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THE RELATIONSHIP BETWEEN THE STERLING QUALITY
FRAMEWORK AND STUDENT ACHIEVEMENT IN ONE FLORIDA
SCHOOL DISTRICT

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the School of Teaching, Learning, and Leadership
in the College of Education
at the University of Central Florida
Orlando, Florida

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Major Professor: Rosemarye Taylor

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ABSTRACT

The focus of this research was to determine the relationship, if any, between student achievement and the implementation of the Sterling Quality Management System in a southwest Florida school district. A quantitative analysis focused on three sources of data. Two surveys provided by the Florida Sterling Council were used to collect data from school based personnel and student achievement gain scores obtained from the Florida DOE School Accountability Report 2005-2009. In this study, little positive correlation was found between perceived implementation of Sterling practices and student achievement gains. Of a possible score of 5, the total mean implementation score across all groups was found to be 4.14. This meant that the perceived level of Sterling implementation among respondents overall was very high. No significant correlation was found between the total average Sterling implementation mean score and student achievement gains (school points) made between 2005 and 2009. Overall, very few correlations were found to be statistically significant. This suggested the lack of a linear relationship between Sterling implementation and student achievement gains in the schools in the study

Following are recommendations for future research.

1. This study could be repeated using a population of multiple school districts in Florida or in different states.
2. This study could be repeated using different measures of student achievement, such as end of course exam results, SAT or ACT scores, or achievement in Advanced Placement or International Baccalaureate programs in high schools.

3. This study could be repeated with a population of administrators that includes all school principals and assistant principals.
4. This study could be repeated in a school district that has achieved the Sterling Quality award.
5. This study could be repeated to determine a relationship between Sterling Quality and other school effectiveness measures, such as parent involvement, community support, and teacher retention.
6. Determine the relationship if any that the implementation of Sterling Quality practices at the district level has on student achievement.

To my friends, family,
and my children Tommy and Katie.

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I would like to thank Dr. Rosemarye Taylor, my advisor and committee chair for helping me through the process of completing my dissertation. I would also like to express appreciation to the members of my committee: Drs. Walter Doherty, Caroline Marrett, and Kenneth Murray; and to the professors who drove those long miles to Fort Myers each week to teach our classes. Thanks also to Dr. Mary Ann Lynn whose guidance through the technical aspects of the process were invaluable and for her voice of reason when I was at a breaking point.

I extend my gratitude to the leaders and employees of The Lee County School District for allowing me the opportunity to complete my research. I would like to extend my gratitude to Dr. Richard Itzen for his guidance and support. I offer my sincere appreciation to Mrs. Cindy McClung for her encouragement and introducing me to Sterling Quality. Finally, a most gracious thank you to Mr. Bob Hoglund for his guidance and encouragement.

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CHAPTER 1

THE PROBLEM AND ITS CLARIFYING COMPONENTS

Introduction

This chapter has been organized to present the problem of the study and its clarifying components. Included are a statement of the problem, the conceptual framework used in the research, the definition of terms. The research questions which guided the study are stated, and the methodology is briefly described along with the delimitations, limitations and a statement of significance.

Statement of the Problem

A great deal of the literature on student achievement has focused on the factors that impact student achievement outcomes. Two student-level factors that consistently are cited in the literature include mobility rate and socioeconomic status (SES). Teacher-level factors often referenced include years of teaching experience and level of education. Virtually absent in the literature reviewed were studies related to the impact of the Sterling Quality Framework on student achievement. The aim of this study was to determine the relationship, if any, between student achievement and the implementation of the Sterling Quality Management System in a southwest Florida school district. Schools that employ quality practices should show higher levels of student achievement than schools that do not (Short, 2006).

Conceptual Framework

The education system in America has been under attack by a number of critics in recent history (USNCOE, 1983). Possible solutions by those individuals who have strong beliefs about the problems in education have been regularly argued for how best to address the major concerns in educational reform. Both McCabe (2006) and Gandara (2010) posited that there may be a link between failures in the American education system and the lack of response to changes in contemporary society. Bodine, Crawford, and Hoglund (1993) stated that reform efforts should focus on changes in population to meet the needs of students in the nation's schools. One major concern facing educational reformists in the 21st century is the Adequate Yearly Progress (AYP) measure identified in the No Child Left Behind Act of 2001 (U.S. Department of Education, 2004). Bullying and pressure were found to be contrary to effective methods that improve quality in educational organizations by Anderson and Gossen, (1995). Schools that effectively inspire quality practices in schools are more likely to have students with a strong desire to succeed. When principals to teachers encourage students to put forth their best efforts, students begin to monitor their own performance and continuously set and reach their own goals. Glasser (1998) and Deming (1986, 1994) have argued that the use of quality practices in educational organizations may yield significant gains as an approach to school reform.

The premise of Glasser's (1998) theory was that individuals have an intrinsic desire to meet five basic needs. These basic needs include survival, fun, belonging/love, power, and freedom. Rose, (2003) suggested that students learn to make choices as they

develop their personal visions of quality based on available options that support their individual needs. This idea was supported by Glasser's belief that students can be taught to control their choices in order to improve their likelihood of reaching their goals. Following this same logic, schools that foster a quality environment make every effort to ensure that students' basic needs are met.

Deming (1994) developed a framework for improving the quality of products produced in industrial organizations early in his career. Later, he felt a strong desire to apply those same concepts to other service related organizations such as schools. He believed that application of the quality business practices would create similar results in educational organizations that could serve as the focus of reform efforts in those organizations (Bodine et al., 1993).

Glasser (1998) has encouraged educational organizations to create a quality environment in schools by helping students identify what they need to know and do. In doing so, teachers, in turn, must require students to monitor goal setting processes that result in a continuous improvement process. This process is the key for students to have higher levels of achievement and address the five basic needs as espoused by Glasser (Bodine et al., 1993).

In order for both public and private sector organizations to survive in an ever changing world, they must constantly reinvent themselves. The public education sector is no exception. The total quality management principles and practices included in the Sterling Quality Framework have been used for decades to help organizations evolve by looking at continuous improvement processes and practices within the organization. It

was the Sterling Quality Framework and its potential impact on student achievement that was the focus of this research.

A review of the literature on student achievement revealed a wide range of school reform efforts designed to positively impact student achievement outcomes. Much of the student achievement literature has focused on the factors that impact students and their progress in schools. Two student-level factors that have been consistently cited in the literature include mobility rate and socioeconomic status (SES). Teacher-level factors often referenced include years of teaching experience and level of education. Virtually absent in the literature reviewed were studies related to the impact of the Sterling Quality Framework on student achievement.

Definition of Terms

The following definitions were used in this study:

Adequate Yearly Progress (AYP)--Adequate yearly progress is the metric used by the Florida Department of education to determine if schools, school districts, and the state have made adequate yearly progress towards meeting the state's academic achievement standards based primarily on the results of school FCAT results (Florida Department of Education, 2010c).

Florida Comprehensive Assessment Test (FCAT)--The Florida Comprehensive Assessment Test is a test is a criterion referenced assessment based on the Sunshine State Standards. All students in grades three through to are given the FCAT in the areas of

reading and mathematics and in selected grades in the areas of science and writing (Florida Department of Education, 2005b).

Florida Sterling Council--The Florida Sterling Council is made up of public and private sector members led by the Executive Committee. The council was established in 1992 as a public/private not-for-profit corporation to oversee the Governor's Sterling Award for Performance Excellence and all associated activities (Florida Sterling Council, 2008).

Learning Gains--Learning Gains are the difference in the unit of measurement from one year to the next on the FCAT. FCAT student results are reported each year using scale scores that range from 100 to 500 for each grade level. Based on these scores, students are assigned one of five Achievement Level classifications with Level 1 being the lowest and Level 5 being the highest. Student scores are tracked and reported year after year permitting the state to measure student improvement over time and compare student performance to other students in Florida (Florida Department of Education, 2008).

Mobility Rate--Mobility rate is a numerical value describing those students who move from one school to another during the school year or from one year to the next (Florida Department of Education, 2009).

No Child Left Behind (NCLB)--Elementary and Secondary Education Act of 1965 has most recently been reauthorized as the No Child Left Behind Act of 2001. This reauthorization was signed into law by President George W. Bush in January of 2002. The NCLB ACT describes responsibilities for states to develop academic standards,

assess students, and determine adequate yearly progress for schools, school districts, and the state (Bush, 2009).

Socioeconomic Status (SES)--Socioeconomic status is a family's or individual's measure of income in relation to others based on household income, education, and occupation as measured by a student's free and reduced lunch eligibility (Sirin, 2005).

Sterling Quality Award—The Malcom Baldrige National Quality Improvement Act of 1987 named for former Secretary of Commerce called for the development of guidelines and criteria that could be used by organizations to evaluate reform and quality improvement efforts. The Sterling Quality Award was created in Florida based on the Malcolm Baldrige criteria (Florida Sterling Council, 2008).

Sterling Quality Framework--The Sterling Criteria for Performance Excellence are based on the Malcolm Baldrige Quality framework. The seven categories included in the framework are as follows: Leadership; Strategic Planning; Customer and Market Focus; Measurement, Analysis, and Knowledge Management; Human Resource Focus; Process Management; and Organizational Performance Results (Florida Sterling Council, 2008, p. 7).

Research Questions and Hypotheses

This study was guided by the following research questions:

1. To what extent do principals and teachers perceive that district schools have implemented the Sterling Quality Management System by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

2. What relationship, if any, exists between the perception of teacher and principal Sterling implementation levels and student achievement as measured by the school's total points change from 2005 to 2009 on the Florida A+ school accountability report by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?
3. What relationship, if any, exists between the perception of teacher and principal implementation of each of the seven areas of Sterling criteria: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge; workforce focus; process management (Florida Sterling Council, 2008, p. 7). ; and results (student achievement) per school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

It was hypothesized that:

H_{a1} Evidence that the perception of teacher and principal perception of Sterling Quality Framework being implemented to some degree will be observed in all district schools.

H_{a2} There will be a statistically significant relationship between the perception of teacher and principal Sterling implementation levels and student achievement as measured by results of (a) the Sterling readiness survey and (b) student achievement as measured by the school's total points change from 2005 to 2009 on the Florida A+ school accountability report by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district.

H_{a3} There will be a statistically significant relationship between schools that have perceptions of implementing each of the seven areas of the Sterling criteria at a high level as measured by results of (a) the Sterling readiness survey and (b) student achievement as measured by grade points earned on the 2008-2009 Florida A+ school accountability report.

Methodology

The methodology used in this study was quantitative and served to determine what relationship, if any, existed between the implementation level of the Sterling Management System for leaders and employees and student achievement, as well as to determine what relationships, if any, were found between each of the seven Sterling categories: Leadership; Strategic Planning; Customer and Market Focus; Measurement,

Analysis, and Knowledge Management; Human Resource Focus; Process Management; and Organizational Performance Results (Florida Sterling Council, 2008, p. 7) and student achievement.

The Florida Sterling Council recommends the use of two surveys as part of a self-assessment tool to determine where the organization needs to focus the efforts of its reform process (Florida Sterling Council, 2008). These surveys provided by the Florida Sterling Council were used to collect data from school based personnel. The “Are We Making Progress As Leaders?” survey was sent to all district elementary, middle and high school principals. The “Are We Making Progress As Employees?” survey was sent to all district elementary, middle and high school-based, full-time teachers. Results of the surveys were collected and tabulated in order to determine the perceived Sterling implementation level for each school. This implementation level was used to determine the relationship if any, exists between the implementation of the Sterling management system and student achievement.

Results of the surveys were collected and tabulated in order to determine the perceived Sterling implementation level for each school. This implementation level was used to determine the relationship if any, between the implementation of the Sterling management system and student achievement. School achievement data were accessed directly from the Florida DOE Accountability Report 2005-2009. The research questions and sources of data are displayed in Table 1.

Table 1
Research Questions and Sources of Data

Research Questions	Data Sources
1. To what extent do principals and teachers perceive that district schools have implemented the Sterling Quality Management System by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?	Results from the leadership survey “Are We Making Progress as Leaders?” and the “Are We Making Progress as Employees?” teacher survey conducted at all district elementary, middle and high Schools.
2. What relationship, if any, exists between the perception of teacher and principal Sterling implementation levels and student achievement as measured by the school’s total points change from 2005 to 2009 on the Florida A+ school accountability report by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?	The Florida DOE Accountability Report 2005-2009.
3. What relationships, if any, exists between the perception of teacher and principal implementation of each of the 7 areas of Sterling criteria: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge; workforce focus; process management; and results (student achievement) per school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?	The Florida DOE Accountability Report 2005-2009.

Population

The population for this study was composed of all school principals and full-time teachers in a public school district located on the southwest coast of Florida. The district was one of the ten largest school districts in Florida and one of the 50 largest school

districts in the United States, encompassing more than 800 square miles. There were 44 elementary schools, 20 middle schools, 13 high schools, four K-8 schools, 13 special education centers, and three high-tech and community schools and approximately 80,000 students in grades pre-kindergarten through 12. In 2009 the student population was comprised of 51% White, 14% Black, 29% Hispanic, and 6% other ethnicities. The student poverty level, as measured by free and reduced lunch percentage, was 66% (Sirin, 2005). One school in the district earned the Florida Sterling award. No other schools in the district have applied for the award (Florida Sterling Council, 2010).

Instrumentation

The “Are We Making Progress as Leaders?” survey was a 40-item instrument designed to address each of the seven categories of the Sterling Criteria for Performance Excellence as follows: leadership (seven items); strategic planning (three items); customer and market focus (five items); measurement, analysis, and knowledge management (six items); workforce focus (six items); process management (four items); and results (nine items). The companion survey “Are We Making Progress as Employees?” relied on the same format and item distribution for each of the categories. All items on the surveys were aligned so that the same statements were posed for employers (principals) and employees (teachers) and enabled all respondents to address the same issues in each of the categories from their respective perspectives

A Likert type scale was utilized for all 40 items with response choices ranging from positive to negative. Respondents were asked to indicate which of five responses in

the scale was most representative of their perspective where Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1. This permitted the summing of points by category and the determination of mean scores for each of the seven categories.

The sum of responses was calculated for each category and then divided by the number of statements to yield a category average for each respondent. Then, in order to get a total score (average) for Sterling implementation, the scores for each of the seven categories was summed and divided by seven. This procedure was followed for each respondent.

Data Collection Procedures

In order to determine the appropriate procedure for achieving high response rates for email surveys, several sources were consulted by the researcher. Email surveys can result in a high non-response rate due to incorrect email addresses, spam filtering, or assumptions made by the individual that the email is spam (Lynn, 2008). In a study to develop a standard email methodology, Dillman and Schaefer (1998) found that it was possible to achieve high response rates similar to those obtained by traditional mail when using a multi-mode approach. They found that making contact three or more times resulted in a significantly higher response rate than simply sending out the survey. Personalization was also found to be an important factor that can be conducted using email. The principles advocated were applied in this study. Multiple contacts for this survey included a pre-survey notification informing respondents of the purpose of the survey. After the survey was sent to the intended audience, a follow-up email was sent

thanking those that had completed the survey, and asking those that had not completed the survey to do so. Every attempt was made to personalize communications to encourage the highest return of surveys as possible.

Data Analysis

A Likert type scale was utilized for all 40 items with response choices ranging from positive to negative. Respondents were asked to indicate which of five responses in the scale was most representative of their perspective where Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1. This permitted the summing of points by category and the determination of mean scores for each of the seven categories.

The sum of responses was calculated for each category and then divided by the number of statements to yield a category average for each respondent. Then, in order to arrive at a total mean score for Sterling implementation, the scores for each of the seven categories were summed and divided by seven. This procedure was followed for each respondent.

A linear regression was originally intended to be performed on the dependent variable, student achievement which was categorized in four levels: (K-5, K-8, 6-8, and 9-12) and by the district. In this analysis, regression coefficients were to be calculated for each of the independent variables, the seven Sterling criteria areas, to determine the significance of each in relation to the dependent variable (Lomax, 2001). However, since practically no correlation was found between Sterling implementation categories and

student achievement gains, the regression analysis was subsequently determined to be unnecessary.

Student achievement gains were calculated by taking the difference in grade points from the 2005 and 2009 school years using school grade points earned on the Florida A+ school accountability report. School gain scores served as the independent variable indicating student achievement at the school level. School grades are determined by accumulating points based on eight measures of achievement.

Pearson bivariate correlations were run for both the principal and teacher groups using the Sterling ratings for each category and total points (achievement gains). This test was performed in order to measure the degree of relationship between Sterling implementation and student achievement gains. Statistical significance was set at the .05 level. The research questions, variables, and statistical procedures used in the data analyses are displayed in Table 2.

Delimitations

This study was delimited to principal and teacher responses representing the perception of the respective groups they represent and students who attended schools within the selected public school district. The district was chosen because of its implementation in 2004 of the Sterling Quality Framework in several schools and its subsequent adoption of the framework as a district initiative.

Limitations

Because this study was delimited to one South Florida school district that had implemented the Sterling Quality Framework, the results were not generalizable beyond the target population. The study was further limited as to the number of respondents compared to the overall population. Any inferences beyond this population should be drawn only after careful consideration of the characteristics of the school district.

Table 2
Research Questions, Variables, and Statistical Procedures

Research Questions	Variables to Be Tested	Statistical Procedures
1. To what extent do principals and teachers perceive that district schools have implemented the Sterling Quality Management System by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?	Results from the leadership survey “Are We Making Progress as Leaders?” and the “Are We Making Progress as Employees?” teacher survey conducted at all district elementary, middle and high Schools.	Analysis of means for each of the seven Sterling categories by grade level (K-5, K-8, 6-8, AND 9-12).
2. What relationship, if any, exists between the perception of teacher and principal Sterling implementation levels and student achievement as measured by the school's total points change from 2005 to 2009 on the Florida A+ school accountability report by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?	Results from the leadership survey “Are We Making Progress as Leaders?” and the “Are We Making Progress as Employees?” teacher survey conducted at all district elementary, middle and high Schools. The Florida DOE Accountability Report 2005-2009.	Regression analysis with student achievement as the dependent variable and each of the seven Sterling categories as independent variables by grade level (K-5, K-8, 6-8, AND 9-12) if prior analysis warrants regression procedure.
3. What relationships, if any, exists between the perception of teacher and principal implementation of each of the 7 areas of Sterling criteria: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge; workforce focus; process management; and results (student achievement) per school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?	Results from the leadership survey “Are We Making Progress as Leaders?” and the “Are We Making Progress as Employees?” teacher survey conducted at all district elementary, middle and high Schools. The Florida DOE Accountability Report 2005-2009.	Analysis of variance with student achievement as the dependent variable and each of the seven Sterling categories as independent variables by grade level (K-5, K-8, 6-8, AND 9-12).

Significance of the Study

This study is an addition to the body of literature on the relationship between implementation of Sterling Quality Framework criteria in schools and student achievement. It was anticipated that this study would contribute to increased awareness as to how quality practices affect student achievement. This awareness could serve as a catalyst for change in developing new public policy. Such development could advance opportunities for schools to improve processes and practices that would benefit student achievement in K-12 educational institutions.

Summary

High performing organizations in both the public and private sectors must evolve and grow in order to survive. The public education sector is no exception. The total quality management principles and practices included in the Sterling Quality Framework have been used for decades to help organizations evolve by looking at continuous improvement processes and practices within the organization. The aim of this study was to determine the relationship, if any, between student achievement and the implementation of the Sterling Quality Management System in a Southwest Florida school district. Schools that employ quality practices should show higher levels of student achievement than schools that do not (Short, 2006).

This chapter, the first of five, has provided an overview of the problem of the study and its clarifying components. Chapter 2 contains a review of the literature and related research. The methodology is described in Chapter 3, and the analysis of the data

is contained in Chapter 4. Chapter 5 presents a summary and discussion of the findings, implications, and recommendations.

CHAPTER 2 REVIEW OF THE LITERATURE AND RELATED RESEARCH

Introduction

This chapter was designed to provide the reader with a detailed foundation for how the Sterling Quality framework can serve as a model for educational organizations to focus their management efforts, identify areas in need of improvement, and identify efforts that are positively impacting student achievement. In addition two student level factors found in the literature that influence student achievement were reviewed: socioeconomic status and mobility rate.

A review of the literature was conducted by searching the Florida Gulf Coast University library catalog for current texts focused on each of the seven Sterling key areas: Leadership; Strategic Planning; Customer and Market Focus; Measurement, Analysis, and Knowledge Management; Human Resource Focus; Process Management; and Organizational Performance Results. A broad range of information was found in each of the key areas and reviewed to identify the role each played in effective organizational management.

The databases that were used included the following within EBSCO host: ERIC, Professional Development Collection, Academic Search Premier. In addition JSTOR, ProQuest, and WilsonWeb were all utilized to ensure a thorough review of the literature was completed.

Very little information was found related to the impact of the Sterling Quality Framework on student achievement in schools. The review of the literature has been

organized beginning with a review of school reform initiatives in education followed by a brief history of the Florida Sterling Award and then an in-depth review of each of the categories in the Sterling framework. Finally, a brief review of student mobility and socioeconomic status are included as two factors commonly cited in the literature as influencing student achievement in schools.

School Reform

National reform efforts in education were supported when the State of Florida set out to refurbish PK-12 public education by implementing the A+ Plan for Education (Horne, 2003). At the time, the state was struggling with dramatic increases in student enrollment, a diverse student population, increasing dropout rates, and unimpressive student achievement gains. The Florida Department of Education focused reform efforts on developing a set of expectations for student achievement in seven subject areas including language arts, mathematics, science, social studies, health and physical education, foreign languages, and the arts (Florida Department of Education, 2005b). These expectations were outlined in the Florida Sunshine State Standards. The standards were developed by educators, administrators, and policy makers, and approved in 1996 by the State Board of Education (Florida Department of Education, 2010b).

In January of 2002 President Bush signed the No Child Left Behind Act of 2001 (NCLB) into law. Special attention was focused on improving the performance of underperforming students and closing the achievement gap. NCLB required states to put measures in place for schools and school districts to calculate Adequate Yearly Progress

(AYP) enabling all students to meet the state's academic achievement standards. AYP measures targeted the performance of students in specific categories based on race, socioeconomic status (SES), special education, and proficiency in English. A minimum level of proficiency toward state achievement goals was expected to be achieved by 100% of students by the year 2013 (U.S. Department of Education, 2004).

The inclusion of accountability has been a major focus of reform efforts in the A+ Plan. The Florida Comprehensive Assessment Test (FCAT) was implemented in 1997 as a comprehensive measurement and diagnostic system to address the need for accountability at the school level. The Florida Department of Education has used data from the FCAT and alternative assessments to evaluate students and determine AYP for schools, school districts, and the state. Every Florida public school and school district has been held to the same criteria each year. The criteria have been in a constant state of revision, and schools have been required to integrate these changes as the standards have been updated (Florida Department of Education, 2010b).

At the time of the present study, there were four required areas of proficiency included in AYP in Florida: reading, mathematics, writing, and science. At least 95% of students in a public school or school district have been required to be tested annually using the FCAT or an approved alternate in both reading and mathematics. By 2008, the state objective of having at least 58% of students at or above grade level in reading for the year and a minimum of 62% of students at or above grade level in mathematics had been posed. Other criteria included graduation rates and the Florida writing assessment, to satisfy the AYP requirements (Smith, 2008). The accountability measures have been

based on the number of school grade points earned by institutions under the A+ Plan. Schools and school districts have been rewarded for improvement or sustained excellence by assigning letter grades to individual schools based primarily on student achievement on the FCAT. A monetary reward has been linked to improving letter grades under the plan. Underperforming schools that earn an “F” grade have been provided with additional funding and instructional support. School grade points have been calculated primarily based on student achievement results from the FCAT. Under this system, one point has been earned for each percentage of students who have reached proficiency level or above in each of the following subject areas: reading, mathematics, and science. One point has also been earned for each percentage of students who have reached proficiency or above on the Florida writing assessment. Points have been added for students who make learning gains in reading and mathematics. Finally, points have been awarded for the lowest 25% of students who make learning gains in reading and mathematics (Florida Department of Education, 2008).

The Florida Sterling Criteria

The Governor’s Sterling award and the associated criteria were developed based on the Malcolm Baldrige Quality Award which was created when Public Law 100-107 was created in 1987 by an act of Congress. This award was established to identify, promote, and reward organizations for exemplary quality practices in seven key areas: Leadership; Strategic Planning; Customer and Market Focus; Measurement, Analysis, and Knowledge Management; Human Resource Focus; Process Management; and

Organizational Performance Results. The Baldrige criteria have evolved into a framework for world-class performance used as a model for organizational improvement (Badri, Selim, Alshare, Grandon, Younis, & Abdulla, 2006). The Baldrige framework has been influential in determining performance improvement efforts in organizations throughout the world (Flynn & Saladin, 2001).

The Baldrige award's core values and concepts, scoring guidelines, and weightings have been updated annually to reflect current views on organizational management, leadership and improvement. They have been freely available and provided a detailed roadmap for organizations to use in their quality improvement efforts (Przansyski & Tai, 2002). Most states, including Florida, have created their own award program based on the Baldrige criteria. This award in Florida was called the Governor's Sterling Award for Performance Excellence. The Governor's Sterling Award, the Sterling Navigator evaluation tool, the Sterling Challenge assessment process, and training to prepare for the Sterling Challenge have all been managed and maintained by the Florida Sterling Council (Florida Sterling Council, 2008). The council was established in 1992 as a public/private not-for-profit corporation to oversee the Governor's Sterling Award for Performance Excellence and all associated activities (Florida Sterling Council, 2008). An Executive Committee, comprised of public and private sector members, has provided leadership for the council.

The Sterling Criteria has been used by organizations to make significant improvements in achieving success focusing on their principles. The key factors, as described by the Florida Sterling Council, have been the major functions that determine if

organizations are achieving their purpose. In business, the key factors have related to customer satisfaction, efficient use of resources, and the “bottom line” of profitability. In order to evaluate the performance of businesses, one metric, the bottom line, stands out from the rest. The end-of-year balance sheet can be used to determine if the organization has made or lost money. In education, this process has not been so easy or clear. Educational institutions have had a similar focus in terms of customer satisfaction but have differed when it comes to the bottom line. The “customer” for education purposes has included students, parents, and business. The ultimate product of the public education system has been educated citizens who become contributing members of society (Apple, 2004).

The Florida Sterling Criteria have been expressed using the seven categories, each of which has been designed to focus attention on organizational process and improvement. It was these categories that served as organizing components for the literature review in this study. Each category is introduced using the examination criteria statement provided by the Florida Sterling Council as a guide to those seeking to make application for the Sterling award. The statement is followed by a review of the literature related to the category and the subcomponents within it.

Leadership

The Leadership Category examines how your organization's senior leaders guide and sustain your organization. Also examined are your organization's governance and how your organization addresses its ethical, legal, and community responsibilities. (Florida Sterling Council, 2008, p. 13)

This category calls for applicants for the Sterling Award to discuss senior leaders' contributions in terms of (a) vision, values, and mission; and (b) communication and organizational performance. A second area of emphasis within the leadership category is governance and societal responsibilities. This encompasses the organizational governance and the legal and ethical behavior that is demonstrated.

Culture has been described as the extent to which the organizational leaders foster the beliefs and a sense of community and cooperation. Deal and Peterson (2009) stated that all organizations have a culture. Culture within an organization is created and maintained by those individuals within the organization and in their norms, values, and shared experiences. Culture has been described by Brion (1996) as part of the organization's subconscious as it evolved over time. The behavior of individuals in an organization has been reported to be affected by the climate, external and internal environmental conditions and contingencies.

An organization's (or group's) culture, as described by Brion (1996), is its pattern of basic assumptions, mostly subconscious, that employees develop over time as they learn to cope with their and the organization's problems of external adaptation and internal integration (Brion, 1996).

According to Deal and Peterson (2009), culture has had a powerful impact on performance by shaping the ways people feel, act, and think. The impact of culture can be seen in many aspects of daily life in a school: (a) informal conversations among peers, (b) the type of instruction that is considered high quality, (c) the importance of professional development, and (d) the commitment the entire staff shares to ensuring all students learn.

Murphy and Schiller (1992), in their description of effective schools, identified the importance of having a clearly defined mission statement. They suggested that for a school to be effective it must have and act upon a clear and focused mission statement. They also stated the necessity of staff at all levels to be actively involved in creating and carrying out a clear mission statement focused on the effective delivery of educational services.

In the senior leadership subcategory, the criteria call for a description of how the senior leadership team in the organization has performed in its leadership role. Specifically, this category calls for a description of how the leadership team has communicated the vision, values and mission of the organization.

The vision of the organization should set the direction and actions of each member of the organization. Senior leaders are the visionaries who help to guide the direction, people and the culture of the organization. The impact of an established vision should be reflected in the strategic objectives and action plans (Oakland, 1999). The process of setting the vision evolves during a lengthy process of exploration, discussion and refinement of ideas over time. This process requires that stakeholders are involved

and permitted to provide input in order for the organization to evolve over time (Oakland, 1999).

Vision provides the power and impetus for schools to achieve (Chance, 1992). A generic definition of vision was described by Manasse (1985) as the development, transmission and implementation of a desirable future. Brake (1997) described vision as a motivational force that gives shape and purpose to the organization. Organizational leaders have been expected to establish a vision toward which all members of the organization will aspire.

A shared vision is described by Fullen (1993) as integral to the successful growth and development for organizations. One key component includes the concept of a learning organization. Fullen suggests that to have a truly effective learning environment the individuals in the organization must work together to accomplish a shared goal. Individuals in the organization will often not become fully engaged in the creative process until a shared vision is developed.

In their best practices guide on making world class organizations Spong and Collard (2008), speculated that the real issue was not whether leaders had a vision and values, but if the leaders lived them without exception.

We have an expression when discussing leaders that one should “Listen what they say, but watch their feet,” because what one does as a leader is the most important action. The employees know exactly who you are and what you believe in. The leader must role model the values all day every day. (p. 13)

Brion (1996) described values as “a standard by which one judges as to goodness, performance, importance, appropriateness, or desirability” (p. 19). Values describe standard guiding thoughts, decisions or endeavors that affect people either directly or

indirectly. Leithwood (1999), argued that school values should focus the work of educational leaders on the needs of future schools and the processes that are required to develop those schools. He suggested that an incremental process of transforming schools was critical to evolutionary growth and that school leaders must consider the social, political and economic forces that have an impact on the future of educational institutions. Willower and Licata (1997) defined values as conceptions of the desirable. They suggested that values in education need focus on decision making including an inquiry based approach. According to these authors, every effort should be made to predict outcomes of moral decisions when people are involved and to make a wise choice based on the best information available.

Lambert (1998) suggested that leadership was not limited to the leader, but that it was the reciprocal learning process that enables leaders to construct and lend meaning to a shared purpose of schooling. Building sustainability requires that leadership is a shared endeavor collectively among people in the organization. This shared leadership requires the redistribution of power and authority in order for staff to learn how to enhance their personal power. It is the responsibility of organizational leadership to build relationships with staff members in order to develop the shared vision within the organization and to make forward progress.

In a study focused on sustaining teacher leadership, Gonzales (2004) found that school administrators can use power sharing for transformational change. Principals who share, nurture, support, and value teacher leadership can ensure that all staff become

active participants in school change. Lambert (1998) viewed school based shared decision making as a key component in school sustainability.

A description should be provided describing actions senior leaders take to promote and require compliance in legal and ethical behavior. The description of the way in which the senior leadership promotes an environment that fosters growth and development for the future of the organization should contain a description of the continuous improvement process (Florida Sterling Council, 2010).

The governance and societal responsibilities subcategory extends the key aspects from the leadership category by describing the organization's governance system and approach to leadership development. A description should be provided describing actions taken by the organization to promote and require compliance in legal and ethical behavior (Florida Sterling Council, 2010).

According to Reeves (2000), the purpose of educational accountability has been to improve student achievement. He stated that the reasons that the detailed analysis of accountability data was relevant only when used to identify effective and ineffective instructional strategies in order to improve student achievement. He further advocated that this analysis should be used to strategically plan for improvement by (a) using the system-wide accountability and assessment data to identify the challenge, (b) using school-based accountability information in individual schools to identify potential solutions, and (c) creating meaningful and realistic goals for student achievement and improved teaching and leadership practices. He summarized the need for data management, indicating that the effective use of accountability data requires the

commonplace use of research, assessment, and communication by teachers and school leaders.

Strategic Planning

The Strategic Planning category examines how your organization develops strategic objectives and action plans. Also examined are how your chosen strategic objectives and action plans are deployed and changed if circumstances require, and how progress is measured. (Florida Sterling Council, 2008, p. 15)

Planning in the generic sense of the word has been described by Chambers & Taylor (1999) as the use and development of actions and policies that will affect the systems survival in the long-term. These authors have expressed the belief that policies are developed in order to influence progress in a specific direction in order to address the needs, expectations or wants of an organization or group. Planning has been described by them as a dynamic process where the organization must continuously monitor, evaluate, and adjust plans in order to optimize the process (p. 18).

Bryson (1995) described strategic planning as “A disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why it does it” (p. 4). He elaborated as to how effective organizations must begin the planning process with collecting information, developing strategic alternatives, and considering possible outcomes of current decisions. Strategic planning has the ability to cause organizations to facilitate communication, make accommodations to diverse interests and values, and foster wise decision making.

Cook (1994) described strategic planning as a written intent for a company that includes the vision of the future position and value. The strategic plan specifically is a

written definition of a vision of the future, a means for developing commitment among management way of making an organization successful through a framework that guides all other decisions. Cook (1994) suggested that the strategic plan can help to develop and maintain a competitive advantage in the marketplace by acting as a blueprint for organizational change.

Kauffman (1992) identified three types of strategic planning including: micro planning, macro planning, and mega planning. Planners must select the appropriate level for their organization in order for the strategic planning process to be effective. Micro planning or tactical planning is usually used during short time frames that may include weeks or months. It is oriented toward individuals and small groups. The scope of micro planning is focused on a concern for the employee or small group (Kaufman, 1992). Macro planning is described as a rolling up approach geared toward improving the output of the organization. In this type of plan, each part is linked to other levels of the organization from the lowest to the highest. The client is the primary beneficiary of macro planning as it is focused on the organization as a whole in meeting the needs of its clients (Kaufman, 1992). Megapanning is focused on planning to fulfill the needs of society as a whole, and organizations that focus on the megapanning level are proactive by focusing on improving the world and society as a whole. It includes both micro and macro planning and extends the current organizational goals and objectives into the future needs of the organization. The timeframe for mega planning can encompass periods of time that extend several years into the future (Kaufman, 1992).

Fogg (1994) suggested that the strategic planning process must include enthusiastic involvement including teamwork, shared decision making, and both formal and informal decision making processes. The strategic planning process will vary by organizational type, the current situation, priorities, and capabilities. Fogg (1994) continues that several steps should be included in the process. The process should begin with an analysis of the situation. A list of priorities should be set for each of the major issues. A mission statement should be created. The next steps should include the development of objectives and strategies in order for strategies the complete development of a complete program to be created. Finally delegation of responsibilities to the specified personnel in the organization will begin the process of setting the plan in to motion. Once the plan is fully implemented the final step in the process includes a review of the implemented plan.

Camillus (1986) suggested the purpose of working through the strategic planning process was to determine long-term objectives and develop strategies for accomplishing the objectives of an organization. In order for the process to effectively result in a set of meaningful objectives and strategies, the process, according to Camillus (1986) must include a meaningful statement or mission for the organization. He also reported that the following should be included in a simple strategic plan: (a) the organization's mission, (b) its long-term objectives, (c) its competitive strategy, (d) organizational policies, (e) needed resources, and (f) key assumptions.

Strategic objectives were defined by Hayden (1986) as an aim or end toward which to work. She explained that in strategic planning objectives have generally been

used to take on the context of different planning approaches. Objectives should be associated with a specific set of operating policies and procedures in each functional area of the organization.

Fogg (1994) described strategic objectives “as what the organization commits to accomplish in the long term” (p. 11). He recommended that detailed short term goals should be created for the first year of a long term plan and that these initial short term goals be designed to establish a framework for long term objectives. Strategic objectives, to Fogg’s (1994) thinking, should be designed to establish performance levels of priority issues, measures of success in fulfilling mission statement elements, and expected performance levels in key result areas with measurable results.

Hussey (1999) suggested that profit targets are an essential part of any system of objectives and that objectives should be specific and measurable. In order to accomplish this, he advocated for objectives being directly related to the period of time covered by the strategic plan. If the plan is intended for a five year period, strategic objectives should be limited to a maximum of five years. Each objective should be meaningful and clearly define the expected outcome.

Anderson and Barker (1994) suggested that strategic objectives should be prioritized in terms of efficiency and effectiveness. Objectives should also be challenging but attainable in a way that involves communication and connections between layers of the organization. They encourage a manage-by-objectives approach to defining objectives in formal, specific, time-based, prioritized, measureable terms.

Kotter (1996) wrote about the barriers to empowerment. He determined that though employees often understand the vision and will work to make it a reality, they are sometimes unable to move forward because of several barriers, one of which is lacking the skills needed to do the work. Kotter (1996) reported that once the skills of school teams were developed in the area of strategic planning and operating as a team, the quality of school plans increased exponentially.

For a school to be effective it must create a climate of high expectations for all students. Murphy and Schiller (1992) emphasized that teachers must design lessons to meet the needs of all students and that this required strategically planning to use “different instructional strategies that can compensate for whatever shortcomings students bring to the school” (p. 96).

Reeves (2000) reasoned that the detailed analysis of accountability data was relevant only when used to identify effective and ineffective instructional strategies in order to improve student achievement. He also stated that this analysis should be used to strategically plan for improvement by: (a) using the system-wide accountability and assessment data to identify the challenge, (b) using school-based accountability information in individual schools to identify potential solutions, and (c) create meaningful and realistic goals for student achievement and improved teaching and leadership practices. He summed up the need for data management in a statement on effective use of accountability. It was his belief that the effective use of accountability data requires the commonplace use of research, assessment, and communication by teachers and school leaders.

Customer and Market Focus

The Customer and Market Focus category examines how your organization determines the requirements, needs, expectations, and preferences of customers and markets. Also examined is how your organization builds relationships with customers and determines the key factors that lead to customer acquisition, satisfaction, loyalty, and retention and to business expansion and sustainability. (Florida Sterling Council, 2008, p. 18)

Schwandt and Marquardt (2000) predicted that the focus of future organizational planning should be on customer satisfaction. They expressed the belief that a shift from employee performance to a focus on customer feedback would result in higher satisfaction levels as a consequence of continuous innovation. They discussed customer focus as the primary focus of the 21st century marketplace and stated that in order to maintain a competitive advantage in the marketplace, organizations must be prepared to change and transform the way they learn.

Haines and McCoy (1995) suggested that the focus of all outcomes of the organization should be to serve the customer. The focus of all core strategies set in place by the organization should be set to serve the customer. There should be a concerted effort to respond to the wants and needs of customers and to adapt products and services to address the wants and needs.

Oakland, (1999) stated that organizations must recognize that the purpose of all work and effort to improve an organization is to serve its customers. When organizations establish serving customers as a primary focus, they must always know how the products are perceived by customers through measurement and feedback. In order to ensure customers outside of the organization are satisfied, the needs of internal customers must also be met.

Chakrapani (1998) suggested that if organizations have a desire to deliver quality service for customers, they need to assess how well they are performing. Customer satisfaction can be used as an indicator of organization performance. Chakrapani (1998) recommended the use of the context of service quality delivery as the measure of customer satisfaction.

In order to gather accurate customer satisfaction information (Chakrapani, 1998) cautioned readers to be sure that the right things are being measured. Attributes to be measured must contribute to understanding of customer satisfaction. It is important to focus attributes of the study on (a) information relevant to the mission of the organization, (b) customer satisfaction, (c) the avoidance of measures that are not valid, and (d) the avoidance of measures that are detrimental to customer satisfaction.

Barnes (2001) wrote that relationships can be built through sustained concentration on achieving customer satisfaction. In order for organizations to develop those relationships, a realization must occur that cultivating customer loyalty can contribute to the long term success at all levels of the organization. Barnes expanded on this concept by indicating that in order to increase loyalty, customer satisfaction levels must increase over time and that in order to accomplish this goal value must be added for the customer.

Decker and Decker (2003) contended that improving public schools must involve a cooperative plan to include the home, school, and community to work together to improve public education. They suggested that inviting broad-based community input and advice can have a positive impact on student achievement and results in academic

accountability, better attendance rates, and improved school climate. With this goal in mind the development of these relationships will serve as the customer focus in this section.

In a study on improving school effectiveness, MacBeath and Mortimore (2001) identified a common determinant to school effectiveness, the interrelationship between teachers, students and parents. Similarly, Barclay and Boone (1995) highlighted the importance of the link between student achievement, building school, families and community and suggested that for schools to be successful both staff and administrators must demonstrate an active commitment to a partnership philosophy. In order to foster this relationship a comprehensive plan must be implemented that incorporates goals and objectives for all major areas of parent and community involvement.

Barbour and Barbour (1997) found great success in transforming schools when communities work together, but educators, parents, and businesspeople may run in to difficult interactions that can occur with inter-institutional collaborations. The strongest components for successful program implementation appeared to these authors to be motivation in communities for solving problems and commitment of key leaders in the community. They identified several components that seemed to ensure programs that resulted in meaningful change. Successful collaboration requires community members from a variety of agencies to come together to make a commitment for the benefit of the children in the community. Implementation is more likely to be successful when the team has participated in training sessions to ensure everyone has collaborative skills. Assessment is a key component in the change process that is used to communicate the

level of success of the activities. Finally, communication and careful progress monitoring are the keys to the success of all collaborative programs.

In recounting a historical overview of the nature of the home-school relationship in the United States, Cutler (2000) identified four recurring themes. First, the relationship between home and school is politically charged and can turn confrontational quickly. Second, parents may be more welcome at school than ever before and have significant influence in schools although they are still not part of the school and often schools resist proposed changes from parents. Third, class and status can have a significant impact on the level of involvement parents want to have in their children's education. Finally, Cutler (2000) suggested that many Americans believe that the relationship between the home and school has a significant impact on student achievement. This belief appears to result in more parental involvement with governance in the school and parents encouraging their children to work hard in the home.

Christenson and Sheridan (2001) suggested that constructing family school relationships is important in developing a connection for strengthening the learning and development structure for children. They found that family involvement during early childhood resulted in support for opportunities to encourage parents to promote positive child development in the home. They also reasoned that school failure was often caused by unwillingness to communicate and that this resulted in a relationship problem. This illustrated the importance of maintaining the lines of communication between the school and home.

Measurement, Analysis, and Knowledge Management

The Measurement, Analysis, and Knowledge Management category examines how your organization selects, gathers, analyzes, manages, and improves its data, information, and knowledge assets and how it manages its information technology. The category also examines how your organization reviews and uses reviews to improve its performance. (Florida Sterling Council, 2008 p. 20)

Performance Measurement was defined by Hatry (1999) as “measurement on a regular basis of the results (outcomes) and efficiency of services or programs” (p. 3). He explained the importance of continuously monitoring progress toward specific outcomes in a management-for-results customer-oriented organization and keeping the focus on maximizing benefits and minimizing negative impacts on customers.

Austin and Gittell (2002) offered three fundamental principles defining performance measurement: (a) performance should be clearly defined in an evaluation system before work is performed, (b) performance should be accurately measured in such a way that enough information is available that it can be used to determine the level of performance that was achieved, and (c) performance for workers should result in rewards based on pre-defined measures. Austin and Gittell (2002) held that though these principles were difficult to enforce in practice due to exceptions, organization should strive to achieve them.

Performance analysis was defined by Rossett (1999) as “the study done to define solutions that go beyond the automatic to create fresh, data-driven, and coordinated approaches for customers and clients” (p. 12). He posited that performance was of most importance in organizations. In order to determine what is really going on in the organization and what needs attention training, professionals turn to performance

analysis. When attention to results requires action training, professionals focus their efforts on meeting customer needs.

Hatry (1999) discussed the significant benefits to an organization of data analysis from a well designed and implemented performance measurement system. He believed that data analysis can identify conditions that may help to identify opportunities for improvement. In addition, it can be used to pinpoint areas that are exceeding expectations (Hatry, 1999).

Genck (1983) divided the concepts of performance in schools into four major measurable categories. The first category, student learning represents the main purpose of education, and can be measured through the use of standardized achievement tests. The second category, parent satisfaction, can provide valuable information to schools that can be obtained using surveys. The third category, staff satisfaction and morale, can also be measured to determine levels of satisfaction as to perceptions of effectiveness of programs, working conditions, evaluation and supervision. The final category, cost control, is comprised of multiple indicators. School financial performance must include staff to student ratios, salary policies, financial planning based on student enrollment data, revenues and expenses, and a comparison of key indicators from the history of district data and other similar school districts. The connection between school performance and management, according to Genck (1983), has provided a basis for evaluating and improving school performance.

School effectiveness or performance, as defined by Kelly (2001), was assumed to be a reflection of accomplishments in an organization. The conventional practice for

measuring school effectiveness in the literature has been focused solidly on standardized test measures. Ladd (1996) found a wide array of theories, measures and studies describing measures of effectiveness in schools.

Increased accessibility of information through the use of networks and computer information systems has increased distribution of information worldwide. Organizations in the 21st century have been operating in an information rich era, and the information in an organization represents the collective knowledge used to produce and deliver products and services to customers. Huang, Lee, and Wang (1999) suggested that an extensive system of data, information, and knowledge management must be established in order to continuously monitor progress.

Figallo and Rhine (2002) recommended the establishment of a knowledge network. The structure and composition of the network is used to manage organizational knowledge. These writers stressed the consideration of three factors in the development of a strong and vibrant knowledge network: (a) share knowledge where it serves mutual interests, (b) access the most current knowledge, and (c) select diverse sophisticated tools for exchanging knowledge. Figallo and Rhine (2002) viewed organizations that refused to change as being less able to keep up with the changing global marketplace of ideas.

Rhoads (2008) defined information technology as “the people, processes, software, and hardware that make up the information flow in the operations of an organization.” (p. 1). Rhoads described IT terminology as a continuously changing concept that was far broader than the simple terms, e.g., computers, data processing, information systems, and communication networks. In his definition, he placed people

first to emphasize that people and processes are the most critical components of information technology.

Seufert, Back, and von Krogh (2006) stated that an integrated approach to information technology must be adopted that includes explicit and tactical knowledge in order to effectively improve the flow of information in an organization. Seufert et al. (2006) viewed this occurring through the development of a learning network in which processes of transforming explicit knowledge or “know-what” into implicit knowledge or “know-how” were included. They suggested that typical processes that are gained from learning networks include learning by doing, experimentation, trial and error processes, informal communication and simulation of problems. These processes provide organizations time for learning and reflection as well as helping individuals to reflect on values within the learning culture.

Carbone (2004) declared that “accurate information is the lifeblood of most organizations” (p. xi). She also explained that the need to plan how data are collected, flow through an organization, and are transformed is vital to the success of the organization. Carbone (2004) considered information as a commodity to be measured and analyzed. To her way of thinking, several actions needed to occur in order for organizations to successfully implement IT infrastructures: (a) business objectives needed to be made clear to IT; (b) diverse needs and respective IT solutions needed to be recognized; (c) conflicting internal organizational goals had to be identified and cooperatively resolved; (d) IT plans had to capture and incorporate problem resolutions;

(e) and IT plans needed to drive application, data storage development, and technology selection.

Workforce Focus

The Workforce Focus category examines how your organization engages, manages, and develops your workforce to utilize its full potential in alignment with your organization's overall mission, strategy, and action plans. The category examines your ability to assess workforce capability and capacity needs and to build a workforce environment conducive to high performance. (Florida Sterling Council, 2008, p. 22)

One key element to success in any organization is the dedication to and involvement of people. Pfeffer (1994) explained that human resource focus can be a competitive successful differentiating factor in the success of an organization. Several profitable organizations were studied over a 20-year period and were found to use employee focus as a competitive advantage in business.

Henderson (1997) contended that the quality and quantity of organizational output depended largely on the skill, interests, and effort of employees. He suggested that there are three important factors that must be considered when thinking about employee compensation: pay satisfaction (in comparison with peers); job satisfaction (ability to perform, recognition of good work, and opportunities for advancement); and organizational satisfaction (security in employment, recognizing fairness and accepting organizational philosophy and policies). Henderson suggested that each of these dimensions played a large role in overall employee satisfaction and must be considered when designing a reward system.

Henderson (1976) suggested that employees can relate to a wide range of rewards that are perceived to be fair and equitable. From an organizational perspective, the concept of fairness and equity consist of recognizing the worth of each job according to quality and performance. Henderson also identified recognition of individual aspects of equity and lack of communication with reward system goals as major barriers of perceived equity among employees.

The use of surveys as a measure of employee satisfaction is supported by Church and Waclawski (2001). Surveys are frequently used to gain a deeper perspective of attitudes and opinions as a test of their feelings. This information is effectively used as an initial indicator of employee perceptions and can be effective in the development of organizational policy and change processes.

McConnell (2003) warned that the use of one-way communication such as surveys and polls can result in misinterpretation of results. He recommended the use of employee opinion surveys in combination with other methods that can provide additional two-way communication between employers and employees. When designed and administered correctly and professionally, employee opinion surveys can provide organizations with accurate useful information.

Employee performance and recognition are key elements of a human resource focus. McAdams (2000) suggested that there are other types of compensation than cash that can motivate employees. An acknowledgment of accomplishment can provide social reinforcement from respected colleagues. A challenging work environment and knowing that one's opinions matter have both been found to be preferred over cash rewards when

employees are being fairly compensated. Heskett, Sasser, and Schlesinger (2003) described the importance of employee recognition and rewarding for results. They found that frequent recognition of achievement of results was as important as rewards.

Wolf, (2000) described traditional compensation programs as having three primary design criteria. They must be internally equitable; externally competitive; and personally motivating. When compensation programs are designed with these criteria in mind, according to Wolf (2000), they have been more likely to be more satisfying to employees. He also noted that compensation programs must pay employees in proportion to the value of their job, the market price for their job, and provide motivation to meet the needs of the employee.

Rothwell, Jackson, Knight and Lindholm (2005) suggested that a need exists to integrate succession planning programs with career planning. Succession planning helps to provide continuity in the face of high numbers of current employees facing retirement age. Career planning helps to provide individuals opportunities for advancement and to update current skills. Together, career planning provides opportunities for employees to set goals and a mechanism to achieve those goals.

Pfeffer (1994) stressed the critical importance of training and skill development in the development of people in his statement that “Learning in school and learning on the job are by far the most important factors behind American economic growth and productivity in this century, and will determine the nation’s economic prospects in the next” (p. 17). He further explained that employee education and training should focus on the needs of individuals relative to the internal organization.

Smith and Mazin (2004) discussed training and noted that in most organizations employees participate in a great deal of on-the-job training. They encouraged a variety of training options be made available to employees. It was their belief that additional opportunities could be identified through performance evaluations, department meetings, supervisor recommendations and surveys.

Process Management

The Process Management category examines how your organization determines its core competencies and work systems and how it designs, manages, and improves its key processes for implementing those work systems to deliver customer value and achieve organizational success and sustainability. Also examined is your readiness for emergencies. (Florida Sterling Council, 2008, p. 25)

Chang (2006) defined a process as “a coordinated and standardized flow of activities performed by people or machines, which can traverse functional or departmental boundaries to achieve a business objective that creates value for internal or external customers” (p. 3). Chang (2006) also explained that the business process should be geared toward creating value for customers and that processes should be coordinated and standardized. This would result in maximizing value and lowering costs compared to a non-standardized approach.

Brown (1994) suggested that one way organizations may take a systematic approach to gathering information about customer requirements and desires is through the use of Quality Function Deployment (QFD). QFD is an industry standard approach to process design. The application of this approach has been designed to result in increased efficiency, reduction in variation, and greater customer service results.

The concept of Quality Functional Deployment, as described by Day (1993), is a methodology for planning products and services. Day (1993) argued that, in order for organizations to maintain a competitive advantage, they must be cognizant of customer satisfaction with their products and services along with changes in customer needs. A structured approach is required to gather accurate data that can be used to ensure customer satisfaction results.

There are four phases of QFD as described by Guinta and Praizler (1993). These phases provide a roadmap through the development cycle beginning with product design and concluding with production. The phases include: design; details or parts; process, and production. The design phase helps to obtain functional product or service requirements and then includes possible designs for ways to achieve those requirements for the customer. The details phase includes how the requirements will be achieved and details the necessary components to produce the product or service. The process phase is developed showing the processes required that will ultimately define exactly how the product or service will be fulfilled. Finally, in the production phase the products are developed.

Melan (1993) described the fundamentals of process management in three phases: process initialization, process definition, and process control. In the first phase the ownership and scope of the process was defined. The second step was to define the process to permit a means for understanding and communicating operational details. In the final step, process control consisted of three steps: establishing points of control,

implementing measurements, and regulating the feedback process and performing corrective action.

The purpose of a process control system has been to monitor variability and activate corrective action when the process exceeds accepted tolerances. Conti (1993) stated that the conventional measure for variability is known as capability as indicated by a process's natural deviation or its best performance when variation has been removed.

Ould (1995) suggested that over time processes can become convoluted to the point where the process needs to be revised. A process analysis model should be implemented in order to reveal the roots of problems in the process and to identify possible ways to address those problems quickly. The benefits of process analysis can be seen in an understanding of improvements in efficiency and an overall improvement of consistency in performance.

Disaster recovery or emergency preparedness systems have been designed to ensure continuity of operation and recovery. Risk to business continuity may come from any number of internal or external sources. Four components of risk to business continuity have been described by McManus and Carr (2001) as threats, resources, modifying factors, and consequences. Each of these factors may have detrimental impact on the continuity of production in an organization. Risk becomes a loss when an adverse change has a negative impact on expected circumstances. Their advice to organizations is to "prepare for unforeseen incidents through risk assessment and management (McManus & Carr, 2001).

Myers (1999) suggested that a sound disaster recovery plan should be reviewed annually to ensure that it is compatible with business practices. A good corporate contingency plan should also be approved by senior levels of the organization emphasizing that realistic goals are set for the establishment of the plan. Myers (1999) saw value in a well-developed risk management plan with attention to ongoing education and training; testing programs; roles and responsibilities; sound risk management practices; and additional measures required to support relocation strategies, business continuity strategies and technology restoration plans.

Results

The results category examines your organization's performance and improvement in all key areas product and service outcomes, customer focused outcomes, financial and market outcomes, workforce focused outcomes, process effectiveness outcomes, and leadership outcomes. Performance levels are examined relative to those of competitors and other organizations providing similar products and services. (Florida Sterling Council, 2008, p. 27)

Brown (2006) recommended the used of data metrics that are strongly linked to customer satisfaction. The focus should be on the types of internal metrics used to measure performance outcomes. An explanation should discuss how and why metrics were selected.

Hutton (2000) suggested the focus of the results category be focused on comparing performance results, trends over time, and comparison of benchmarks with those of competitors. The goal, in working with results, is to quantify the effectiveness of the methods that have been employed by the organization. In addition, this category is concerned with demonstrating the effectiveness of the management system leading the

organization. This category is ultimately a summary of all of the six previous categories representing the level of implementation of the strategies described and calls for a demonstration of evidence indicating the level of implementation of the previously discussed Sterling criteria.

Variables Impacting Student Achievement

Student Mobility

In a preliminary review of the literature on student mobility, several studies were found linking high student mobility rate with lower student achievement. Although mobility was not found to be the single determining factor in student achievement, it was found to be a statistically significant predictor of student achievement (Kerbow, 1996). Students who change schools during the school year must become accustomed to the new environment physically, socially, and academically. These changes can have a significant impact on children resulting in gaps in instructional content. Students must acclimate to a new environment, familiarizing themselves with the locations of classes and restrooms. New relationships must be established socially with peers. Parents must also establish new routines to get students to and from school.

Wilson (2001) concurred regarding the negative impact of student mobility on students who move from one school to another and emphasized that the mobility problem existed as well within the same school district (Wilson, 2001). There are a wide variety of programs a school may choose to implement making students focus curriculum

decisions. In the environment of academic accountability in the 21st century, many schools have elected to select a specific academic focus above and beyond the core curriculum. Such choices have been designed to attract a specific segment of the population to specialized programs and subjects including fine arts, reading, and science. As a result students relocating within a school district have often experienced extreme diversity in schools depending on a school's primary or specialized focus beyond core classes.

Socioeconomic Status

Another factor that was consistently revealed as significant in its relationship to student achievement has been socioeconomic status (SES). Sirin (2005), in a meta-analysis on SES, found a medium to strong relationship between SES and student achievement in a review of 74 independent samples from 58 published journal articles. Sirin (2005) considered several factors in his study. The unit of analysis used in educational research is usually measured based either on the individual student level factors or school/neighborhood level factors. The most frequently identified SES individual factors included income, education level, and occupation. School level factors included the following six major components: (a) participation in school lunch programs, (b) neighborhood characteristics, (c) differentiation of ethnic backgrounds, (d) collecting data from parents and students rather than just students, and (e) the location of schools. Of the factors examined, student-level family SES had the strongest correlation to student achievement (Sirin, p. 420). The school-level correlations of student achievement to SES

were even stronger. Sirin recommended that several factors could be used to operationalize SES including parent's education level, occupation, income, and eligibility for school lunch programs.

Padilla (1996) and Subedi (2007) found that higher SES families provided their children with more resources to gain success. Some of these resources might include tutoring, study space with books and computers, and the opportunity to participate in extracurricular activities. Both of these studies revealed a positive association existed between SES and academic achievement in predicting educational outcomes.

Brooks-Gunn (2004) evaluated the effectiveness of a program where families from high-poverty neighborhoods were relocated to low-poverty neighborhoods. The study revealed that these students performed significantly better on test scores as compared with their peers in high-poverty neighborhoods. Some of the factors that influenced the change were the time spent on homework, and school safety.

Eamon (2002) found lower mathematics and reading achievement to be consistent among children from low-income families. A correlation between SES and behavior problems among adolescents was revealed. Eamon (2002) observed low SES families having less cognitively stimulating and emotionally supportive home environments.

In a study of sixth grade students' performance on mathematics, science, reading and writing in New Brunswick, Xin Ma and Klinger (2000) found that SES had a significant effect on reading achievement. School context and climate factors were included to fill gaps in explaining the results of the study.

In studying the impact of poverty on children's lives, Hill and Sandfort (1995) discovered an explicit link between low-income families and children's physical growth, cognitive development, and socio-emotional functioning. They also found childhood poverty affected health in adulthood; an inability to develop later in life, i.e., to climb the corporate ladder or improve one's status in life; and that adult productivity earnings were reduced by over 50%.

Fowler and Walberg (1991) found that in smaller schools students from low-income families had the most reliable outcomes related to student achievement. In their study of 293 New Jersey schools, 18 social, organizational, and financial variables were examined to determine if a significant relationship existed for any of the 23 learning outcomes. Results indicated that the most significant factor affecting the outcomes was district-level SES. The second most significant factor was school-level SES. A regression analysis was used to identify the most statistically significant factors affecting student learning outcomes.

Summary

This review of literature was comprised of four primary sections. The first section aimed to inform the reader about school reform efforts set forth by NCLB. The second section was designed to share the theoretical framework for the Sterling Quality Framework. This section provided an overview of each of the seven categories and a summary of the literature related to the application of the categories in the management of organizations. Literature documenting influence on student achievement was

presented for student mobility and socioeconomic status (SES) in the third and fourth sections of the chapter.

CHAPTER 3 METHODOLOGY

Introduction

This chapter was organized to present the methods and procedures used in this study. It provides an explanation of the methodology used to conduct the study. Detailed information related to the data collection and analysis procedures utilized to study the link between the Sterling Quality framework and student achievement. Student achievement was measured by school grade points as established in the Florida A+ school accountability system for the period from 2005-2009. Specifically, the data analysis served to determine what relationship, if any, existed between the implementation level of the Sterling Management system for leaders and employees and student achievement, as well as to determine what relationships, if any, were found between each of the seven Sterling categories (Leadership; Strategic Planning; Customer and Market Focus; Measurement, Analysis, and Knowledge Management; Human Resource Focus; Process Management; and Organizational Performance Results) and student achievement.

Population

The population for this study was comprised of all school principals and full-time teachers in a public school district located on the southwest coast of Florida. The district was one of the ten largest school districts in Florida and one of the 50 largest school districts in the United States, encompassing more than 800 square miles. There were 44

elementary schools, 20 middle schools, 13 high schools, four K-8 schools, 13 special education centers, and three high-tech and community schools and approximately 80,000 students in grades pre-kindergarten through 12. In 2009 the student population was comprised of 51% White, 14% Black, 29% Hispanic, and 6% other ethnicities. The student poverty level, as measured by free and reduced lunch percentage, was 66% (Sirin, 2005). One school in the district earned the Florida Sterling award. No other schools in the district have applied for the award (Florida Sterling Council, 2010).

Instrumentation

The perceived levels reached by all district elementary, middle, and high schools in implementing the Sterling Quality Management System were measured quantitatively based on responses from two surveys. The research was conducted with the permission of (a) The Florida Sterling Council (Appendix A) which agreed to provide the survey instruments for the study and (b) the Institutional Review Board of the University of Central Florida (Appendix B).

The following two surveys were used in the research. “Are We Making Progress as Leaders?” (Appendix C) was administered to full-time, school-based principals and “Are We Making Progress as Employees?” (Appendix D) was administered to full-time, school-based teachers. Each survey was designed to measure the perceived level an organization has reached in implementing the Sterling Quality Framework in preparation for an onsite visit by a team of representatives from the Florida Sterling Council (2008).

The “Are We Making Progress as Leaders?” survey was a 40-item instrument designed to address each of the seven categories of the Sterling Criteria for Performance Excellence as follows: leadership (seven items); strategic planning (three items); customer and market focus (five items); measurement, analysis, and knowledge management (six items); workforce focus (six items); process management (four items); and results (nine items). The companion survey “Are We Making Progress as Employees?” relied on the same format and item distribution for each of the categories. All items on the surveys were aligned so that the same statements were posed for employers (principals) and employees (teachers) and enabled all respondents to address the same issues in each of the categories from their respective perspectives.

A Likert type scale was utilized for all 40 items with response choices ranging from positive to negative. Respondents were asked to indicate which of five responses in the scale was most representative of their perspective where Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1. This permitted the summing of points by category and the determination of mean scores for each of the seven categories.

The sum of responses was calculated for each category and then divided by the number of statements to yield a category average for each respondent. Then, in order to get a total score (average) for Sterling implementation, the scores for each of the seven categories was summed and divided by seven. This procedure was followed for each respondent.

Instrument Validity and Reliability

The validity and reliability for the use of the two surveys in this study was established in a study by Badri et al. (2006). In the Badri et al. (2006) study, researchers utilized instruments established by the Baldrige Council for Performance Excellence to develop their survey. The criteria and the survey instruments used by the Florida Sterling Council mirrored the Baldrige criteria and survey instruments. The study ascertained that the use of the Baldrige Criteria would provide a reliable and valid instrument for measuring performance. The results were intended to improve an understanding of the effects gained for higher education in implementing quality management principles. Though senior leaders had the information needed to improve programs, offerings and services, there were no guarantees as to how successful they would be in executing necessary changes. It was essential to decide if a single voice or a collective voice was needed in establishing change. Badri et al. (2006) created an effective strategy that helped support and establish the Baldrige Education Criteria for Performance Excellence as the new standard for quality management constructs. Their tested model provided a strategic quality plan for gathering and utilizing the information, helping the development of faculty and staff management, and focusing leadership on quality management in higher education.

Data Collection Procedures

In order to determine the appropriate procedure for achieving high response rates for email surveys, several sources were consulted by the researcher. Email surveys can

result in a high non-response rate due to incorrect email addresses, spam filtering, or assumptions made by the individual that the email is spam (Lynn, 2008). In a study to develop a standard email methodology, Dillman and Schaefer (1998) found that it was possible to achieve high response rates similar to those obtained by traditional mail when using a multi-mode approach. They found that making contact three or more times resulted in a significantly higher response rate than simply sending out the survey. Personalization was also found to be an important factor that can be conducted using email. The principles advocated were applied in this study. Multiple contacts for this survey included a pre-survey notification informing respondents of the purpose of the survey. After the survey was sent to the intended audience, a follow-up email was sent thanking those that had completed the survey, and asking those that had not completed the survey to do so. Every attempt was made to personalize communications to encourage the highest return of surveys as possible. All email communications with teachers and principals are included in (Appendix E).

Applying Dillman and Schaefer's (1998) methodology, the following steps were taken. A pre-survey email notification was sent to all school principals by the District Director of Accountability, Research, and Testing during the second week of April 2010 notifying them that a survey would be sent to all district principals and teachers the following week. In the email to school principals, the purpose of the survey was included along with the support of the district leadership committee. Principals were asked to notify the teachers at their school that the survey would be arriving and encourage them to participate.

Two days after the pre-survey notification was sent, both the principal and teacher surveys were emailed directly to participants using the mail merge feature in Microsoft Office 2007. A spreadsheet that contained all district principal and teacher information including: last name, first name, school and email address was used as the data source for the mail merge. The informed consent letters to principals and teachers were personalized by including the first name, last name and school in the heading of the letter. The body of the letter contained the description, purpose of the survey and the link directly to the web survey. Each principal and teacher listed in the spreadsheet received a copy of the personalized letter/appropriate informed consent document (Appendix F).

All full time classroom teachers and all school principals were included in the survey. In the school district, all principals and full time classroom teachers had an email account created as part of the hiring process, and all district employees were expected to use email as a primary source of communication. It was not necessary, therefore, to select a sample for this study, because it was possible to send the survey to the entire population via email. It was desirable to elicit data from as many principals and teachers as were willing to complete the surveys.

The survey was hosted by Zoomerang.com in order to ensure anonymity of all respondents. School-based principals requested that their teachers complete the web-based surveys by a specified date, stressing the importance the findings could bring to the education system. The researcher, assisted by school-based administrators, worked to ensure an adequate sample was collected by following up at least five times by email

until an adequate sample was obtained. Survey results from the school that earned the Florida Sterling award were omitted from the study.

School indicator reports were requested from the district's Department of Research and Testing. Indicators included the number of grade points each district school has earned for the 2005-2009 school year on the A+ school accountability report.

School grades in Florida have been determined by accumulating points based on eight measures of achievement. One point has been earned for each percentage of students who reach the level of proficient or above in each of the following subject areas: reading, mathematics, and science. One point has been earned for each percentage of students who reach level 3.5 or above on the Florida writing assessment. Points have also been added for students who make learning gains in reading and mathematics. Finally, points have been awarded for the lowest performing students who make learning gains in reading and mathematics (Smith, 2008).

Data Analysis: Research Questions and Hypotheses

This quantitative research study was guided by three research questions and their supportive hypotheses. The data analysis for the study was organized around the three questions and is explained in the following narrative.

1. To what extent do principals and teachers perceive that district schools have implemented the Sterling Quality Management System by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

H_{a1} Evidence that the perception of teacher and principal perception of Sterling Quality Framework being implemented to some degree will be observed in all district schools.

To answer Research Question 1 and the first hypothesis, the Sterling implementation level was determined using descriptive statistics. Data from the principal and teacher responses to the two Sterling surveys for the targeted schools were analyzed. Results were tabulated and a mean response was calculated for each of the seven areas of Sterling criteria: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge; workforces focus; process management; and results (Florida Sterling Council, 2008, p. 7). Results were calculated for each of four grade levels (K-5, K-8, 6-8, and 9-12) and by district.

2. What relationship, if any, exists between the perception of teacher and principal Sterling implementation levels and student achievement as measured by the school's total points change from 2005 to 2009 on the Florida A+ school accountability report by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

H_{a2} There will be a statistically significant relationship between the perception of teacher and principal Sterling implementation levels and student achievement as measured by results of (a) the Sterling readiness survey and (b) student achievement as measured by the school's total points change from 2005 to 2009 on the Florida A+ school accountability report by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district.

To respond to Research Question 2 and the second hypothesis, student achievement gains were calculated by determining the difference in grade points between the 2005 and 2009 school years using school grade points earned on the Florida A+ school accountability report. School gain scores served as the dependent variable indicating student achievement at the school level. A linear regression was initially planned in this analysis on the dependent variable, student achievement, categorized in four levels (K-5, K-8, 6-8, and 9-12) and by district. Regression coefficients were to be calculated for each of the independent variables, the seven Sterling criteria areas, to determine the significance of each in relation to the dependent variable (Lomax, 2001). However, since practically no correlation was found between Sterling implementation categories and student achievement gains, the regression analysis was subsequently determined to be unnecessary.

3. What relationship, if any, exists between the perception of teacher and principal implementation of each of the seven areas of Sterling criteria: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge; workforce focus; process management (Florida Sterling Council, 2008, p. 7).; and results (student achievement) per school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

H_{a3} There will be a statistically significant relationship between schools that have perceptions of implementing each of the seven areas of the Sterling criteria at a high level as measured by results of (a) the Sterling readiness survey and

(b) student achievement as measured by grade points earned on the 2008-2009 Florida A+ school accountability report.

Research Question 3 and the third hypothesis were answered by performing an analysis of variance. Student achievement was the dependent variable and each of the seven areas of Sterling criteria served as independent variables by grade level (K5, K-8, 6-8, and 9-12) and by district.

Summary

This chapter has detailed information describing the methods and procedures used in analyzing the perceived implementation level of the Sterling Quality framework on student achievement as measured by school grade points earned on the Florida A+ Accountability Report. The analysis described in the chapter served to establish if any of the Sterling categories affected student achievement. Schools were categorized into four levels (K-5, K-8, 6-8, and 9-12) in order to further explain any variation in results.

CHAPTER 4 ANALYSIS OF THE DATA

Introduction

This chapter has been organized to present the analysis of the data used to conduct this study. It contains a district profile, an explanation of the teacher and administrator response rates to the two surveys administered to collect the data, and a summary of the analysis of the data for each of the three research questions used to guide the study.

The data analysis in this study served to determine what relationship, if any, existed between the implementation level of the Sterling Management System for leaders and employees and student achievement, as well as to determine what relationships, if any, were found between each of the seven Sterling categories (Leadership; Strategic Planning; Customer and Market Focus; Measurement, Analysis, and Knowledge Management; Human Resource Focus; Process Management; and Organizational Performance Results) and student achievement.

School District Profile

The school district in which this research was conducted was a public, independent school district located on the southwest coast of Florida, about two hours down the Gulf coast from Tampa and about two hours across the Everglades from Miami. At the time of the study, the district was one of the 10 largest districts in Florida and one of the 50 largest school districts in the United States. Nearly 80,000 students in grades pre-kindergarten through grade 12 were students in the district's schools. The ethnicity

of the student population in 2008 was 51% White, 14% Black, 29% Hispanic, and 6% other. From the 1970s to the beginning of the 21st century, the district enjoyed steady, predictable growth and several cities and dozens of communities gradually grew and prospered. During the decade beginning in 2000, the district experienced growth that was so swift as to become at first challenging and then problematic. During the 2006-2007 school year, the district increased its enrollment more than any other school district in Florida (Lee County Schools, 2009). To meet this astounding growth rate, the district opened 21 new schools between 2004 and 2009 and constructed 19 major additions at 17 schools. This phenomenal growth created many new and complex problems that required a much more comprehensive approach to planning than had previously been used in the district (Lee County Schools, 2008a).

Geographically large, the district encompasses more than 800 square miles. Its total budget for 2007-2008 was \$1.6 billion to operate its 43 elementary schools, 16 middle schools, 13 high schools, four K-8 schools, 13 special centers, three high-tech and community schools and to support 14 charter schools. A single building has housed most of the administrative and support services to schools. Support services including facilities and maintenance have been located together on another site. Additionally, four bus compounds located throughout the school district have been situated so as to house and service buses so they are in closer proximity to their routes. The school district has been the county's largest employer with over 10,000 instructional, administrative, and support staff which, at the time of the research, was comprised of 75% White, 12% Black, 12% Hispanic and 1% other ethnicity. In order to successfully manage this

suddenly large district, the leadership was required to adopt new internal structures and processes, to adopt systems thinking, and to focus on quality improvement throughout the organization (Lee County Schools, 2008b).

The vision of the district is to be a world-class school system. The mission is to ensure that all students achieve their highest personal potential in a system characterized by: (a) rigorous and relevant academic challenges designed to meet each student's differences and interests, (b) innovative instruction based on reliable research, (c) opportunities that foster good citizenship, (d) a culture in which educators are held in high esteem, (e) a highly trained staff, (f) a high level of parent support, (g) safe schools, and (h) efficient use of all resources (Lee County Schools, 2008a).

The vision, mission and core values have been communicated and disseminated from the school board to the superintendent, administrators, school staff, and to students, parents and community. The core values are a part of an extended mission statement as "bullet" points that follow the mission statement. Each school and department of the district develops goals that are ultimately aligned to the district's Strategic Plan. The board has developed board priority goals that are the central focus of the work in the district (Lee County Schools, 2008a). These seven priorities are: (a) graduation rate will increase, (b) dropout rate will decrease, (c) all students in grades 3-10 will read on grade level, (d) mathematics and science component in all classes, (e) every graduate from high school will speak and write English, (f) retention of highly qualified teachers will increase, and (g) S.A.T. scores will increase (Lee County Schools, 2008a).

The priorities have been embedded in every planning process at every level. For example, every student has been expected to develop individual learning goals that are aligned both with class goals, school improvement goals, the district's strategic plan, board priorities, and state and federal requirements.

The School Board adopted a Quality Focus for Continuous Improvement policy to set the direction and make the commitment to continuous improvement. With that policy, the School Board established the use of the Florida Sterling Criteria for Performance Excellence to monitor continuous improvement efforts in each school, classroom, and department. The district's performance improvement system has been driven by its strategic plan which has been aligned with the superintendent's performance evaluation and all other administrator performance evaluations. All employees' individual work goals have been guided by a school or department improvement plan that is aligned with the district strategic plan. At the time of this research, the plan was undergoing significant revision to refocus the work of the district towards meeting more current district needs (Lee County Schools, 2008c).

Student Achievement Measures

For the purpose of this study, student achievement measures were based on student learning gains as measured by the school's total point change from 2005 to 2009 on the Florida A+ school accountability report. At the time of the study, school grade points were earned based on eight measures from 0 to 100 with one point earned for each percentage of students who have reached proficiency level or above in each of the

following subject areas: reading, mathematics, and science. One point has also been earned for each percentage of students who have reached proficiency or above on the Florida writing assessment. Points have been added for students who make learning gains in reading and mathematics. Finally, points have been awarded for the lowest 25% of students who make learning gains in reading and mathematics (Florida Department of Education, 2008).

Student achievement gain scores were calculated by subtracting the number of points earned by each school in 2005 from the number of points earned by each school in 2009. The difference in these two values served as the measure of student achievement for this study. This procedure was followed for each school. Table 3 displays the range of gain scores including lowest, highest, and average gain scores of schools for each of the four grade levels (K-5, K-8, 6-8, and 9-12).

Table 3
School Student Achievement Gain Scores by Grade Level

Level	Points Earned by School			Valid Responses	
	Lowest	Highest	Average	N	%
K-5	46	579	169.8	35	63
K-8	72	461	228.7	3	5
6-8	75	563	198.7	10	18
9-12	88	492	182.6	8	14

Teacher and Administrator Response Rates

All full time classroom teachers were invited to participate in the “Are We Making Progress as Employees?” survey. It was not necessary to select a sample for this study because it was possible and, in fact, preferable to survey the entire population using email and a web based survey instrument to obtain feedback from as many of the district’s teachers as possible. The total teachers surveyed and those responding to the teacher survey are displayed in Table 4. The total number of teachers surveyed as well as those responding is displayed, and percentages were calculated for number of teachers responding by grade level.

Table 4
Teacher Respondents by Grade Level

Grade Level	Total Teachers	Teacher Respondents	
		N	%
K-5	2345	1151	49.08
K-8	255	148	58.04
6-8	870	429	49.31
9-12	1119	472	42.18
Total	4589	2200	47.94

Email messages were sent to all of the 4589 full-time classroom teachers inviting them to participate in the employee survey. The communications, divided categorically, were sent to 2345 (K-5) teachers, 255 (K-8) teachers, 870 (6-8) teachers, and 1119 (9-12) teachers. Of the email messages sent, a total of 2200 completed responses were received. The response rate prior to any omissions for the teacher survey ranged between a low of

42.18% at the 9-12 grade level and 58.04% at the K-8 grade level. The overall percentage response prior to the exclusion of any surveys from the study was 47.94%.

Table 5 displays data related to the exclusion of surveys. In order to perform the statistical tests required in the study, it was essential that an administrator survey be completed for responding teachers' schools. There were a total of 488 teacher surveys returned from schools where the principal did not provide a response, and these surveys were excluded. Additionally, 65 teacher surveys were returned from one school that had earned the Sterling Quality Award in the prior year. The decision was made to omit all responses from the Sterling award winning school in order to avoid skewing the results of the study. In summary, a total of 553 survey responses were excluded from the study. Of the 2200 completed responses to the teacher survey that were collected, only 1647 teacher surveys could be used in the study.

When the 1647 valid useable responses collected from full time classroom teachers were categorized by grade level, it was determined that 961 (K-5) teachers, 101 (K-8) teachers, 273 (6-8) teachers, and 312 (9-12) teachers had responded. The useable return percentages ranged between 27.88% for teachers at the 9-12 grade level and 40.98% for teachers at the K-5 level with an overall useable return rate of 35.89%.

Table 5
Total Useable Teacher Survey Responses by Grade Level After Exclusions

Level	Teachers	Responses by Level	Excluded Responses		Valid Responses	
			Sterling	No Principal Response	N	%
K-5	2345	1151	65	125	961	40.98
K-8	255	148	0	47	101	39.60
6-8	870	429	0	156	273	31.38
9-12	1119	472	0	160	312	27.88
Total	4589	2200	65	488	1647	35.89

All school principals were invited to participate in the “Are We Making Progress as Leaders?” survey. It was not necessary to select a sample for this study because it was possible and preferable to obtain survey responses from all principals.

Email messages were sent to all of the 77 school principals inviting them to participate in the “Are We Making Progress as Leaders” survey. A total of 57 (74.02%) principals returned surveys. Only one principal, whose school had earned a prior Sterling award, was required to be excluded from the study bringing the total principal responses to 56 with an overall useable return rate of 72.72%. Table 6 displays the valid principal responses by grade level after exclusions.

When the 56 valid useable responses collected from principals were categorized by grade level, it was determined that 35 (K-5) principals, three (K-8) principals, 10 (6-8) principals, and eight (9-12) principals had responded. The useable return percentages ranged between 61.50% for principals at the 9-12 grade level and 79.54% for principals at the K-5 grade level.

Table 6
Total Useable Principal Survey Responses by Grade Level After Exclusions

Level	Principals	Responses by Level	Excluded Responses Sterling	Valid Responses	
				N	%
K-5	44	35	1	35	79.54
K-8	4	3	0	3	75.00
6-8	16	10	0	10	62.50
9-12	13	8	0	8	61.50
Total	77	57	1	56	72.72

A Likert type scale was utilized for all 40 items with response choices ranging from positive to negative. Respondents were asked to indicate which of five responses in the scale was most representative of their perspective where Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1. This permitted the summing of points by category and the determination of mean scores for each of the seven categories.

The sum of responses was calculated for each category and divided by the number of statements to yield a category average for each respondent. Next, in order to arrive at a total mean score for Sterling implementation, the scores for each of the seven categories were summed and divided by seven. This procedure was followed for each respondent. Table 7 contains the lowest, highest and average mean scores for each of the respondent categories by grade level.

Table 7
Mean Scores by Level

Level	Lowest	Highest	Average	Valid Responses	
				N	%
K-5 Principals	3.87	4.53	4.21	35	2.1
K-5 Teachers	4.01	4.38	4.21	961	56.4
K-8 Principals	3.89	4.61	4.31	3	0.2
K-8 Teachers	3.85	4.12	3.98	101	5.9
6-8 Principals	3.83	4.47	4.25	10	0.6
6-8 Teachers	3.83	4.22	4.02	273	16.0
9-12 Principals	4.13	4.52	4.32	8	0.5
9-12 Teachers	3.80	4.20	4.04	312	18.3
Total	3.95	4.30	4.14	1703	100.0

Research Question 1

To what extent do principals and teachers perceive that district schools have implemented the Sterling Quality Management System by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

Tables 8 and 9 present the mean responses of teachers and administrators by grade level to their respective 40-item instruments in each of the seven categories of the Sterling Criteria for Performance Excellence as follows: leadership (seven items); strategic planning (three items); customer and market focus (five items); measurement, analysis, and knowledge management (six items); workforce focus (six items); process management (four items); and results (nine items). Respondents were asked to indicate which of five responses in the scale was most representative of their perspective where Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree. This permitted the summing of points by category and the determination of mean scores for

each of the seven categories. The mean scores were reached by aggregating the scores of each of the respondents within that level (K-5, K-8, 6-8, and 9-12).

These mean scores were used to determine the perceived Sterling implementation level for the seven categories in the Sterling criteria. Of a possible total implementation mean score of 5, the total implementation mean across all groups was rated 4.14. This suggested a highly perceived level of Sterling implementation among respondents overall.

The ratings in each of the areas were fairly consistent across all seven categories. The range of mean scores reported were from a low of 3.8 reported in the teacher 9-12 grade level group in the Strategic Planning category to a high of 4.61 in the K-8 principal group in the Workforce Focus category. The most highly perceived levels of implementation appeared in the Workforce Focus category by principals in the K-8 and 6-8 grade level groups with mean scores of 4.61 and 4.6 respectively. Customer Focus was also highly rated by K-8 principals with a mean score of 4.6. In the Leadership category, both K-5 and 9-12 grade level principals reported a high perceived level of implementation with means of 4.53 and 4.52 respectively.

When comparing principal to teacher perceptions of Sterling implementation across groups, principals consistently rated the implementation higher across all levels. Teacher mean ratings in the K-8 grade level group were 4.07 in the Customer Focus category compared to the principal mean rating of 4.6 in the same group. Exceptions were found in three areas where teacher perceptions were rated slightly higher among K-

5 grade level teachers (M = 4.30) in Customer Focus and among 6-8 grade level teachers (M = 4.22) and 9-12 grade level teachers M = 4.19) in Data Analysis.

Two categories stood out from the rest with weaker than average perceived levels of implementation. The mean score for Strategic Planning for K-8 principals was 3.89 and for K-8 grade level teachers was 3.88. Teachers at the 6-8 grade level reported a mean of 3.83 and teachers at the 9-12 grade level reported 3.80 in this category. Process Management was also found to have lower than average implementation levels with K-8 grade level teachers, 6-8 grade level principals and teachers and 9-12 grade level teachers all having mean scores below 3.87.

Table 8

Means and Standard Deviations for Sterling Categories: Principals by Grade Level

Group (n)	Descriptor	Total	Leadership	Strategic Planning	Custom er Focus	Data Analysis	Workforce Focus	Process Management	Results
K-5 Principals (35)	Mean	4.21	4.53	4.21	4.17	3.87	4.35	4.09	4.24
	Standard Deviation	.34	.40	.55	.40	.89	.42	.43	.38
K-8 Principals (3)	Mean	4.31	4.24	3.89	4.60	4.22	4.61	4.42	4.19
	Standard Deviation	.22	.30	.51	.20	.38	.54	.14	.26
6-8 Principals (10)	Mean	4.25	4.46	4.47	4.08	4.08	4.60	3.83	4.22
	Standard Deviation	.38	.39	.45	.53	.70	.24	.55	.36
9-12 Principals (8)	Mean	4.32	4.52	4.42	4.13	4.19	4.40	4.34	4.26
	Standard Deviation	.43	.34	.58	.58	.81	.50	.46	.54

Table 9

Means and Standard Deviations for Sterling Categories: Teachers by Grade Level

Group (n)	Descriptor	Total	Leadership	Strategic Planning	Customer Focus	Data Analysis	Workforce Focus	Process Management	Results
K-5 Teachers (961)	Mean	4.21	4.34	4.12	4.30	4.38	4.22	4.01	4.12
	Standard Deviation	.58	.74	.85	.75	.62	.80	.82	.65
K-8 Teachers (101)	Mean	3.98	4.12	3.88	4.07	4.12	3.98	3.85	3.85
	Standard Deviation	.74	.88	.96	.85	.86	.94	.82	.83
6-8 Teachers (273)	Mean	4.02	4.19	3.83	4.02	4.22	4.11	3.86	3.91
	Standard Deviation	.60	.69	.94	.94	.63	.73	.73	.69
9-12 Teachers (312)	Mean	4.04	4.19	3.80	4.13	4.20	4.12	3.86	3.95
	Standard Deviation	.61	.71	.95	.94	.73	.76	.79	.71

Research Question 2

What relationship, if any, exists between the perception of teacher and principal Sterling implementation levels and student achievement as measured by the school's total points change from 2005 to 2009 on the Florida A+ school accountability report by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

Results for all groups were aggregated, and Pearson bivariate correlations were calculated. The results are presented in Table 10. The total N for this analysis was 1703. Significance level was set at .05. As can be observed in Table 10, no significant correlation was found between the total average Sterling implementation rating and student achievement gains (school points). The only area that resulted in a significant correlation ($<.05$) was Customer Focus. The correlation suggested that there was a negative relationship between implementation of Sterling quality practices in the area of Customer Focus. However, the correlation was weak at $-.05$.

Statements from this category included: our employees know who their most important customers are; our employees keep in touch with their customers; their customers tell our employees what they need and want; our employees ask if their customers are satisfied or dissatisfied with their work; and our employees are allowed to make decisions to solve problems for their customers.

Table 10
Pearson Correlations for Sterling Categories by Grade Levels

Group (n)	Descriptor	Category Average	Leadership	Strategic Planning	Customer Focus	Data Analysis	Workforce Focus	Process Management	Results
K-5 Principals (35)	Pearson Corr. (1) Sig. (2-tailed)	-0.146 0.403	-0.068 0.698	-0.059 0.738	-0.418* 0.012	-0.066 0.708	-0.123 0.483	-0.002 0.993	-0.018 0.917
K-5 Teachers (961)	Pearson Corr. (1) Sig. (2-tailed)	-0.04 0.218	-0.039 0.229	0.001 0.964	0.014 0.66	-0.026 0.414	-0.054 0.096	-0.057 0.078	-0.059 0.067
K-8 Principals (3)	Pearson Corr. (1) Sig. (2-tailed)	-0.956 0.189	-0.315 0.796	-0.931 0.238	0.885 0.308	-0.465 0.692	-0.981 0.125	-0.999* 0.025	-0.999* 0.025
K-8 Teachers (101)	Pearson Corr. (1) Sig. (2-tailed)	0.002 0.984	0.137 0.17	-0.003 0.978	-0.206* 0.038	-0.084 0.406	0.037 0.716	0.095 0.343	0.033 0.746
6-8 Principals (10)	Pearson Corr. (1) Sig. (2-tailed)	-0.15 0.68	-0.36 0.307	-0.12 0.74	-0.333 0.348	-0.006 0.988	-0.19 0.598	0.189 0.601	-0.234 0.515
6-8 Teachers (273)	Pearson Corr. (1) Sig. (2-tailed)	-0.008 0.899	-0.018 0.767	0.01 0.872	-0.102 0.091	-0.005 0.935	0.025 0.677	0.041 0.495	0.031 0.606
9-12 Principals (8)	Pearson Corr. (1) Sig. (2-tailed)	-0.224 0.594	0.225 0.591	-0.456 0.256	-0.198 0.639	-0.187 0.657	-0.217 0.605	-0.043 0.919	-0.178 0.674
9-12 Teachers (312)	Pearson Corr. (1) Sig. (2-tailed)	-0.065 0.255	-0.06 0.29	-0.062 0.277	-0.066 0.249	-0.09 0.113	0.023 0.687	-0.034 0.553	0.056 0.322

*Pearson Correlation is significant at the 0.05 level (2-tailed).

**Pearson Correlation is significant at the 0.01 level (2-tailed).

Research Question 3

What relationships, if any, exists between the perception of teacher and principal implementation of each of the 7 areas of Sterling criteria: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge; workforce focus; process management; and results (student achievement) per school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

Pearson bivariate correlations were run for both the principal and teacher groups using the Sterling ratings for each category and total points (achievement gains). This test was performed in order to measure the degree of relationship between Sterling implementation and student achievement gains. Statistical significance was set at the .05 level. The results of the analysis are displayed in Table 11.

Overall, very few correlations were found to be statistically significant, suggesting the lack of a linear relationship between Sterling implementation and student achievement gains in the schools in the study. In some cases, correlations were difficult to interpret given the low number of subjects in a group. For example, the K-8 grade level principal group consisted of just three respondents. This would have required a very large correlation to show statistical significance.

Among K-5 grade level principals, the correlation (-.418) was found to be statistically significant. This suggested a moderately negative relationship between implementation of Sterling practices in the area of Customer Focus and school student achievement gains. Once again, survey questions from this category focused on employee knowledge of their customers, communication with customers, customer satisfaction, and problem resolution with customers. Other correlations for the K-5 grade

level principal group were not significant. No significant correlations were found for the K-5 grade level teacher group.

Table 11
District Gains versus Sterling Correlations (N = 1703)

School Points	Total	Leadership	Strategic Planning	Customer Focus	Data Analysis	Workforce Focus	Process Management	Results
Pearson Correlation	-0.04	-0.03	-0.02	-0.05*	-0.04	-0.03	-0.03	-0.04
Sig. (2-tailed)	0.06	0.17	0.47	0.04	0.07	0.22	0.22	0.07

*Pearson Correlation is significant at the 0.05 level (2-tailed).

**Pearson Correlation is significant at the 0.01 level (2-tailed).

Among K-8 grade level principals, no statistically significant correlations were found. A moderate negative relationship was found among K-8 teachers with a correlation of $-.206$. This once again represented a mild negative relationship between implementation of Sterling practices in the area of Customer Focus and school student achievement gains. A total of 101 teacher responses were included in this group.

The study design had included a regression analysis in order to evaluate the degree of impact of each Sterling category on student achievement gains. However, since practically no correlation was found between Sterling implementation categories and student achievement gains, it was decided a regression analysis was not appropriate.

Summary

This chapter provided the data analysis including demographic findings collected from the “Are We Making Progress as Employees” and “Are We Making Progress as Leaders?” surveys compared to student achievement gains on the 2005-2009 A+ School Accountability Report. Results of the three research questions designed to determine what, if any, relationships existed between the Sterling implementation level and student achievement were used as the focus of this chapter. A summary of the results are discussed in chapter 5 along with a discussion of the research findings as well as future research implications.

CHAPTER 5 SUMMARY, DISCUSSION, AND RECOMMENDATIONS

This chapter provides a discussion of how the relationship between Sterling Quality and student achievement in a south Florida school district relate to results of this study and the review of the literature. The review of the literature and results of the data analysis were used to draw conclusions about the relationship between the Sterling Quality principles and student achievement. Researchers interested in learning more about how Sterling Quality and student achievement may be related will want to look at the recommendations for future research.

Chapter five is broken down in to six sections beginning with a restatement of the problem. The next section is focused on methodology used for this study. Section three contains a summary of the findings for the three research questions and then a discussion of the findings in section four. The implications of this study and recommendations for future research on the relationship between Sterling Quality and student achievement can be found in sections five and six respectively.

Statement of the Problem

A great deal of the literature on student achievement has focused on the factors that impact student achievement outcomes. Two student-level factors that have consistently been cited in the literature include mobility rate and socioeconomic status (SES). Teacher-level factors often referenced include years of teaching experience and level of education. Virtually absent in the literature reviewed have been studies related to the impact of the Sterling Quality Framework on student achievement. The aim of this

study was to determine the relationship, if any, between student achievement and the implementation of the Sterling Quality Management System in a southwest Florida school district.

Methodology

The Florida Sterling Council recommended the use of two surveys as part of a self-assessment tool to determine where organizations need to focus the efforts of their reform process (Florida Sterling Council, 2008). These surveys provided by the Florida Sterling Council were used to collect data from school based personnel. The “Are We Making Progress As Leaders?” survey was sent to all district elementary, middle and high school principals. The “Are We Making Progress As Employees?” survey was sent to all district elementary, middle and high school-based, full-time teachers. Results of the surveys were collected and tabulated in order to determine the perceived Sterling implementation level for each school. This implementation level was used to determine the relationship if any, that existed between the implementation of the Sterling management system and student achievement.

Instrumentation

The perceived levels all district elementary, middle, and high schools have reached in implementing the Sterling Quality Management System were measured quantitatively based on responses from two surveys. The research was conducted with the permission of The Florida Sterling Council (Appendix A) which has agreed to

provide the survey instruments for the study. The following two surveys were used in the research: “Are We Making Progress as Leaders?” (Appendix C) was administered to full-time, school-based principals and “Are We Making Progress as Employees?” (Appendix D) was administered to full-time, school-based teachers. Each survey was designed to measure the perceived level an organization has reached in implementing the Sterling Quality Framework in preparation for an onsite visit by a team of representatives from the Florida Sterling Council (2008).

Data Analysis

The Sterling implementation level was calculated by taking the average of the responses in each of the seven categories for the selected district schools from the results of the two Sterling surveys. These results were tabulated and grouped by each of the seven areas of Sterling criteria: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge; workforces focus; process management; and results (Florida Sterling Council, 2008, p. 7).

A linear regression was performed on the dependent variable, student achievement categorized in four levels: (K-5, K-8, 6-8, and 9-12) and by the district. The calculated averages for responses of both school leaders and employees were calculated and used as independent variables. Regression coefficients were calculated for each of the independent variables to determine the significance of each in relation to the dependent variable (Lomax, 2001).

Student achievement gains were calculated by taking the difference in grade points from the 2005 and 2009 school years using school grade points earned on the Florida A+ school accountability report. School gain scores served as the independent variable indicating student achievement at the school level. School grades are determined by accumulating points based on eight measures of achievement.

Summary of Findings

This study was guided by three research questions. The following section contains a summary of the findings obtained from the data analyses for each of the three research questions.

Research Question 1

To what extent do principals and teachers perceive that district schools have implemented the Sterling Quality Management System by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

The mean responses from each of seven Sterling categories were used to measure the perceived implementation level of Sterling Quality in schools. The frequencies were run to determine response rates by category. Mean scores were used to determine the perceived Sterling implementation level for each of the seven categories in the Sterling criteria. Of a possible score of 5, the total mean implementation score across all groups was found to be 4.14. This meant that the perceived level of Sterling implementation among respondents overall was very high.

The ratings in each of the areas were fairly consistent across all seven categories. The mean scores reported ranged from a low of 3.8 reported for the 9-12 grade level teacher group in the Strategic Planning category to a high of 4.61 in the K-8 principal group in the Workforce Focus category. The most highly perceived levels of implementation appeared to be in the Workforce Focus category by principals in the K-8, and 6-8 grade level groups with mean scores of 4.61 and 4.6 respectively. Customer Focus was also highly rated by K-8 principals with a mean score of 4.6. In the Leadership category, both the K-5 principals and the 9-12 principals reported a highly perceived level of implementation of 4.53 and 4.52 respectively.

When comparing principal and teacher perceptions of Sterling implementation across groups, principals consistently rated the implementation higher across all levels. Teacher ratings in the K-8 grade level group were 4.07 for the Customer Focus category compared to the principal rating of 4.6 in the same group. Exceptions were found in three areas where teacher perceptions were rated slightly higher among K-5 grade level teachers in Customer Focus and 6-8 and 9-12 grade level teachers in Data Analysis. For the most part, teacher perceptions and principal perceptions of implementation levels were fairly close.

There were considerable differences in the implementation perceptions of K-8 principal and teacher groups for most categories. A difference of .60 was reported in teacher and principal mean scores for Customer Focus, Workforce Focus, and Process Management. It was unique to have three groups with such a wide variation in their perceptions of implementation. It should be noted that there were only three principals

and schools included in the K-8 groups. Higher than average variation in perceptions was also found between principals and teachers in the 6-8 and 9-12 grade level groups in the area of Strategic Planning.

Two categories stood apart from others with weaker than average perceived levels of implementation. Strategic planning in the K-8 grade level groups was rated by principals at 3.89 and teachers at 3.88. Teachers at the 6-8 grade level reported mean scores of 3.83, and 9-12 grade level teachers reported mean scores of 3.80 in this category. Process Management was also found to have lower than average implementation levels with K-8 grade level teachers, 6-8 grade level principals and teachers and 9-12 grade level teachers as evidenced by mean scores below 3.87.

Research Question 2

What relationship, if any, exists between the perception of teacher and principal Sterling implementation levels and student achievement as measured by the school's total points change from 2005 to 2009 on the Florida A+ school accountability report by school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

Results for all groups (N = 1703) were aggregated and Pearson bivariate correlations were calculated. No significant correlation was found between the total average Sterling implementation mean score and student achievement gains (school points) made between 2005 and 2009. The only area that resulted in a significant correlation ($<.05$) was Customer Focus. The correlation suggested a negative relationship between implementation of Sterling Quality practices in the area of Customer Focus. However, the correlation was weak at $-.05$.

Research Question 3

What relationships, if any, exists between the perception of teacher and principal implementation of each of the 7 areas of Sterling criteria: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge; workforce focus; process management; and results (student achievement) per school, by grade configurations: (K-5, K-8, 6-8, and 9-12), and by the district?

Pearson bivariate correlations were run for both the principal and teacher groups using the Sterling mean score for each category and total points (achievement gains) in order to measure the extent to which there was a relationship between Sterling implementation and student achievement gains. Overall, very few correlations were found to be statistically significant. This suggested the lack of a linear relationship between Sterling implementation and student achievement gains in the schools in the study. In some cases, correlations were difficult to interpret given the low number of respondents in groups. For example, the K-8 principal group consisted of just three respondents. This size group would require a very large correlation to show statistical significance.

Among K-5 principals, the correlation (of $-.418$) was found to be statistically significant. This suggested a moderately negative relationship between implementation of Sterling practices in the area of Customer Focus and school student achievement gains. Once again, survey questions from this category focused on teacher knowledge of their customers, communication with customers, customer satisfaction, and problem resolution with customers. Other correlations for the K-5 principal group were not significant. No significant correlations were found for the K-5 teacher group.

Among K-8 principals, no statistically significant correlations were found. A moderately negative relationship was found among K-8 Teachers with a correlation of -.206. This also represented the mild negative relationship between implementation of Sterling practices in the area of Customer Focus and school student achievement gains. A total of 101 teacher responses were included in this group.

The study design had initially included a regression analysis in order to evaluate the degree of impact of each Sterling category on student achievement gains. However, since practically no correlation was found between Sterling implementation categories and student achievement gains, it was decided a regression analysis was not appropriate.

Discussion

In this study, very little correlation was found between implementation of Sterling practices, as perceived by school principals and teachers, and student achievement gains made over a five year period in a large Florida district. This lack of relationship could be related to a myriad of different factors that affect student achievement at each school: SES, mobility rate, years of teacher service, family education level and any number of other variables that have been shown to impact student achievement.

Socioeconomic status and mobility rate are two factors found in the literature that were found to impact student achievement to some degree. Kerbow (1996) and Wildson (2001) found student mobility to have a negative impact on student achievement. Although mobility was not found to be the single determining factor in student achievement, it was found to be a statistically significant predictor of student

achievement. Socio economic status is another factor that has consistently been cited in the literature (Brooks-Gunn, 2004; Eamon, 2002; Padilla, 1996; Sirin, 2005; Subedi, 2007).

The results of the study related to the Sterling implementation perceptions may be superficial. The perceptions reported by individuals may not reflect the practices that are implemented in schools. Teachers and principals who have participated in training may or may not be implementing those practices at the self-reported perception level. No district wide monitoring process exists at the present time to ensure that practices are being implemented.

Implementation of Sterling Quality practices could have also been implemented at different levels for different schools. All school district administrators were required to attend training and participate in district in-service activities where specific strategies were discussed. No mandate was made for schools to implement the training or strategies district wide. Therefore the implementation level could have varied greatly from school to school and level by level.

Also, the student achievement measure chosen for the study may have been too broad to permit a direct linkage to the Sterling Quality indicators. In the face of continuing accountability requirements and higher performance expectations outlined in the No Child Left Behind Act, the need for high quality leadership in the public education sector will continue to grow. The principles outlined in the Sterling criteria provide a framework for effective organizational management strategies that have been supported in the literature (Flynn and Saladin, 2001). Those organizations that have earned the

Sterling award have engaged in a comprehensive self-analysis within their organizations and an extensive review of their organizational profiles, processes, and practices (Przansyski & Tai, 2002). Organizations throughout the world have successfully used the principles in the criteria as a guide for quality improvement efforts (Horton, 2000).

The area where weak relationships were found was in the Customer Focus area. Among K-5 grade level principals, the correlation of $-.418$ was found to be minimally significant. A moderately negative relationship was also found among K-8 grade level teachers with a correlation of $-.206$. Thus, in this study, schools that focused on customers tended to have smaller gains in student achievement. Schools with a customer focus may well concentrate their efforts on relationships with parents and students to the detriment of student achievement. Although the effect of the relationship between Customer Focus and student achievement gains had a weak correlation, there could be a strong correlation between Customer Focus and parent involvement. Parent involvement has been shown as a factor that has a positive relationship with student achievement (Barbour & Barbour, 1997; Barclay & Boone, 1995; Decker & Decker, 2003; MacBeath & Mortimore, 2001).

In the 21st century school environment, a number of factors have conspired to challenge schools and send conflicting messages as to what their focus should be. Though the message regarding increasing school achievement has been clear, the pressures of logistics and planning mandates have undercut this primary focus on teaching students. In Florida, the class size amendment provides a very good example. Though pressures toward improving student achievement have not lessened, schools have

been forced to make less than desirable educational decisions as they juggle students to meet class size mandates. Schools have been required to maintain student to teacher ratios that result in serious budget deficits and have been disruptive to classrooms. This is not the environment in which a program such as the Sterling Quality program can be best nurtured.

The results of this study may indicate that schools and districts may be equally well served by using a variety of proven school improvement strategies that address their specific needs as opposed to specifically focusing on a standard set of criteria such as those found in the Sterling Criteria Framework. The study revealed that Sterling Quality practices are being implemented to some degree across the district. Although no link was found directly correlating Sterling Quality practices to student achievement, the district consistently showed achievement gains across all grade levels for the period examined in the study. Continued efforts to improve the organization utilizing the Sterling framework should continue to produce positive results for the organization. This may be an indication that the Sterling Quality practices are being implemented to a high degree at the district level that has a positive impact at the school level.

Implications for Practice

The results of this study did not clearly identify specific factors that led to student achievement gains in schools. The school district in this study made its initial commitment to implement the Sterling Quality management system in 2003. As a result, all district administrators were required to participate in Sterling Quality training. All district employees have been encouraged to participate as well. The results of the study indicated that the Sterling Quality management system is being implemented at schools to some degree. It is apparent that the District has spent considerable time and effort over the past seven years aligning all of its internal practices and processes to ensure a quality education for all students. Initiatives such as the Sterling Quality Management System aspire to transform organizations and require long-term commitment. Continued efforts to train all district staff in Sterling Quality practices has the potential to improve management practices district-wide.

Recommendations for Future Research

Following are recommendations for future research.

1. Determine the relationship if any that the implementation of Sterling Quality practices at the district level has on student achievement.
2. Repeat the study using a population of multiple school districts in Florida.
3. Repeat the study using end of course exam results, Dibbles assessment results, FAIR, or college placement scores.

4. Repeat the study with a population of administrators that includes all school principals and assistant principals.
5. Repeat the study in a school district that has achieved the Sterling Quality award.
6. Repeat the study to show the relationship between implementation of the Sterling Quality Management System and student achievement for individual district schools.
7. Repeat the study in order to determine to what extent a relationship if any exists between Sterling Quality and other school effectiveness measures, such as parent involvement, absenteeism, or the number of disciplinary referrals.

APPENDIX A
STERLING SURVEY PERMISSION LETTER



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November 21, 2008

Mr. James D. Short
5599 Sundown Harbor Court
Fort Myers, FL 33919

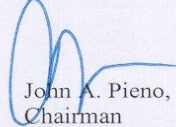
Dear Mr. Short:

In response to your request on November 17, 2008, the Florida Sterling Council grants permission for you to use the two surveys, "Are We Making Progress as Leaders" and "Are We Making Progress as Employees".

The surveys will be used only as outlined in your request which is attached, and in return we request a copy of your finished dissertation.

The Florida Sterling Council thanks you for your interest and studies of our process and look forward to seeing your final product. Do not hesitate to contact us with any further questions you may need answered.

Sincerely,



John A. Pieno,
Chairman

JAP/lgt

APPENDIX B
INSTITUTIONAL REVIEW BOARD APPROVAL



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

Approval of Exempt Human Research

From: **UCF Institutional Review Board #1
 FWA00000351, IRB00001138**

To: **James Short**

Date: **April 12, 2010**

Dear Researcher:

On 4/12/2010, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review: Exempt Determination
 Project Title: THE RELATIONSHIP BETWEEN THE STERLING
 QUALITYFRAMEWORK AND STUDENT ACHIEVEMENT
 IN ONE FLORIDA SCHOOL DISTRICT

Investigator: James Short
 IRB Number: SBE-10-06872

Funding Agency:
 Grant Title:

Research ID: N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Joseph Bielitzki, DVM, UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 04/12/2010 01:25:17 PM EDT

IRB Coordinator

APPENDIX C
ARE WE MAKING PROGRESS AS LEADERS?



ARE WE MAKING PROGRESS AS LEADERS?

Change is inevitable. In today's environment, if you are standing still, you are falling behind. Making the right decisions at the right time is critical. Following through on those decisions is challenging. In a survey of a broad cross-section of CEO's, the Malcolm Baldrige Foundation learned that CEOs believe deploying strategy is three times more difficult than developing strategy. If deployment is so challenging, how do you know if you are making progress, and would your employees agree?

- *Are your vision, mission, values, and plans being deployed? How do you know?*
- *Are they understood by your leadership team? How do you know?*
- *Are they communicated to and understood by all employees? How do you know?*
- *Are your communications effective? How do you know?*
- *Is the message being well received? How do you know?*

The *Are We Making Progress as Leaders* and the companion questionnaire *Are We Making Progress* (for employees) are designed to help you know. They provide compatible tools for you to see if your perceptions agree with those of your workforce. Don't forget your volunteers, as well. They will help you focus your improvement and communication efforts on areas needing the most attention. The questionnaires are aligned with the seven categories of the Sterling Criteria for Performance Excellence so you can reference those areas in the Criteria book when you begin to plan your improvement strategies.

We encourage you to photocopy the questionnaire and distribute it to your leadership team. You can modify the Word document questionnaire to address your specific needs, add questions, or tailor it to language specific to your organization. You may download the employee version from our website at www.floridasterling.com where you may also learn about other materials, training, and events available to you.

ARE WE MAKING PROGRESS AS LEADERS?

Instructions: The following survey utilizes a five point Likert scale ranging from positive to neutral to negative choices, including: “Strongly Agree,” “Agree,” or “Neutral” if you feel neutral about the statement. Other choices include: “Disagree,” and “Strongly Disagree” on the other of the side. Please choose the scale that seems most closely applicable for each statement.

Please Select Your School: [List of All District Schools]

CATEGORY 1: LEADERSHIP

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] Our employees know our organization’s mission (what it is trying to accomplish).
- [] Our leadership team uses our organization’s values to guide our organization and employees.
- [] Our leadership team creates a work environment that helps our employees do their jobs.
- [] Our leadership team shares information about the organization.
- [] Our leadership team encourages learning that will help all our employees advance their careers.
- [] Our leadership team lets our employees know what we think is most important.
- [] Our leadership team asks employees what they think.

CATEGORY 2: STRATEGIC PLANNING

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] As our leadership team plans for the future, we ask our employees for their ideas.
- [] Our employees know the parts of our organization’s plans that will affect them and their work.
- [] Our employees know how to tell if they are making progress on their work group’s part of the plan.

CATEGORY 3: CUSTOMER AND MARKET FOCUS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] Our employees know who their most important customers are.
- [] Our employees keep in touch with their customers.
- [] Their customers tell our employees what they need and want.
- [] Our employees ask if their customers are satisfied or dissatisfied with their work.
- [] Our employees are allowed to make decisions to solve problems for their customers.

CATEGORY 4: MEASUREMENT, ANALYSIS, AND KNOWLEDGE MANAGEMENT

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] Our employees know how to measure the quality of their work.
- [] Our employees know how to analyze (review) the quality of their work to see if changes are needed.
- [] Our employees use these analyses for making decisions about their work.
- [] Our employees know how the measures they use in their work fit into our organization's overall measures of improvement.
- [] Our employees get all the important information they need to do their work.
- [] Our employees get the information they need to know how our organization is doing.

CATEGORY 5: WORKFORCE FOCUS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] Our employees can make changes that will improve their work.
- [] Our employees cooperate and work as a team.
- [] We encourage and enable our employees to develop their job skills so they can advance their careers.
- [] Our employees are recognized for their work.
- [] Our employees have a safe workplace.
- [] Our managers and our organization care about our employees.

CATEGORY 6: PROCESS MANAGEMENT

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] Our employees can get everything they need to do their jobs.
- [] Our employees collect information (data) about the quality of their work.
- [] Our organization has good processes for doing our work.
- [] Our employees have control over their personal work processes.

CATEGORY 7: RESULTS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] Our employees' customers are satisfied with their work.
- [] Our employees' work products meet all requirements.
- [] Our employees know how well our organization is doing financially.
- [] Our organization uses our employees' time and talents well.
- [] Our organization removes things that get in the way of progress.
- [] Our organization obeys laws and regulations.
- [] Our organization has high standards and ethics.
- [] Our organization helps our employees help their community.
- [] Our employees are satisfied with their jobs.

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APPENDIX D
ARE WE MAKING PROGRESS AS EMPLOYEES?

ARE WE MAKING PROGRESS AS EMPLOYEES?

Instructions: The following survey utilizes a five point Likert scale ranging from positive to neutral to negative choices, including: “Strongly Agree,” “Agree,” or “Neutral” if you feel neutral about the statement. Other choices include: “Disagree,” and “Strongly Disagree” on the other of the side. Please choose the scale that seems most closely applicable for each statement.

Please Select Your School: [List of All District Schools]

CATEGORY 1: LEADERSHIP

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] I know my organization’s mission (what it is trying to accomplish).
- [] My senior (top) leaders use our organization’s values to guide us.
- [] My senior leaders create a work environment that helps me do my job.
- [] My organization’s leaders share information about the organization.
- [] My senior leaders encourage learning that will help me advance in my career.
- [] My organization lets me know what it thinks is most important.
- [] My organization asks what I think.

CATEGORY 2: STRATEGIC PLANNING

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] As it plans for the future, my organization asks for my ideas.
- [] I know the parts of my organization’s plans that will affect me and my work.
- [] I know how to tell if we are making progress on my work group’s part of the plan.

CATEGORY 3: CUSTOMER AND MARKET FOCUS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] I know who my most important customers are.
- [] I keep in touch with my customers.
- [] My customers tell me what they need and want.
- [] I ask if my customers are satisfied or dissatisfied with my work.
- [] I am allowed to make decisions to solve problems for my customers.

CATEGORY 4: MEASUREMENT, ANALYSIS, AND KNOWLEDGE MANAGEMENT

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- [] I know how to measure the quality of my work.

- I know how to analyze (review) the quality of my work to see if changes are needed.
- I use these analyses for making decisions about my work.
- I know how the measures I use in my work fit into the organization's overall measures of improvement.
- I get all the important information I need to do my work.
- I get the information I need to know about how my organization is doing.

CATEGORY 5: WORKFORCE FOCUS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- I can make changes that will improve my work.
- The people I work with cooperate and work as a team.
- My boss encourages me to develop my job skills so I can advance in my career.
- I am recognized for my work.
- I have a safe workplace.
- My boss and my organization care about me.

CATEGORY 6: PROCESS MANAGEMENT

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- I can get everything I need to do my job.
- I collect information (data) about the quality of my work.
- We have good processes for doing our work.
- I have control over my work processes.

CATEGORY 7: RESULTS

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- My customers are satisfied with my work.
- My work products meet all requirements.
- I know how well my organization is doing financially.
- My organization uses my time and talents well.
- My organization removes things that get in the way of progress.
- My organization obeys laws and regulations.
- My organization has high standards and ethics.
- My organization helps me help my community.
- I am satisfied with my job.

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APPENDIX E
COMMUNICATIONS WITH PARTICIPANTS

EXAMPLE OF EMAIL FROM DIRECTOR OF RESEARCH

From:
Sent: Thursday, April 15, 2010 1:30 PM
To: *All Principals (Elem, Mid, High, & Special)
Subject: Upcoming Survey

Principals,

The District Research Committee has approved a study which focuses on the level that the Sterling criteria have been implemented in all district schools. This survey will come from James Short (ITS) and will serve, in part, to support his doctoral dissertation research. Early next week you will receive an email from James Short linked to a Zoomerang survey. Your response to this survey is highly valued and appreciated.

Your participation is voluntary. Please note that your school name is requested in the survey. This is for the purpose of matching responses to student data only. No results will be reported for individual schools. All responses will be confidential. Data and results will be reported in aggregate form and not by individuals. Neither your school nor your name will be associated with any responses.

Please forward this message to your teachers as well. They will also be receiving the survey link.

Thanks!

..., **Director**
Dept. of Accountability, Research, and Continuous Improvement
(239) 335-1448

EXAMPLES OF PRINCIPAL E-MAILS

From: Short, James
Sent: Thursday, April 22, 2010 2:16 PM
To:
Subject: Sterling Principal Survey

XXXX

Early this week I sent out a survey to you and the teachers at XXXX to get your feedback about how Sterling practices are being implemented at the school level. If you have completed the survey let me take this opportunity to say thank you. If not, please take a few moments to click the link below and respond to the survey. Our goal is to collect an adequate sample by the end of this week.

I know that you are busy and appreciate your time and feedback.

To complete the survey, please go to this link:
<http://www.zoomerang.com/Survey/WEB22AHAZRD6P3>

Thank you,
Jim

James D. Short | Assistant Director | IT Support | School District of Lee County
Phone (239) 337-8222 | Fax (239) 337-8633 | JamesDS@LeeSchools.net

Please note: Due to Florida's broad open records law, most written communication to or from District employees is public record, available to the public and the media upon request. Therefore, this e-mail communication may be subject to public disclosure.

From: Short, James
Sent: Tuesday, April 20, 2010 9:58 AM
To:
Subject: Sterling Survey

April 20, 2010

To: XXXX
Principal,

From: James D. Short
Assistant Director of Information Technology Support, Lee County Schools

Topic: Research on the Relationship Between the Sterling Quality Framework and Student Achievement

Thank you for taking time to read this email. This email is to invite you to participate in a short survey to study the relationship between the Sterling Quality Framework and student achievement. This survey was provided by the Florida Sterling Council to determine the level that the Sterling framework has been implemented in our organization. It will only take about 10 minutes. XXXX, Director for Accountability, Research and Continuous Improvement has approved the study.

There are no perceived benefits, compensation, or anticipated risks for participating in the study. Your participation is voluntary and you can withdraw at any time without penalty. You will not be penalized for refusing to answer a question and your identity and all responses will be confidential. Data and results will be reported in aggregate form and not by individuals. Neither your school nor your name will be associated with any responses.

Thank you for considering participation in this study. To complete the survey please go to the link: <http://www.zoomerang.com/Survey/WEB22AHAZRD6P3>

Information regarding your rights as a research volunteer may be obtained from:
Institutional Review Board (IRB)
University of Central Florida
12201 Research Parkway, Suite 501
Orlando, FL 32826
407.823.2901

If you have any questions please do not hesitate to contact me: JamesDS@leeschools.net 239.337.8222 or Lee County Public Education Center, IT Support Department or my dissertation chairperson, Dr. Rose Taylor 407 823 1469 or rtaylor@mail.ucf.edu

EXAMPLES OF TEACHER EMAILS

From: Short, James
Sent: Thursday, April 22, 2010 2:52 PM
To: XXXX
Subject: Sterling Teacher Survey

XXXX

Early this week I sent out a survey to you and the teachers at XXXX to get your feedback about how Sterling practices are being implemented at the school level. If you have completed the survey let me take this opportunity to say thank you. If not, please take a few moments to click the link below and respond to the survey. Our goal is to collect an adequate sample by the end of this week.

I know that you are busy and appreciate your time and feedback.

To complete the survey, please go to the link:
<http://www.zoomerang.com/Survey/WEB22AHH87GXU6>

Thank you,
Jim

James D. Short | Assistant Director | IT Support | School District of Lee County
Phone (239) 337-8222 | Fax (239) 337-8633 | JamesDS@LeeSchools.net

Please note: Due to Florida's broad open records law, most written communication to or from District employees is public record, available to the public and the media upon request. Therefore, this e-mail communication may be subject to public disclosure.

From: Short, James
Sent: Tuesday, April 20, 2010 9:58 AM
To: XXXX
Subject: Sterling Survey



April 20, 2010

To: XXXX
Teacher, XXXX

From: James D. Short
Assistant Director of Information Technology Support, Lee County Schools

Topic: Research on the Relationship Between the Sterling Quality Framework and Student Achievement

Thank you for taking time to read this email. This email is to invite you to participate in a short survey to study the relationship between the Sterling Quality Framework and student achievement. This survey was provided by the Florida Sterling Council to determine the level that the Sterling framework has been implemented in our organization. It will only take about 10 minutes. XXXX, Director for Accountability, Research and Continuous Improvement has approved the study.

There are no perceived benefits, compensation, or anticipated risks for participating in the study. Your participation is voluntary and you can withdraw at any time without penalty. You will not be penalized for refusing to answer a question and your identity and all responses will be confidential. Data and results will be reported in aggregate form and not by individuals. Neither your school nor your name will be associated with any responses.

Thank you for considering participation in this study. To complete the survey please go to the link:
<http://www.zoomerang.com/Survey/WEB22AHH87GXU6>

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If you have any questions please do not hesitate to contact me: JamesDS@leeschools.net239.337.8222 or Lee County Public Education Center, IT Support Department or my dissertation chairperson, Dr. Rose Taylor 407 823 1469 or rtaylor@mail.ucf.edu

APPENDIX F
PRINCIPAL AND TEACHER INFORMED CONSENT LETTERS



April 20, 2010

To: Elementary, Middle and High School Principals

From: James D. Short
Assistant Director of Information Technology Support, Lee County Schools

Topic: Research on the Relationship Between the Sterling Quality Framework and Student Achievement

Thank you for taking time to read this email. This email is to invite you to participate in a short survey to study the relationship between the Sterling Quality Framework and student achievement. This survey was provided by the Florida Sterling Council to determine the level that the Sterling framework has been implemented in our organization. It will only take about 10 minutes. Dr. Richard Itzen, Director for Accountability, Research and Continuous Improvement has approved the study.

There are no perceived benefits, compensation, or anticipated risks for participating in the study. Your participation is voluntary and you can withdraw at any time without penalty. You will not be penalized for refusing to answer a question and your identity and all responses will be confidential. Data and results will be reported in aggregate form and not by individuals. Neither your school nor your name will be associated with any responses.

Thank you for considering participation in this study. To complete the survey please go to the link: <http://www.zoomerang.com/Survey/WEB22AHAZRD6P3>

Information regarding your rights as a research volunteer may be obtained from:
Institutional Review Board (IRB)
University of Central Florida
12201 Research Parkway, Suite 501
Orlando, FL 32826
407.823.2901

If you have any questions please do not hesitate to contact me: JamesDS@leeschools.net, 239.337.8222 or Lee County Public Education Center, IT Support Department or my dissertation chairperson, Dr. Rose Taylor 407 823 1469 or rtaylor@mail.ucf.edu.



April 20, 2010

To: Elementary, Middle and High School Teachers

From: James D. Short
Assistant Director of Information Technology Support, Lee County Schools

Topic: Research on the Relationship Between the Sterling Quality Framework and Student Achievement

Thank you for taking time to read this email. This email is to invite you to participate in a short survey to study the relationship between the Sterling Quality Framework and student achievement. This survey was provided by the Florida Sterling Council to determine the level that the Sterling framework has been implemented in our organization. It will only take about 10 minutes. Dr. Richard Itzen, Director for Accountability, Research and Continuous Improvement has approved the study.

There are no perceived benefits, compensation, or anticipated risks for participating in the study. Your participation is voluntary and you can withdraw at any time without penalty. You will not be penalized for refusing to answer a question and your identity and all responses will be confidential. Data and results will be reported in aggregate form and not by individuals. Neither your school nor your name will be associated with any responses.

Thank you for considering participation in this study. To complete the survey please go to the link: <http://www.zoomerang.com/Survey/WEB22AHH87GXU6>

Information regarding your rights as a research volunteer may be obtained from:
Institutional Review Board (IRB)
University of Central Florida
12201 Research Parkway, Suite 501
Orlando, FL 32826
407.823.2901

If you have any questions please do not hesitate to contact me: JamesDS@leeschools.net, 239.337.8222 or Lee County Public Education Center, IT Support Department or my dissertation chairperson, Dr. Rose Taylor 407 823 1469 or rtaylor@mail.ucf.edu.

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