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Perceptions of Innovations: An Examination of South Carolina Superintendents

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PERCEPTIONS OF INNOVATIONS: AN EXAMINATION OF SOUTH CAROLINA SUPERINTENDENTS

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DEDICATION

The dissertation is dedicated to my family. Your love and support empowered me to embark on and ultimately survive this journey. I owe my success in this life to you all, and dedicate this, my greatest accomplishment thus far, to you. First, to my wife Sonya, whose love, patience, and encouragement has allowed me to finally reach this milestone. Baby, you can finally have your living room and dining room back. To my children, Nya and Alfred, who have been anxiously waiting for me to complete my doctoral program so they can attend another graduation ceremony and play with the putty. You both have inspired me tremendously and I hope that I have inspired you to become life-long learners.

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ABSTRACT

The purpose of this study was to examine the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. Specific characteristics of South Carolina public school superintendents and public school districts, including enrollment, poverty level, school report card grades, age, gender, and years of experience, were analyzed to determine individual superintendents' and their school districts' orientations toward innovation. The findings have the potential to provide much-needed guidance to superintendents in training so that they may be better equipped to meet the challenge of school reform and innovation in relation to student achievement. In addition, the study may serve to provide guidance to district and school-level staff working to support the plans for implementation of reform and innovation.

The findings that emerged from this study include the following: (1) The majority of South Carolina public school superintendents perceive themselves as highly innovative. They also perceive their districts to be high in innovativeness yet they rate the districts lower than they rate themselves. (2) There exists a weak positive relationship between innovative public school district superintendents and innovative public school districts. (3) Superintendents of larger districts and districts with higher ESEA grades rated their districts higher in organizational innovation than smaller districts and those with lower ESEA scores.

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CHAPTER ONE

Introduction

The first administrative task assigned to the first superintendent of education for the Buffalo, New York school district was to hire a horse and buggy, then go out into the city to find where the schools were located. Although today's superintendents would not have any trouble finding the schools, many of them would admit to feeling just as isolated from what is really going on in schools and classrooms as that first Buffalo, New York superintendent (Crowson, 1991). The position of school superintendent was created in response to the inability of urban school boards to manage the rapidly increasing enrollment in city schools. In the early stages of defining the superintendency, the duties and responsibilities assigned to a superintendent centered on finances, facilities, operations, and personnel.

Because of these administrative responsibilities, superintendents were viewed primarily as managers of district resources. However, close on the heels of these administrative responsibilities came the perceived need for the superintendent to be an instructional leader. The evolution of the role of superintendent was in response to increasing demand for reform and improved student achievement. More recently, the role of the superintendent has been defined by political mandates at the local, state, and federal levels. The demands and expectations placed on the position call for a superintendent to operate as an administrative chief, an instructional supervisor, and a

negotiator-statesman. Balancing the competing demands produced by managerial imperatives, instructional requirements, and political considerations often leads to conflicting obligations.

For decades, public education has faced mounting criticism for failing to serve the needs of all students. At the forefront of this issue is the persistent achievement gap that exists among students of different racial, ethnic, and socio-economic backgrounds and the low performance of American students compared to international students. Data gathered from recent research suggests that the performance of students in the United Stated trails that of students in other developed countries (Miller, Malley, & Owen, 2009). This presents a problem because the United States commits more resources to education than any other nation; however, the country continues to produce mediocre academic results (Hanushek & Lindseth, 2009).

Continuous unsatisfactory educational outcomes have the potential to place the United States' national prosperity at-risk, as the nation could be ill prepared to meet the demands for human capital of the 21st century (Karoly & Panis, 2004). In relation to globalization, technological advances, and the development of the knowledge economy, the American public school system must transform and adapt to remain competitive (Freidman, 2007; Goldin, 2009). Innovation is crucial to creating and maintaining a competitive advantage (Dess & Picken, 2000). In August 2009, President Obama said, "The United States led the world's economies in the 20th century because we led the world in innovation. Today, the competition is keener; the challenge is tougher; and that is why innovation is more important than ever. It is the key to good, new jobs for the 21st century" (Executive Office of the President, 2009).

As the motivation for innovation within the private sector has intensified, so too has the demand for innovation in public and nonprofit sector organizations. An explanation offered by institutional theory, proposes that the actions of organizations are socially entrenched and constrained (Rowan & Miskel, 1999), and tend to reflect the institutions around them (DiMaggio & Powell, 1983). Considering this paradigm, as the for-profit sector innovates, nonprofit and public organizations will be compelled to do so as well. Nonprofit and government organizations such as schools that rely on public resources are significantly influenced by their environments (Scott, 2003). They are subject to concerns put forward by a variety of stakeholders, including parents, policy makers, and business leaders (Dee, Henkin, & Pell, 2002). As the call for change intensifies, public and nonprofit organizations, particularly those that depend on tax exemption, government funding, or charitable contributions, must make observable changes in order to survive, even if the demands are not realistic (Marion, 2002).

To address these concerns, school districts are being forced to restructure and implement broad scale system reforms and innovation. Reform and innovation both require shifting personal and professional habits, changing attitudes and behavior, modifying programs and processes, adopting new curriculum and instructional practices, and providing ongoing staff development and technical assistance (Lunenburg, 2004). However, reform addresses improvement through the modification of existing programs and processes while innovation does so by introducing entirely new methods and practices. Research substantiates the beneficial effects of innovation. In for-profit, nonprofit and government organizations, innovation can positively strengthen operational efficiency, improve performance, attract a skilled workforce, and cultivate knowledge

(Laforet, 2011). Innovation can bolster a competitive advantage in the marketplace and operate to boost performance (He & Nie, 2008). However, innovation on its own is not a source of competitive advantage, but rather a means of reaching the most important organizational goals.

The innovation process is guided by the objectives of the organization which determine the direction for all the efforts in the organization towards goal achievement (He & Nie, 2008). Compared to reform and innovation at the individual school level, system-wide changes are more difficult to implement because of the greater demand for coordination between the various schools and departments within a district. Successful whole district efforts improve teaching, learning, and administration through the identification of the best practices in individual schools, their application system-wide, and the realignment of the entire organization so that every component works toward achieving the same goal (Palandra, 2008).

The majority of public school district superintendents are leading the largest and most sophisticated business in their communities. Politically, they are responsible for balancing the petitions of all stakeholder groups, making them a lightning rod for controversy and conflict. Public school superintendents are caught between the nonprofessional school board that establishes district policy and the teachers and staff who have to carry it out. Public school superintendents have been called upon to be facilitators of state and federal mandates, frequently without adequate resources to accomplish the tasks. Because of their position, they are vital to the prosperity and well-being of their communities; however, their job is rarely understood or fully appreciated. In today's educational climate, the authority of the public school superintendent has been

handicapped and disengaged, while the expectations have progressively increased. Superintendents are expected to respond effectively to varied pressures while staying focused on improving student learning. It is critical to the transformation effort to identify the elements and strategies of reform that are being used by successful public school superintendents.

Until recently, the role of a superintendent was viewed as that of a district manager, focused primarily on budget issues, principal supervision, and board and community relations. However, in response to the increased demand for reform and improved achievement, the role of the superintendent has evolved. Today's superintendents are expected to be instructional leaders and charged with orchestrating reform and system-wide improvement. Research has shown that the work of principals and superintendents has a powerful, albeit indirect, impact on student learning; second only, to the quality of curriculum and teaching (Weiss, 2005). Critical to the success of any reform effort is the sense of a common purpose that leaders promote by involving others in developing and communicating a shared vision (Zimmerman, 2008). Effective school reform and improvement involves not just knowing what to do, but also when, how and why to do it. In order to bring about successful, lasting change in a school district, the superintendent must focus on the right change and have a good understanding of the process needed to bring about the change (Weiss, 2005). Marzano, (2003), in *What Works in Schools: Translating Research into Action*, asserted that current research, if utilized properly, could allow a vast majority of public schools to develop into highly effective institutions by employing effective school reform strategies. Marzano cautioned

"although the guidance from the research is clear, researchers and the public continue to debate whether public education is up to the task of following it" (p.1).

Students in the United States are underperforming compared to students internationally and there is considerable pressure to boost achievement. The media, political leaders, and the public are demanding results. Superintendents play an important role in this effort, because they have the capability to influence policies and allocate resources that can increase student achievement (Hallinger & Heck, 1998; Togneri & Anderson, 2003). Superintendents must now serve as catalysts of change by using effective strategies that will increase the exposure of all students to high quality education opportunities. In the 2007 report, The State of the American School Superintendency: A Mid-Decade Study, public school superintendents are characterized as having one of the "most responsible and complex roles in modern society" (Glass & Franceschini, 2007, p. ix).

The leadership of public school district superintendents is essential to the transformation and innovation required in public schools. To bring about effective, ongoing innovation in a school district, the superintendent must concentrate on the right change and have a good understanding of the process needed to bring about this change. W. Edwards Deming, trailblazer in the field of modern management thinking is quoted saying, "The job of a leader is the transformation of his organization" (Brower, 2006, p. 58). Change expert Michael Fullan (2006, p.88) assets, "Leadership is the turnkey to system transformation". The leadership and implementation of innovation are essential to public school reform.

Statement of the Problem

Unique circumstances exist in every public school district; however, they all share the task of educating the nation's children. Public school district superintendents are the most highly paid and prominent school leaders. In today's educational landscape, this leadership is especially significant and multidimensional as school districts confront the growing demands for accountability and change. If the pressure placed on public schools to change would soon stabilize or at least level off, the problems faced by public school educators would become less troublesome. However, most scholars suggest that the intensity of demands will increase and that the amount of stress placed on public schools regarding change will increase over the next few decades (Pascopella, 2011). It is unrealistic today for educational organizations to resist significant global changes, such as the advent of the knowledge era, new technological developments, and globalization given that these are rapidly becoming symbols of the modern world. Therefore, educational organizations need to adjust their institutional constructs, processes and strategies to embrace these changes in the external environment (Celik, 2013).

The current American education system was developed in an era when continuous and high speed transformation was not so common or anticipated by society. Change happened slowly and intermittently; however, the challenges that are now encountered in public schools are not the same. The present globalized economy is generating more opportunities and risks for everyone, pressing public schools to make substantial improvements not only to compete and flourish but also to simply endure in this new age of accountability (Kotter, 1996). Similar to other institutions developed during the industrial age, public schools are captured in the ever increasing currents of change. The

current frenzy associated with this new era of accountability has resulted from communities and school boards focusing much more on test scores as a result of the *No Child Left Behind Act.*

The requirements of the *No Child Left Behind Act* (2001) have significant implications for all stakeholders, including policymakers. As a result, educators and policymakers have been hard at work attempting to put the provisions of the legislation into effect. In spite of the well-defined requirements of the *No Child Left Behind Act,* it is less clear how school districts should go about improving the quality of student achievement (Elmore, 2002). Public school districts must demonstrate the leadership and organizational capabilities required to transform low performing schools into high performing learning communities (Reeves, 2005). This requires public school districts to improve on or change their organizational practices.

Presently, reformers, politicians, foundations, and private sector groups have reached a stalemate on the topic of how to reform public schools. This stalemate is between the reformers who recommend radical change as opposed to the stability and gradual change sought after by school boards and communities (Glass & Franceschini, 2007). Educators feel as though they are more restricted and less able to innovate than their counterparts in the private sector. As a result, many educators have come to believe that significant change cannot take place under any conditions. A large number of business people believe that the lack of competition is the reason public schools do not innovate. The public school district superintendent is situated right in the middle of this dispute (Glass & Franceschini, 2007).

The considerable challenges that are faced by the nation's public schools cannot be solved using the same level of thinking that was used when they were created. There is an obvious and urgent need for more innovation to combat the social and economic changes of unprecedented scale and variety, which antiquated procedures cannot contend with and which instead require innovative response (Kanter, 1983). Oddly, neither innovation nor characteristics of innovation leadership are emphasized in the literature among required competencies for the role of superintendent. Additionally, there appears to be a gap in the literature regarding the concept of innovation and its relationship to the superintendency.

Purpose of the Study

The purpose of this study was to examine the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. Adair (2007) declares that to innovate is not to reform; reform addresses improvement through the modification of existing programs and processes while innovation does so by introducing entirely new methods and practices. Specific characteristics of South Carolina public school superintendents and public school districts, including enrollment, poverty level, school report card grades, age, gender, and years of experience, were analyzed to determine individual superintendents' and their school districts' orientations toward innovation.

Research Questions

The following questions guided the study:

1. What are the perceptions of South Carolina public school superintendents regarding individual attitudes toward innovation and organizational attitudes toward innovation?

2. Is there a relationship between Individual attitudes toward innovation and organizational attitudes toward innovation?

3. Are differences in perceptions of South Carolina school district superintendents regarding innovations related to organizational variables including district enrollment, financial resources and ESEA grade?

4. Are differences in perceptions of South Carolina school district superintendents regarding innovation related to demographic factors including age, sex, and experience?

Significance of the Study

This study will add to the body of scholarly literature by identifying the perceptions of South Carolina superintendents regarding individual and organizational attitudes toward innovation. Identifying the factors that positively or negatively influence the perceptions of innovation of public school superintendents will provide the superintendents and policy makers with information pertaining to ways to increase the effective implementation of innovation in public school districts. Also, this information could be used by school boards by identifying areas that can be improved in order to increase the longevity and effectiveness of their districts and the overall performance of superintendents.

The findings have the potential to provide much-needed guidance to superintendents in training so that they may be better equipped to meet the challenge of school reform and innovation in relation to student achievement. In addition, the study may serve to provide guidance to district and school-level staff working to support the plans for implementation of reform and innovation.

Summary of Methodology

A quantitative design was employed to examine the research questions. The data was collected via a survey fielded to all of the public school district superintendents in South Carolina. The survey was based on the work of McCroskey (2006) Communication Research Measures: Individual Innovativeness and Organizational Innovativeness.

Assumptions

The study assumed the following:

1. Superintendents would provide accurate responses to the survey questions.
2. The data reported by the South Carolina Department of Education was accurate and uniform.
3. The chosen procedures and methods were appropriate.
4. The information gathered sufficiently addressed the research questions.

Limitations

The study included the following limitations:

1. The validity of the data was reliant upon the chosen instruments of measurement.
2. The ability or willingness of superintendents to provide accurate responses.
3. The ability to gain access to superintendents.

Definition of Terms

For the purpose of this study, the following terms are operationally defined as specified below:

Adoption: a decision of full use of an innovation as the best course of action available.

Capacity building: an action-based policy or strategy that increases the collective efficacy of a group to improve student learning through new knowledge, enhanced resources, and greater motivation on the part of people working individually and together.

Compatibility: the degree to which an innovation is perceived as being consistent with the values, past experiences, and needs of potential adopters.

*Complexity***:** This is the degree to which an innovation is perceived as difficult to understand and use.

Change agents: people who positively influence innovation decisions, by mediating between the change agency and the relevant social system.

Diffusion: the process in which an innovation is communicated through certain channels over time among the members of a social system.

Early adopters: people who tend to be integrated into the local social system more than innovators. The early adopters are considered to be localites, versus the cosmopolite innovators. People in the early adopter category seem to have the greatest degree of opinion leadership in most social systems.

Early majority: people who will adopt new ideas just before the average member of a social system. They interact frequently with peers, but are not often found holding leadership positions.

Innovation: an idea, practice, or project that is perceived as new by an individual or other unit of adoption.

Innovativeness: the degree to which an individual or organization is relatively earlier in adopting new idea than the other members of the system.

Innovators: people who are eager to try new ideas, to the point where their venturesomeness almost becomes an obsession. Innovators' interest in new ideas leads them out of a local circle of peers and into social relationships more cosmopolite than normal.

Laggards: people who tend to be suspicious of innovations and change agents and resist adopting until absolutely necessary.

Late majority: people who are skeptical, adopting new ideas just after the average member of a social system. Their adoption may be borne out of economic necessity and in response to increasing social pressure. They are cautious about innovations, and are reluctant to adopt until most others in their social system do so first.

Observability: the degree to which the results of an innovation are visible to others.

Opinion leaders: people who have relatively frequent informal influence over the behavior of others.

Rate of adoption: the relative speed with which an innovation is adopted by members of a social system.

Relative advantage: the degree to which an innovation is perceived as better than the idea it supersedes.

Social System: a set of interrelated units engaged in joint problem solving to accomplish a common goal.

Trialability: the degree to which an innovation can be experimented with on a limited basis.

CHAPTER TWO

Literature Review

Introduction

The public education system in the United States was created nearly 200 years ago. It was designed to provide access to basic education to all citizens and access to a higher education for a select group. That goal was fitting and praiseworthy for that time but today a totally different world exists. The world today is constantly changing and becoming more globalized. Howard Gardner (2007) asserts that present-day formal education still prepares students essentially for the world of the past, rather than for possible worlds of the future. The lives of today's students and families are vastly different than they were in the 1800s. As a result, schools and districts must change to meet these new demands of the global knowledge economy that is upon us.

The role of school and district leaders, in this changing world, has been compared to building a bridge as one is walking over it (Quinn, 2004). Today's superintendents have been assigned the task of leading and managing the current system while also leading the vision and creation of a new system (Wagner et al., 2006). However, in public education there is a gap that exists between the current reality and the vision of a new system. Leadership strategies that are innovative and promote innovation are necessary to

challenge the status-quo and to create a new system to educate our students and prepare them for the global economy they will live and work in.

The purpose of this study is to examine the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. Specifically, the relationship in perceptions of public school superintendents regarding individual and organizational attitudes toward innovation and innovation behaviors associated with organizational variables and demographic factors. The review of literature is divided into the following subtopics: school reform, organizational change, organizational capacity, leadership and managing change, and diffusion of innovations. Subsections under the subtopic of diffusion of innovation concerning individual innovativeness, innovation behaviors, and research on diffusion of innovations are also included.

School Reform

Schools today face extraordinary difficulties in preparing students for the ever changing demands of the new globalized workplace. In an attempt to address these demands, a number of state and federal policy reforms have been implemented. These reforms have primarily focused on raising student achievement. Some rely largely on measures introduced by the *No Child Left Behind Act*. This type of reform leaves schools searching for the solutions themselves. Other reforms have involved curriculum adjustments, increased use of information technology or changes in the way schools are managed or structured, including charter schools and high school redesign. To date, the evidence indicates that none of these initiatives have had a significant effect.

During the pre-1950s', progressive period of education reform, intellectuals cultivated ideas about how school might look and be different (Elmore, 1995). In the late 1950s and into the 1960s, the U.S. federal government supported major curriculum reforms and organizational innovations, such as open plan schools, flexible scheduling, team teaching, and more (Fullan, 2001). The post-war baby boom of the 1950s occurred and the K-12 enrollment skyrocketed from 25 to 36 million and the job of building schools and hiring teachers became the primary task (Finn, 2008). During this period, two major events would dramatically affect public education; the Supreme Court's Brown decision on segregation and the launch of Sputnik. The repercussions of these two events would forever change the function of government in local education. Ramifications of the lost space race included an invigorated emphasis of education in math and the sciences. This included the National Defense Act of 1958, which committed federal funds, rules, and restrictions to strengthening education in these areas.

In 1958 the need to pursue excellence through the development of human capital was emphasized with the release of the Rockerfeller Brothers Fund report, *The Pursuit of Excellence* (Finn, 2008). In 1959, James B. Conant criticized the American education system in *The American High School Today*. Conant asserted the need for more extensive creation of comprehensive high schools with a variety of tracks for different types of students, with an emphasis on keeping students out of the adult world and labor market (Finn, 2008). The inequities in education highlighted in the 1960s and made more disturbing by the civil rights movement gave rise to simultaneous concerns for academic excellence and equity for the socially and ethnically disadvantaged (Fullan, 1993). These

concerns were underscored by the passage of the Elementary and Secondary Act of 1965, which channeled resources to education and emphasized equal access.

By the 1970s, the evidence indicated that scarcely any real change had occurred through previous attempts at educational reform. During the 1970's, the earlier attempts of innovation in public school education came under scrutiny for a lack of implementation on a national level. Fullan (1993) contended that most of the 1970's was a decade of recognized failure. He stated that the economy was stagnant, there was a surplus of teachers, and from an innovation perspective, the focus was on unsuccessful implementation. The pressure and motivations to reform continued into the 1980s and 1990s.

In *The Superintendent as CEO*, Hoyle, Bjork, Collier, and Glass (2005) described the education reform movement that began in the 1980s as occurring in three consecutive waves. The first wave, roughly 1982 to 1986, was initiated by the report *A Nation at Risk* and focused on increased accountability. This new emphasis on accountability shifted policymaking to the state level of government, restricting local control. The second wave, approximately 1986 to 1989, was a reiteration of the need to improve student performance for all children and articulated the need to strengthen teacher professionalism (Hoyle et al., 2005). The third wave, from 1989 to 2003, stressed a more comprehensive focus that centered on the welfare and learning of all children. Hoyle et al. (2005) mentions three prominent federal reform initiatives that were put into service during this period, America 2000: An Education Strategy (U.S. Department of Education, 1991), Goals 2000: Educate America Act (1994), and more recently the No Child Left Behind Act (NCLB, 2002). Considered in association, they highlight the significance of

redesigning teaching to enhance learning, especially for at risk children. The increasing and ongoing waves of reform call for new and innovative elements of leadership and yet scarcely any attention has been given to superintendent leadership throughout these waves of change.

The National Commission on Excellence in Education led by Secretary of Education Terrell Bell produced *A Nation at Risk* in 1983. With the release of this document the federal government propelled itself into the national education spotlight. *A Nation at Risk* report indicated that the federal government has the fundamental responsibility to identify the national interest in education. The report also warned that the educational fundamentals of our society are being worn down by a rising tide of mediocrity that endangers the very future as a nation and as a people. The report emphasized both the need for higher standards and improved content. It suggests that the way to improve American education is by establishing high academic standards for students' achievement and measuring progress towards achievement through the use of standardized tests.

The United States Department of Labor's Secretary's Commission on Achieving Necessary Skills (SCANS) specified the skills and competencies that every person needs in today's school and workplaces in 1991. The commission stressed the importance of these skills and competencies in order for the United States to preserve a competitive economy. SCANS emphasized that high-performance workers needed to show comprehensive command of the following three fundamental skills: basic skills, thinking skills, and personal qualities. Based on these skills, workers and students needed to be able to exhibit the following competencies: resources, interpersonal skills, information,

systems, and technology. The report instructed schools to integrate these competencies into school curricula from kindergarten to twelfth grade as well as into workplaces.

During the 1990s, the federal government and the state governments worked together to issue two documents focused on addressing weaknesses in public schools by focusing on national targets that would be attained by the end of the decade. In *America 2000* (1991) the National Governors Association and President George H. W. Busch combined to issue a set of six educational goals. These goals included all children in America starting school ready to learn, the high school graduation rate increasing to at least 90%, American students leaving grades four, eight, and twelve having demonstrated competencies in challenging subject matter including English, mathematics, science, history, and geography, United States students becoming first in the world in science and math achievement, every adult American becoming literate and possessing the knowledge and skills necessary to compete in a global economy, and every school in America becoming free of drugs and violence and offering a disciplined environment conducive to learning (p.19). In the second document, *Goals 2000* (Educate America Act, 1994), the nation's governors partnered with President William J. Clinton to add two more goals to the original list of six. The additional goals were increasing parental involvement in education and creating and implementing programs for improving the professional education of teachers.

The push for education reform by the federal government continued with the *No Child Left Behind Act of 2001* (2002). *No Child Left Behind* required all states to institute annual reading and mathematics tests for all students in grades 3-8 and 11. Tests must be administered to at least 95% of all students enrolled in a given grade level. This

legislation also mandates that every school and district in the country must demonstrate adequate yearly progress each school year and that every child must obtain proficiency in every test by 2013-2014. Schools and districts set adequate yearly progress targets annually on their way to 100% proficiency. If a school or district fails to meet the targets for two consecutive years, they are categorized as in need of improvement. In addition to these mandates, the law requires that every classroom in the country must have a highly qualified teacher.

In June 2010, South Carolina became the sixteenth state to become a member of the Partnership for 21st Century Skills State Leadership Initiative. The national initiative encourages the teaching and learning of 21st century skills. Twenty-first century skills have been identified by business leaders as those skills necessary for young people to live and work in today's highly competitive, global economy. They include skills such as critical thinking, problem solving, communication, leadership, and technology literacy. In becoming a Partnership State, South Carolina made the commitment to provide the leadership and services required to ensure a system of public education in which all students will become educated, responsible and productive citizens.

South Carolina also joined the Common Core State Standards Initiative (CCSS) in 2010. The State Board of Education and the Education Oversight Committee (EOC) approved the use of the Common Core State Standards as South Carolina's Academic Standards for K-12 English language arts and mathematics. The CCSS Initiative is a voluntary, state-led initiative to develop common standards in K–12 English language arts and Mathematics. The initiative is led by the Council of Chief State School Officers (CCSSO) and the National Governors' Association Center for Best Practices (NGA

Center). The initiative focuses primarily on Math and ELA standards, includes rigorous content and a focus on the application of knowledge as a true measure of understanding. The guiding principles were to create fewer, higher, and clearer standards that draw upon the best practices and standards of leading states and countries and prepare students for college and career. In addition, the principles are research and evidence based and include an emphasis on knowledge and skills.

To date, mandated school reform initiatives have been unsuccessful at improving schools and increasing the organizational capacity that is required to support innovation. Seymour Sarason (1990) asserts that the history of reform is brimming with examples of interventions that either failed or had unfavorable effects, declaring that the road to hell is paved with good intentions. The United States is decades into the reform movement; however, more than 1.1 million high school seniors failed to graduate in 2009, according to a study conducted by the Editorial Projects in Education (EPE) Research Center. This information is featured in the *Diplomas Count 2012: Trailing Behind, Moving Forward,* a report which provides a comprehensive review of high school graduation rates for every U.S. state and district.

Christopher Swanson, Director of the EPE Research Center argues that the nation and several states face difficult challenges in graduating students from high school. These challenges disproportionately affect poor, minority, and urban students. With the graduation rate rising less than one percentage point annually in recent years, there is still much work to do (Diploma Count 2012). This is just one of the numerous indicators that attempts to reform have mostly been unsuccessful. Fullan (2007) asserts that widely spread experiments are now emerging in many places as policymakers realize that

virtually all strategies over the past decades have failed to achieve needed innovations. Integrated high stake accountability practices have failed to produce ownership as has reorganized site-based management. Fullan (2007) suggests that the government must go beyond standards and accountability and concentrate on capacity building linked to results, which engages all levels of the system.

Clay Christensen et al. (2008), in *Disrupting Class,* insist that people can and should believe that transformation of the public school system is possible, as a theory of disruptive innovation reveals that in fact the public school system has demonstrated some improvement over time, however, it has not been able to keep pace with the changing definition of excellence, shifting landscapes and globalization. In *Leading the Revolution*, Hamel (2002) addresses this kind of incremental progression as an industrial age accomplishment and in our age of transformation he suggests discontinuous innovation as the only answer. Christensen et al. (2008) contend that by making school fundamentally stimulating and assisting our children to maximize their individual potential through disruptive innovation, our highest hopes for our schools can be realized. Reform, reorganization, remodeling or re-anything, for that matter, has not and will not be sufficient for the task. Innovation and transformation are the solution to realizing our high hopes for the schools of the future.

Organizational Change

One of the most basic realities of life is that change happens. It isn't good, it isn't bad, it just is and always will be (McDermott & Sexton, 2004). The Greek philosopher Heraclitus is famous for his assertion that change is ever-present in the universe. He is

best known for his concept of panta rhei—No man ever steps into the same river twice (DeBrabandere, 2005). If an organization is not in tune with this concept, it will wither and die. There are a variety of ways that change can be described; planned, unplanned, incremental or radical, proactive or reactive, and recurrent. Change is typically concerned with smaller adjustments or modifications to things that already exist. John Adair (2007) asserts that all innovations are considered changes but not all changes are innovations.

Restructuring, reengineering, or reinventing are all change in the first order; they do not indicate innovation. Kanter (1997) contends that concepts such as reinvention, reengineering and restructuring are ultimately high-cost means to move an organization in a different direction, even when they only yield short-term gains. Reengineering, reinventing, reform, or re-"anything" would be classified as a first-order change and not an innovation (Kanter, 1997). Van de Ven and Poole (2004) asserted that change and innovation may well fit into the category of fundamentally disputed notions for which no generally agreed upon definitions can be acquired. Despite not having generally agreed upon definitions, reform is not innovation. Adair (2007) declares that to innovate is not to reform; reform addresses improvement through the modification of existing programs and processes while innovation does so by introducing entirely new methods and practices. Far too often, reform or change efforts are designed to address problems in the past rather than innovative efforts to cultivate assets and organizational performance focused on the future (Kanter, 1997).

Organizational change is often influenced by external demands, but can also be set in motion by the internal needs of an organization (Johansson & Heide, 2008). In most instances, the stimulus for change is likely to be a combination of external and

internal pressures attempting to adjust the way work is done and the expected outcomes (Vakola & Nikolaou, 2005). Commonly, organizational change is considered a macro-level process, focusing on the entire organization as the object in need of reform (Elias, 2009). This perspective disregards the vital role that change agents and change recipients play in the implementation of effective organizational change (Ford, Ford, & D'Amelio, 2008).

Organizational change theory offers useful foundational information for managers in the public and private sector engaging in the change process (Andrews, Cameron, & Harris, 2008). Regrettably, the change process has proven to be more problematic for the public than the private sector (Doyle, Claydon, & Buchanen, 2000). The problems associated with the change process in the public sector can be attributed to the climate of public policy, which has a tendency to rely on top-down management involving threats for failure, inflexible timelines, limited planning, and failure to consider the logistical and legal pressures that will influence the change process (Doyle et al., 2000).

Organizational change usually falls into two wide-ranging categories. The first is transformational change, which is particularly disruptive in its tactics of challenging the paradigm and mind-sets of those working within an organization (Gilley, Gilley, & McMillan, 2009). Transformational change has the potential to lead to enhanced competitiveness and differentiation of service within a marketplace, when executed well (Gilley et al., 2009). The second type of change is developmental change. Organizations that take part in developmental change have a tendency to frequently modify current practices through timely evaluation of internal and external pressures (Gilley et al., 2009). Change of this nature is much less disruptive and tends to result in higher levels of

intrinsic motivation, growth, and development in individuals as well as in the organization (Gilley & Maycunich, 2000).

Researchers continually emphasize that leadership practice significantly impacts the success or failure of organizational change (Battilana, Gilmartin, Sengul, Pache, & Alexander, 2010; Fernandez & Rainey, 2006; Ford et al., 2008; Gilley et al., 2009; Johansson & Heide, 2008). Battilana et al. (2010) asserts that the execution of planned organizational change has three elements; they are communicating the imperative for change, organizing others in support, and evaluating implementation. These fundamental categories offer a basis for examining how leader performance impacts the change process.

To communicate the necessity for change requires leaders to generate a sense of urgency, motivation, and readiness. In order to inspire confidence in future possibilities, the communication must be frequent and enthusiastic (Gilley et al., 2009). Organizing others in support of change helps to cultivate collaboration, which has been shown to improve the probability of organizational change success (Sims, 2002). Involving all stakeholders in the creation of the change plan tends to increase commitment and creativity as a result of individuals having a vested interest in the process (Gilley et al. 2009).

In many cases, leaders fail to evaluate change implementation as a part of the organizational change process (Andrews et al., 2008). This oversight likely has an effect on the rapid departure from reform efforts that, at first glance, appear to have failed. Instead of giving up on the change effort after undesirable outcomes, leaders should

function as advocates for reflection and adjustment, attributes that serve to stimulate the process (Andrews et al., 2008).

There are many challenges that exist for leaders in working with reform agents to cultivate the change process. Leaders must grapple with employee attitudes and employee commitment to change (Elias, 2009). When employees have favorable attitudes towards the change process, they tend to behave in focused, determined, and purposeful ways that support success. However, when employees do not possess this level of commitment or resist the change process, little is achieved and change remains insignificant (Elias, 2009).

Resistance to change cannot always be attributed to issues related to the employees. In many cases, the resistance can actually result from a failure on the part of leadership to effectively initiate and support change (Ford et al., 2008). Theoretically, this resistance can candidly offer an important perspective that can be used to provide valuable feedback. This feedback could improve the implementation and commitment of employees when confronted in meaningful and collaborative ways by leaders (Ford et al., 2008).

The world is ever changing and the rate at which change is occurring is not likely to slow down. If anything, globalized competition in most areas will probably cause the rate of change to speed up over the next few decades. Typically, conventional organizations have not operated well in this rapidly changing environment. Their structure, systems, practices, and culture have often been more of a strain on change than a catalyst (Senge et al., 2000). To date, major reform initiatives have helped many organizations acclimate to these rapidly changing conditions. However, in far too many

situations, the improvements have been unsatisfactory. Kotter (1996) noted that some of the most common errors that have caused much of the disappointment are allowing too much complacency, failing to create a sufficiently powerful guiding coalition, underestimating the power of vision, permitting obstacles to block the new vision, failing to create short-term wins, and neglecting to anchor changes firmly in the corporate culture (p. 16). Neither of these errors would be detrimental in a slower-moving and less competitive world. However, moving gradually and deliberate is no longer the norm.

Making any of the errors common to reform efforts can have severe consequences in interfering with the new initiatives, generating unnecessary resistance, discouraging employees, and sometimes completely quashing needed change (Kotter, 1996). Any of these errors could cause an organization to be unsuccessful at achieving the desired results. However, these errors are not inevitable. Kotter (1996) asserted that the answer lies in understanding why organizations resist needed change, what exactly is the process that can overcome the destructive indifference and, most of all, how the leadership that is needed to guide that process in an encouraging way means more than good management.

In the book *Good to Great*, Jim Collins (2001) examined various companies to uncover the extraordinary characteristics that cause companies to go from good to great. Over a five year period, he analyzed 28 companies. Collins (2001) determined that these companies had a particular kind of leader, they selected team members carefully, they had a vision, they are skilled in more than a one area, discipline was very important, they utilized technology to accelerate them to greatness, and radical transformation programs did not foster greatness (pp. 12-14). He presented the research to allow us to believe that the right type of leadership, philosophy, and performance can achieve greatness. Collins

(2001) stated, “Good is the enemy of great. And that is one of the key reasons why we have so little that become great. We don’t have great schools principally because we have good schools…Few people attain great lives, in large part because it is just so easy to settle for a good life” (p. 1).

Organizational Capacity

Capacity building can be defined as an action-based and powerful policy or strategy that increases the collective efficacy of a group to improve student learning through new knowledge, enhanced resources, and greater motivation on the part of people working individually and together (Fullan, 2006). The emphasis on capacity building at the early stages is consistent with the information that exists about how people change. In order to acquire new attitudes and higher expectations people must be exposed to new experiences that lead them to different beliefs (Fullan, 2006). Fullan (2008) expressed that capacity building involves competencies, resources, and motivation. Individuals and groups are high in capacity if they possess and continue to develop knowledge and skills, if they attract and use resources wisely, and if they are committed to putting in the energy to get important things done collectively and continuously.

Superintendents must commit to building capacity within their districts and schools if student achievement and school reform is to be successful (Rorrer et al., 2008). Left without support from the district office, isolated pockets of successful schools will continue and student achievement reform as a whole will fail (Togneri & Anderson, 2003). If schools had the capacity to improve on their own then wide scale reform would be unnecessary (Elmore, 2002). Consequently, school districts must take steps to identify needs and to facilitate growth in professional practice.

Building organizational capacity is an ongoing process and should be at the center of an organization's mission. Fullan (2007) asserted that capacity building is a system of guiding and directing people's work, which is carried out in a highly collaborative professional learning environment. The system's policies need to be aligned to reduce distractions and coordinate resources for continuous improvement. In most cases, this proves to be extremely difficult, but failure to do it means that a system will continue to have small scale successes that even in the best cases have little likelihood of lasting (p. 57).

The methodology or the design associated with organizational capacity is never the central issue. The issue involves changing the behavior of people. All change solutions also face the too-tight, too-loose dilemma. The solution to motivating people is to establish the right blend of tightness and looseness (Fullan, 2008). Hersey, Blanchard, and Johnson (2008) contended that the study of motivation and behavior requires a search for answers to questions about human nature. Organizations must recognize the importance of the human element in any change effort. Every person has a unique combination of needs, all of which are competing. No two people have exactly the same combination. One person may be driven by achievement while another may be influenced by the need for security. Leaders must know their people to understand what motivates them. Hersey, Blanchard and Johnson (2008) promoted the study of the behavioral sciences to increase a leader's ability to understand, predict, and control people individually and in groups.

Leadership and Managing Change

When it comes to innovating, leadership matters. Innovation takes place and flourishes in an environment where people have a sense of belonging to an organization with high-quality leadership (Bennett & Tibbitts, 1986). Leaders who are advocates for innovation promotes, encourages, urges, supports, and guides the innovation in their organizations. These leaders take responsibility for facilitating the collaboration that is required inside and outside of the organization for innovation to be successful. These caretakers of innovation recognize the skills and resources of collaborators, both internal and external, and work to create the desirable atmosphere at the right time for the best possible results. In *The Tipping Point: How Little Things Can Make a Big Difference*, Gladwell (2000) describes three roles that leaders of innovation should be able to function as to be successful: *mavens* have deep knowledge and are passionate about sharing, *salesmen* influence others to take action, and *connectors* have strong relationships across many functions and fields with many people.

The most effective leaders will be people who use their influences to achieve the desired results (Hersey, Blanchard, and Johnson, 2008). Leadership, change, implementation, and results will be the operational terms used in today's new globalized world. These terms will become the principal influences on an organization's environment, significantly affecting the leadership of effective organizations (Hersey, Blanchard, and Johnson, 2008).

Research has been conducted to examine whether or not there are gender differences in leadership. Until recently, leadership positions have predominantly been held by men and men were consequently stereotyped to be more effective leaders.

Globally, women experience particular challenges when aspiring for leadership positions and assuming leadership roles. These specific challenges are double burden, confidence, and a disadvantage from perceptions and stereotypes (Patel & Buiting, 2013). In general, men are described as more confident than women, especially regarding financial decisions. Women's lower confidence, especially regarding financial matters, is also reflected in the fact that businesswomen generally report lower levels of profitability (Patel & Buiting, 2013).

Leadership is centered around social interactions between leaders and their peers, supervisors, and subordinates. These interactions are, by nature, influenced by intra-psychic processes, including gender-role orientation and the attitudes and values related to these roles (Merchant, 2012). One of the principal components that influence leadership style is the social interaction or relationships between a leader and his or her followers. These interactions are where men and women differ greatly in their leadership approaches. Primarily, women, by nature of their communication style, value workplace relationships more than men. This suggests that female leaders may foster closer bonds with their followers than male leaders. Conversely, men's status and power-oriented communication style projects a more controlling authoritative leadership approach (Merchant, 2012).

Leaders must become aware of each situation and be able to use the leadership style appropriate to that situation. Hersey, Blanchard, and Johnson (2008) assert that the pace of technical, social, economic, and potential change has quickened in the past few decades. This accelerated pace has made it an exceptionally exciting period for understanding and practicing leadership. There is a growing awareness that the success of

our organizations directly dependent upon the ability to effectively lead people (Hersey, Blanchard, and Johnson, 2008).

Virtually all the extreme, extensive, and insistent problems we face in our lives can be solved. These problems can be solved because they do not call for solutions that encroach upon the laws of nature; they only require leaders to behave differently (Patterson, Grenny, Maxfield, McMillian, and Switzler, 2008). The findings made by most influence experts are that a great deal of influence comes from leaders focusing on just a few essential behaviors. Even the most widespread problems will often yield changes if a few high leverage behaviors are at work. Individuals will make an effort to change behavior if they believe it will be beneficial and they can do what is required. It is vital that the individuals experience the benefits of the proposed behavior for themselves (Patterson, Grenny, Maxfield, McMillian, and Switzler, 2008).

Even the U.S. armed services, institutions that most would say are mulish and firmly immersed in hierarchy and established past practice, have begun to see the need for innovative leadership. An August 2005 report states, “The change in mindset required is adoption of the ‘culture of innovation’… [and] soldiers and leaders who demonstrate agility (adaptability, innovation and learning)” (Gehler, 2005, p. 5).

Fullan (2001), in *Leading in a Culture of Change*, explained that two things have become apparent that aid in the study of effective leadership. The knowledge base has broadened and many more successful models of transformations, in both business and education, are available. Institutions are beginning to understand that new ideas, knowledge creation, and sharing are critical in responding to a changing society. Fullan (2001) pinpointed five elements that leaders should take into account in order to lead

successful change initiatives: moral purpose, understanding change, developing relationships, knowledge building, and coherence building. “Clearly these are exciting times---there is a lot going on. Not the least of these developments is the new realization that leadership is the key to large scale improvement yet must be radically different than it has been” (p. xii).

Marzano, Waters, and McNulty (2005) conducted a factor analysis to determine why innovations are unsuccessful. They concluded that the leadership supporting an innovation must be consistent. If leadership practices do not correspond with the type of change required, the innovation will almost certainly fail. Some innovations require changes that are gradual and delicate; others require changes that are radical and dramatic. First order change occurs in stages. It involves adjustments within the existing structure, no new learning is required, and is considered non-transformational. It is usually thought of as the most apparent next step to take in a school or district. Second order change occurs in an abrupt fashion. It involves a new way of seeing things, requires new learning, and necessitates transformation to do something significantly or fundamentally different from what has been done before (Marzano, Waters, and McNulty, 2005).

The common response is to address all problems as though they were first-order change issues. People tend to consider new problems from the perspective of their experiences, as issues that can be solved using their previous repertoire of solutions. This tendency is explained in terms of “mental maps” (Marzano, Waters, and McNulty, 2005). Individuals and organizations have mental maps regarding how to act in situations. When faced with a new situation, they consult one or more of their mental maps. From a

reactive-responsive predisposition, this concept is very appealing because with this concept, individuals and organizations would hypothetically be prepared to respond appropriately to any situation. However, using this concept would prepare an individual or organization for situations that are familiar and predictable at best. Regrettably, answers to most chronic modern-day problems require a second-order perspective (Marzano, Waters, and McNulty, 2005).

Conversely, undertaking a second-order change is never a simple task. Second-order change is so complex that it should not be proposed without extensive research and it should not be attempted apprehensively (Fullan, 2001). There are seven priorities that leaders should have when engaging in second-order change initiatives. These priorities include being knowledgeable about how the innovation will affect curricular, instructional, and assessment practices, being the driving force behind the new innovation, being knowledgeable about the research and theory regarding the innovation, challenging the status quo and being willing to move forward on the innovation without a guarantee of success, continually monitoring the impact of the innovation, being both directive and non-directive relative to the innovation as the situation warrants, and operating in a manner consistent with his or her ideals and beliefs relative to the innovation (Marzano, Waters, and McNulty (2005).

Marzano, Waters, and McNulty (2005) also concluded that some of the leadership responsibilities that they identified are negatively affected by second-order change. These responsibilities are culture, communication, order, and input. Second-order change has the greatest negative affect on culture. The leader must work to create a sense of unity and teamwork as well as watch for any destabilization of the culture as a result of the

innovation. Communication can also destabilize as a result of the innovation. To prevent this, leaders must keep clear lines of communication open both to and from those affected by the innovation. Second-order change initiatives can also cause a deterioration of order. Leaders need to establish procedures and routines to offer a sense of structure and consistency to maintain order during the second-order change. New innovations affect the level of input experienced by all. The leader must strive to include all those involved as much as possible to create a sense of inclusion during the implementation the new innovation.

The solution to creating and maintaining a successful twenty-first century organization is effective leadership (Kotter, 1996). Having a good executive in charge is sufficient to be successful in a slow-moving, isolated environment. However, in today's fast paced globalized atmosphere, teamwork is extremely important and invaluable in virtually every situation. In an environment of constant change, no one person, even the most knowledgeable and talented will not have enough time or expertise to properly grasp all the rapidly shifting competitor, customer and technological information involved (Kotter, 1996). The shortage of a sufficient amount of leaders has an extremely negative affect on the vision, communication and confidence-building that is central to any transformation effort.

In the current political climate of accountability and educational reform, superintendents not only strive to follow their district's vision and increase student achievement but they must also negotiate the politics of the position in order to maintain their employment. Unsuccessful attempts to navigate the political rapids cause rapid turnover in many cases. The leadership provided by superintendents has less impact when

there is rapid turnover in the superintendent's office (Pascopella, 2011). Superintendent turnover creates an insecure atmosphere that lacks consistency in instructional initiatives and overall supervision. In the majority of instances, even three years in the superintendency is inadequate to guide any successful transformation effort (Pascopella, 2011).

Collected works by such authors as Howard Gardner, Jennifer James, James Canton, and Daniel Pinks all address issues related to the future, future trends, future thinking, and skills and competencies necessary to be successful in the changing world. In *Five Minds for the Future*, Gardner (2007) indicates that to flourish in the world to come people will need to develop disciplined, synthesizing, creating, respectful, and ethical minds. Daniel Pinks (2005) supposes that those who desire to prosper in the emerging new world will need to acquire six essential aptitudes: design, story, symphony, empathy, play, and meaning. In her work, James (1996) speaks of eight essential skills to think future tense: perspective, pattern recognition, cultural knowledge, flexibility, vision, energy, intelligence, and global values. James believes these create the principal foundation to seeing, comprehending, and adapting to change and that they are critical for anyone in leadership positions. In *Extreme Future*, Canton (2007) connects the future of America to people's ability to pay proper attention to education, immigration, the environment, security, leadership, and other significant objectives.

Diffusion of Innovations

Innovation is the concept of establishing new paradigms through solutions that meet new requirements and includes implementation of new standards. The term may refer to both radical and incremental changes to products, processes or services. Adair

(2007) asserts that creation, invention, and discovery focus on the conception of the idea; innovation covers the whole process whereby the new idea is cultivated into practical use. O'Hare (1988) broadly described innovation as new ways of generating customer approval. McDermott and Sexton (2004) consider innovation to be the value-added function of a creative idea. Further insight into innovation suggests that innovation is a positive term and is usually taken on faith as being hopeful until after the fact of implementation (Kanter, 1991).

There are several prominent characteristics that are associated with innovation. Innovation indicates change to the organization, is a total process, is systematic, comes in different types and categories, does not acknowledge impossible, challenges the status quo, is not imitation, carries an degree of risk, and is a human process engineered by humans (Bennett and Tibbitts, 1986). Management expert Peter Drucker believes that being able to put an innovation into practice is one of the greatest leadership challenges; he further contends that innovation is revolution that gives rise to a new dimension of performance (Hesselbein et al., 2002). Transforming an organization is inherently innovative. According to Duffy (2004), transforming an organization requires seven vital elements: triggered by disruptions (discontinuities), is systemic and revolutionary, requires a new organization paradigm, is driven by senior and line managers, requires innovation and learning, requires reshaping of the organization's culture, and requires courageous, passionate and visionary leaders.

The history of innovation has shown that, in many cases, it takes far too long for proven concepts and programs to become a part of practice. One of the best examples of this concept was the recognition that, although citrus juice was shown effective in

preventing scurvy in 1601, the British merchant navy did not begin using citrus juice as a part of sailors' shipboard diets until 1795, nearly two hundred years later (Oldenburg & Glanz, 2008). The process of adopting new innovations has been studied for over 30 years. One of the most established adoption models is rationalized by Everett Rogers in his book *Diffusion of Innovations* (2003). According to Sahin (2006), Rogers' diffusion of innovations theory is the most suitable for scrutinizing the adoption of technology and innovations in educational environments. Rogers initially published his theory of diffusion of innovation in 1962. He has subsequently updated and changed his theory several times and has published the most recent edition (5^{th} edition) in 2003.

Diffusion is the process by which an innovation is conveyed through particular channels over time among members of a social system. The primary factors in the diffusion of new concepts are the innovation, a communication channel, time, and members of the system (Rogers, 2003). An innovation is a concept, practice, or object perceived as new by an individual or other unit of adoption. The rate of adoption is determined by the characteristics of an innovation. The characteristics associated with innovations are relative advantage, compatibility, complexity, trialability, and observability. A communication channel is the means by which messages get from one individual to another (Rogers, 2003). The innovation-decision process, innovativeness, and the innovation's rate of adoption are all factors of the diffusion process associated with time. Innovativeness is the extent to which an individual or other unit of adoption is comparatively earlier in adopting new ideas than other members. A social system is a group of interrelated units that are engaged in cooperative problem solving to achieve a common goal (Rogers, 2003).

The number of education diffusion studies has increased over time, beginning with 23 in 1961 and 359 in 1994. Since that time, the number of educational diffusion publications has slowed (Rogers, 2003). A number of different types of diffusion analysis have been identified. These include the earliness of knowing about an innovation by members of a social system, the rate of adoption of different innovations in a social system, the innovativeness of members of a social system (individuals or organizations), opinion leadership in diffusing innovations, diffusion networks, the rate of adoption of innovations in different social systems, communication channel use, and the consequences of an innovation (Rogers, 2003).

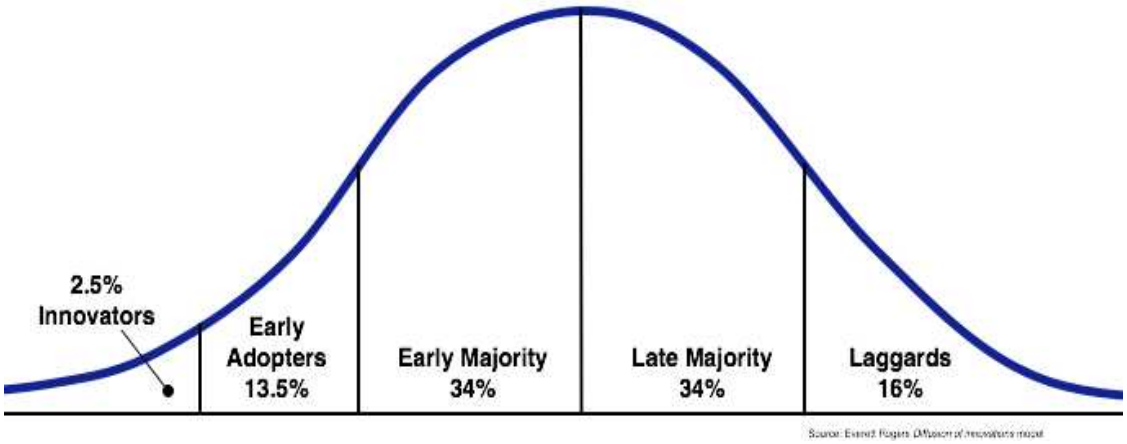
To a large extent, the most popular diffusion research topic has been to study variables related to individual and organizational innovativeness. Approximately two-thirds of all the empirical generalizations disseminated in diffusion publications examine innovativeness (Rogers, 2003). Because schools as organizations are involved in the adoption of educational innovations, education research practice can, theoretically, make valuable contributions to diffusion research. The majority of teachers and administrators are engaged in collaborative and/or authority innovation decisions. Schools are organizations and so organizational constructs are unsurprisingly involved in educational adoption decisions (Rogers, 2003).

Individual Innovativeness

An innovation within a social system is almost never adopted by all individuals at the same time (Rogers, 2003). This makes it extremely important to categorize each individual adopter in a system in terms of his or her time of adoption. Adopter categories are used as the classification systems for members of a system on the basis of their

innovativeness. Each adopter category is made up of individuals with a comparable degree of innovativeness (Rogers, 2003). More is known about innovativeness than about any other concept in diffusion research. Increased innovativeness is a key objective of numerous change agencies and it has become the primary dependent variable in diffusion research. Innovativeness is the explicit, fundamental behavior change in the diffusion process.

The theory of individual innovativeness is based upon which individuals adopts the innovation and when. A bell shaped curve is frequently used to illustrate the percentage of individuals that adopt an innovation.



Adopter Categorization on the Basis of Innovativeness (Source: Diffusion of Innovations, fifth edition by Everett M. Rogers. Copyright (c) 2003 by The Free Press. Reprinted with permission of the Free Press: A Division of Simon & Schuster.)

Figure 2.1: Rogers' Diffusion of Innovation

The first group of adopters is innovators (2.5%); innovators are the risk-takers and trailblazers who lead the way. The second group is known as the early adopters (13.5%); early adopters embrace the innovation early and help spread the word about the

innovation to others. The third group is the early majority (34%); the early majority adopts new ideas just before the average member of a system and are influenced by the innovators and early adopters. The next group of adopters is the late majority (34%); the late majority approach innovation with a skeptical and guarded manner and do not adopt until most others in their system have done so. The final group is the laggards (16%); laggards tend to be suspicious of innovations and change agents and resist adopting until absolutely necessary. In many cases, they never adopt the innovation (Rogers, 2003).

Earlier research has shown several important differences that exist between earlier and later adopters of innovations. Comparatively, there appears to be no significant difference in age between earlier and later adopters in a social system; however, they have more years of formal education, are more likely literate, have a higher degree of upward social mobility, and larger-sized units, such as farms, companies, schools, and so on. Earlier adopters have a generally higher socioeconomic status than do later adopters (Rogers, 2003).

Rogers (2003) also found that adopter categories are different in their communication behaviors. Earlier adopter categories tend to have more social participation, are typically more connected to the interpersonal networks of their system, have more contacts with change agents, have greater exposure to interpersonal communication channels, engage in more active information seeking, have a more profound knowledge of innovations, and a higher degree of opinion leadership than do later adopters.

Organizational Innovativeness

Research related to the diffusion of innovation began with the analysis of individual decision makers, primarily farmers. The research was later broadened to include teachers; however, the early studies did not take into consideration that teachers function as a part of a school organization (Rogers, 2003). Organizations are made up of alliances of individuals who work together to achieve common goals. They also have an established hierarchy of leadership and a specified division of labor. Considering the fundamentally stable nature of an organization it would seem that the adoption of an innovation would be uncommon. However, innovation takes place on a regular basis in most organizations (Rogers, 2003). In organizations such as schools, farms, companies, and health care settings the effective application of an innovation may involve the initiation of particular programs or services, changes in policies or regulations, and changes in the roles and functions of specific personnel (Glanz, Rimer, & Viswanath, 2008).

A great deal of emphasis on the diffusion of innovations had been placed on studying individuals. However, organizations adopt numerous innovations on a regular basis. The characteristics of more or less innovative organizations are identified using diffusion studies of organizational innovativeness (Rogers, 2003). For instance, larger-sized organizations have typically been found to be more innovative. Several independent variables such as individual leader characteristics, internal organization structural characteristics, and external characteristics of organizations have been found to be linked to organizational innovativeness.

These organizational studies provide a fundamental understanding of the landscape of the innovative process and human behavior as organizations change

(Rogers, 2003). However, organizational innovativeness studies have one weakness that should be mentioned; these studies are subject to the accuracy of the data provided by the organization. Given that data are customarily provided by the chief executive officer there is no way to determine if the data characterize the entire organization (Rogers, 2003). Despite this issue, much useful knowledge has been acquired from the organizational innovativeness studies, and a number of contemporary studies are still being carried out today (Rogers, 2003).

Innovation Behaviors

Organizations adopt some innovations quickly and proceed to comprehensive implementation while other innovations take a considerably longer to time to adopt and never arrive at comprehensive implementation. Many diffusion research studies have examined adopters of innovations but far fewer studies have been devoted to exploring how particular organizational behaviors affect the rate of adoption. This research approach can be useful in predicting organizational responses to innovations. These responses can then be adapted and customized to help increase the rate of adoption (Rogers, 2003).

Critical to the diffusion of innovations model is the concept of the perceived attributes or innovation behaviors. Rogers's theory of perceived attributes (innovation behaviors) described the relationship between five perceived attributes of an innovation—relative advantage, compatibility, trialability, observability, and complexity—and the adoption and implementation of innovations in various organizations, fields, and socioeconomic classes (Rogers, 2003). The theory is based

upon the concept that individuals or organizations will adopt an innovation if they perceive that the innovation exhibits the five attributes.

At the outset, the innovation must demonstrate some relative advantage over an existing innovation or the status quo. Relative advantage is the degree to which an innovation is perceived as better than the concept it take the place of. The degree of relative advantage may be assessed in economic terms, but social prestige, convenience, and satisfaction are also significant elements to be taken into consideration. The objective advantage of an innovation does not matter a great deal. What does matter is whether an individual perceives the innovation to be beneficial. The more profound the perceived relative advantage of an innovation, the more swift its rate of adoption will be (Rogers, 2003).

It is essential that the innovation be compatible with existing values and practices. Compatibility is the degree to which an innovation is perceived as being on a par with the existing values, past experiences, and needs of potential adopters. A concept that is incompatible with the values and norms of a social system will not be adopted as swiftly as an innovation that is compatible. The adoption of an incompatible innovation generally requires the previous adoption of a new value system, which is a comparatively sluggish process (Rogers, 2003).

To increase the likelihood of adoption, the innovation cannot be too complex. Complexity is the degree to which an innovation is perceived as difficult to understand and apply. A number of innovations are readily understood by most members of a social system; others are more complex and will be adopted more slowly. New concepts that are

easier to understand are adopted more swiftly than innovations that call for the adopter to acquire new skills and understandings (Rogers, 2003).

For an innovation to stand a serious chance at adoption, it must have trialability. Trialability is the degree to which an innovation may be experimented with on a limited basis. Innovative concepts that can be tested on the installment plan will generally be adopted more swiftly than innovations that are not divisible. An innovation that is trialable conveys less uncertainty to the individual who is considering it for adoption, who can learn by doing (Rogers, 2003).

Additionally, the innovation must produce observable results. Observability is the degree to which the results of an innovation are apparent to others. The easier it is for individuals to see the results of an innovation, the more they tend to adopt it. Such visibility encourages peer discussion of a new idea, as friends and neighbors of an adopter frequently request innovation-evaluation information about it (Rogers, 2003).

Research on Diffusion of Innovations

French sociologist Gabriel Tarde is credited with conducting the first diffusion research as early as 1903. Tarde attempted to discover an explanation as to why some innovations are adopted and disseminated, while others are disregarded. He introduced the original S-shaped diffusion curve. The S-shaped curve conceived by Tarde remains of current importance because the majority of innovations have an S-shaped rate of adoption (Rogers, 1983). The variance in the rate of adoption lies in the slope of the "S". A number of new innovations diffuse swiftly generating a steep S-curve; other innovations have a slower rate of adoption, generating a more gradual slope of the S-curve (Rogers, 1983).

Several decades later, Ryan and Gross (1943) published their influential study which described the diffusion of hybrid seed corn among a group of Iowa farmers. At the time of the study, U.S. farms were gradually being converted into business enterprises rather than family subsistence units. As corporations began to change agriculture into an industry, concerns with higher productivity, efficiency, competiveness, and agricultural innovations became a part of the business. Ryan and Gross sought to study the process in which innovations in agriculture were adopted. They discovered that diffusion was a social process through which subjective assessments of an innovation disseminated from earlier to later adopters rather than one of logical, economic decision making (Valente, 2010). The study incorporated each of the four key elements of diffusion: an innovation, communication channels, time, and a social system (Rogers, 2003).

Ryan and Gross (1943) also documented that the rate of adoption among those researched followed an S-curve when plotted on a cumulative basis over time. This reinforced the work of Tarde that was reported 40 years previously, and rekindled the interest in diffusion theory. In addition, Ryan and Gross (1943) classified the Iowa farmers into five adopter categories. These categories included: innovators, early adopters, early majority, late majority and laggards. Ryan and Gross (1943) determined that those famers most likely to adopt were more cosmopolite and belonged to a higher socioeconomic status than members of the other categories.

Paul Lazarsfeld and his colleagues introduced the two-step flow of communication hypothesis in 1944. The study focused on the 1940 presidential election, investigating one small city in Ohio. They discovered that the media had far less direct impact than expected, but that conversations among local residents about the election

were the greatest source of influence (Lazarsfeld, Berelson, & Gaudet, 1944). It was apparent that much of the information had originated in radio broadcasts or newspaper stories, but it had been received, interpreted, and shared through a network of local opinion leaders. These observations led to the development of the two-step communication model which contradicted the emerging notion that media had significant direct impact on individual thinking and behaviors (McQuail, 2005).

Katz and Lazarsfeld (1955) introduced the theoretical framework of concepts and ideas for understanding the influence of the media that was profoundly different from earlier thinking about the media. The emphasis of their framework was the notion of a two-step flow of communication that was initially discovered by Lazarsfeld and his colleagues in 1944 (Katz & Lazarsfeld, 1955). Contradictory to earlier beliefs that assumed a direct flow of information and influence from the media to mass audiences, the two-step flow concept proposed a transfer of information and ideas from the media to opinion leaders and from them to other people in their social network. In short, Katz and Lazarsfeld (1955) theorized that mass media communications influence people's knowledge, attitudes, and behaviors through the stimulation of interpersonal communication about the messages' content among friends and colleagues who make up their social networks.

Coleman et al. (1957) pioneered a landmark study on the diffusion of Tetracycline, which at the time was a newly introduced antibiotic. The study focused on the role of social networks in the diffusion of the antibiotic in four medical communities in the American Midwest during the mid-1950s. It is often credited with documenting innovation diffusion as a social process in which adoption is driven by social contagion (Rogers, 2003).

The results of the study suggested that the percentage of adoption of Tetracycline followed the S-curve, but the rate of Tetracycline adoption was faster than the rate of other innovations adoption. The researchers also noticed that doctors who were more cosmopolite were likely to adopt the new drug. One of the most significant findings was that doctors who had more interpersonal networks adopted the new drug more quickly than those that did not (Rogers, 2003).

Richard O. Carlson (1965) contributed a significant educational diffusion study examining the spread of modern math among school administrators. He analyzed the role of opinion leaders in diffusion networks, variables related to innovativeness, perceived characteristics of innovation and their rate of adoption, and the consequences of innovation. The study was most notable because of the insight that it offered into the diffusion networks through which modern math spread from school to school (Rogers, 2003).

He found that the initial adopters were too innovative to function as an appropriate role model. Most superintendents waited to adopt until the opinion leaders supported the innovation. Carlson's emphasis on interpersonal networks in diffusion represented a shift forward from Ryan and Gross' hybrid seed corn study, which did not seek to measure social relationships (Rogers, 2003).

Everett Rogers (1962) proposed that diffusion is a process by which an innovation is communicated through certain channels over time among the members of a social system. Rogers (1962) asserts that there are four main elements, working in conjunction with one another, which influence the spread of a new idea: the innovation, communication channels, time, and a social system. Rogers (1962) also identified five

categories of adopters: innovators, early adopters, early majority, late majority, and laggards. Rogers (1962) contends that the diffusion of innovations manifests itself in different ways in various cultures and fields and is highly subjective to the type of adopters and innovation-decision process.

Holloway (1977) was one of the first to do research on the attributes of innovation in education settings. He examined the perception of secondary school personnel, parents, and students on a collaborative program between Syracuse University and several New York secondary schools. The findings supported Rogers' categories of five attributes. In another related study (Holloway, 1977) with 100 high school principals, he found similar results. Likert-type scale items, which measured his respondents' perceptions of new educational ideas to derive the attributes, were factor-analyzed. The factor analysis established general support for the existing framework, although the distinction between relative advantage and compatibility lacked a clear differentiation and the status-conferring aspects of educational innovations emerged as a sixth dimension for predicting rate of adoption. (Holloway, 1977).

Studies Based on Rogers' Theory

Lowery (1994) completed a study to examine how collaboration could be successfully incorporated as an instructional strategy in a class of adult learners. He found that Rogers' diffusion of innovation model can be especially useful in understanding how to better promote an instructional innovation like that of collaboration. He offered a checklist of questions based upon the diffusion theory to prompt thought and discussion among students and teachers on how to promote the instructional innovations that they want to try.

Rogers' diffusion theory was used by Jacobsen (1998) to study the adoption patterns and characteristics of faculty who incorporate computer technology for teaching and learning in higher education. Both qualitative and quantitative methods were used to analyze the characteristics of early adopters and the difference between early adopters and mainstream faculty. The factors chosen to be investigated were patterns of computer use, computer expertise, generalized self-efficacy, participant information, teaching and learning changes, motivators to integrate technology for teaching and learning, impediments to integrating technology for teaching and learning, learning about technology, methods for using and integrating technology in teaching and learning, and evaluating the outcomes of using technology for teaching and learning.

Medlin (2001) used Rogers' diffusion of innovations theory to investigate the factors that might influence a faculty member's desire and decision to adopt new electronic technologies in classroom instruction. The findings were organized into three groups: social, organizational, and personal motivational factors. As social factors, friends, mentors, peer support, and students were recognized as being important predictors that may guide a faculty member's decision to adopt electronic technologies in the classroom. Organizational factors, including physical resource support and mandates from the university, also were statistically significant in projecting the faculty members' use of electronic technologies in the classroom. Personal interest in instructional technology, in the enrichment of teaching, and in boosting student learning were mentioned as three personal motivational variables that might affect faculty members' decision to adopt instructional technologies.

However, Medlin did not discover a significant difference between the self-identified adopter behavior categories based on Rogers' theory in terms of social, organizational, and personal motivational factors.

Rogers' diffusion of innovations theory was used by Less (2003) to examine faculty adoption of computer technology for instruction in the North Carolina Community College System in a quantitative research study. The faculty members were classified based on Rogers' five categories of innovation adoption and compared on demographic variables of age, gender, race/ethnicity, teaching experience, and highest degree attained. A significant relationship emerged between Rogers' adopter categories and their years of teaching experience and highest degree attained; however, the results did not indicate a noteworthy difference between faculty adopter categories and age, gender, and race/ethnicity. Less also categorized the faculty as users in any of Rogers' five categories and non-users of computer technology in instruction. No significant difference was found between users and non-users in demographic characteristics of age, gender, race/ethnicity, teaching experience and highest degree attained (Less, 2003).

Smith (2004) determined that Rogers' diffusion of innovation theory has been one of the most robust and powerful models promoted for more than four decades. He was examining models for social change. Smith (2004) contended that the five key principles of Rogers' diffusion theory have continually demonstrated dependability and should be part of any such attempted social change. The focus of Smith's work was to improve breastfeeding behaviors. Smith declared that the implementation stages specified by Rogers perfectly mirrored what happened during the breastfeeding promotion program.

A component of Rogers' theory of diffusion of innovations was used by Berger (2005) in a study examining adult literacy instructors' perceptions of the consequences of adopting the internet into their classrooms. The study provides information about the types of consequences they observed and their perceptions about the desirability, predictability, and directness of those consequences. Twenty instructors from six states were asked how they utilized the internet, what consequences they observed, and how they felt about those consequences. 60 changes were reported and of those, 56 were deemed desirable. They included students were empowered, the classroom become more collaborative, and instructors saw a change in their role to more of a facilitator. The most significant discovery was that while many of the consequences were desirable, less than half were anticipated (Berger, 2005).

Summary

Attempts to understand educational change have profited of late from the volume and diversity of researchers, policy makers, and practitioners who are working together to stimulate significant improvement in public schools. As a result, the wellspring of information related to change is becoming more substantial and available. Answers can be found in individuals, particularly in their interaction with others, to equip themselves with the knowledge of the change process, to take part in self-examining action, and to compare what they know against the information that is available in the literature on change. The most common behaviors required to bring about successful educational change have been identified as capacity building, learning in context, sustainability, and system leaders in action.

Changing the system requires the participation and commitment of leaders at all levels of the organization. Educational change is significant because it operates to strengthen a set of highly regarded principles and does so by bringing the best information to bear on issues that are critical to the success of the education system. An educational change effort works because when it motivates multitudes of change agents to find meaning in collaborative action to improve human kind (Fullan, 2007).

The leadership and direction that Superintendents provide is critical to districts undertaking innovation and reform efforts in a time of accountability for student achievement outcomes. The notion is that all students will be successful and that district offices are accountable for supporting student achievement (Sherman, 2008). Superintendents encounter numerous hurdles in the pursuit of student achievement reform and innovation (Fuller et al., 2003). However, superintendents can exercise the combined capability of the district's leadership to overcome the many obstacles that they and their districts face (Togneri & Anderson, 2003).

The call to build capacity in the areas of knowledge, resources, and motivation to produce viable educational change initiatives is becoming more essential. This can basically be described as capacity building with an emphasis on results (Fullan, 2007). To address these issues, more information is needed on the superintendent's specific leadership characteristics as well as the organizational characteristics and the attributes of the innovation implicated. The factors and principles identified by the literature are used in this study and the research builds on this understanding.

Chapter 2 contained a review of relevant literature and research related to school reform, organizational change, organizational capacity, managing change, and diffusion

of innovations. Chapter 3 outlines the methodology that was utilized to obtain information for analysis. The analysis of the data is presented in Chapter 4, with Chapter 5 devoted to a summary of the study and findings, conclusions from the study, a discussion, and recommendations for further study.

CHAPTER THREE

Methodology

Introduction

This chapter outlines the methodology and procedures that was used to conduct research relating to the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. This chapter includes: research questions, research design, population and sample, instrumentation, data collection procedures, data analysis procedures, and reliability and validity.

The purpose of this study was to examine the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. Specific characteristics of South Carolina public school superintendents and public school districts, including enrollment, poverty level, school report card grades, age, gender, and years of experience, were analyzed to determine individual superintendents' and their school districts' orientations toward innovation.

Research Questions

The following questions guided the study:

1. What are the perceptions of South Carolina public school superintendents regarding individual attitudes toward innovation and organizational attitudes toward innovation?

2. Is there a relationship between Individual attitudes toward innovation and organizational attitudes toward innovation?

3. Are differences in perceptions of South Carolina school district superintendents regarding innovations related to organizational variables including district enrollment, financial resources and ESEA grade?

4. Are differences in perceptions of South Carolina school district superintendents regarding innovation related to demographic factors including age, sex, and experience?

Research Design

A quantitative, non-experimental design was chosen for this study. Quantitative data was collected from practicing South Carolina public school superintendents through the use of a survey.

Population and Sample

Each of the 83 public school superintendents currently serving public school districts in South Carolina were the population considered in this study. The data and superintendent contact information for this inquiry was collected from the 2013 South Carolina Association of School Administrators (SCASA) superintendent list. The total number of public school district superintendents participating in this study is 43. Additionally, public domain information from the 2012 South Carolina Department of Education District Data files for all public school districts in South Carolina was examined.

Instrumentation

A survey instrument was used to acquire data for this study. The survey was based on James C. McCroskey's (2006) *Communication Research Measures: Individual Innovativeness and Organizational Innovativeness.* These are measures that have been developed by researchers who are, or at one time were, faculty members or graduate students at West Virginia University. They were developed for use by researchers and may be used for research or instructional purposes. The remainder of the survey related to individual superintendent demographics was supplemented by the researcher.

The Individual Innovativeness (II) instrument was first introduced by Hurt, Joseph, and Cook (1977). The scale is a measurement tool that determines the categories of innovativeness individuals belong to and identifies their level of innovativeness on the basis of self-reports (Hurt, Joseph & Cook, 1977). Based on the scores found out through the scale, individuals are found to fall into five different categories in terms of innovativeness: *Innovators, Early Adopters, Early Majority, Late Majority* and *Laggards.* Initially, the items of the scale were scored to define the creative and inventive individual through 53 items of seven-point Likert-type items as "*Strongly Agree*" and "*Strongly Disagree*". Later, the items of the scale were reduced to 20 and reorganized to the form of five-point Likert-type as a result of improvement studies. The internal reliability coefficient of the whole scale was found 0.89 and the split-half reliability coefficient was found 0.92 (Hurt, Joseph & Cook, 1977).

The Organizational Innovativeness (OI) instrument was first introduced by Hurt and Teigen (1977). They developed a direct measure of perceived organizational innovativeness that would permit the researcher to determine from employees their

perceptions of their organizations' willingness to change. Hurt and Teigen (1977) used teachers and administrators in the development of their instrument. After rigorous testing, the resulting scale 25 items worded negatively and positively using a 7-point Likert-type scale. Later, the items of the scale were reorganized to the form of five-point Likert-type as a result of improvement studies. They reported that the measure when used produced a range of 25 to 160 with higher score indicating a higher perceived organizational innovativeness. The maximum range was 25 to 175. The original normative group produced a mean score of 98 with a standard deviation of 28. The split-half reliability of the instrument was reported as .96 (Hurt and Teigen, 1977).

The survey was divided into three sections. Section one, questions 1-5, contained items related to demographic information about the public school district superintendents completing the survey. The superintendents were asked to complete statements regarding age, gender, and years of experience. Section two, questions 6-25, contained items related to public school district superintendents' perceptions of individual innovativeness. Section three, questions 26-50, contained items related to public school district superintendents' perceptions of organizational innovativeness.

Public school superintendents were asked to specify their level of agreement with each of the survey items in section two and three based on a five-point Likert scale. The scale included the options of "*Strongly Agree*" equaling five points, "*Agree*" equaling four points, "*Neutral*" equaling three points, "*Disagree*" equaling two points, and "*Strongly Disagree*" equaling one point. Based on the responses from questions 6-25 an Individual Innovativeness Score and adopter category was determined for each responding public school district superintendent. Based on responses from questions 26-

50 and Organizational Innovativeness Score and adopter category was determined for the district of each responding public school district superintendent.

Data Collection

Approval for data collection was obtained from the University of South Carolina Institutional Review Board (Appendix C). Data for the study was collected through a survey of all the public school district superintendents in South Carolina. Using the Survey Monkey online software, each superintendent received an email explaining the purpose of the study and to solicit their participation (Appendix A). The email document was comprised of a request for participation in the study and assurances of participant confidentiality. Instructions for completing the survey were also included. Completing the consent form by typing their name served as an electronic signature. After completing the consent form, superintendents were taken directly to the II and OI survey (Appendix B). The superintendents were given two weeks to respond after which time a follow-up email was sent to non-respondents as a reminder. When responses are received, the data was downloaded from Survey Monkey for analysis.

For research questions 1and 2, data was collected using sections two and three of the II and OI survey. For research question 3, data was collected using sections two and three of the II and OI survey as well as 2012 South Carolina District Data files and the 2013 Elementary and Secondary Education (ESEA) Wavier data. District enrollment was determined using the 2012 Report Card Performance file. The poverty levels of each district were determined using the School Report Card Poverty Index file. For research

question 4, data was gathered using all three sections of the II and OI survey in conjunction with the 2012 SCASA Superintendent List.

Table 3.1 provides information on variables, the type of data, and the statistics for analysis for each research question.

Table 3.1

Variable Matrix

Questions	**Variables**	**Source of Data**	**Statistics**
What are the perceptions of South Carolina public school superintendents regarding individual attitudes toward innovation and organizational attitudes toward innovation?	**Independent** South Carolina Superintendents **Dependent** Individual and Organizational Innovativeness survey scores	Individual and Organizational Innovativeness survey.	Mean Scores Standard Deviations
Is there a relationship between Individual attitudes toward innovation and organizational attitudes toward innovation?	**Independent** Individual Innovation **Dependent** Organizational Innovation	Individual and Organizational Innovativeness survey.	Pearson product-moment correlation coefficient (Pearson's r)
Are differences in perceptions of South Carolina school district superintendents regarding innovations related to organizational variables including district enrollment, financial resources and ESEA grade?	**Independent** Organizational data **Dependent** Perceptions of Superintendents	Individual and Organizational Innovativeness survey. South Carolina School Report Card and ESEA Waiver data.	Analysis of Variance (ANOVA) Unpaired t-tests

Table 3.1 continued

Are differences in perceptions of South Carolina school district superintendents regarding innovation related to demographic factors including age, sex, and experience?	**Independent** Demographic data **Dependent** Perceptions of Superintendents	Individual and Organizational Innovativeness survey. SCASA District Superintendent List	Unpaired t-tests

Purpose of the Study. This study examines superintendents' perceptions regarding individual and organizational attitudes towards innovation.

Data Analysis

Research Question 1: *What are the perceptions of South Carolina public school superintendents regarding individual attitudes toward innovation and organizational attitudes toward innovation?*

Survey items 6-50 were calculated based on the responses from South Carolina public school superintendents. Items 6-25 of the survey provided information on their perception of individual innovativeness. Items 26-50 of the survey provided information on their perception of organizational innovativeness for their school district. Descriptive statistics were used to summarize the data. Means were calculated to determine the central tendency and standard deviations were calculated to determine the dispersion of the data. The responses to the survey instrument were analyzed using MS Excel and SPSS version-19 statistical software. The .05 level of significance was used for all statistical analyses.

Research Question 2: *Is there a relationship between Individual attitudes toward innovation and organizational attitudes toward innovation?*

Composite mean scores and standard deviations for the superintendents' perception of individual and organizational innovativeness were calculated for each respondent. A separate Pearson product-moment correlation coefficient (Pearson's r) for individual innovativeness and organizational innovativeness was also calculated to determine if a relationship exists between individual attitudes toward innovation and organizational attitudes toward innovation.

Research Question 3: *Are differences in perceptions of South Carolina school district superintendents regarding innovations related to organizational variables including district enrollment, poverty levels and ESEA grade?*

One way analyses of variance (ANOVAs) were computed to determine if there are differences in the perceptions of South Carolina public school superintendents regarding individual and organizational innovativeness related to district enrollment and poverty level. ANOVAs were used to test for differences because both enrollment and poverty level were divided into three groups. An unpaired t test was computed to determine if there were differences based on ESEA grades. A t test was used to test for difference because ESEA grades were divided into only two groups.

Research Question 4: *Are differences in perceptions of South Carolina school district superintendents regarding innovation related to demographic factors including age, sex, and experience?*

Unpaired t tests were computed to determine if there are differences in the perceptions of South Carolina public school superintendents regarding individual and organizational innovativeness related to age, sex, and experience. T tests were used to test for differences because age, sex, and years of experience were all divided into two groups.

Validity of Data Collection

The 2012 South Carolina District Data and Poverty Index files were used to gather demographic data. An online survey was sent to all South Carolina public school district superintendents to determine their self-reported perceptions regarding individual and organizational innovativeness.

The responses given by the public school superintendents to items 6-25 were used to determine an II score and adopter category. Scoring was calculated using a three step process. In step one the scores for items 9, 11, 12, 15, 18, 20, 22, and 25 were added. In step two the scores for items 6, 7, 8, 10, 13, 14, 16, 17, 19, 21, 23, and 24 were added. In step 3 the following formula: (II = 42 + total score for Step 2 - total score for Step 1) was completed to determine final score and category. Scores above 80 are classified as Innovators. Scores between 69 and 80 are classified as Early Adopters. Scores between 57 and 68 are classified as Early Majority. Scores between 46 and 56 are classified as Late Majority. Scores below 46 are classified as Laggards/Traditionalists. In general people who score above 68 and considered highly innovative, and people who score below 64 are considered low in innovativeness (Hurt, Joseph, & Cook, C. D., 1977).

The responses given by the public school superintendents to items 26-50 were used to determine an OI score and adopter category. In step one the scores for the following items: 26, 28, 31, 33, 37, 39, 40, 42, 43, 47, and 48 were added. In step two the scores for the following items: 27, 29, 30, 32, 34, 35, 36, 38, 41, 44, 45, 46, 49, and 50 were added. In step three the following formula: (OI = 66 + total from Step 2 - total from step 1) was completed to determine the final OI score and category. Scores above 110 indicate the organization are classified as innovative. Scores between 91 and 110 indicated the organization as an early adopter. Scores between 71 and 90 indicated the organization was in the early majority. Scores between 50 and 70 indicated the organization was in the late majority. Scores below 50 indicated the organization was classified as a laggard or traditional. Generally, organizations which score above 90 are high in innovativeness. Those scoring below 50 are low in innovativeness. Those scoring between 50 and 90 are moderate in innovativeness (Hurt & Teigen, 1977).

Tukey's Honestly Significant Difference (HSD) post-hoc test followed all ANOVAs (Research Question 3) to determine which groups differ significantly from others. Tukey's HSD is used to clarify which groups among the sample in specific have significant differences and tests all pairwise differences while controlling the probability of making one or more Type I errors. The .05 level of significance was used for all statistical analyses utilized in this study.

Summary

This chapter reviewed the research methodology utilized for this study. A description of the research design, procedures for participant selection, instrumentation,

data collection and data analysis procedures were described. The following chapter will present the findings of the data analysis and the related statistical tables.

CHAPTER FOUR

Results

This chapter summarizes the information obtained from the survey instrument and data analyses related to the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. Included in this chapter are the purpose of the study and research questions, a description of the survey instrument response rate, a description of the respondents' demographic information, and the description and analyses of the data for each research question. Data related to each research question are presented in tables throughout the chapter and are accompanied by narratives describing significant findings.

The purpose of this study was to examine the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. Specific characteristics of South Carolina public school superintendents and public school districts were analyzed by characteristics of individual and organizational innovativeness. The characteristics of individual and organizational innovativeness were compared to determine individual superintendents' and their school districts' orientations toward innovation.

Research Questions

The following questions guided the study:

1. What are the perceptions of South Carolina public school superintendents regarding individual attitudes toward innovation and organizational attitudes toward innovation?

2. Is there a relationship between Individual attitudes toward innovation and organizational attitudes toward innovation?

3. Are differences in perceptions of South Carolina school district superintendents regarding innovations related to organizational variables including district enrollment, financial resources and ESEA grade?

4. Are differences in perceptions of South Carolina school district superintendents regarding innovation related to demographic factors including age, sex, and experience?

Survey Instrument Response Rate

Each of the 84 public school district superintendents in South Carolina were emailed a survey and asked to respond to their individual innovativeness and their district's organizational innovativeness. This included the South Carolina Public Charter School District and the Palmetto Unified School District (Department of Juvenile Justice). The superintendents were given two weeks to respond after which time a follow-up email was sent to non-respondents as a reminder. A total of 43 (51.1%) of the public school district superintendents in South Carolina completed the survey.

Perceptions of Individual and Organizational Innovativeness

Research question one examined the perceptions of South Carolina public school superintendents regarding individual attitudes toward innovation and organizational attitudes toward innovation. Responses to survey items 6-25 examined individual innovativeness. Responses to items 26-50 examined organizational innovativeness. Mean scores and standard deviations were calculated for each of the survey items. Additionally, adopter category scores were calculated individually for respondents related to their perceptions of individual and organizational innovativeness.

Individual Innovativeness

Mean scores were calculated individually for respondents based on their responses to items 6-25 on the survey instrument related to their perceptions of individual innovativeness. South Carolina public school superintendents were more supportive of the statements that "I seek new ways to do things" (M = 4.48), "I am receptive to new ideas" (M = 4.44), and "I enjoy trying new ideas" (M = 4.37). South Carolina public school superintendents were less supportive of the statements that "I am aware that I am usually one of the last people in my group to accept something new" (M = 1.79), "I tend to feel that the old way of living and doing things is the best way" (M = 1.83), and "I must see other people using new innovations before I will consider them" (M = 1.97). Descriptive statistics reflecting South Carolina public school superintendents' perceptions of individual innovativeness are summarized in Table 4.1.

Table 4.1

Perceptions of Individual Innovativeness

	M	SD
I seek new ways to do things.	4.48	0.592
I am receptive to new ideas.	4.44	0.502
I enjoy trying new ideas.	4.37	0.578
I must see other people using new innovations before I will consider them.	1.97	0.706
I tend to feel that the old way of living and doing things is the best way.	1.83	0.652
I am aware that I am usually one of the last people in my group to accept something new.	1.79	0.638

Adopter category scores were calculated individually for respondents based on their responses to items 6-25 on the survey instrument related to their perceptions of individual innovativeness. Step 1: add the scores for items 4, 6, 7, 10, 13, 15, 17, and 20. Step 2: add the scores for items 1, 2, 3, 5, 8, 9, 11, 12, 14, 16, 18, and 19. Step 3: complete the following formula: II = 42 + total score for Step 2 - total score for Step 1. Scores above 80 are classified as Innovators. Scores between 69 and 80 are classified as Early Adopters. Scores between 57 and 68 are classified as Early Majority. Scores between 46 and 56 are classified as Late Majority.

Scores below 46 are classified as Laggards/Traditionalists. In general people who score above 68 and considered highly innovative, and people who score below 64 are

considered low in innovativeness. Based on responses to the individual innovativeness portion of the survey instrument by South Carolina public school superintendents, 30.23% were classified as Innovators, 44.18% were classified as Early Adopters, and 25.58% were classified as Early Majority. Frequency and percentages reflecting South Carolina public school superintendents' individual innovativeness classifications are summarized in Table 4.2.

Table 4.2

South Carolina Public School Superintendents Individual Innovativeness Adopter Categories

	N	**%**
Innovators	13	30.23
Early Adopters	19	44.18
Early Majority	11	25.58

Organizational Innovativeness

Mean scores were calculated individually for respondents based on their responses to items 26-50 on the survey instrument related to their perceptions of organizational innovativeness. South Carolina public school superintendents were more supportive of the statements that "My organization is willing and ready to accept outside help when necessary" (M = 4.13), "My organization maintains good communication between supervisors and employees" (M = 4.0), and "My organization seeks out new ways to do things" (M = 3.90). South Carolina public school superintendents were less supportive of the statements that "My organization never satisfactorily explains to employees the reasons for procedural changes" (M = 1.93), "My organization rarely involves employees in the decision making process" (M = 2.0), and "My organization is

usually one of the last of its kind to change to a new method of operation" (M = 2.06). Descriptive statistics reflecting South Carolina public school superintendents' perceptions of organizational innovativeness are summarized in Table 4.3.

Table 4.3

Perceptions of Organizational Innovativeness

	M	**SD**
My organization is willing and ready to accept outside help when necessary.	4.13	0.675
My organization maintains good communication between supervisors and employees.	4.00	0.872
My organization seeks out new ways to do things.	3.90	0.647
My organization is usually one of the last of its kind to change to a new method of operation.	2.06	0.798
My organization rarely involves employees in the decision making process.	2.00	0.872
My organization never satisfactorily explains to employees the reasons for procedural changes.	1.93	0.668

Adopter category scores were calculated individually for respondents based on their responses to items 26-50 on the survey instrument related to their perceptions of organizational innovativeness. Step 1: Add the scores for the following items: 1, 3, 6, 8, 12, 14, 15, 17, 18, 22, and 23. Step 2: Add the scores for the following items: 2, 4, 5, 7, 9, 10, 11, 13, 16, 19, 20, 21, 24, and 25. Step 3: Complete the following formula: OI = 66 + total from Step 2 - total from step 1. Scores can range between 25 and 125. Scores above

110 indicate the organization can be classified as Innovative. Scores between 91 and 110 indicate the organization is an Early Adopter. Scores between 71 and 90 indicate the organization is in the Early Majority. Scores between 50 and 70 indicate the organization is in the Late Majority.

Scores below 50 indicate the organization can be classified as a Laggard/Traditional. Generally, Organizations which score above 90 are high in innovativeness. Those scoring below 50 are low in innovativeness. Those scoring between 50 and 90 are moderate in innovativeness. Based on responses to the organizational innovativeness portion of the survey instrument by South Carolina public school superintendents, 2.32% of districts were classified as Innovative, 67.44% were classified as Early Adopters, and 18.60% were classified as Early Majority, and 11.62% were classified as late majority. Frequency and percentages reflecting South Carolina public school superintendents' organizational innovativeness classifications are summarized in Table 4.4.

Table 4.4

Organizational Innovativeness Adopter Categories

	N	**%**
Innovative	1	2.32
Early Adopter	29	67.44
Early Majority	8	18.60
Late Majority	5	11.62

Relationship Between Perceptions of Individual and Organizational Innovativeness

Research question two examined the relationship between South Carolina public school superintendents' perceptions of individual innovativeness and organizational innovativeness. The composite mean scores and standard deviations for respondents' perceptions of individual and organizational innovativeness were calculated. A Pearson product-moment correlation coefficient (r) was calculated as well as the proportion of variance accounted for using the coefficient of determination (r^2). The results of the Pearson product-moment correlation coefficient (r) = 0.288 and the coefficient of determination (r^2) = 0.083. The r value of .288 indicates a weak positive correlation between South Carolina public school superintendents' perceptions of individual and organizational innovativeness. The results of this analysis are summarized in table 4.5.

Table 4.5

Relationship Between Perceptions of Individual and Organizational Innovativeness

	M	**SD**	**r**	**r^2**
Individual Innovativeness	3.34	0.206		
			0.288	0.083
Organizational Innovativeness	3.12	0.194		

Perceptions of Innovativeness related to District Variables

Research question three examined the differences in perceptions of South Carolina public school superintendents regarding individual and organizational

innovativeness related to organizational variables including district enrollment, district poverty level, and Elementary and Secondary Education Act Federal Accountability Rating System (ESEA) grade. The data for enrollment, poverty level, and ESEA grade were collected from the South Carolina Department of education. Frequencies and percentages were calculated for each variable.

District Enrollment

The 2012 district enrollment data, the latest numbers released, were used. The information was collected from the 2012 South Carolina Department of Education School Report Card data files. Twenty (46.51%) of the respondents' districts had 5000 or less students, twelve (27.90%) of the districts had between 5001-10,000 students, and 11 (25.58%) of the respondents' districts had more than 10,000 students in 2012. Frequency and percentages reflecting South Carolina public school district 2012 student enrollment are summarized in Table 4.6.

Table 4.6

2012 District Enrollment

Enrollment	**N**	**%**
0 – 5000	20	46.51
5001 - 10,000	12	27.90
More than 10,000	11	25.58

The composite mean scores reflecting South Carolina public school superintendents' perceptions of individual and organizational innovativeness were calculated. The 2012 district enrollment was divided into three categories: (a) 0-5000 students, (b) 5001-10,000 students, and (c) more than 10,000 students based on frequencies and percentages. A one-way analysis of variance (ANOVA) was calculated for individual and organizational innovativeness to determine whether a significant relationship exists between innovativeness and school enrollment.

The results of the one way analysis of variance (ANOVA) for individual innovativeness indicated that differences in mean scores did not differ significantly based on enrollment, $F(2, 40) = .429$, $p = .654$. The results of the analysis indicated that the mean score for districts with 0-5000 students ($M = 3.32$) was not significantly different than districts with 5001-10,000 students ($M = 3.39$) and districts with more than 10,000 students ($M = 3.35$). The results of this analysis are summarized in Table 4.7.

Tukey's Honestly Significant Difference (HSD) post-hoc test was conducted to determine significant differences between groups related to individual innovativeness. The results of this analysis indicated that there was no significant difference in mean score between districts with 0-5000 students and districts with 5001-10,000 students ($t = .092$), there was no significant difference in mean score between districts with 5001-10,000 students and districts with more than 10,000 students ($t = .046$), and there was no significant difference between districts with 0-5000 students and districts with more than 10,000 students ($t = .038$). The results of this analysis are summarized in Table 4.7.

The results of the one way analysis of variance (ANOVA) for organizational innovativeness indicated that differences in mean scores did differ significantly based on enrollment, $F(2, 40) = 4.183$, $p = .022$. The results of the analysis indicated that the mean score for districts with 0-5000 students ($M = 3.06$) was significantly different than districts with 5001-10,000 students ($M = 3.25$) and districts with more than 10,000 students ($M = 3.13$).

Tukey's Honestly Significant Difference (HSD) post-hoc test was conducted to determine significant differences between groups related to organizational innovativeness. The results of this analysis indicated that there was no significant difference in mean score between districts with 0-5000 students and districts with 5001-10,000 students ($t = .286$), there was no significant difference in mean score between districts with 5001-10,000 students and districts with more than 10,000 students ($t = .158$), and there was no significant difference between districts with 0-5000 students and districts with more than 10,000 students ($t = .103$). The results of this analysis are summarized in Table 4.7.

Table 4.7

Enrollment and Superintendents' Perceptions of Innovation

	(0-5000) N = 20	**(5001-10,000) N = 12**	**(10,000<) N = 11**	**F**	**p**
Individual Innovativeness	3.32	3.39	3.35	.429	.654
	Group 1-2	**Group 2-3**	**Group 1-3**	----	----
HSD Post-Hoc Test (II)	t = .096	t = .046	t = .048	----	----

Table 4.7 continued

Organizational Innovativeness	3.06	3.25	3.13	4.183	.022
	Group 1-2	**Group 2-3**	**Group 1-3**	**----**	**----**
HSD Post-Hoc Test (OI)	t = .286	t = .158	t = .103	**----**	**----**

District Poverty Level

The 2012-2013 district poverty level data were used. The information was collected from the 2013 South Carolina Department of Education School ESEA Flexibility Waiver. Three (6.97%) of the respondents' districts had poverty levels between 0-15.9%, twenty-six (60.46%) of the districts had poverty levels between 16-30.9%, and fourteen (32.55%) of the respondents' districts had poverty levels between 31-45% in 2012-2013. Frequency and percentages reflecting South Carolina public school district 2012-2013 poverty levels are summarized in Table 4.8.

Table 4.8

2012-2013 District Poverty Levels

Poverty Level (%)	**N**	**%**
0 – 15.9	3	6.97
16 – 30.9	26	60.46
31 – 45	14	32.55

The composite mean scores reflecting South Carolina public school superintendents' perceptions of individual and organizational innovativeness were calculated. The 2012-2013 district poverty levels were divided into three categories: (a) 0-15.9%, (b) 16-30.9%, and (c) 31-45% based on frequencies and percentages. A one-way analysis of variance (ANOVA) was calculated for individual and organizational innovativeness to determine whether a significant relationship exists between innovativeness and district poverty level.

The results of the one way analysis of variance (ANOVA) for individual innovativeness indicated that differences in mean scores did not differ significantly based on poverty level, $F(2, 40) = 7.663$, $p = .992$. The results of the analysis indicated that the mean score for districts with poverty levels between 0-15.9% ($M = 3.33$) was not significantly different than districts with poverty levels between 16-30.9% ($M = 3.34$) and districts with poverty levels between 31-45% ($M = 3.35$). The results of this analysis are summarized in Table 4.9.

Tukey's Honestly Significant Difference (HSD) post-hoc test was conducted to determine significant differences between groups related to individual innovativeness and poverty level. The results of this analysis indicated that there was no significant difference in mean score between districts with poverty levels between 0-15.9% and districts with poverty levels between 16-30.9% ($t = .008$), there was not significant difference between districts with poverty levels between 16-30.9% and districts with poverty levels between 31-45% ($t = .014$), and there was no significant difference between districts with poverty levels between 0-15.9% and districts with poverty levels between 31-45% ($t = .015$). The results of this analysis are summarized in Table 4.9.

The results of the one way analysis of variance (ANOVA) for organizational innovativeness indicated that differences in mean scores did not differ significantly based on poverty level, $F(2, 40) = .232$, $p = .79$. The results of the analysis indicated that the mean score for districts with poverty levels between 0-15.9% ($M = 3.18$) was not significantly different than districts with poverty levels between 16-30.9% ($M = 3.13$) and districts with poverty levels between 31-45% ($M = 3.10$). The results of this analysis are summarized in Table 4.9.

Tukey's Honestly Significant Difference (HSD) post-hoc test was conducted to determine significant differences between groups related to organizational innovativeness and poverty level. The results of this analysis indicated that there was no significant difference in mean score between districts with poverty levels between 0-15.9% and districts with poverty levels between 16-30.9% ($t = .044$), there was no significant difference between districts with poverty levels between 16-30.9% and districts with poverty levels between 31-45% ($t = .043$), and there was no significant difference between districts with poverty levels between 0-15.9% and districts with poverty levels between 31-45% ($t = .064$). The results of this analysis are summarized in Table 4.9.

Table 4.9

Poverty Level and Superintendents' Perceptions of Innovation

	(0 - 15.9%) N = 3	**(16 - 30.9%) N = 26**	**(31 – 45%) N = 14**	**F**	**p**
Individual Innovativeness	3.33	3.34	3.35	7.663	.992

Table 4.9 continued

	Group 1-2	**Group 2-3**	**Group 1-3**	----	----
HSD Post-Hoc Test	t = .008	t = .014	t = .015	----	----
Organizational Innovativeness	3.18	3.13	3.10	.232	.79
	Group 1-2	**Group 2-3**	**Group 1-3**	----	----
HSD Post-Hoc Test	t = .044	t = .043	t = .064	----	----

ESEA Accountability System Grade

The 2012-2013 ESEA grade data were used. The information was collected from the 2013 South Carolina Department of Education School ESEA Flexibility Waiver. Eleven (25.58%) of the respondents' districts had ESEA grades between 0-74.9% and thirty-two (74.41%) of the districts had ESEA grades between 75-100%. Frequency and percentages reflecting South Carolina public school district 2012-2013 ESEA grades are summarized in Table 4.10.

Table 4.10

District ESEA Grades

ESEA Grade (%)	**N**	**%**
0 – 74.9	11	25.58
75 – 100	32	74.41

The composite mean scores reflecting South Carolina public school superintendents' perceptions of individual innovativeness and organizational innovativeness regarding ESEA grades were calculated. A two-tailed, unpaired t test was conducted for individual and organizational innovativeness. No significant difference was found between South Carolina public school districts with ESEA grades between 0-74.9 (M = 3.28) and districts with ESEA grades between 75-100 (M = 3.36) regarding superintendents' perceptions of individual innovativeness, t (41) = 1.123, p = .268 (two-tailed). A significant difference was found between South Carolina public school districts with ESEA grades between 0-74.9 (M = 3.02) and districts with ESEA grades between 75-100 (M = 3.16) regarding superintendents' perceptions of organizational innovativeness, t (41) = 2.12, p = .04 (two-tailed). The results of this analysis can be found in Table 4.11.

Table 4.11

District ESEA Grades and Perceptions of Innovation

Individual Innovativeness (ESEA grades)	**N**	**M**	**t**	**p**
0-74.9	11	3.28		
			1.123	.268
75-100	32	3.36		
Organizational Innovativeness (ESEA grades)	**N**	**M**	**t**	**p**
0-74.9	11	3.02		
			2.12	.04
75-100	32	3.16		

Perceptions of Individual and Organizational Innovativeness related to Demographics

Research question four examined the differences in perceptions of South Carolina public school superintendents regarding individual and organizational innovativeness related to demographic factors including age, sex, and years of experience. The data for age, sex, and years of experience were collected from questions 1-3 of the survey instrument. Frequencies and percentages were calculated for each variable.

Age

A total of 43 respondents indicated their age on the survey instrument. The survey responses indicated that eight (18.6%) of the respondents were between the ages of 30-49 and thirty-five (81.39%) of the respondents were between the ages of 50-69. Frequency and percentages reflecting South Carolina public school district superintendents' ages are summarized in Table 4.12.

Table 4.12

Superintendents' Ages

Age	N	%
30 – 49	8	18.6
50 – 69	35	81.39

The composite mean scores reflecting South Carolina public school superintendents' perceptions of individual innovativeness and organizational innovativeness related to age were calculated. A two-tailed, unpaired t test was conducted

for individual and organizational innovativeness. No significant difference was found between South Carolina public school district superintendents with ages between 30-49 (M = 3.43) and superintendents with ages between 50-69 (M = 3.32) regarding superintendents' perceptions of individual innovativeness, t (41) = 1.296, p = .202 (two-tailed). No significant difference was found between South Carolina public school district superintendents with ages between 30-49 (M = 3.22) and superintendents with ages between 50-69 (M = 3.10) regarding superintendents' perceptions of organizational innovativeness, t (41) = 1.501, p = .140 (two-tailed). The results of this analysis can be found in Table 4.13.

Table 4.13

Superintendents' Ages and Perceptions of Innovation

Individual Innovativeness (Age)	**N**	**M**	**t**	**p**
30-49	8	3.43		
			1.296	.202
50-69	35	3.32		
Organizational Innovativeness (Age)	**N**	**M**	**t**	**p**
30-49	8	3.22		
			1.501	.14
50-69	35	3.10		

Gender

A total of 43 respondents indicated their gender on the survey instrument. The survey responses indicated that thirty-two (74.41%) of the respondents were male and eleven (25.58%) of the respondents were female. Frequency and percentages reflecting South Carolina public school district superintendents' gender are summarized in Table 4.14.

Table 4.14

Superintendents' Gender

Gender	**N**	**%**
Male	32	74.41
Female	11	25.58

The composite mean scores reflecting South Carolina public school superintendents' perceptions of individual innovativeness and organizational innovativeness related to gender were calculated. A two-tailed, unpaired t test was conducted for individual and organizational innovativeness. No significant difference was found between South Carolina public school district superintendents that are male (M = 3.36) and superintendents that are female (M = 3.29) regarding superintendents' perceptions of individual innovativeness, t (41) = 1.035, p = .306 (two-tailed). No significant difference was found between South Carolina public school district superintendents that are male (M = 3.14) and superintendents that are female (M = 3.08)

regarding superintendents' perceptions of organizational innovativeness, t (41) = .810, p = .422 (two-tailed). The results of this analysis can be found in Table 4.15.

Table 4.15

Superintendents' Gender and Perceptions of Innovation

Individual Innovativeness (Gender)	**N**	**M**	**t**	**p**
Male	32	3.36		
			1.035	.306
Female	11	3.29		
Organizational Innovativeness (Gender)	**N**	**M**	**t**	**p**
Male	32	3.14		
			.810	.422
Female	11	3.08		

Years of Experience

A total of 43 respondents indicated their total years of experience as a superintendent on the survey. The survey responses indicated that thirty-four (79.06%) of the respondents had between 1-6 years experience as a superintendent and nine (20.93%) of the respondents had 7 or more years experience as a superintendent. Frequency and percentages reflecting South Carolina public school district superintendents' years of experience are summarized in Table 4.16.

Table 4.16

Superintendents' Years of Experience

Yrs. Exp.	N	%
1-6	34	79.06
7 or more	9	20.93

The composite mean scores reflecting South Carolina public school superintendents' perceptions of individual innovativeness and organizational innovativeness related to superintendents' years of experience were calculated. A two-tailed, unpaired t test was conducted for individual and organizational innovativeness. No significant difference was found between South Carolina public school district superintendents with 1-6 years of experience (M = 3.35) and superintendents with 7 or more years of experience (M = 3.32) regarding superintendents' perceptions of individual innovativeness, t (41) = .302, p = .763 (two-tailed). No significant difference was found between South Carolina public school district superintendents with 1-6 years of experience (M = 3.13) and superintendents with 7 or more years of experience (M = 3.09) regarding superintendents' perceptions of organizational innovativeness, t (41) = .604, p = .548 (two-tailed). The results of this analysis can be found in Table 4.17.

Table 4.17

Superintendents' Ages and Perceptions of Innovation

Individual Innovativeness (Yrs. Exp.)	**N**	**M**	**t**	**p**
1-6	34	3.35		
			.302	.763
7 or more	9	3.32		
Organizational Innovativeness (Yrs. Exp.)	**N**	**M**	**t**	**p**
1-6	34	3.13		
			.604	.548
7 or more	9	3.09		

Summary

The data presented in this chapter examined the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. Specific characteristics of South Carolina public school superintendents and public school districts were analyzed by characteristics of individual and organizational innovativeness. The characteristics of individual and organizational innovativeness were compared to determine individual superintendents' and their school districts' orientations toward innovation.

The primary features of the data were described using descriptive statistics including frequencies, percentages, means, and standard deviations. Conclusions from the data

were drawn using inferential statistics including t tests, analyses of variance (ANOVAs), Pearson product-moment correlation coefficient, and Tukey's Honestly Significant Difference (HSD) post-hoc tests. Data were analyzed using MS Excel and SPSS version-19 statistical software. The .05 level of significance was used for all statistical analyses. Chapter 5 will summarize the findings, and present conclusions and recommendations for future research.

CHAPTER FIVE

Summary, Conclusions, Discussion and Recommendations

This chapter includes a review of the purpose statement and the research questions that guided the study, a summary of the research methodology, and an overview of significant findings. The chapter culminates with the conclusions based upon the findings and recommendations for practice and further study.

Purpose

The purpose of this study is to examine the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. Adair (2007) declares that to innovate is not to reform; reform addresses improvement through the modification of existing programs and processes while innovation does so by introducing entirely new methods and practices. Specific characteristics of South Carolina public school superintendents and public school districts, including enrollment, poverty level, school report card grades, age, gender, and years of experience, were analyzed to determine individual superintendents' and their school districts' orientations toward innovation.

The following questions guided the study:

1. What are the perceptions of South Carolina public school superintendents regarding individual attitudes toward innovation and organizational attitudes toward innovation?

2. Is there a relationship between Individual attitudes toward innovation and organizational attitudes toward innovation?

3. Are differences in perceptions of South Carolina school district superintendents regarding innovations related to organizational variables including district enrollment, financial resources and ESEA grade?

4. Are differences in perceptions of South Carolina school district superintendents regarding innovation related to demographic factors including age, sex, and experience?

Methodology

Each of the 83 public school superintendents currently serving public school districts in South Carolina were the population considered in this study. The data for this inquiry was collected from the 2013 South Carolina Association of School Administrators (SCASA) superintendent list. The total number of public school district superintendents participating in this study is 43 (51.1%). Additionally, public domain information from the South Carolina Department of Education for all public school districts in South Carolina was examined.

A survey instrument was used to acquire data for this study (Appendix B). The survey was based on James C. McCroskey's (2006) *Communication Research Measures:*

Individual Innovativeness and Organizational Innovativeness. These are measures that have been developed by researchers who are, or at one time were, faculty members or graduate students at West Virginia University. They were developed for use by researchers and may be used for research or instructional purposes with no individualized permission. The remainder of the survey related to demographics was developed by the researcher.

The survey was divided into three sections. Section one, questions 1-5, contained items related to demographic information about the public school district superintendents completing the survey. The superintendents were asked to complete statements regarding age, gender, and years of experience. Section two, questions 6-25, contained items related to public school district superintendents' perceptions of individual innovativeness. Section three, questions 26-50, contained items related to public school district superintendents' perceptions of organizational innovativeness.

Summary of Findings

Forty-three (51.1%) of South Carolina public school superintendents participated in this study by completing the survey. Additional data were collected on their districts from the South Carolina Department of Education data files. The following findings are the result of an analysis of the data collected in the study.

Research Question 1: What are the perceptions of South Carolina public school superintendents regarding individual attitudes toward innovation and organizational attitudes toward innovation?

Individual Innovativeness

South Carolina public school superintendents were more supportive of the statements that "I seek new ways to do things" (M = 4.48), "I am receptive to new ideas" (M = 4.44), and "I enjoy trying new ideas" (M = 4.37). South Carolina public school superintendents were less supportive of the statements that "I am aware that I am usually one of the last people in my group to accept something new" (M = 1.79), "I tend to feel that the old way of living and doing things is the best way" (M = 1.83), and "I must see other people using new innovations before I will consider them" (M = 1.97).

Based on responses to the individual innovativeness portion of the survey instrument by South Carolina public school superintendents, 30.23% were classified as Innovators, 44.18% were classified as Early Adopters, and 25.58% were classified as Early Majority.

Organizational innovativeness

South Carolina public school superintendents were more supportive of the statements that "My organization is willing and ready to accept outside help when necessary" (M = 4.13), "My organization maintains good communication between supervisors and employees" (M = 4.0), and "My organization seeks out new ways to do things" (M = 3.90). South Carolina public school superintendents were less supportive of the statements that "My organization never satisfactorily explains to employees the reasons for procedural changes" (M = 1.93), "My organization rarely involves employees

in the decision making process" (M = 2.0), and "My organization is usually one of the last of its kind to change to a new method of operation" (M = 2.06).

Based on responses to the organizational innovativeness portion of the survey instrument by South Carolina public school superintendents, 2.32% of districts were classified as Innovative, 67.44% were classified as Early Adopters, 18.60% were classified as Early Majority, and 11.62% were classified as late majority.

Research Question 2: Is there a relationship between Individual attitudes toward innovation and organizational attitudes toward innovation?

The results of the Pearson product-moment correlation coefficient (r) = 0.288 and the coefficient of determination (r^2) = 0.083. The r value of .288 indicates a weak positive correlation between South Carolina public school superintendents' perceptions of individual and organizational innovativeness.

Research Question 3: Are differences in perceptions of South Carolina school district superintendents regarding innovations related to organizational variables including district enrollment, poverty level and ESEA grade?

District Enrollment

Twenty (46.51%) of the respondents' districts had 5000 or less students, twelve (27.90%) of the districts had between 5001-10,000 students, and 11 (25.58%) of the respondents' districts had more than 10,000 students in 2012.

The results of the one way analysis of variance (ANOVA) for individual innovativeness indicated that differences in mean scores did not differ significantly based on enrollment, F (df = 2) = .429, p = .654.

The results of Tukey's Honestly Significant Difference (HSD) post-hoc test, related to individual innovativeness, indicated that there was no significant difference in mean score between districts based on enrollment.

The results of the one way analysis of variance (ANOVA) for organizational innovativeness indicated that differences in mean scores did differ significantly based on enrollment, F (df = 2) = 4.183, p = .022.

The results of Tukey's Honestly Significant Difference (HSD) post-hoc test, related to organizational innovativeness, indicated that there was no significant difference in mean score between districts based on enrollment.

District Poverty Level

Three (6.97%) of the respondents' districts had poverty levels between 0-15.9%, twenty-six (60.46%) of the districts had poverty levels between 16-30.9%, and fourteen (32.55%) of the respondents' districts had poverty levels between 31-45% in 2012-2013.

The results of the one way analysis of variance (ANOVA) for individual innovativeness indicated that differences in mean scores did not differ significantly based on poverty level, F (df = 2) = 7.663, p = .992.

The results of Tukey's Honestly Significant Difference (HSD) post-hoc test, related to individual innovativeness indicated that there was no significant difference in mean score between districts based on poverty levels.

The results of the one way analysis of variance (ANOVA) for organizational innovativeness indicated that differences in mean scores did not differ significantly based on poverty level, F (df = 2) = .232, p = .79.

The results of Tukey's Honestly Significant Difference (HSD) post-hoc test, related to organizational innovativeness indicated that there was no significant difference in mean score between districts based on poverty levels.

ESEA Accountability System Grade

Eleven (25.58%) of the respondents' districts had ESEA grades between 0-74.9% and thirty-two (74.41%) of the districts had ESEA grades between 75-100%.

No significant difference was found between South Carolina public school districts with ESEA grades between 0-74.9 (M = 3.28) and districts with ESEA grades between 75-100 (M = 3.36) regarding superintendents' perceptions of individual innovativeness, t (41) = 1.123, p = .268 (two-tailed).

A significant difference was found between South Carolina public school districts with ESEA grades between 0-74.9 (M = 3.02) and districts with ESEA grades between 75-100 (M = 3.16) regarding superintendents' perceptions of organizational innovativeness, t (41) = 2.12, p = .04 (two-tailed).

Research Question 4: Are differences in perceptions of South Carolina school district superintendents regarding innovation related to demographic factors including age, sex, and experience?

Age

The survey responses indicated that eight (18.6%) of the respondents were between the ages of 30-49 and thirty-five (81.39%) of the respondents were between the ages of 50-69.

No significant difference was found between South Carolina public school district superintendents with ages between 30-49 (M = 3.43) and superintendents with ages between 50-69 (M = 3.32) regarding superintendents' perceptions of individual innovativeness, t (41) = 1.296, p = .202 (two-tailed).

No significant difference was found between South Carolina public school district superintendents with ages between 30-49 (M = 3.22) and superintendents with ages between 50-69 (M = 3.10) regarding superintendents' perceptions of organizational innovativeness, t (41) = 1.501, p = .140 (two-tailed).

Gender

The survey responses indicated that thirty-two (74.41%) of the respondents were male and eleven (25.58%) of the respondents were female.

No significant difference was found between South Carolina public school district superintendents that are male (M = 3.36) and superintendents that are female (M = 3.29)

regarding superintendents' perceptions of individual innovativeness, t (41) = 1.035, p = .306 (two-tailed).

No significant difference was found between South Carolina public school district superintendents that are male (M = 3.14) and superintendents that are female (M = 3.08) regarding superintendents' perceptions of organizational innovativeness, t (41) = .810, p = .422 (two-tailed).

Years of Experience

The survey responses indicated that thirty-four (79.06%) of the respondents had between 1-6 years of experience as a superintendent and nine (20.93%) of the respondents had 7 or more years of experience as a superintendent.

No significant difference was found between South Carolina public school district superintendents with 1-6 years of experience (M = 3.35) and superintendents with 7 or more years of experience (M = 3.32) regarding superintendents' perceptions of individual innovativeness, t (41) = .302, p = .763 (two-tailed).

No significant difference was found between South Carolina public school district superintendents with 1-6 years of experience (M = 3.13) and superintendents with 7 or more years of experience (M = 3.09) regarding superintendents' perceptions of organizational innovativeness, t (41) = .604, p = .548 (two-tailed).

Conclusions

The purpose of this study was to examine the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. The following conclusions were drawn from the findings and results of the analysis of the data collected for this study.

The majority of South Carolina public school district superintendents perceive themselves as highly innovative on the individual innovativeness survey administered in the study. They also perceive their districts to be high in innovativeness yet they rate the districts lower on the organizational innovativeness survey than they rate themselves. The largest adopter category for South Carolina public school superintendents is "early adopters". According to Rogers (2003) this category of adopter tends to embrace the innovation early and a higher degree of opinion leadership than do later adopters. The largest adopter category for South Carolina public school districts is also "early adopters'. According to Rogers (2003) this category of adopter tends to have a high degree of opinion leadership, they are respected by other districts, and are commonly the districts to confer with before adopting a new idea.

In South Carolina, there exists a weak positive relationship between innovative public school district superintendents and innovative public school districts. This indicates that South Carolina public school superintendents view their innovative leadership as an important element in their districts' capacity to be innovative.

In South Carolina, there exists a difference in superintendents' perceptions of organizational innovativeness based on enrollment and ESEA grades. Superintendents of larger districts and districts with higher ESEA grades rated their districts higher in organizational innovation than smaller districts and those with lower ESEA scores.

Discussion

This study examined the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. Specific characteristics of South Carolina public school superintendents and public school districts were analyzed by characteristics of individual and organizational innovativeness. The characteristics of individual and organizational innovativeness were compared to determine individual superintendents' and their school districts' orientations toward innovation.

Each of the 83 public school superintendents currently serving public school districts in South Carolina were the population surveyed for this study. The superintendents were asked questions concerning their perceptions of individual and organizational innovativeness. Based on responses to the survey items, each responding superintendent and district was assigned an innovation adopter category. South Carolina public school superintendents were also asked to provide demographic data about their age, gender, and years of experience. District enrollment, poverty level, and ESEA grade data was collected for the respondents' districts from the 2012 South Carolina school report card data files and the 2013 ESEA Flexibility Waiver.

This study of South Carolina public school superintendents regarding their perceptions of individual innovativeness indicated that 30.23% perceived themselves as innovators, 44.18% early adopters, and 25.58% were early majority. The percentage of innovators and early adopters are much higher than reported by Rogers (2003) for a representative population which is 2.5% innovators and 13.5% early adopters. The percentage of early majority is less than reported by Rogers (2003) as 34% for a representative population. Interestingly, no South Carolina public school superintendent perceived themselves as late majority or laggards which Rogers (2003) reports as 34% and 16%, respectively, for a representative population.

These data reveal that the majority of South Carolina public school superintendents perceive themselves as highly innovative at a rate much higher than the average population based on Rogers' diffusion theory and other statistics that are reported regarding the level of innovation that is actually being observed in South Carolina. This is evident by the absence of both late majority and laggard adopter categories among respondent superintendents. This self-inflation could be the result of expectations perceived by the superintendents. These perceived expectations would cause the superintendents to rate themselves at the level that they believe they are expected to be at despite not innovating at that level in reality. Additionally, some superintendents may honestly believe that they are far more innovative than they really are. This presents a problem for districts because if superintendents believe that they are highly innovative but really are not, they will not make the necessary adjustments in order to change.

This study indicated that 2.32% of South Carolina public school superintendents perceived their districts as innovative, 67.44% perceived their districts as early adopters, 18.60% early majority and 11.62% perceived their districts as late majority. The percentage of districts being reported as innovative is slightly lower than the 2.5% reported by Rogers (2003). The 67.44% of reported early adopters is much larger than the 13.5% reported by Rogers (2003) for a representative population. The percentages of reported early and late majority are both much lower than the 34% reported by Rogers (2003) for a representative population. No South Carolina public school superintendent perceived their district as being a laggard. These data reveal that the majority of South Carolina public school superintendents perceive their districts as innovative.

The results of a Pearson product-moment correlation coefficient indicated a weak positive correlation between South Carolina public school superintendents' perception of individual and organizational innovativeness. These data indicate that most South Carolina public school superintendents perceive their districts to be innovative yet rate the district lower than they rate themselves. This could be linked to internal factors at work within the districts including superintendent-board relations, the overall political climates and the lack of access to adequate resources. The data could also support the notion that superintendents find it easier to honestly rate their districts than themselves.

However, these finding indicate that South Carolina public school superintendents view their innovative leadership as an important element in their districts' capacity to be innovative. Additionally, taking into consideration the response rate of 51.1%, the data could support the notion that only those South Carolina public

school superintendents who perceived themselves and their districts favorably in regards to innovation were the ones to respond to the survey. Under this assumption, those superintendents with less than favorable perceptions of themselves and their districts were unwilling participate. This could explain the unusually high rate of individual and organizational perceptions by South Carolina public school district superintendents in this study.

The results of a one way analysis of variance (ANOVA) for organizational innovativeness indicated that there was a significant difference in mean scores between districts based on enrollment. Districts with student enrollment numbers of 5001-10,000 had the largest mean score (M = 3.25) based on the organizational innovativeness scale. The difference in mean scores, based on enrollment, can be linked to resources and the ability to implement an innovation. Smaller districts may not have the resources required to adequately support the implementation of a desired innovation. However, larger districts may have difficulty being able to effectively implement innovations system wide due to the logistics and sheer number of people that would have to be involved.

Data gathered from the 2012 South Carolina school report card poverty index files indicated that 6.97% of South Carolina public school districts had poverty levels between 0-15.9%, 60.46% of districts had poverty levels between 16-30.9%, and 32.55% of South Carolina public school districts had poverty levels between 31-45%. In 2012 the U.S. Census Bureau (2012) reported that more than 16% of the population of the United States lived in poverty. Based on the data gathered in this study, South Carolina public school districts report poverty levels 5 times greater than the national poverty rate. Although

increased poverty levels have been linked to poor student achievement, the results of one way analyses of variance (ANOVAs) for individual and organizational innovativeness indicated that there was no significant difference in mean scores between districts based on poverty levels.

Based on data gathered from the 2013 South Carolina Department of Education School ESEA Flexibility Waiver, this study indicated that 25.8% of South Carolina public school districts had an ESEA grade between 0-74.9 and 74.41% of the districts had ESEA grades of 75-100. Data analysis noted that superintendents in districts with higher ESEA grades had higher composite mean scores in both individual and organizational innovativeness. However, the results of a two-tailed, unpaired t test indicated that there was no significant difference found between districts with ESEA grades between 0-74.9 and districts with ESEA grades between 75-100 regarding superintendents' perceptions of individual innovativeness. The results of a two-tailed, unpaired t test regarding organizational innovativeness did indicate a significant difference between districts with ESEA grades between 0-74.9 and districts with ESEA grades of 75-100. This finding could be due to the assumption made by superintendents that the innovative practices employed by their districts are responsible for higher ESEA grades.

Demographic data on South Carolina public school superintendents gathered from the survey instrument indicated that 18.6% of superintendents in South Carolina were between the ages of 30-49 and 81.39% were between the ages of 50-69. The demographic data for South Carolina public school district superintendents regarding age resembles the national data collected by the American Association of School Administrators (AASA).

The AASA (2013) reported that the mean age of superintendents in the United States is between 54 and 55 years. Data analysis noted that superintendents with ages between 30-49 years had higher composite mean scores in both individual and organizational innovativeness. These data indicate that younger superintendents perceive themselves as more innovative. This could be due to energy, the excitement about the new leadership position, and a better knowledge of current technology trends. Additionally, younger superintendents may be expected to be more innovative so that is how they perceive themselves. However, the results of two-tailed, unpaired t tests for individual and organizational innovativeness indicated no significant difference between South Carolina public school superintendents based on age.

This study indicated that 74.41% of South Carolina public school superintendents were male and 25.58% were female. These data correspond with data collected by the America Association of School Administrators (AASA). The AASA (2013) reported that 21.7% of public school superintendents are female and that the number of female superintendents has been steadily increasing over time. Data analysis noted that male superintendents had higher composite mean scores in both individual and organizational innovativeness. This could be due to the notion that men are generally more confident and optimistic, whereas women have a higher social sensitivity (Patel & Buiting, 2013). However, the results of two-tailed, unpaired t tests for individual and organizational innovativeness indicated no significant difference between South Carolina public school superintendents based on gender.

This study indicated that 79.06% of public school superintendents in South Carolina had between 1-6 years of experience as a superintendent and 20.93% had 7 or

more years of experience as a superintendent. Data analysis noted that South Carolina public school superintendents with 1-6 years of experience had higher composite mean scores in both individual and organizational innovativeness. This could be due to the energy, enthusiasm, and excitement of the position in the early years. However, the results of two-tailed, unpaired t tests for individual and organizational innovativeness indicated no significant difference between South Carolina public school superintendents based on years of experience.

Recommendations for Future Study

Based on the findings of this study, future researchers may want to consider the following recommendations:

1. Future research should be conducted regarding superintendents' perceptions of individual innovativeness and organizational innovativeness using a mixed methods approach. Using qualitative analysis interview data in addition to quantitative analysis data gathered by survey would help to reduce the effect of self-inflation.

2. Future research should replicate this study with larger and smaller populations in other states. This would allow researchers to build and examine national and regional estimates of superintendents' perceptions of individual and organizational innovativeness. Data gathered from these studies could provide important information regarding perceptions and actual performance related to innovativeness.

3. Future research should include the superintendents' perceptions of innovativeness related to their school boards. Superintendent-school board relations are critical to the success of public school districts. Superintendents who perceive their school boards as being more or less innovative will likely respond accordingly regarding the introduction and implementation of innovations in their districts.

4. More in depth research should be conducted regarding individual and organizational innovativeness and their relationship to student achievement. Innovative leaders and organizations lead to higher levels of intrinsic motivation, growth, and development in individuals as well as in the organization (Gilley & Maycunich, 2000). Based on this assumption, superintendents and districts that are indeed innovative should show increases in student achievement over time. Student achievement elements that should be measured include attendance, standardized test scores (HSAP, EOC, PASS, SAT, ACT), graduation rates, and ESEA Waiver grades.

Recommendations for Practitioners

Based on the significant findings of this study, practitioners may want to consider the following recommendations:

This study indicated that a weak positive relationship exists between innovative public school district superintendents and innovative public school districts in South

Carolina. This suggests that South Carolina public school superintendents view their innovative leadership as an important element in their districts' capacity to be innovative.

The leadership of public school district superintendents is essential to the transformation and innovation required in public schools. To bring about effective, ongoing innovation in a school district, the superintendent must concentrate on the right change and have a good understanding of the process needed to bring about this change. Superintendents should commit to building capacity within their districts and schools if innovation and student achievement are to be successful. Consequently, school districts should take steps to identify needs and to facilitate growth in professional practice. This can be done through professional development, superintendents and other school leaders acquiring advanced degrees, and the exchange of ideas through memberships in professional organizations. School boards should take note that investing in building capacity in the superintendency and organizational capacity district-wide is a critical factor in cultivating innovation.

Data gathered in this study indicated that a difference exists in South Carolina public school superintendents' perceptions of organizational innovativeness based on enrollment. Superintendents of larger districts rated their districts higher in organizational innovativeness than did smaller districts. The funding and available fiscal resources associated with larger districts afford them the ability to invest more, financially, in practices that are perceived to be more innovative than smaller districts. To address this issue, superintendents and school boards in smaller districts should make the most cost-effective decisions possible related to their fiscal resources. This will allow them to

eliminate waste and free up resources that can be invested in some of the innovative practices employed by the larger districts.

This study indicated that there is a difference in South Carolina public school district superintendents' perceptions of organizational innovativeness based on ESEA grades. Superintendents of districts with higher ESEA grades rated their districts higher in organizational innovation than districts with lower ESEA grades. Higher ESEA grades can lead superintendents to believe that the perceived innovative practices at work in their districts are responsible for the higher grades.

Several factors, primarily standardized test data and graduation rates, are assessed to determine district ESEA grades. The most successful districts focus on their teaching practices. These districts wisely invest in their teachers and the effectiveness of their teachers. They do not focus on programs; they focus on fundamental, traditional academic content and they continuously work at improving the pedagogical practices of their teachers. Unsuccessful districts tend to spend millions of dollars adopting programs trying to find a quick fix for their problems. To address this issue, school boards and superintendents in districts with lower ESEA grades should be prepared to invest resources into developing teacher effectiveness as they attempt to promote innovation and student achievement in their districts.

REFERENCES

Adair, J. (2007). *Leadership for innovation: How to organize team creativity and harvest ideas*. Philadelphia, PA: Kogan Page Limited.

Alexander, L. (1993). America 2000: An education strategy. Washington D.C.: US Department of Education.

American Association of School Administrators (2013). Superintendent and district data. Retrieved from http://www.aasa.org/content.aspx?id=740&terms=superintendent+demographics.

Andrews, J., Cameron, H., & Harris, M. (2008). All change? Managers' experience or organizational change in theory and practice. *Journal of Organizational Change management*, 20(3), 300-314.

Battilana, J., Gilmartin, M., Sengul, M., Pache, A.C., & Alexander, J. (2010). Leadership compentencies for implementing planned organizational change. *The Leadership Quarterly*, 21, 422-438.

Bennett, A.C., & Tibbitts, S.J. (1986). *Making innovation practical*. Chicago, IL: Pluribus Press.

Berger, J.L. (2005). Perceived consequences of adopting the internet into adult literacy and basic education classrooms. *Adult Education*, 15(2), 103-121.

Brower, R. (2006). *Whose business is school reform? Letting the experts drive school improvement*. Lanham, MD Rowman & Littlefield Publishing Group.

Canton, J. (2007). *The extreme future: The top trends that will reshape the world in the next 20years.* New York, NY: Plume.

Carlson, R.O. (1965). Adoption of educational innovations. Center for the Advanced Study of Educational Administration. University of Oregon. Eugene, OR.

Celik, K. (2013). The relationship between individual innovativeness and self-efficacy levels of student teachers. *International Journal of Scientific Research in Education*, 6(1), 56-67.

Christensen, C., Horn, M.B., & Johnson, C.W. (2008). *Disrupting class: How disruptive innovation will change the way the world learns*. New York: McGraw-Hill.

Coleman, J.S., Katz, E., Mendel, H. (1957). The diffusion of an innovation among physicians. *Sociometry*, 20, 253-270.

Collins, J.C. (2001). *Good to great: Why some companies make the leap…and others don't.* New York: Harper Collins Publishers Inc.

Crowson, R., Glass, T. (1991). The changing role of the local district superintendent in the united states. Retrieved from www.eric.ed.gov/ERICWebPortal/record Detail?accno=ED353670.

DeBrabandere, (2005). *The forgotten half of change*. Chicago, IL: Dearborn Trade Publishing.

Dess, G. G., & Picken, J. C. (2000). Changing roles: Leadership in the 21st century. *Organization Dynamics*, 28(3), 18-34.

Dee, J. R., Henkin, A. B., & Pell, S. W. J. (2002). Support for innovation in site-based-Managed schools: Developing a climate for change. *Education Research Quarterly*, 25(4), 36-49.

DiMaggio, P. J. & Powell, J. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48, 147-60.

Diplomas Count 2012: Trailing Behind, Moving Forward. Editorial Projects in Education (EPE) Research Center. Retrieved from http://www.edweek.org/go/dc12.

Doyle, M., Claydon, T., & Buchanen, D. (2000). Mixed results, lousy process: The management experience of organizational change. *British Journal of Management*, 11(special issue), S59-S80.

Duffy, F.M. (2004). *Moving upward together: Creating strategic alignment to sustain systemic school improvement*. Lanham, MD: Scarecrow Education.

Elias, S. M. (2009). Employee commitment in times of change: Assessing the importance of attitude toward organizational change. *Journal of Management*, 35(1), 37-55.

Elmore, R. (1995). Getting to scale with good educational practice. *Harvard Educational Review*, 66(1), 1-26.

Elmore, R. F. (2002). *Bridging the gap between standards and achievement: The imperative for professional development in education*. Washington, DC: Albert Shanker Institute.

Executive Office of the President, National Economic Council, Office of Science and Technology Policy. (2009). A strategy for American innovation: Driving towards sustainable growth and quality jobs. Retrieved from. http://www.whitehouse.gov/administration/eop/nec/StrategyforAmericanInnovation/

Fernandez, S., & Rainey, H. (2006, March/April). Managing successful organizational change in the public sector, 66(2) *Public Administration Review*, 168-176.

Finn, C.E. (2008). *Troublemaker: A personal history of school reform since Sputnik.* Princeton, NJ: Princeton University Press.

Ford, J. D., Ford, L. W., & D'Amelio, A. (2008). Resistance to change: The rest of the story. *Academy of Management Review*, 33(2), 362-377.

Freidman, T. (2007). *The world is flat: A brief history of the 21st century (3rd ed.).* New York, NY: Picador.

Fullan, M. (1993). Innovation, reform, and restructuring strategies. In G. Cawelti (Ed.), Challenges and achievements of American education (pp. 116-133). Alexandria, VA: Association for Supervision and Curriculum Development.

Fullan, M. (2001). *The new meaning of educational change (3rd ed).* New York: Teachers College Press.

Fullan, M. (2006). *Turnaround leadership.* San Francisco, CA: Jossey-Bass.

Fullan, M. (2007). *The new meaning of educational change (4th ed.).* New York: Teachers College Press.

Fullan, M. (2008). *The six secrets of change.* San Francisco, CA: Jossey-Bass.

Gardner, D.P. (1983). A nation at risk. Washington, D.C.: The National Commission on Excellence in Education, US Department of Education.

Gardner, H. (2007). *Five minds for the future*. Boston, MA: Harvard business Press.

Gehler, C.P. (2005). Agile leaders, agile institutions: Educating adaptive and innovative Leaders for today and tomorrow. Retrieved from http://www.au.af.mil/au/awc/awcgate/ssi/gehler.pdf.

Gilley, A., Gilley, J. W., & McMillan, H. S. (2009). Organizational change: Motivation, communication, and leadership effectiveness. *Performance Improvement Quarterly*, 21(4), 75-94.

Gilley, J. W., & Maycunich, A. (2000). *Beyond the learning organization: Creating a culture of continuous growth and development through state-of-the-art human resource practices*. Cambridge, MA: Perseus.

Gladwell, M. (2000). *The tipping point: How little things can make a big difference.* New York and Boston: Little, Brown.

Glanz, K., Rimer, B.K., & Viswanath, K. (2008). *Health behavior and health education: Theory, research, and practice (4th ed.).* San Francisco, CA: Jossey-Bass.

Glass, T.E., & Franceschini, L.A. (2007). *The state of the American school superintendency: A mid-decade study.* Blue Ridge Summit, PA: Rowman & Littlefield Education.

Goldin, I. (2009, July). TED: Navigating our global future [Video file]. Retrieved from http://www.ted.com/talks/lang/eng/ian_goldin_navigating_our_global_future.html

Hallinger, P., & Heck, R.H. (1998). Exploring the principal's contribution to school Effectiveness: 1980-1995. *School Effectiveness and School Improvement*, 9(2), 157-191.

Hamel, G. (2002). *Leading the revolution*. Boston, MA: Harvard Business School Press.

Hanushek, E.A., & Lindseth, A.A. (2009). *Schoolhouses, courthouses, and statehouses: Solving the funding-achievement puzzle in America's public schools.* Princeton, NJ. Princeton University Press.

He, W., & Nie, M. (2008). The impact of innovation and competitive intensity on positional advantage and firm performance. *Journal of American Academy of Business*, 14(1), 205-209.

Hersey, P., Blanchard, K.H., & Johnson, D.E. (2008). *Management of organizational behavior:Leading human resources (9th ed.).* Upper Saddle River, NJ: Pearson Education Inc.

Hesselbein, F., Goldsmith, M., & Somerville, I. (2002). *Leading for innovation and organizing for results.* San Francisco, CA: Jossey-Bass.

Holloway, R.E. (1977). *Perceptions of an innovation.* Syracuse University Project Advance: Ph.D. Dissertation: Syracuse, NY.

Hoyle, J.R., Bjork, L.G., Collier, V., & Glass, T. (2005). *The superintendent as CEO: Standards-based performance.* Thousand Oaks, CA: AASA & Corwin Press.

Hurt, H.T., Joseph, K., & Cook, C.D. (1977). Scales for the measurement of innovativeness. *Human Communication Research*, 4, 58-65.

Hurt, H.T., & Teigen, C.W. (1977). *The development of a measure of perceived Organizational Innovativeness. In B.R. Ruben (Ed.), Communication Yearbook I (pp. 377-385).* New Brunswick, NJ: Transaction Books.

Jacobsen, D.M. (1998). Adoption patterns and characteristics of faculty who integrate computer technology for teaching and learning in higher education. Dissertation Abstracts International, 59(12), 4409A. Retrieved from Proquest Digital Dissertation database. (UMI No. AAT NQ34679).

James, J. (1996). *Thinking in future tense: A workout for the mind.* New York, NY: Touchstone.

Johansson, C., & Heide, M. (2008). Speaking of change: Three communication approaches in studies of organizational change. *Corporate Communications: An International Journal*, 13(3), 288-305.

Kanter, R.M. (1983). *The change masters*. New York: Simon & Schuster.

Kanter, R.M. (1991). *Change-master skills: What it takes to be creative*. Newbury Park, CA: Sage Publications.

Kanter, R.M. (1997). *Rosabeth Moss Kanter on the frontier of management*. Boston, MA: Harvard Business School Publishing.

Karoly L.A., & Panis, C.W. (2004). The 21st century at work: Forces shaping the future workforce and workplace in the United States (vol. 164) Rand Corporation.

Katz, E., & Lazarsfeld, P. (1955). *Personal influence*. New York, NY: Free Press.

Kotter, J.P. (1996). *Leading change*. Boston, MA: Harvard Business Press.

Laforet, S. (2011). A framework of organizational innovation and outcomes in SMEs. *International Journal of Entrepreneurial Behavior and Research*, 17(4), 380-408.

Lazarsfeld, P.F., Berelson, B., & Gaudet, H. (1944). *The people's choice: How the voter makes up his mind in a presidential campaign.* New York, NY: Columbia University Press.

Less, K.H. (2003). Faculty adoption of computer technology for instruction in the North Carolina Community College System. (Doctoral dissertation, East Tennessee State University, 2003). Retrieved from Proquest Digital Dissertation database. (UMI No. AAT 3097072).

Lowery, M. (1994). Collaboration as an instructional innovation. 1994 National Convention of The Association for educational Communications and Technology.

Lunenburg, F., Ornstein, A, (2004). *Educational administration: Concepts and practices, (4th ed.).* Belmont, CA, Wadsworth/Thomson Learning.

Marion, R. (2002). *Leadership in education: Organizational theory for the practitioner.* Upper Saddle River, NJ: Merrill Prentice Hall.

Marzano, R. J. (2003). *What works in schools: Translating research into action.* Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, R.J., Waters, T., McNutty, B.A. (2005). *School leadership that works: From Research to results.* Alexandria, VA: Association for Supervision and Curriculum Development.

McCroskey, J.C. (2006). Communication research measures: Individual innovativeness. Retrieved from http://www.jamescmccroskey.com/measures/innovation.htm

McCroskey, J.C. (2006). Communication research measures: Perceived organizational innovativeness. Retrieved from http://www.jamescmccroskey.com/measures/orginnov.htm

McDermott, B., & Sexton, G. (2004). *Leading innovation: Creating workplaces where people excel so organizations can thrive.* Canada: Nova Vista Publishing.

McQuail, D. (2005). *Mass communication theory (5th ed.).* Thousand Oaks, CA: Sage Publications.

Medlin, B.D. (2001). The factors that may influence a faculty member's decision to adopt electronic technologies in instruction (Doctoral dissertation, Virginia Polytechnic Institute and State University, 2001). Retrieved from Proquest Digital Dissertation database. (UMI No. AAT 9542260).

Merchant, K. (2012). How men and women differ: Gender differences in communication styles, influence tactics, and leadership styles. Retrieved from http://scholarship.claremont.edu/cgi/viewcontent.cgi?article=1521&context=cmc_theses.

Miller, D. C., Malley, L.B., & Owens, E. (2009). *Comparative indicators of education in the US and other G-8 countries.* Darby, PA: Diane Publishing.

O'Hare, M. (1988). *Innovate!* New York, NY: Basil Blackwell.

Oldenburg, B., & Glanz, K. (2008). Diffusion of innovations. *Health Behavior and Health Education-Theory Research and Practice*, 313-330.

Palandra, M. (2008). One district account of system-wide renewal. Retrieved from http://www.aasa.org/uploadedFiles/Publications/Journals/AASA_Journal_of_Scholarship_and_Practice/Winter08FINAL.pdf.

Pascopella, A. (2011). Superintendent staying power. *District Administration*, 47(4), 31-40.

Patel, G., & Buiting, S. (2013). Gender differences in leadership styles and the impact Within corporate boards. Retrieved from http://www.cpahq.org/cpahq/cpadocs/Genderdiffe.pdf.

Patterson, K., Grenny, J., Maxfield, D., McMillian, R., Switzler, A. (2008). *Influencer: The power to change anything.* New York, NY: McGraw-Hill.

Pinks, D.H. (2005). *A whole new mind: Moving from the information age to the conceptual age.* New York, NY: Riverhead Books.

Quinn, R.E. (2004). *Building the bridge as you walk on it: A guide for leading change (1st ed.).* San Francisco, CA: John Wiley & Sons.

Reeves, D. B. (2005). *Accountability in action: A blueprint for learning organizations. The plan you need to help you exceed NCLB requirements*. Englewood, CO: Lead + Learn Press.

Rogers, E.M. (1962). *Diffusion of innovations (1st ed.).* New York, NY: Free Press.

Rogers, E.M. (1983). *Diffusion of innovations (4th ed.).* New York, NY: Free Press.

Rogers, E.M. (2003). *Diffusion of innovations (5th ed.).* New York, NY: Free Press.

Rorrer, A., Skrla, L., & Scheurich, J. (2008). Districts as institutional actors in educational reform. *Educational Administration Quarterly*, 44(3), 307-358.

Rowan, B., & Miskel, C. G. (1999). *Institutional theory and the study of educational organizations. In J. Murphy & K. S. L. (Eds.), Handbook of research on educational administration (2nd ed., pp. 359-383).* San Francisco, CA: Jossey-Bass.

Ryan, B., & Gross, N.C. (1943). The diffusion of hybrid seed corn in two Iowa communities. *Rural Sociology*, 8, 15-24.

Sahin, I. (2006). Detailed review of Rogers' diffusion of innovations theory and Educational technology-related studies based on Rogers' theory. *The Turkish Online Journal of Educational Technology*, 5(2), 14-23.

SCANS Commission. (1991). What work requires of schools: A SCANS Report for America 2000. The Secretary's Commission on Achieving Necessary Skills, Washington, D.C.: US Department of Labor.

Scott, W. R. (2003). *Organizations: Rational, natural and open systems (5th ed.).* Upper Saddle River, NJ: Prentice Hall.

Senge, P.M., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2000). *A fifth discipline resource: Schools that learn.* New York: Doubleday.

Sherman, W. H. (2008). No child left behind: A legislative catalyst for superintendent action to eliminate test-score gaps. *Educational Policy*, 22(5), 675-704.

Sims, R. R. (2002). *Employee involvement is still the key to successfully managing change. In S. J. Simms & R. R. Simms (Eds.), Changing the way we manage change (pp. 33-54).* Westport, CT: Quorum Books.

Smith, W. (2004). Ev rogers: Helping to build a modern synthesis of social change. *Journal of Health Communication.* 9, 139-142.

South Carolina Association of School Administrators (2012) 2012-13 South Carolina School Superintendents. Retrieved from http://www.scasa.org/displaycommon.cfm?an=1&subarticlebr=50.

South Carolina Department of Education (2012) 2012 State Report Card. Retrieved from http://ed.sc.gov/data/report-cards/2012/.

Togneri, W., & Anderson, S.E. (2003). Beyond islands of excellence: What districts can do to improve instruction and achievement in all schools: A leadership brief. Learning First Alliance.

U.S. Census Bureau (2012). Poverty thresholds: 2012. Retrieved from http://www.census.gov/hhes/www/poverty/data/threshold/.

U.S. Department of Education (2002). No child left behind act of 2001. Public Law No. 107-110, 115 Statute 1425.

U.S. Department of Education (1994). National goals for education: Goals 2000. Public Law No. 103-227.

Vakola, M., & Nikolaou, I. (2005). Attitudes towards organizational change: What is the role of employees' stress and commitment? *Employee Relations*, *27*(2), 160-174.

Valente, T.W. (2010). *Social networks and health: Models, methods, and applications.* New York, NY: Oxford University Press.

Van de Ven, A., & Poole, M.S. (2004). *Handbook of organizational change and innovation.* New York: Oxford University Press.

Wagner, T., Kegan, R., Lahey, L.L., Lemons, R.W., Garnier, J., Helsing, D., & Rasmussen, H.T. (2006). *Change leadership: A practical guide to transforming our schools.* San Francisco, CA: Jossey-Bass.

Weiss, S. (2005). The progress of education reform 2005. Retrieved from http://www.ecs.org/html/educationIssues/ProgressofReform.aspx.

Zimmerman, J. (2008). Working the system: Building capacity for school change. Retrieved from http://www.aasa.org/jsp.aspx.

Appendix A

Letter of Invitation and Consent

Dear (Superintendent Name),

My name is Alfred Williams and I am a doctoral candidate at the University of South Carolina in the school of Educational Leadership and Policies and a fellow South Carolina educator. I am currently conducting a research study entitled Perceptions of Innovations: An Examination of South Carolina Superintendents.

The purpose of this study is to examine the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation. In order to obtain the information required to successfully complete the study, all public school superintendents in South Carolina will be invited to participate in the study by completing a survey. The survey takes approximately 15 minutes to complete and your participation is completely voluntary.

There are no known risks associated with participating in this study. Your identity will be kept confidential and the information that you provide will be added to the body of data related to innovation and the superintendency. Neither you nor your school district will be identified in connection with any results or reporting.

Please respond to this survey by September 2, 2013. I will send one follow-up email if you do not respond by September 3.

I would greatly appreciate your participation. The completion of the attached survey will imply your consent to participate in this study. When you click the link below you will be directed to the survey.

https://www.surveymonkey.com/s/LJFDHWK

If clicking on this link does not work, please copy and paste the link in to the address bar of your Internet browser.

I deeply appreciate your cooperation and support. If you require any additional information, please do not hesitate to contact me by email at willi442@email.sc.edu or at (803) 325-4415.

Respectfully,

Alfred L. Williams
Doctoral Candidate in Educational Leadership and Policies
University of South Carolina

IMPORTANT: *The contents of this email and survey link are confidential. They are intended for the named recipient only.*

Appendix B

Survey Instrument

Procedures and Confidentiality

Perceptions of Innovations: An Examination of South Carolina Superintendents

You are being asked to participate in a research study conducted by Alfred Williams, Doctoral Candidate from the Department of Educational Leadership and Policies at the University of South Carolina. The results of this study will contribute to my dissertation, in partial fulfillment of the requirements for a doctoral degree. You have been selected as a possible participant in this study because you are a South Carolina public school superintendent.

Purpose of the study:

The purpose of this study is to examine the perceptions of South Carolina public school superintendents regarding individual and organizational attitudes toward innovation.

Procedures:

If you decide to participate in this study you will be asked to complete a short survey related to your perceptions of your individual and organizational attitudes toward innovation. The survey will be delivered using Survey Monkey and takes approximately 15 minutes to complete.

Potential Risks:

There are no potential risks associated with this study.

Potential Benefits:

This study will add to the body of scholarly literature by identifying the perceptions of South Carolina superintendents regarding individual and organizational attitudes toward innovation. It will provide public school superintendents and policy makers information regarding the implementation of innovation in public school districts.

Confidentiality:

Your identity will be kept confidential and the information that you provide will be added

to the body of data related to innovation and the superintendency. Neither you nor your school district will be identified in connection with any results or reporting. Confidentiality will be maintained by means of a password protected file that will be accessed by this researcher only. Any hard copies of confidential materials will be kept in a locked cabinet in my office and will be accessed by this researcher only.

Participation and Withdrawal:

Your participation in this study is completely voluntary and you can choose to withdraw at anytime.

If you have any questions or concerns about this study, please feel free to contact me by email at willi442@email.sc.edu or at (803)325-4415.

Alfred L. Williams,
Doctoral Candidate in Educational Leadership and Policies
University of South Carolina

Demographic Information

Directions: Please respond to the following information about yourself.

1. What is your age?

- ☐ 30 to 39
- ☐ 40 to 49
- ☐ 50 to 59
- ☐ 60 to 69
- ☐ 70 or older

2. Gender

☐ Male ☐ Female

3. Total years of experience as a superintendent?

- ☐ 1-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16-20
- ☐ 21 or longer

4. In what district are you currently employed?

5. How long have you been in your current position?

- ☐ 1-3
- ☐ 4-6
- ☐ 7-9
- ☐ 10 or more

Individual Innovativeness

Directions: People respond to their environment in different ways. The statements below refer to some of the ways people can respond.

Please indicate the degree to which each statement applies to you by marking whether you: *Strongly Disagree = 1; Disagree = 2; are Neutral = 3; Agree = 4; Strongly Disagree = 5*

Please work quickly, there are no right or wrong answers, just record your first impression.

_____ 6. My peers often ask me for advice or information.

_____ 7. I enjoy trying new ideas.

_____ 8. I seek out new ways to do things.

_____ 9. I am generally cautious about accepting new ideas.

_____ 10. I frequently improvise methods for solving a problem when an answer is not apparent.

_____ 11. I am suspicious of new inventions and new ways of thinking.

_____12. I rarely trust new ideas until I can see whether the vast majority of people around me accept them.

_____13. I feel that I am an influential member of my peer group.

_____14. I consider myself to be creative and original in my thinking and behavior.

_____15. I am aware that I am usually one of the last people in my group to accept something new.

_____16. I am an inventive kind of person.

_____17. I enjoy taking part in the leadership responsibilities of the group I belong to.

_____18. I am reluctant about adopting new ways of doing things until I see them working for people around me.

_____19. I find it stimulating to be original in my thinking and behavior.

_____20. I tend to feel that the old way of living and doing things is the best way.

_____21. I am challenged by ambiguities and unsolved problems.

_____22. I must see other people using new innovations before I will consider them.

_____23. I am receptive to new ideas.

_____24. I am challenged by unanswered questions.

_____25. I often find myself skeptical of new ideas.

Organizational Innovativeness

Directions: Organizations respond to change in different ways. The statements below refer to some of the ways members of organizations perceive their organizations' to be.

Please indicate the degree to which you agree that the statement describes your organization by marking whether you:
Strongly Disagree = 1; Disagree = 2; are Neutral = 3; Agree = 4; Strongly Disagree = 5

Please work quickly, there are no right or wrong answers, just record your first impression.

My Organization is:

_____ 26. cautious about accepting new ideas.

_____ 27. a leader among other organizations.

_____ 28. suspicious of new ways of thinking.

_____ 29. very inventive.

_____ 30. often consulted by other organizations for advice and information.

_____ 31. skeptical of new ideas.

_____ 32. creative in its method of operation.

_____ 33. usually one of the last of its kind to change to a new method of operation.

_____ 34. considered one of the leaders of its type.

_____35. receptive to new ideas.

_____36. challenged by new ideas.

_____37. follows the belief that "the old way of doing things is the best."

_____38. very original in its operational procedures.

_____39. does not respond quickly enough to necessary changes.

_____40. reluctant to adopt new was of doing things until other organizations have used them successfully.

_____41. frequently initiates new methods of operations.

_____42. slow to change.

_____43. rarely involves employees in the decision-making process.

_____44. maintains good communication between supervisors and employees.

_____45. influential with other organizations.

_____46. seeks out new ways to do things.

_____47. rarely trusts new ideas and ways of functioning.

_____48. never satisfactorily explains to employees the reasons for procedural changes.

_____49. frequently tries out new ideas.

_____50. willing and ready to accept outside help when necessary.

Appendix C

IRB Approval Document

UNIVERSITY OF SOUTH CAROLINA

OFFICE OF RESEARCH COMPLIANCE

August 12, 2013

Mr. Alfred Williams
College of Education
Education Leadership & Policies
Wardlaw
Columbia, SC 29208

Re: **Pro00027904**
Study Title: *Perceptions of Innovations: An Examination of South Carolina Superintendents*

FYI: University of South Carolina Assurance number: FWA 00000404 / IRB Registration number: 00000240

Dear Mr. Williams:

In accordance with 45 CFR 46.101(b)(**2**), the referenced study received an exemption from Human Research Subject Regulations on **8/12/2013.** No further action or Institutional Review Board (IRB) oversight is required, as long as the project remains the same. However, you must inform this office of any changes in procedures involving human subjects. Changes to the current research protocol could result in a reclassification of the study and further review by the IRB.

Because this project was determined to be exempt from further IRB oversight, consent document(s), if applicable, are not stamped with an expiration date.

Research related records should be retained for a minimum of three years after termination of the study.

The Office of Research Compliance is an administrative office that supports the USC Institutional Review Board. If you have questions, please contact Arlene McWhorter at arlenem@sc.edu or (803) 777-7095.

Sincerely,

Lisa M. Johnson
IRB Manager

cc: Edward Cox

University of South Carolina • Columbia, South Carolina 29208 • 803-777-5458

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