francisco, CA: Jossey-Bass.

Kotter, J. P., & Heskett, J. L. (1992). *Corporate culture and performance*. New York, NY: The Free Press.

Lauer, D., & Matthews, M. (2007). Teachers steer their own learning. *Journal of Staff Development, 28*(2), 36-37, 39-41. Retrieved January 21, 2008 from: www.hwwilsonweb.com

Levin, H. M. (2003). Potential of for-profit schools for educational reform. Retrieved October 21, 2004 from: http://www,ncspe.org/publications_files/179_Op47.pdf

Lorsch, J. W. (1985). Strategic myopia: Culture as an invisible barrier to change. In R. Kilman, M. J. Saxton, R. Serpas, & Associates (Eds.), *Gaining control of the corporate culture* (pp. 84-102).San Francisco, CA: Jossey Bass.

Loschert, K., O'Neil, J., & Winans, D. (2004). Cash cow. *NEA Today*. Retrieved October 27, 2004 from: http://www.nea.org/neatoday/0409/coverstory.html.

MacNeil, A. J. (2005). Culture, climate, and school outcomes. In Hughes, L. W. (Eds.), *Current issues in school leadership* (pp. 289-302). Mahwah, NJ: Lawrence Erlbaum Associate, Inc.

MacNeil, A. J., Prater, D. L., & Busch, S. (2007). *International Journal of Leadership in Education.* Retrieved February 22, 2008 from: http://www.informaworld.com/smpp/content~content=a782759810~db=all

Marshall, M. (2005). Promoting positivity, choice, and reflection. *Leadership*, *34*(5), 28-30.

Melton-Shutt, A. (2004). School culture in Kentucky elementary schools: Examining the path to proficiency. [Electronic Version], Unpublished Doctoral Dissertation, University of Louieville, KY, and Western Kentucky University, Bowling Green. Retrieved February 8, 2008 from: http://www.proquest.umi.com

National Center for Alternative Certification (2007). Overview of alternative routes to teacher certification. Retrieved May 11, 2008 from: http://www.teach-now.org/overview.cfm

Ouchi, W. (1981). *Theory z*. Reading, MA: Free Press.

Organizational Culture (2008). Organizational culture. *Wikipedia: The free encyclopedia* . Retrieved February 29, 2008 from: http://en.wikipedia.org/wiki/Organizational_culture

Owens, R. G., & Valesky, T. C. (2007). *Organizational behavior in education: Adaptive leadership and school reform* [9th edition]. Boston, MA: Allyn and Bacon.

Peters, T. J., & Waterman Jr., R. H. (1982). *In search of excellence: Lessons from America's best run companies*. New York, NY: Harper and Row.

Peterson, K. D. (1994). NCREL monograph: Building collaborative cultures: Seeking ways to reshape urban schools. *NCREL's Urban Education Monograph Series*. Retrieved November 13, 2006 from: http://www.ncrel.org

Peterson, K. D., & Deal, T. E. (1998). How leaders influence the culture of schools. *Educational Leadership, 56*(1), 28-30.

Phillips, G. (1993). What is school culture? Retrieved October 1, 2006 from http://www.schoolculture.net/whatisit.html

Phillips, G., & Wagner, C. (2003). *School culture assessment: A manual for assessing and transforming school-classroom culture*. Vancouver, BC. Mitchell Press, Agent 5 Design.

Proficiency. (n.d.). *WordNet® 3.0*. Retrieved March 01, 2008, from Dictionary.com website: http://dictionary.reference.com/browse/proficiency

Public Broadcasting System (2001). School: The story of American public education. Retrieved October 30, 2004 from: http://www.pbs.org/kcet/publicschool/

Purkey, S. C., & Smith, M. S. (1983). Effective schools: A review. The Elementary School Journal, 83(4), 428-452. Retrieved February 12, 2008 from: http://www.jstor.org

Ravitch, D. (1983). Reformers, radicals, and romantics. *The Jossey Bass Reader on School Reform* (43-81). San Francisco, CA: Jossey-Bass.

Robbins, S. P. (1989). *Organizational behavior: Concepts, controversies, and applications*. Englewood Cliffs, NJ: Prentice Hall.

Rollins, T., & Roberts, D. (1998). *Work culture, organizational performance, and business success: Measurement and management*. Westport, CN: Quorum Books.

Saphier, J., & King, M. (1985). Good seeds grow in strong cultures. *Educational Leadership, 42*(6), 67-74.

Schein, E. H. (1985). How culture forms, develops, and changes. In Kilman, R. H., Saxton, M. J., Serpa, R., & Associates. *Gaining control of the corporate culture* (pp.17-43). San Francisco, CA: Jossey-Bass.

Schein, E. H. (1992). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass.

Schein, E. H. (1999). *The corporate culture survival guide: Sense and nonsense about culture change.* San Francisco, CA: Jossey-Bass.

Seminole County Public Schools (2007a). Facts and demographics. Retrieved February 28, 2008 from: http://www.scps.k12.fl.us/community_involvement/fact_demo.cfm

Seminole County Public Schools (2007b). Mission statement. Retrieved February 28, 2008 from: http://www.scps.k12.fl.us/

Seminole County Public Schools (2007c). The chalkboard 2006-2007: Schools and community working together for our children. Retrieved February 28, 2008 from: http://www.scps.k12.fl.us/_doc/scps-cboard2007.pdf

Sergiovanni, T. J. (1990). *Value-added leadership: How to get extraordinary performance in schools*. Orlando, FL: Harcourt Brace Jovanovich, Inc.

Sergiovanni, T. J. (2005). The virtues of leadership. *The Educational Forum*, 69(2), 112-123.

Simpson, G. W. (1990). Keeping it alive: Elements of school culture that sustain innovation. *Educational Leadership,78*(8), 34-37.

Sottile, J. M., Carter, W., & Mutphy, R. A. (2002). The influence of self-efficacy on School culture, science achievement, and math achievement among inservice Teachers. Paper presented at the Annual Meeting of the American Educational Research Association. Retrieved February 16, 2008 from: http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1a/8e/57.pdf

Trubowitz, S. (2005). Creating a culture for learning. *Educational Horizons, 83*(3), 171-176.

Tyack, D., & Cuban, L. (1995). Progress or regress? *The Jossey Bass Reader on School Reform* (5-42). San Francisco, CA: Jossey-Bass.

United States Department of Education (1994). Goals 2000. *The Jossey Bass Reader on School Reform* (183-210). San Francisco, CA: Jossey-Bass.

United States Department of Education (2002). No child left behind. Retrieved November 9, 2005 from: http://www.nochildleftbehind.gov.

United States Department of Education (2004a). No child left behind. Retrieved November 9, 2005 from: http://www.ed.gov/nclb/overview/intro/index.html

United Stated Department of Education (2004b). Prepared remarks for Secretary Paige at the Philadelphia school district conference on 'Innovations in education: Building a public-private partnership model for K-12 reform.' Retrieved October 28, 2004 from: http://www.ed.gov/print/news/speeches/2004/10/10082004.html.

United States Department of Education (2005). Introduction: No child left behind. Retrieved February 28, 2008 from: http://www.ed.gov/nclb/overview/intro/index.html

United States Department of Education (2008). Stronger accountability: Adequate yearly progress (FAQ). Retrieved February 28, 2008 from: http://www.ed.gov/nclb/accountability/ayp/edpicks.jhtml?src=az

Van Der Westhuizen, P. C., Mosoge, M. J., Swanepoel,L. H., & Coetsee, L. D. (2005) Organizational culture and academic achievement in secondary schools. *Education and Urban Society, 38*(1), 89-105. Retrieved February 17, 2008 from: http://www.sagepub.com

Wagner, C. R. (2004). Leadership for an improved school culture: How to assess and improve the culture of your school [Electronic version]. *Kentucky School Leader* (Fall 2004/Winter 2005), 10-16.

Wagner, C. R. (2006). The school leader's tool for assessing and improving school culture. *PrincipalLeadership [Middle School Edition], 7*(4), 41-44.

Wagner, C., & Masden-Copas, P. (2002). An audit of the culture starts with two handy tools [Electronic version]. *Journal of Staff Development, 23*(3), 42-53.

Waters, J. T., Marzano, R. J., & McNulty, B. (2004). Leadership that sparks learning. Educational Leadership, 61(7), 48-51.

Wikipedia: The free encyclopedia. (2008a). Seminole county, Florida. Retrieved February 28, 2008 from: http://en.wikipedia.org/wiki/Seminole_County%2C_FL

Wikipedia: The free encyclopedia. (2008b). List of the largest school districts in the United States by enrollment. Retrieved February 28, 2008 from: http://en.wikipedia.org/wiki/List_of_the_largest_school_districts_in_the_United_States_by_enrollment

Wood, N. B., Lawrenz, F., Huffman, D., & Schulz, M. (2006). Viewing the school environment through multiple lenses: In search of school-level variables tied to student achievement. *Journal of Research in Science Training, 43*(3), 237-254.