

Superintendent Longevity and its Relationship to Student Performance

By

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Dedication

This is dedicated to my wife Jodi and our three children, Madi, Bryce and Maci. Thank you for your encouragement and support because without it I would not have completed my dissertation. I am so glad I got to share this experience with you.

I must also want to thank my parents who always encouraged me and supported me in the decisions I made. Thank you.

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ABSTRACT

Researchers have recently focused attention on the impact of district level leadership on student achievement. Superintendents are at the heart of that discussion as they are district leaders and thus held accountable for the performance of the school district. Superintendent longevity has been an issue for many years and even though researchers have studied and identified the importance of leadership in the sustainability of school improvement efforts, the tenure of superintendents has not changed (Fullan, 2002). Understanding the impact of superintendent longevity is important to develop a better understanding of how to improve student performance.

This study focused on Iowa superintendent longevity and the relationship it has to student performance in reading, mathematics, and science. Understanding that many factors impact student achievement, district enrollment and socioeconomic status were identified as additional variables to include in this study. Sequential hierarchical regression analyses indicated that superintendent longevity was not a predictor of student performance in reading, mathematics and science. District enrollment was a predictor of student performance in mathematics and science, while socioeconomic status was a significant predictor of reading mathematics and science achievement.

Chapter 1

Education in the United States is under the microscope as reports of poor performance on standardized tests, low graduation rates and students who are unprepared for college and the workplace dominate the news. In order to improve student performance, school districts have become increasingly committed to school reform efforts. A significant amount of research (Calhoun, 1999; Curtis & City, 2009; Deal & Petersen, 1999; Fullan, 2002; Marzano, 2003; Wahlstrom, et al., 2010) has been conducted around school reform focused specifically on school improvement initiatives, the role of the teacher and the role of the building principal. Recently researchers (Alsbury, 2008; Hoyle et al., 2005; Waters & Marzano, 2006) have begun to focus on the superintendent and the role district level leadership plays in school improvement. Common sense would suggest that superintendents impact student achievement, as they are instrumental in creating a vision, creating a culture of improvement and setting the direction for a school district. Unfortunately turnover of superintendents is too common in school districts and with every change in leadership comes a new direction and changes in priorities (Olson, 1995). Yet transforming educational systems requires solid leadership at every level of the system (Fullan, 2002).

Consistency in the superintendent position creates stability in the district and continuity in terms of the district vision, goals and beliefs (Whittle, 2005). When superintendents lose their jobs or quit, all levels of the district feel the consequences (Renchler, 1992). According to Whittle (2005), new

superintendents are frequently hired from outside the district with a new plan, new strategies and new ways of leading the school district. Leadership continuity in America's top ten companies is two times greater than that of the largest ten school systems (Whittle, 2005). Leadership in schools is the future of educational reform but the turnover rate is so high and it has created a leadership problem according to Fullan (2002).

Leaders in education frequently look to the business world when studying leadership. Collins (2001) examined leadership of successful corporations and found that most of them had similar types of leaders. A recent look at Chief Executive Officers (CEO) of the Standard & Poor's (S&P) 500 companies revealed that 28 CEOs had served as the head of their company for 15 years or longer and 25 of 28 have seen their companies exceed S&P's index performance during that time (Lublin, 2010).

One of the most significant events in the life of a school is when it undergoes a change in leadership (Hargreaves, 2009). Yet superintendent turnover has been an issue in education for some time and a recent American Association of School Administrators survey (2006) indicated that the revolving door of the superintendency still exists. In 2000, Cooper, Fusarelli, and Carella conducted a survey to determine if there was a career crisis in the school superintendency. Findings indicated there was a crisis in that applicant pools for superintendent jobs were not yielding qualified candidates for jobs (Cooper et al., 2000). The survey results showed that the average tenure of the survey

respondents was 7 years. In 2006 a survey by American Association of School Administrators (AASA) reported the average tenure of superintendents as being 5.5 years. The executive director of AASA recently stated that there has been a significant decline in the quality and number of applicants for superintendent openings and in the next five years many current superintendents are set to retire (Adams, 2011). The trend around the country seems to be that superintendents are spending less time in one school district (Baxter, 2011).

Natkin and colleagues (2002), studied factors that impacted superintendents' turnover and found that the school board's involvement in management, support for needed construction, consolidation of school systems, district poverty level and superintendent's level of post-graduate education all significantly related to superintendent longevity. While there is significant research on the factors that lead to superintendent turnover (Natkin, G., Alborano, J., Padilla, A., & Gosh, S. 2002; Shields, B.A., 2002; Yee, G. & Cuban, L. 1996) the body of research on how superintendent turnover impacts student achievement is lacking in depth. In 1999, U.S. Secretary of Education Bennett claimed that public schools were full of people and organizations dedicated to protecting established programs and maintaining the status quo (Waters & Marzano, 2006). He referred to them as the "blob" which consumed resources but did not impact students, and superintendents were included in the blob (Waters & Marzano, 2006). The need to know if there is a significant relationship between superintendents and student achievement is critical as the

superintendent is typically the highest paid employee in a school district and is responsible for ensuring that students receive a quality education.

According to the American Association of School Administrators Annual Report (2006) educators and policy makers have not had rigorous, reliable and comprehensive studies that examine the impact superintendents have on student achievement. Marzano and Waters have examined the impact of leadership on student achievement in *Leadership that Works* (2005) which was focused on school building level leadership. Waters and Marzano (2006) dug deeper into the role of leadership in improving schools when they conducted a meta-analysis to determine how superintendent leadership affects student performance in districts. There were three major findings from this study. First, district leadership matters. Secondly, they found that effective superintendents focus on creating goal oriented school districts. Finally, superintendent tenure was positively correlated with student achievement, which was an unintended finding. Waters and Marzano (2006) discovered a “bonus finding” in their study on district level leadership in schools. That bonus finding was that superintendent longevity had a positive effect on the average academic achievement according to which supported the need to study superintendent longevity further.

This study proposed to determine if there is a relationship between superintendent longevity and student achievement. In Iowa, every school district reports publicly how students perform on the Iowa Test of Basic Skills (grades 4, 8) and the Iowa Test of Educational Development (grade 11). This is also part of

the reporting that is required by No Child Left Behind (2001). There is a need to answer this question because superintendents in Iowa and across the country are expected to produce results and if they do not they are often replaced (Hargreaves, 2009). School improvement initiatives are being implemented in districts across the country and the need for leadership is more important than ever. "Effective school leaders are key to large-scale, sustainable education reform" (Fullan, 2002, p. 16). To meet the leadership challenge of today's schools, school boards must understand the importance of effective leadership in the school improvement process and be able to create a system that supports that leadership.

Research Problem

Superintendent turnover in Iowa school districts may differ from large urban districts across the country but the turnover of superintendents in Iowa is still an issue. According to the Iowa Condition of Education Report (2010), there were 314 superintendents in the state and the average numbers of years served in their current district was 7.2. During the 2010-2011 school year there were 22 districts with a new superintendent according to the Iowa Department of Education (2010). Additionally, 29.6% of Iowa superintendents were eligible for retirement under the state retirement system in 2009-2010 according to the Iowa Department of Education (2010). In the next several years the potential for turnover in superintendents is possible due to the age of superintendents in Iowa.

On the other hand, there are school districts in Iowa that have had the same superintendent lead the district for ten years or more. According to the Iowa Department of Education (2010), during the 2010-2011 school year, there were 77 superintendents out of 314 total, who served 10 years or longer in the same school district

The need for this study was supported by the findings of Johnson's (1997) study in Arkansas, which found no statistically significant relationship between superintendent tenure and school achievement when district size, education level and income level were factored into the study. More recently, Waters and Marzano (2006) studied the relationship between district level leadership and student performance. The results of their study found there is a relationship between superintendent longevity and student performance on test scores.

Statement of Research Question

The researcher based the study on the following research questions:

- 1.) What do state data describe about superintendent longevity, district enrollments and socio economic status characteristics in Iowa school districts?
- 2.) To what extent do superintendent longevity, district enrollment and socioeconomic status predict reading proficiency in Iowa school districts?

- 3.) To what extent do superintendent longevity, district enrollment and socioeconomic status predict mathematics proficiency in Iowa school districts?
- 4.) To what extent do superintendent longevity, district enrollment and socioeconomic status predict science proficiency in Iowa school districts?

Urban school districts are the focus of much of the research on superintendent longevity. Iowa is a rural state with few urban school districts yet there is turnover in the superintendent positions in the state. Based on the findings of Marzano and Waters, there is a need to study superintendent longevity in rural states such as Iowa. The research that exists presently is dated. With the increased focus on improving schools there is a need to better understand the role superintendents play in the improvement process and if longevity is important to improving schools.

Significance of Study

This study is significant because it identifies the degree to which superintendent longevity impacts student performance. Understanding that many factors impact student performance, this study identified socioeconomic status and district enrollment as variables to include in the study to better understand the degree of impact each variable has on student achievement. Understanding the impact superintendent longevity has on student achievement will add to the body of knowledge around school improvement.

This study will aid organizations in the state of Iowa who work with school boards and with school administrators to create conditions that will encourage longevity. Understanding how longevity impacts student achievement can help superintendent candidates better understand how the job should be performed. Additionally, school boards that feel it is important to have a superintendent who is involved in school improvement will benefit from understanding the importance of superintendent longevity and the role they play in it.

Finally, graduate preparation programs and continued professional development for superintendents can be designed to help give superintendents the skills that are necessary to be successful long term in school districts.

Definitions of Key Terms and Acronyms

This section provides definitions of terms and acronyms used in this study. APR – Annual progress report. School districts in Iowa must complete an APR report to the Iowa Department of Education. Districts must also inform stakeholders and community members of student progress on indicators of student achievement and other information related to student success.

NCLB – No Child Left Behind legislation passed by the federal government in 2001.

ITBS – Iowa Test of Basic Skills. Assessment given to students at the elementary and middle school level.

ITED – Iowa Test of Educational Development. Assessment given to student in grades 9-12 in Iowa.

Proficient – scoring at or above the 41st percentile on the ITBS or ITED test compared to national percentile rank.

Grade Level – Students who score at the 50th percentile on the ITBS or ITED test compared to the national percentile rank.

SES – Socioeconomic Status. The number of students who qualify for free or reduced lunch determines poverty levels in schools.

Summary

This study sought to inform educators, administrators, policy makers and parents by identifying how superintendent longevity impacts student achievement. Building on previous research on superintendent longevity, this study focused on superintendent longevity in the state of Iowa and attempted to create a better understanding of how student achievement is impacted by superintendent longevity. Identification of the influence superintendent longevity has on student achievement will increase awareness and inform education policy makers and support organizations that help create education systems focused on improving student achievement.

Chapter 2 provides a review of the research and literature that created the foundation for this research study. Chapter 3 describes the quantitative methodology used to this study. Variables and demographic descriptions of the variables, a description of the sample and population, and a description of instrumentation data analyses and limitations are provided. Chapter 4 includes the results of the data analyses. Specifically, discussed are descriptive analyses,

screening of data, correlations and regression results. Chapter 5 summarizes the research results and provides a conclusion based on the results of chapter 4.

Policy implications as result of this study are discussed as well as suggestions for future research.

Chapter 2

Review of Literature

The foundation of this study is the research that already exists on the topic presented in Chapter 1. Chapter 2 provides a foundation by presenting what research has been conducted on the variables used in this study. The review of literature includes a section on the background and history of the superintendency. The position of superintendent has changed over time as more responsibilities and complexities have increased. In addition to managerial skills, school boards today are looking for superintendent candidates who have expertise in curriculum as well as effective instruction and who are able to demonstrate experience in improving student achievement (Black, 2007).

The research on the impact of superintendent turnover on student performance is not abundant but there is considerable research on leadership turnover. This chapter will discuss the importance of leadership in effective organizations and how longevity of leaders impacts the organization. School districts will be the major focus in chapter two while making connections to leadership longevity in organizations in the business world as well as the health care profession.

The review of literature that was done revealed that there are few studies on the issue of superintendent turnover and how it may impact student performance. The researcher conducted a search using the Education Research in Curriculum (ERIC) database accessed through Cowles Library at Drake

University. The Dissertation Abstracts International and Comprehensive Dissertation Index showed that little work had been done on this topic.

Student enrollment in school districts is a popular topic in education because enrollment often impacts funding and resources. The number of school districts in a state is frequently discussed during tough economic times, as education is a large part of a state's budget. While many are in search of what the ideal school size is, that is difficult to establish. This chapter will explore what the body research says about the relationship between student enrollment size and student achievement.

The relationship between Iowa districts' SES population and superintendent longevity will be examined as well. Students in public schools come from diverse backgrounds. Ethnic and racial differences exist and socioeconomic status varies among students in a school. Family socioeconomic status of students is a significant factor in a child's education. This chapter will discuss what the existing body of research says about the relationship between student achievement and socioeconomic status.

Student achievement in the state of Iowa is largely measured by how students perform on the Iowa Test of Basic Skills (ITBS) and the Iowa Test of Educational Development (ITED). In the age of No Child Left Behind (NCLB), Iowa uses ITBS and ITED to measure student achievement and results are reported to communities and the state department of education. Iowa established the definition of proficiency as scoring at the 41st percentile or above on national

norms. Proficiency scores in reading, mathematics and science at grades 4, 8 and 11 are reported according to the State Report Card for No Child Left Behind (2010).

Background and History

Local school districts rooted in the nation's principles of liberty and peace is unique to the United States (Kowalski, 1999). In colonial times, schools were governed by town meetings and subsequently placed under the control of elected officials.

The position of superintendent emerged in the mid 1800's with thirteen urban school districts establishing the superintendent position between 1837-1850. Most major cities had a school superintendent by 1890 (Kowalski, 1999). In the early nineteenth century, the population of the United States began to grow rapidly as immigrants flooded the country (Collier, 1987). This created a need for larger school organizations because small, rural schools that were typical in most communities were not able to meet the needs of students. Many schools had one teacher who reported to a board of trustees (Sawyer, 2010). It was during this time that the position of the superintendent was created. The role of the superintendent was largely focused on instruction (Collier, 1987). According to Kowalski (1999) a major responsibility of superintendents at this time was to write a uniform course of study that could be implemented in all schools in the system.

Schools continued to increase in enrollment and the demands for education from communities and the government grew, thus changing the

superintendent position. In the 1900's the superintendent emerged as a businessperson with managerial responsibilities that included managing district budgets and operations (Collier, 1987). In the 1900's training and educational requirements to obtain superintendent positions increased and in turn changed the position from that of a businessperson to a professional educational leader. "The job of the superintendent was not and is not a static position" (Collier, 1987, p.21). As society changed, the role of education changed creating more demands on schools, which impacted school leaders.

Education reform has occurred throughout the history of the United States. During the time period from 1980 to the current day, there have been several waves of education reform. *A Nation at Risk* (1983) began decades of reform efforts. *A Nation at Risk* began the focus on increasing accountability. Improving student performance on standardized tests, graduation rates, tightening teacher licensure requirements (Hoyle, et al., 2005) were a result of *a Nation at Risk*. State government pushed mandates and requirements that reached into classrooms during this time.

The second wave of education reform occurred between 1986 and 1999 (Hoyle et al., 2005). Reform efforts reaffirmed the need to improve student achievement while calling attention to the changing demographics among the student population in the United States. The number of Hispanic students, Asian students, and special needs students as well as students from low socioeconomic backgrounds were increasing. The focus of reform efforts was to

redesign teaching and learning strategies to meet the needs all students (Hoyle, et al., 2005).

A third wave of education reform occurred from 1990 to 2003. It was during this time that No Child Left Behind was enacted. Reform efforts moved to holding schools accountable for improving student test scores and schools that did not improve received punishments. The goal of No Child Left Behind was to have every student proficient in reading and mathematics by 2014.

The job of superintendent of schools in Iowa cannot be discussed without addressing the impact of educational reform. Many of the recent reform efforts have come from federal legislation known as No Child Left Behind (2001). Since this legislation was passed, reporting requirements such as the Annual Progress Report (APR) and Comprehensive School Improvement Plan (CSIP) have been placed on schools. These reports are provided annually to the department of education and to local communities. The state department of education identifies schools that do not show improvement toward having every student proficient. Those districts are labeled as in need of assistance and with that label comes sanctions such as having to replace all staff and allowing parents to send their children to other schools or districts. This places a great deal of pressure on superintendents to ensure that students are being taught by quality instructors who use the district's curriculum and provide challenging educational experiences for students (Curtis & City, 2009).

In 2006 the American Association of School Administrators (AASA) surveyed superintendents across the country. The data revealed an average tenure of 5.5 years (Vogt, 2007). Superintendents continue to move from district to district for a variety of reasons and there have been studies as to why superintendents leave school districts (Natkin, et al., 2002). The role of leadership in the improvement process has been researched and results support the need for leadership in the school improvement process. According to Fullan (2002), effective leaders tend to engage and motivate members of the organization with their energy and ability to communicate their vision for the organization. Sustainable leadership was the focus of Fullan's (2002) work. Fullan stated that the current state of leadership in school districts is disruptive; leaders are not stable over time (Fullan, 2002). Districts that have made improvements in student achievement have had quality leadership in place to create a vision for the reform efforts according to Fullan (2002).

Role of the Superintendent

The job of school superintendents has changed over the years. No longer are school boards looking for leaders who simply manage the school district, they are seeking instructional leadership with the ability to lead district reform efforts. In a survey of superintendents by the American Association of School Administrators (AASA) in 2000, the most daunting task faced in the job was that of increasing student achievement (Byrd, et al. 2006). Accordingly, forty one percent of school boards identified raising student achievement as their primary

mission (Byrd et al, 2006). School improvement is a major part of the job today and in order to improve student achievement, significant transformation is needed in schools.

According to Cuban (1998), superintendents have always been expected to manage school districts. In education today, there is much discussion about balancing the leadership role and the managerial role and how they can be at odds with one another. As managers superintendents ensure the system operates smoothly, but as leaders superintendents are trying to make change that will lead to improvement and impact the performance of the organization. Superintendents must balance being manager and instructional leader along with the political aspects of the position. Historically, superintendents have been expected to have knowledge of curriculum and instruction (Cuban, 1998). Understanding exactly what instructional role superintendents should play in a school district is reflected in current research and thinking in education. In the 1990's, much of the literature about the role of superintendents was about leading instructional teams. Then literature shifted to school based decision-making and came full circle back to the superintendent leading instructional teams (Cuban, 1998). Today it is a common expectation of school boards that superintendents lead teachers and principals in curriculum work and improving test scores (Black, 2007).

Unfortunately, the political role demands the time and focus of superintendents. Superintendents have to play "politics" within the school system

as they work to build support for their agendas (Cuban, 1998). They also must be able to understand the larger political system that impact schools as superintendents are asked to implement what state legislatures, governors, and the U.S. Congress decide in the area of education.

When considering the role of school superintendents, the size of the school district impacts the type of work the superintendent does. The types of improvement reforms are often similar regardless of school size. However, the degree the superintendent is involved in those reforms is quite different in smaller schools and large schools (Hentschke, et al., 2009). The differences have little to do with individual expertise but more about the size of the system and the organizational structure that is in place. These differences determine the level of direct involvement superintendents have in school reform efforts to improve student achievement.

Researchers have described the critical roles that school leaders play in creating effective schools and school districts for more than 25 years (Johnson & Uline, 2005). In order to have better leadership, graduate preparation programs must be improved so that school leaders have the skills to lead organizational reform (Johnson & Uline, 2005). NCLB (2001) put many demands on school districts; one of which is the requirement that districts improve student achievement among demographic groups (Johnson & Uline, 2005). This creates challenges for school leaders and school districts.

The Interstate School Leadership Licensure Consortium (ISLLC) developed a set of standards to inform preparation and continued professional development of school administrators (Johnson & Uline, 2005). In many states including Iowa, these standards are used in evaluating school leaders. The first standard is establishing a vision of learning in a school district. A vision sets the direction of the organization and as discussed earlier, when leaders change frequently, the vision of learning may change for a local district.

Leadership Turnover

Many factors contribute to superintendent turnover, such as personal and family issues as well as professional advancement (Byrd, et al., 2006). Other conditions, such as poor relationships with school boards, political agendas by board members, district financial challenges and the pressure of the position lead to superintendent turnover. Natkin, et al.(2002) identified factors significantly related to superintendent longevity: the extent to which school boards are involved in the management of the district, support for needed construction projects to improve facilities, consolidation of school systems, district poverty level, and post-graduate work by the superintendent. These factors were the same regardless of size of school. Today, the conditions of the superintendent position have worsened due to declining resources and resulting staff reductions (Adams, 2011).

Superintendent tenure is short in American public schools for a variety of reasons, yet research supports the need for sustainable leadership in schools

(Fullan, 2002). A particularly applicable study cited by Waters and Marzano (2008) was a doctoral dissertation by Johnson (1997) at the University of Arkansas that studied the relationship between superintendent turnover and student performance. The researcher in this study sought to bring meaning to the problem of short superintendent tenure and how it impacted student achievement. Johnson made a case for the fact that the role of the superintendent has changed over the years and the age of accountability was placing a greater emphasis on results. Findings from Johnson (1997) indicated however, that there was not a significant relationship between superintendent longevity and student achievement. These findings are now 14 years old and the environment in which superintendents work is much different thus there is a need to again study the research questions posed by Johnson.

The fact that there is a public discussion of the “crisis” of rapid turnover of superintendents underscores the conviction that superintendents need sufficient time to design the district changes, mobilize support for reform agendas, make adaptations as implementation unfolds and work to institutionalize those innovations that have improved the quality of schooling (Yee & Cuban, 1996). According to Yee & Cuban (1996) a superintendent would need at least five years to accomplish the items listed above.

Turnover of employees at any level in an organization has an impact. “In small schools with a limited staff, turnover may affect the organizational performance more than in larger districts because the turnover of one individual

can have a much larger impact on the organization” (Meier & Hicklin, p. 577). In small schools, administrative staff may be one or two people who have numerous responsibilities related to the operation and performance of the school while large schools may have many administrators with the responsibilities divided among departments. If one person leaves, the responsibilities can be absorbed or the replacement can be trained and supported while smaller schools may not have the ability to do that.

When superintendents in urban schools lose their jobs or quit, all levels of the district’s educational system feel the consequences (Renchler, 1992). When given proper time, superintendents can plan, implement and evaluate new programs and policies that can gradually lead to improvement (Renchler, 1992). Stability is important in schools just as in any organization. Students ultimately suffer when there is constant change in leadership and that is why there has been such a concern about the frequent turnover of superintendents in urban school districts.

Comparison with other Professions

When comparing leaders in successful educational organizations with successful leaders in the business world, similar traits exist. (Fullan, 2002). The comparison of superintendents and chief executive officers (CEOs) is one that is discussed frequently in leadership literature. Comparing the length of tenure for CEOs of larger corporations to that of superintendents in large urban districts shows how different turnover is among superintendents and CEOs. The

leadership continuity factor of America's largest ten companies is two times greater than that of its largest ten school systems (Whittle, 2005). According to Whittle (2005) the public has basically ignored the frequent firing of school leaders while the firing of teachers results in outrage in communities. Leadership continuity in school districts impacts the performance of the district. Frequently, new superintendents are hired from outside the district with a new plan, new strategies and new sayings (Whittle, 2005).

Research has been conducted on the impact of leadership on business and other organizations outside of education. Superintendents are often compared to CEOs of corporations because their positions have many similarities. Collins (2001) studied successful companies to find out what made them different and found out that the leaders and their leadership behavior was critical to the success of their companies. His intention was not to look at the leaders of the companies but the research team could not ignore the leadership characteristics that surfaced with each company (Collins, 2001). An earlier study by Lieberman and O'Conner (1972) on organizational performance found that industry effects such as the competitive state of the industry to the size and structure of the company accounted for almost 30 percent of the variance in corporate profits. Additionally, CEO effects accounted for 14 percent of the variance in corporate profits (Manzi, 2010). Other studies have been conducted more recently and found results similar according to Manzi (2010).

As the researcher alluded to earlier, the research that exists on how superintendent turnover impacts the performance of a school district begs for a comparison to other professions. For example, turnover of hospital CEOs is an issue in the health care profession. Between the years 1996 and 2002, CEO turnover was between 14% and 18% (Khaliq, et al., 2006). Khaliq and colleagues (2006) conducted a study about perceptions of hospital CEOs regarding the effects of CEO turnover, which was one of the first such studies in the field.

Hospital CEOs were surveyed using a structured questionnaire consisting of twenty-five open and close-ended questions (Khaliq, et al., 2006). Completed surveys addressing a broad range of topics were returned by 805 hospital CEO's resulting in a 38% participation rate. Of those who responded, the average tenure was 5.5 years.

According to Khaliq and colleagues (2006), hospital CEOs reported that important activities were postponed or halted when the CEO leaves. Physician recruitment stopped, as did the development of new services when the CEO departed. Strategic planning stopped or failed to start while the hospital was searching for a new CEO. Finally, the stability of other executive positions was affected when the CEO left according to Khaliq and colleagues (2006). These issues exist in schools when the superintendent leaves. Reform initiatives often lose traction, as the focus of the new leader may be different (Slavin & Madden, 2001). These types of issues illustrate why leadership sustainability in all organizations is critical for effective, lasting reform (Fullan, 2002).

Superintendent Turnover's Impact on Student Performance

Alsbury (2008) conducted a study to determine if school board member turnover and superintendent turnover had an impact on student achievement. Many believe that school board member and superintendent turnover create a disruption to the educational progress of schools, particularly during periods of educational reform or systemic school change (Alsbury, 2008). Alsbury's study was conducted in Washington where students take the Washington State Assessment of Student Learning (WASL) test each year. Additionally, his research sought to determine if a significant relationship existed between change in student WASL scores and the rate of school board turnover, politically motivated school board turnover and superintendent turnover (Alsbury, 2008).

Quantitative analysis using turnover rates and student test scores was conducted to determine the presence or absence of a relationship between superintendent turnover and student achievement. The Pearson chi-square test of independence was used to establish whether a significant relationship between the two variables existed. Alsbury (2008) compared district sizes to determine urban (23 districts) versus rural (273 districts).

Alsbury found that superintendent turnover had no statistical significance on test scores collectively, however, in districts of 500 students or more, a statistically significant relationship appeared (Alsbury, 2008). Districts were categorized by the number of superintendents they had over a period of time and compared to changes in WASL scores from 1993-2001 from student cohort

groups. Lack of turnover in districts of 500 or fewer students was associated with declining scores while increased turnover in districts with 500 students was connected to improved student achievement.

After analyzing school level leadership and its impact on student achievement, Waters and Marzano (2006) turned their attention to district level leadership. Using a meta analysis as their research method, they analyzed the literature in the area of district level leadership and student achievement. One of their initial research questions was, “what is the strength of relationship between leadership at the district level and average student academic achievement in the district?” (Waters & Marzano, 2006 p.7). Of the twenty-seven reports analyzed, fourteen contained information about the relationship between overall district-level leadership and average student achievement in the district. The computed correlation between district leadership and student achievement was .24, which was statistically significant (Marzano & Waters, 2009).

A study done in 1997 by Johnson used data from the Arkansas Department of Education Annual School District 1994-1995 Report Card. School performance variables were examined, including percentage of student performing above or below the 50th percentile on a state assessment, average ACT score and high school completion rates. The researcher also identified independent variables that influenced school performance such as school district size, family income level, and adult education level. (Johnson, 1997). School

districts were categorized as having a short-term superintendent or a long-term superintendent.

This study found no significant relationship between superintendent tenure and school achievement when district size, education level and income level were factored. This was contrary to the researcher's assumptions at the beginning of this study (Johnson, 1997).

While the research questions in Johnson's study are not identical to the research questions in this study, there are reasons to include this study in the literature review. There have been many changes in education since 1997 including more research on effective school leadership and effective school reform initiatives. Conducting a similar study in a different state in the current decade will add to the understanding of the problem of superintendent longevity.

While much of the research on leadership in schools and its impact on student achievement has focused on the building principal, less attention has been given to the impact district leadership has on student achievement. There has been a long held belief that district leadership in schools does impact student achievement, but until recently this belief has been undocumented (Waters & Marzano, 2006). There are both theoretical and empirical reasons to expect that superintendents might influence the instructional performance of school districts (Hart & Ogawa, 1987). Superintendents can limit the range of options available to principals and they can impact the effectiveness of principals, which influence student achievement in school districts (Hart & Ogawa, 1987). Researchers have

found that superintendents can influence the management style of principals by modeling behavior that is consistent with a particular style and through the development of organizational climate (Hart & Ogawa, 1987).

While the work done by Hart and Ogawa is dated and the role of the superintendent and the educational environment has changed since 1987, the results of the study are significant to this study because of the focus on the superintendent and student achievement. When designing their study on district leadership, Waters and Marzano (2006) used the previous work they had done on teachers and principals. They reviewed the body of research on the topic and conducted a meta analysis to synthesize the research, such as Hart & Ogawa's, done on district leadership. The findings from Waters and Marzano (2006) indicated that district leadership does impact student achievement.

Educational researchers have looked toward business and industry to find scientific research on the impact of the chief executive officers had on the performance of the company. Lieberman and O'Connor (1972) concluded in a study of sixty-seven corporations that, after controlling for environmental factors and organizational characteristics, the leadership effect of the chief executive officer on company performance does matter (Hart & Ogawa, 1987). This supports the thought that superintendents do influence the academic performance of students in a school.

Hart and Ogawa (1987) used the methods from a study of non-educational organizations to determine if superintendents do influence academic

performance in schools. Seventy random school districts in California served as the sample. Scores in mathematics and reading on the California Assessment Program (CAP) at 6th and 12th grade were used for the study. Data on the superintendents in each of the selected school districts were drawn from the 1974-75 to 1980-81 California Directories of Public Schools.

Hart and Ogawa considered three independent variables in this study. Year was used to control for environmental factors. They reasoned that many environmental factors such as economic conditions affect organizations in annual cycles (Hart & Ogawa, 1987). District was the second independent variable and it was used to control for organizational factors that affect organizations. The third independent variable was the superintendent who is the leader of the school organization. Each independent variable was compared to the dependent variable, student achievement scores in mathematics and reading at the 6th and 12th grade on the CAP test. Hart and Ogawa reported results at 6th and 12th grades separately. Results can be found in Table 2.1 indicating the percent of variance in 6th and 12th grade scores that were attributed to the superintendent.

Table 2.1

Variance in 6th and 12th Grade Scores Attributable to Superintendents.

	6 th	12 th
Reading	% Of Variance	% Of Variance
Year	3.0	0.4
District	81.1	86.6
Superintendent	7.7	3.1
Total Variance Explained	91.8	90.1

	6 th	12 th
Mathematics	% Of Variance	% Of Variance
Year	4.9	0.5
District	79.4	85.3
Superintendent	9.4	2.4
Total Variance	93.7	88.2

The purpose of Ogawa and Hart's study was to determine whether or not superintendents influenced the academic performance of school districts. "They found that superintendents did exert influence on the academic performance of school districts" (Hart & Ogawa, p. 80). The study also showed that

superintendents had a greater influence on sixth grade test scores than on 12th grade test scores.

The Southeastern Regional Vision for Education (SERVE) is based at the University of North Carolina at Greensboro and its purpose is to power educational systems by generating, translating and disseminating research, information and knowledge (Author, 1994). SERVE focuses on the Mississippi Delta region and educational issues that are relevant across the United States. The topic of turnover in education has been studied by the SERVE organization. SERVE developed a toolkit to help school districts attract, hire and retain teachers and educational leaders. Development of this resource came at the request of school districts in the region that dealt with turnover of staff (Ahearn, et al., 2006).

In the early 1980's, in response to the Nation at Risk Report (1983), schools across the country rapidly moved to create reform efforts to try to improve schools and the education provided to students. Unfortunately, decades later, the reform efforts have not produced the results that leaders had hoped for. Serve (1994) conducted a study in the southeastern United States to determine why reform efforts had failed to produce results. States included in the study were, Alabama, Florida, Mississippi, Georgia, South Carolina and North Carolina. These states had been on the bottom of the educational ladder for many years in the United States. This study found six characteristic factors that made education reform an elusive goal rather than a reality: "1.) Instability of Political Leadership

2.) Poor economic conditions 3.) Stop and start reforms 4.) Inability to reach consensus on goals 5.) Underinvestment in training 6.) Lack of trust” (Author, p.5).

SERVE researchers found that there had been a large amount of turnover at the state level in the position of chief director of education. When leaders change at the state level, often priorities, goals and objectives change. Turnover was also common at the local level as school superintendents tended to stay only two and half to three and half years (Author, 1994). Changes in superintendents often meant changes in how the central offices in schools were run, dramatic shifts in principals and changes in the district’s priorities, goals and vision. The era of “revolving door” superintendents meant that most schools systems were in a never-ending cycle of changing leaders, changing directions and changing priorities (Author, 1994.)

These findings led the SERVE researchers to recommend that southeastern states further study superintendent turnover. They asked questions such as, is there a problem with superintendent and school board relations? If so would more school board training help create better relationships? (Author, 1994) Having leadership stability at the local level and the state level could improve the success rates of school reform according to the SERVE report (1994).

Ambach (2006) argued that in order to drastically improve student achievement in the United States, a serious educational leadership problem must be addressed. To get the most return on the taxpayer’s investment the focus

should be placed on improving the leadership of the 200 largest school districts, 50 chief state school officials and 50 other national educational leaders in the country, which Ambach referred to as The Fortune 300 (Ambach 2006). The main emphasis with this group would be on effective leadership practices for initiating and sustaining organizational improvement. Additionally, Ambach (2006) argued that when these leaders were changing positions they needed to spend six months to a year in full time study of effective leadership practices, reflecting on lessons learned and pursuing intellectual interests in other areas. Consistent, sustainable, effective leadership is necessary to improve student achievement in school districts in the United States (Ambach, 2006).

Poverty and Student Achievement

There continues to be a discussion about the impact that poverty has on a child's education as well as reform efforts by schools. Ravitch's (2010) book on public education in the United States discussed the history of education reform, some of which she was involved in while working in the United States Department of Education. Ravitch suggests that the quality of the teacher is important, however, the fact that children come to school hungry, lacking health care, born to parents who don't care about education and are living in poverty has a greater impact on a child's education than the quality of the. Schools cannot improve if we do not account for the socioeconomic background of the students who attend public schools in the United States (Ravitch, 2010).

Students from rich and poor families come to school to receive an education. Educators such as Payne (2006) have studied the impact of family income on a student's ability to learn. In the 1990s Payne wrote *Framework for Understanding Poverty*. She based her work on the theoretical construct of situated learning which states that virtually all learning occurs in situated learning environments that have context, language, relationships, and takes where you reason with stories and act on situations (Payne, 2006). She argued that students from generational poverty need bridges and strategies to make a successful transition to the environment of school. She believed that students from poverty could learn but educators must understand the culture of poverty in order to help students be successful in school.

While Payne argued that students from low-income families could learn, she recognized that student from low-income families brought challenges to school. Clearly, outside factors such as parents' income and education level were correlated with academic success (Godwin, 2000). A study by Caldus and Banston (2001) showed that participation in the federal free and reduced lunch program did have a small negative effect on academic achievement. On the 2005 NAEP assessment of mathematics skills, only 13% of 8th graders living in poverty achieved a score of proficient compared with 40% of children who were not poor (Murname, 2007). While these examples of research support the notion that parents' income level is correlated to student achievement, there is also evidence that schools can overcome these barriers.

According to Godwin (2000), the achievement of low income and minority students is neither preordained nor intractable. Schools can overcome these obstacles but must have an understanding of why the achievement gap exists (Godwin, 2000). In 2001 a policy group from the Mid-Continent Research for Education and Learning (McRel) argued that there are six main areas of concern related to achievement gaps: weak and inappropriate curricula, ineffective instruction, disengaging classroom discourse, poor student self-concept, unsuccessful adjustment to school culture and prejudice (Godwin, 2000). These are issues that can be addressed by a school system and in turn would help close the achievement gap.

School districts with an achievement gap between students from poverty and those who are not from poverty can improve the achievement gap. Stories of districts achieving success in closing the gap provide hope to districts that are struggling with achievement gaps. One such example comes from a study done in Illinois in the Golden Spikes School district that examined factors that are common among schools that were successful in closing the achievement gap. Leadership was a key characteristic examined in this study (McGee, 2004). Purposeful, proactive leadership focused on closing the achievement gap by closely examining achievement data and setting goals were common in schools that were successful in closing the achievement gap (McGee, 2004). Studies such as this help school leaders by demonstrating that, while students come with

challenges when they walk in the door, districts can still find success in educating all students.

The Rural School and Community Trust is an organization that is focused on the challenges of education in rural areas. A study by Johnson, Howley & Howley (2002) found that there was a strong relationship between poverty and achievement. Johnson, Howley & Howley examined the relationship among school size, poverty and student achievement. Their findings indicated that the interaction between poverty and school size had a negative effect on student achievement. The poorer the community and the bigger the school, the more poorly students performed.

Diaz (2008) conducted a study in Washington D.C. to determine how different variables impact student performance in reading and mathematics. One variable used in the study was socioeconomic status. The results indicated that socioeconomic status of students impacted student performance in the areas of reading and mathematics. Socioeconomic status was the strongest predictor of 4th grade reading scores according to the findings of Diaz's (2008) study.

Research indicates that poverty impacts student achievement. This body of research supports the need to include poverty as a variable in the proposed study.

Student Enrollment and Student Achievement

Schools grew large in the 20th century as the United States industrialized. Surprisingly, the body of research on enrollment and student achievement is not

large (Howley, Strange & Bickel, 2000). Student enrollment in schools is a critical issue across the country because whether districts are growing or declining in student enrollment, it creates challenges for districts. In Iowa, many schools are facing declining enrollment, which has led to the reorganization of several school districts and decreased the number of school districts in the state.

Research on school size and student achievement has often shown that smaller class sizes are better especially for students from low socioeconomic backgrounds. The Matthew Project set out to determine whether these findings were accurate by conducting a study that included four different states with different socioeconomic conditions (Howley, et al., 2000).

Researchers measured the excellence and equity effects in Ohio, Texas, Montana and Georgia. Achievement scores in each state that were required by districts and submitted to the department of education. Equity effects were based on socioeconomic status of the students in each district. Schools were categorized according to their size or enrollment. Virtually every school in each state was included in the study.

The Matthews Project results indicated that the influence of size varied according to socioeconomic level, which supported the findings to previous research (Howley, et al., 2000). Size exerted a negative influence on achievement in impoverished schools while showing a positive influence on achievement in affluent schools. While the excellence effects varied from state to state, the equity effects were strong from state to state.

The debate of which is better, large schools or small schools, takes place across the country. There are proponents for both types of schools and one can find advantages and disadvantages of both small and large schools. Recently investigations of this issue by (Tramaglino, 2010; Diaz, 2008; Lewis, 2008; Mason, 2007) indicate that school size does impact student performance.

A recent study in Washington by Diaz (2008) included 28% of the school districts in the state. Socioeconomic status, district enrollment and financial and resource allocation were examined to determine the impact of these variables on reading and mathematics performance in districts. The researcher also wanted to know which variable was the most influential factor in predicting student achievement. This correlational study used a regression analysis to predict the impact of each variable on student achievement at the 4th and 7th grade levels.

Diaz targeted schools with enrollments between 500 and 2000 students with three different tiers of schools within that enrollment span. Districts with 500-999, 1000-1499 and 1500-2000 were the three tiers used by the researcher. Statistical comparisons were made on these tiered enrollment levels as well as the socioeconomic levels and funding allocations (Diaz, 2008).

Diaz (2008) found no significant relationship between district size and student achievement. A statistically significant relationship in a negative direction was found between socioeconomic status and student achievement. In other words as the percentage of students on free or reduced lunches decreased,

student achievement increased. Finally, socioeconomic status was the most influential predictor of 4th grade reading scores.

In New Jersey, a recent study (Tramaglino, 2010) focused on the relationship between district enrollment and student achievement as well as high school enrollment size and student achievement. Language arts and math data from the New Jersey Department of Education was analyzed to answer the research questions. These data were organized by low SES and high SES. Once the data was organized the researcher conducted a bivariate correlational analysis.

This study found no statistically significant relationship between high school enrollment and student achievement in math or reading. When the researcher separated high schools according to socioeconomic status a different result occurred. In low socioeconomic high schools, as enrollment increased, student achievement in both mathematics and language arts decreased. A statistically significant negative relationship existed in low socioeconomic schools with increasing enrollment.

A review of a study by Johnson, Howley & Howley by the Rural School and Community Trust (2002), indicated strong relationships exist among school size, poverty and student achievement. The study that was reviewed was conducted in Arkansas and the findings showed that students from poverty in large schools performed more poorly than students from poverty in smaller schools. Regression and correlation analyses were used to measure how

achievement levels of student in various grades were related (Johnson, Howley & Howley, 2002). In regression analyses performed on seven different tests the interaction between district size and poverty had a negative effect on achievement.

As can be concluded from the previously cited studies, a significant body of research exists on student enrollment and the relationship to student achievement. Enrollment and socioeconomic status are significant factors in the education of children and must be considered when trying to determine the impact superintendent longevity has on student achievement in school districts in Iowa.

Measuring Student Achievement in Iowa

The No Child Left Behind Act of 2001 requires each state to provide an annual report card to the public about progress of students and schools on indicators of student achievement (Iowa Condition of Education Report, 2010). For this study, the researcher utilized scores in reading, mathematics and science on the Iowa Test of Basic Skills and the Iowa Test of Educational Development as reported by districts to the state department of education. The percentage of students who performed at the proficient level or higher was used in this study. Trajectories were established to create targets for districts to ensure they met the goal of every student scoring at the proficient level by the year 2014.

Summary

The review of the literature of superintendent turnover indicated that there was research available on the topic, although it was sparse. Several studies referenced in this section were dated, however recent studies have indicated that the topic is worthy of attention as new data contradict the older studies. In Iowa, a rural state, there are mostly small to medium sized school districts that experience leadership turnover but these types of schools are not often considered in the literature. Based on the findings by Marzano and Waters (2008) as well as Alsbury (2008), the topic of superintendent turnover and the relationship to student achievement merited more attention. Marzano and Waters (2008) referred to their findings on superintendent turnover as a “bonus finding”. Their study was not designed to research the topic of superintendent turnover, but they believed that the findings on superintendent turnover and its impact on student performance were worth referencing in their work on district leadership. This supports the need for more research on this topic. Having a better understanding of how superintendent turnover impacts student performance in schools will help school boards, superintendents and preparation programs better deal with this critical issue in education.

Chapter 3

Methodology

The purpose of this study was to understand how district level leadership impacted student achievement by determining whether superintendent longevity impacted student performance on standardized tests. Although many variables impact student achievement, the researcher chose district enrollment and socioeconomic status of families in school districts as independent variables. If superintendent longevity impacts student achievement, understanding these relationship will help school boards create environments that promote and encourage longevity in the superintendent position and help current or aspiring superintendents make career choices. It will also add to the body of knowledge on district level leadership and its impact on student achievement.

This chapter includes the research questions that drove the study as well as a description of the research design, methodological approach, population and sample, data collections, instrumentation, variables and data analysis.

Research Design and Methodology

This study utilized a quantitative approach via correlational research methodology. Correlational research in its simplest form investigates the possibility of a relationship between two variables (Fraenkel & Wallen, 2006). In its advanced form, correlational research moves to predicting dependent variables. This study was designed to determine if there was a relationship

between independent and dependent variables and the degree to which the independent variables could predict the dependent variable. This approach was deemed appropriate because the researcher wanted to better understand the relationships among variables. The researcher was interested in whether longevity in the superintendent position predicted student performance on standardized norm-referenced tests (ITBS and ITED).

Research Questions

The researcher based the study on the following research questions

1. What do state data describe about superintendent longevity, district enrollments and socio economic status in Iowa school districts?
2. To what extent do superintendent longevity, district enrollment and socioeconomic status predict reading proficiency in Iowa school districts?
3. To what extent do superintendent longevity, district enrollment and socioeconomic status predict mathematics proficiency in Iowa school districts?
4. To what extent do superintendent longevity, district enrollment and socioeconomic status predict science proficiency in Iowa school districts?

Research Setting

A survey by the American Association of School Administrators (2006) on superintendent turnover piqued the interest of the writer. As an Iowa public

school administrator, the researcher had a personal interest in the subject. Administrators who pursue the superintendency take on a large endeavor. Research affirms that the job has become increasingly complex and accountability is demanded (Byrd et al., 2006). As discussed in the previous chapters, the emphasis on improving student performance has radically changed the role of a superintendent.

Superintendent turnover has been a concern in schools for years with much of the attention being on large urban districts (Yee & Cuban, 1996). Exploring the literature on this topic, research existed about factors that lead to superintendent turnover (Byrd et al., 2006). Superintendents leave school districts for a variety of reasons, but research on the impact of superintendent turnover on student achievement is not abundant.

Iowa is a small rural state in the Midwest United States. In 2010-2011 there were 359 public school districts and 182 nonpublic schools that served 507,662 students according the Condition of Education Report (Author, 2010). The ruralness of the state was evidenced by the fact that 45.9% of the districts in Iowa had fewer than 600 students. Small schools in rural communities across Iowa are a part of the educational landscape in Iowa even though enrollment in the state has been declining, thus resulting in fewer school districts. Many students who attend schools in Iowa come from low socioeconomic families. For example, the average percent of students receiving free or reduced lunches was 37% in 2011.

In Iowa during the 2010-2011 school year there were 310 superintendents, 22 of whom were new to their district. The average tenure of superintendents during the 2010-2011 school year was just over seven years. The average age was about 55 years old, which indicated that in the next few years, many superintendents will retire,

The characteristics of full time superintendent in 1997-1998, 2008-2009 and 2009-2010 are displayed in Table 3.1. The data remained about the same in 2008-2009 and 2009-2010. The average age of superintendents during the time period reported was 51 years old. Average district experience increased from 1997-1998 to 2008-2009 from 6.7 years to 7.5 years but then decreased from 2008-2009 to 2009-2010 from 7.5 to 7.2. The biggest change was the number of full-time superintendents in the Iowa. In 1997-1998 there were 337 superintendents as compared to 314 in 2009-2010.

Table 3.1 Characteristics of Iowa Full-Time Public School Superintendents

Characteristics	1997-1998	2008-2009	2009-2010
Average Age	51.7	51.4	51.4
Average Total Experience	26.1	25.9	25.9
Average District Experience	6.7	7.5	7.2
Number of Superintendents	337	319	314

As the researcher began to explore the literature on the topic, it became evident that research on the topic of superintendent turnover and its impact on performance was negligible. Many factors impact student achievement, which made it difficult to isolate the impact superintendent longevity had on student performance on standardized tests. To better understand the strength of the relationship between superintendent longevity and student performance, additional variables, socioeconomic status and district enrollment, were tested as well.

Sample and Participants

Data needed for this study were accessed from the Iowa Department of Education database. Specifically, the researcher used data on the number of years superintendents have served in each district, the percentage of families on free or reduced lunches, district enrollment and the percent of students in each district who scored at the proficient level on standardized tests.

Student achievement data by district were codified from Iowa Department of Education public records. As was mentioned earlier, districts report proficiency levels of students in grade 4, 8 and 11 each year. Proficiency levels are reported in terms of the percentage of students in grades 4, 8 and 11 who perform at or above the 41st percentile on the National Norms for the Iowa Test of Basic Skills (ITBS) and the Iowa Test of Educational Development (ITED). The question of which school districts to include in the study was considered. Iowa is a mostly rural state made up of 359 school districts. While the role a superintendent plays

in urban districts is different from the role a superintendent plays in small rural districts, the researcher determined that including all school districts in Iowa would provide a better sample for the study and lead to more useful outcomes.

From the review of literature, the researcher discovered many factors that influence student performance other than superintendent turnover. Family socioeconomic status influences student performance. This variable must be accounted for, so district socioeconomic status was included as measured by the percentage of students who receive free or reduced lunch. This information was available on the Iowa Department of Education website.

The data collected for this study were submitted by individual school districts to the Iowa Department of Education during the 2010-2011 school year. Each school district completed numerous reports throughout the year (e.g. certified enrollment, annual progress reports, comprehensive school improvement plan, personnel reports and federal hot lunch program reports). From these reports, the Department of Education aggregated data on district enrollments, student performance data, and the number of years each superintendent had served in each district and socioeconomic status of families as represented by free and reduced lunch applications in each school district to the researcher.

Variables

Independent and dependent variables were selected for the proposed study to better understand the relationship between superintendent longevity,

socioeconomic status, district enrollment and student performance on standardized tests in K-12 school districts in Iowa.

Independent Variables.

There were three independent variables included in this study. The 2010-2011 Iowa Department of Education provided data on the percentage of students receiving free or reduced lunches in each district across the state.

Superintendent Longevity. Each district reports to the department of the number of years that the superintendent served in the district. The department of education publishes this information in the K-12 school directory each year.

Socioeconomic Status. The indicator established by the State of Iowa to determine if a family is below the poverty line is whether or not they qualify for a free or reduced lunch in the federal school lunch program. Families complete an application process. A determining official in the school district used federal guidelines to determine whether or not they qualify for free or reduced lunch prices through the federal hot lunch program. The percent of students receiving free or reduced lunches is reported to the state periodically throughout each school year. The percentage of students in each district who receive free or reduced lunches is available through the Iowa Department of Education. This was made available to the researcher upon request.

District Enrollment. Each year school districts in Iowa report their certified enrollment. Certified enrollment for each district is easily accessible through the

Iowa Department of Education website. Certified enrollment includes the number of resident students in school district

Dependent Variables

Student achievement in reading, mathematics and science served as dependent variables. Specifically, the percent of students who scored at or above the proficient level on the ITBS and ITED test were used in the study. This information was provided to the researcher by the Iowa Department of Education upon request by the researcher.

Data Analysis and Research Questions

The data were analyzed using both descriptive and inferential statistical analyses to address the research questions defined in this study. This section describes the analysis used to address each of the research questions.

Descriptive Analysis

According to Fraenkel & Wallen (2006) descriptive statistics allow researchers to describe information contained in scores with indices such as mean and median. Using SPSS software, means, standard deviations and frequencies were computed for all independent and dependent variables. Descriptive statistics were used to answer research question 1.

Inferential Statistical Analysis

Regression is the statistical process needed to find and use a prediction equation (Gravetter & Wallnau, 2009). A sequential regression analysis using a hierarchical approach was performed to answer research questions 2-4. A

correlational matrix was constructed for the variables used in the regression analyses. Three regression models were used to answer research questions 2-4.

Multiple regression is a technique that enables researchers to determine the correlation between a criterion variable and two or more predictor variables (Fraenkel & Wallen, 2006). Regression is based on linear relationship and can be expressed as:

$$Y = a + bX$$

In this sample equation, Y is the predicted outcome (dependent variable) whereas b is the predictor variable (independent variable) and a, the intercept. This study required a multiple regression approach because there were two or more predictor or independent variables. A multiple regression equation would be expressed as:

$$Y = a + bX_1 + bX_2$$

In this sample, X_1 = the value of predictor variable 1 and X_2 = the value of predictor variable 2.

A hierarchical approach was used to complete the multiple regression analysis. This was necessary due to the fact that there was more than one independent variable and it was necessary to differentiate the impact each independent variable had on the dependent variable. Independent variables were entered into two blocks for each of the three regression models. The first block included descriptions of individual school district enrollment and socioeconomic status. The second block represented superintendent years of service in the

school district. The purpose for constructing the models in this way was to measure the degree to which the district enrollment and socioeconomic status alone predicted how students perform on the Iowa Tests. Furthermore, by placing superintendent years of service in a separate block, the researcher was able to determine the degree to which superintendent years of service predicted student performance on standardized tests. Figure 3.1 provides a visual depiction of the regression model.

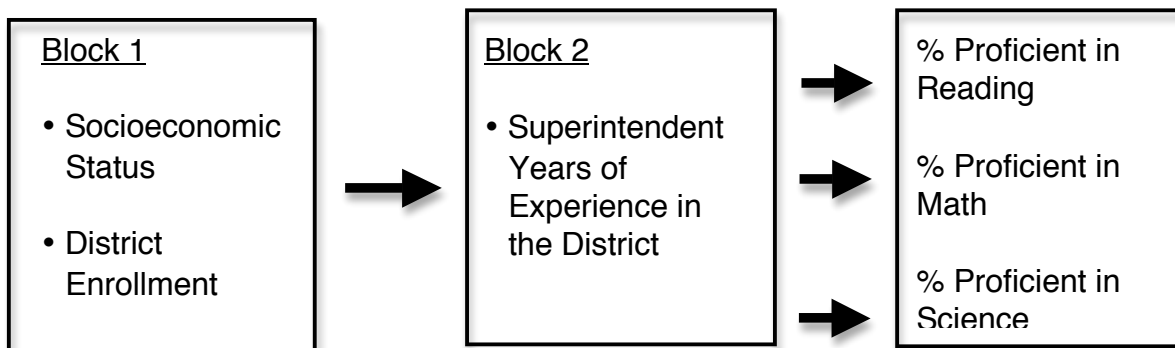


Figure 3.1 Visual Model of Sequential Hierarchical Regression Analyses

Limitations

This research was limited to the school districts in Iowa and the three independent variables that were discussed earlier. A limitation of this study was that the reported data were assumed to be accurate with no guarantee of their accuracy. The researcher is relied on individual school districts and the department of education for the data to be accurate. A further limitation was that superintendent performance was not considered, only longevity within the context of the study's variables. An additional limitation was that the study did not consider the pattern of turnover in school districts.

Summary

This chapter described the methodology utilized for this study. It included a discussion of the research design and questions as well as the independent and dependent variables. Additionally, details about how the researcher to conducted the study and analyses of the data are included. Limitations of the research concluded this chapter.

Chapter 4

Findings

The purpose of this research was to understand how district level leadership in schools impacts student achievement by studying the relationship between superintendent longevity and student performance on standardized tests. The study was conducted using 2010-2011 data from every school district in the state of Iowa. Variables such as district enrollment and socioeconomic status of students were identified through the review of literature and included in this study because of their potential influence on student achievement. While the focus of this study was on superintendent longevity, additional variables were considered as the researcher conducted the data analysis.

This chapter reports the results of the data analysis, which in turn provides answers to the four research questions used in this study. The chapter is divided into five sections. The first section describes the procedures used to screen the data to ensure that assumptions of normality were met in order to complete the data analyses. The second section reports descriptive statistics for each dependent and independent variable. The third section reports the correlations between the dependent and independent variables (required for a multiple regression analysis). The fourth section reports the results from the sequential (hierarchical) regression analysis conducted to answer research questions two through four. The final section applies the results reported in the first four

sections and answers the four research questions identified in chapters one and three.

Data Screening and Assumptions of Normality

Before a descriptive or inferential statistical analysis could be conducted, the data were screened for outliers and missing values. The initial screening indicated that there were no outliers and no missing values in the dependent and independent variables. The next step was to ascertain whether the variables met the assumptions of normality through further screening. Screening to ensure that there is a normal distribution of data is a required step in the analysis process when conducting inferential statistical analyses. This study utilized multiple regression analyses, which required that the assumptions of normality were not violated.

Most statistical tests rely on certain assumptions about the variables included and when these assumptions are not met the results cannot be trusted (Osborne & Waters, 2002). These assumptions must be met when conducting multiple regression analyses according to Kline (2005):

1. Statistical tests of multiple regression assume that the residuals are normally distributed and have equal variance across all levels of predictors.
2. The assumption of linearity is that there is a straight-line relationship between two variables. If there is a curvilinear relationship among

variables, they are ignored thus leading to the possibility of underestimating the predictability.

3. It is assumed that the scores on all variables are reliable (no measurement errors). This assumption is necessary because there is no way in multiple regression analysis to represent a less than perfect score reliability for the predictors. (p. 49)

One way, according to Tabachnick & Fidell (2007), to determine whether assumptions of normality are met is to look at the skewness and kurtosis values. Skewness is when a variable has a mean that is not in the center of the distribution. Kurtosis is when the distribution of variables is too peaked or too flat. Kline (2005) states that variables with scores over 3.0 on the skewness index are extremely skewed. Furthermore, absolute values between 8.0 and 20 on the kurtosis index have been described as indicating extreme kurtosis (Kline, 2005). Results of screening of the dependent and independent variables can be found in Table 4.1. The results showed that the enrollment and district experience variables contained non-normal skewness and kurtosis values. As a results, assumptions of normality were met.

Table 4.1

Assessment of Normality in the Model (n=359)

Variables	Skew	SE of Skew	Kurtosis	SE of Kurtosis
Enrollment	6.52	.129	57.5	.257
% Receiving Free & Reduced Lunch	.328	.129	.173	.257
District Experience	1.79	.129	2.97	.257
% Proficient in Reading *	-.473	.129	.626	.257
% Proficient in Mathematics *	-.346	.129	.409	.257
% Proficient in Science *	-.539	.129	.858	.257

* *Dependent Variable*

According to Kline (2005) one way to deal with nonnormality is with transformations, which convert original values mathematically to new values that are more normally distributed. The skewness and kurtosis of one variable, enrollment, indicated nonnormal data. Using SPSS, a transformation of data was conducted. After running a transformation, each variable fell in the normal range. The results are presented in table 4.2.

Table 4.2

Assessment of Normality in the Model (n=359)

Variables	Skew	SE of Skew	Kurtosis	SE of Kurtosis
Enrollment	.826	.129	1.41	.257
% Receiving Free & Reduced Lunch	.328	.129	.173	.257
District Experience	1.79	.129	2.97	.257
% Proficient in Reading *	-.473	.129	.626	.257
% Proficient in Mathematics *	-.346	.129	.409	.257
% Proficient in Science *	-.539	.129	.858	.257

* *Dependent Variable*

Descriptive Statistics Analysis

A descriptive statistical analysis was conducted on each variable used in this study. The advantage of descriptive statistics according to Fraenkel and Wallen (2006) is that they permit researchers to describe information contained in many scores with just a few indices, such as mean and median. “Some form of summary is necessary to interpret data collected on any variable.” (Fraenkel & Wallen, p.189) Table 4.3 reports the range of data (minimum – maximum), the mean and standard deviation for each variable.

Table 4.3

Descriptive Statistics for Dependent and Independent Variables (n=359)

Variables	Min	Max	Mean	Std. Dev.
Enrollment	64	30975	1319	2581
% Receiving Free & Reduced Lunch	.070	.803	.368	.125
District Experience	0	36	6.62	7.53
% Proficient in Reading *	.544	.983	.782	.066
% Proficient in Mathematics *	.581	1.00	.804	.067
% Proficient in Science *	.652	1.00	.844	.058

* *Dependent Variable*

Correlations

Correlational research involves the use of multiple variables to depict relationships among those variables. Understanding the degree of linearity as well as the multicollinear relationship is required. According to Tabachnick & Fidell (2007), “when variables are multicollinear or singular, they contain redundant information and they are not needed in the same analysis” (p. 83). Tabachnick & Fidell further stated that if a bivariate correlation is too high it shows as a correlation above .90 and this indicates a multicollinear relationship. The Pearson r coefficients were computed among all independent and dependent variables. Table 4.4 shows the results of the Pearson r . Based on the results it

was determined that there were no instances of multicollinearity between variables.

Table 4.4

Correlation Matrix for Dependent and Independent Variables (n=359)

Variables	1	2	3	4	5	6
1 District Enrollment	--					
2 % Receiving Free or Reduced lunches	-.190	--				
3 District Experience	-.027	-.190	--			
4 % Proficient in Reading	.052	-.552	.070	--		
5 % Proficient in Mathematic	-.023	-.537	.092	.783	--	
6 % Proficient in Science	-.087	-.479	.084	.794	.748	--

Sequential (Hierarchical) Regression Analyses

A sequential (hierarchical) regression approach was used to determine whether the independent variables were statistically significant predictors for each of the dependent variables. Three hierarchical regression analyses were conducted. There were two blocks used in each analysis. The first block included district enrollment and the percentage of students receiving free and reduced lunches. The second block was superintendent experience in the district. Dependent variables tested were percentage of students who scored at or above the proficient level in reading, math and science. The following sections report the results of the regression analyses for each dependent variable.

Reading

A sequential regression analysis was conducted on the dependent variable of percent proficient in reading. Two different blocks were used for the independent variables. District enrollment and percentage of students receiving free or reduced lunches were in block one while district experience was added in block two. Table 4.5 reports results for the variables that were in the blocks that were entered for the regression analysis; unstandardized regression coefficients (b), the standard error ($SE\ b$), standardized regression coefficients (β), and the variance (R^2) for each block.

Table 4.5

Hierarchical Regression Coefficient for % Proficient in Reading

Model	Unstandardized Coefficients		Standardized Coefficients
	b	SE b	β
1 (Constant)	0.917	0.024	
District Free or Reduced lunch	-0.298	0.024	-0.562
District Enrollment	-0.009	0.007	-0.055
2 (Constant)	0.915	0.024	
District Free or Reduced lunch	-0.297	0.024	-0.561
District Enrollment	-0.009	0.007	-0.055
District Experience	0	0	0.026*

Note¹: Model 1 $R^2 = .307$, Model 2 $R^2 = .308$

Note²: * $p < .05$

Model 1. Results for the regression analysis for block one (SES & Enrollment) indicated that the model as a whole was statistically significant predicted the percentage of students who score at or above proficient on standardized reading tests, $F = 79.02$, $p < .01$, $df = 2$. Within the model district enrollment had values of $b = .009$, $SE\ b = .007$ and $\beta = -.055$ and was not statistically significant. At the same time, percentage of student receiving free and reduced lunches results bare a statistically significant relationship with $b = -.298$, $SE\ b = .024$ and $\beta = -.562$. The R^2 value showed that the model explained

.307 or 31% of variance in % of students who score at or above the proficient level on the Iowa Tests.

Model 2. In this model, the independent variable district experience was added. Results determined that model two as a whole was a statistically significant predictor of the independent variable, percent proficient in reading indicated by $f=52.70$ and $p<.01$. Within the model district experience had values of $b=.000$, $SE\ b= .000$, $\beta= .026$ and was not a statistically significant relationship with the dependent variable (reading achievement).

Mathematics

Similar to the dependent variable % proficient in reading, a sequential regression analysis was conducted with the dependent variable % proficient in mathematics. The same two models were used in the regression analysis for % proficient in mathematics as was used with reading. Table 4.6 reports the results in the blocks where the variables were entered in the regression analysis, unstandardized regression coefficients (b), the standard error ($SE\ b$), standardized regression coefficients (β), and the variance (R^2) for each block.

Table 4.6

Hierarchical Regression Coefficient for % Proficient in Mathematics

Model	Unstandardized Coefficients		Standardized Coefficients
	b	SE b	β
1 (Constant)	.975	.024	
District Enrollment	-.021	.007	-.129
% Receiving Free or Reduced Lunch	-.301	.024	-.561
2 (Constant)	.972	.025	
District Enrollment	-.021	.007	-.128
% Receiving Free or Reduced Lunch	-.3	0.024	-.56
District Experience	0	0	.034*

*Note*¹: Model 1 $R^2 = .304$, Model 2 $R^2 = .305$

*Note*²: * $p < .05$

Model 1. Results for the regression analysis for block one indicated that the model as a whole predicted the percentage of students who scored at or above proficient on the Iowa mathematics tests, $f = 77.75$ $p < .01$, $df = 2$. Within the model district enrollment had values of $b = -.021$, $SE\ b = .007$ and $\beta = -.129$ and was not statistically significant. The percentage of student receiving free and reduced lunches results revealed a statistically significant relationship with $b = -$

.301, SE b= .024 and $\beta=-.561$. The R^2 value showed that the model explained .304 or 30% of variance in % of students who score at or above the proficient level on standardized math assessments.

Model 2. In this model, the variable district experience was added. Results indicated that model two as a whole was a predictor of the independent variable, % proficient in mathematics indicated by $F=51.97$ and $p<.01$, $df=3$. This was due to the district enrollment and percentage free and reduced lunch variables. Within the model district experience had $b=.000$, SE b= .000, $\beta= .034$ values, meaning there was not a statistically significant with district experience and the dependent variable (mathematics).

Science

The final dependent variable that was tested was the percent proficient in science. The same two models were used in the regression analysis of this independent variable. Table 4.7 indicate reports the results in the blocks that the variables were entered in the regression analysis, unstandardized regression coefficients (B), the standard error (SE B), standardized regression coefficients (β), and the variance (R^2) for each block.

Table 4.7

Hierarchical Regression Coefficient for % Proficient in Science

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	b
1 (Constant)	1.006	0.022	
% Receiving Free or Reduced Lunches	-0.238	0.021	-0.514
District Enrollment	-0.026	0.006	-0.185
2 (Constant)	1.004	0.022	
% Receiving Free or Reduced Lunches	-0.238	0.022	-0.513
District Enrollment	-0.026	0.006	-0.184
District Experience	0	0	0.028

Note¹: Model 1 $R^2 = .263$, Model 2 $R^2 = .263$

Note²: * $p < .05$

Model 1. Results for the regression analysis for block one indicated that the model as a whole predicted the percentage of students who scored at or above the proficient level on Iowa science tests, $F = 63.42$, $p < .01$, $df = 2$. Within the model district enrollment had values of $b = -.026$, $SE\ b = .006$ and $\beta = -.185$ and was statistically significant. The percentage of student receiving free and reduced lunches results reveal a statistically significant relationship with $b = -.238$, $SE\ b = .021$ and $\beta = -.514$. The R^2 value showed that the model explained .263 or 26% of

variance in percent of students who scored at or above the proficient level on Iowa science assessments.

Model 2. In this model, the variable district experience was added. Results showed that model two as a whole was a predictor of the independent variable, % proficient in science indicated by $f=42.33$ and $p<.01$, $df=3$. This was due to the district enrollment and percentage free and reduced lunch variables. Within the model district experience had $B=.000$, $SE\ B= .000$, $\beta= .028$ and was not a statistically significant relationship with district experience and the dependent variable (science).

Answers to Research Questions

Results from the regression analysis were applied to each research question in this section.

Research Question 1 – Background Characteristics

What do state data describe about superintendent longevity, district enrollments and socio economic status in Iowa school districts?

Three hundred fourteen superintendents served the 359 school districts in Iowa during the 2010-2011 school year. The mean of district experience was 6.62 years with a standard deviation of 7.53. The range of years superintendents served in school districts was zero, or new to the district to 36 years in the same school district.

During the 2010-2011 school year there were 359 school districts in the state of Iowa. Enrollments in Iowa school districts ranged from 64 to 30,975. The

mean was 1319 students with a standard deviation of 2581.48, while the median was 629.

School districts in Iowa had student populations that ranged from 7% receiving free or reduced lunches to a high of 80%. This is the indicator of poverty used by the Iowa Department of Education. The mean was 37% with a standard deviation of .124.

Research Question 2 – Reading

To what extent do superintendent longevity, district enrollment and socioeconomic status predict reading proficiency in Iowa school districts?

Superintendent longevity and district enrollment were not statistically significant predictors of reading proficiency according to the hierarchical regression analysis conducted. Socioeconomic status of students was a statistically significant predictor of reading proficiency. The free and reduced lunch variable had an inverse relationship; the higher percentage of students receiving free or reduced lunches, the lower the percentage of students who score at or above proficiency.

Research Question 3 – Mathematics

To what extent do superintendent longevity, district enrollment and socioeconomic status predict mathematics proficiency in Iowa school districts?

The regression analysis revealed that superintendent longevity was not a statistically significant predictor of mathematics proficiency in Iowa school districts. District enrollment and socioeconomic status were statistically

significant predictors of mathematics proficiency. Both variables had an inverse relationship with the dependent variable. As district enrollment grew, proficiency scores in mathematics declined. Similarly, as the percentage of students who received free or reduced lunches rose, mathematics proficiency declined.

Research Question 4 – Science

To what extent do superintendent longevity, district enrollment and socioeconomic status predict science proficiency in Iowa school districts?

Superintendent longevity was not a statistically significant predictor of science proficiency in Iowa school districts according to the regression analysis. District enrollment and socioeconomic status were each statistically significant predictors of science proficiency. The relationship between socioeconomic status and student performance was an inverse relationship meaning that as the percentage of students receiving free or reduced lunches increased science proficiency declined. The relationship between enrollment and student achievement was the same meaning that as enrollment increased science proficiency declined and

Summary

This chapter presented the results of the data analyses. Data were analyzed and determined to meet the assumptions of normality. One variable did not meet these assumptions and was transformed accordingly. A descriptive statistical analysis was conducted on each dependent and independent variable. Correlation analyses were conducted to describe the relationships among the six

variables utilized in this study. Hierarchical regression analysis indicated that superintendent longevity was not a predictor of reading, mathematics or science proficiency in Iowa school districts. District enrollment was a statistically significant predictor of mathematics and science proficiency but was not a predictor of reading proficiency. Socioeconomic status was a statistically significant predictor of reading, mathematics and science proficiency in Iowa school districts. A discussion of the results, recommendations for education and future research are presented in chapter 5.

Chapter 5

DISCUSSION, CONCLUSIONS AND IMPLICATIONS

In this chapter, the results presented in chapter 4 are discussed in the context of current literature. This chapter begins with a summary of the study followed by a discussion of the results, implications for policy and for future research.

Summary of the Study

Chapter 1 described the importance of the study and grounded the problem in research that had been conducted on the topic. This study was significant because it sought to identify the impact superintendent longevity had on student achievement. Understanding the impact that superintendent longevity has on student achievement could help policy makers, school boards and the general public understand the role a superintendent plays in improving student achievement. The results of this study could be used to design systems that promote superintendent longevity in a school district.

Chapter 2 was a review of the literature on the topic. The role of the superintendent and the changes that have occurred throughout the history of education began chapter 2. Leadership turnover in education and the impact it has on an organization as well as the factors that lead to superintendent turnover were discussed. Superintendents were compared with leaders in business or other nonprofit organizations so it was important to consider the research on leadership turnover and the impact on organizations outside education. Finally,

research that supported the purpose of this study (to determine the impact superintendent longevity has on student achievement) was included along with the research on the impact district enrollment and socioeconomic status has on student achievement.

Chapter 3 provided the methodological approach used in this study. The research design, research questions, and independent and dependent variables were presented. Additionally, details were provided as to how the data were analyzed to address each research question. Finally, the limitations of this study were discussed to conclude the chapter.

Chapter 4 presented the results of the analyzed data. Both descriptive and inferential statistics were used to address the four the four research questions. Each research question listed in chapters one and three was answered based on the results of the analysis.

The following sections of this chapter (chapter 5) are a discussion of the research results in the context of current literature related to the superintendent longevity and student achievement.

Discussion of the Results

Marzano and Waters reported in *District Leadership that Works* (2009) that a relationship between superintendents and student achievement exists. Additionally they identified specific leadership behaviors exhibited by district-level leaders and whether they were associated with improving student achievement. The results showed that five district-level leadership responsibilities or initiatives

had a statistically significant relationship to student achievement. Those five responsibilities or initiatives were:

1. Ensure Collaborative Goal Setting
2. Establish nonnegotiable goals for achievement and instruction
3. Create school board alignment with the support of district goals
4. Monitor achievement and instruction goals
5. Allocate resources to support the goals for achievement and instruction.

Their findings were clear: district level leadership impacted student achievement in a positive way. A surprising result of the study was that superintendent tenure had a positive effect on the average academic achievement of students.

Superintendent Longevity

The focus this study was superintendent longevity and the relationship to student achievement in Iowa. This study did not consider specific leadership initiatives or responsibilities, it focused on longevity. The results of this study showed that there was not a statistically significant relationship between superintendent longevity and student achievement in Iowa schools during the 2010-2011 school year.

This finding is supported in research conducted on this topic. Johnson's (1997) study in Arkansas found that superintendent turnover had no statistically significant relationship to student achievement. Johnson also included other variables such as district enrollment, socioeconomic status and level of education

of parents. The results of the Johnson study were very similar to the results of this study.

Alsbury (2008) studied superintendent and school board turnover. Superintendent turnover rates were compared with changing achievement scores. Results showed there was no significant relationship between superintendent turnover and changing achievement scores. District enrollment was a variable used in the study and in districts with 500 or fewer students the lack of superintendent turnover was associated with declining achievement scores while increased turnover was connected with increasing scores.

District Enrollment

While district enrollment was determined to be a statistically significant predictor of student achievement in mathematics and science it was not a statistically significant predictor of reading achievement. As enrollment increased, mathematics and science scores decreased. These findings are supported in studies that were reviewed for this study (Tramaglino, 2010; Diaz, 2008; Lewis, 2008; Mason, 2007). The impact of enrollment can be closely tied to socioeconomic status. The Mathew Project (2000) found that enrollment and class size had an impact on student achievement in school districts that serve a high percentage of students from impoverished backgrounds (Howley, Strange, Bickel, 2000).

Socioeconomic Status

This study found that socioeconomic status of the student was a predictor of student achievement in reading, mathematics and science. Johnson (1997) used poverty as an independent variable and found that it affected student achievement on district assessments as well as ACT scores. Johnson, Howley & Howley (2002) found that students' impoverished background had a negative impact on student achievement. Caldus and Banston (2001) found that student participation in the free or reduced lunch program had a negative impact on student achievement. Finally, Murname (2008) found that 8th grade students from low socioeconomic back grounds performed worse on the National Assessment of Educational Progress (NAEP) math test compared to students who did not come from low socioeconomic backgrounds.

Conclusions

This study sought to provide information that would help schools better understand the school improvement process by identifying how longevity of the superintendent impacts study achievement. The data points utilized were extracted from Iowa school data from the 2010-2011 school year. Understanding that many factors impact student achievement, two additional variables, enrollment and socioeconomic status, were included to determine the degree to which each independent variable could predict improved student achievement. The results established that superintendent longevity was not a statistically significant predictor of student achievement while enrollment was a statistically significant predictor of mathematics and science achievement. Socioeconomic

status was a predictor of student achievement in reading, mathematics and science. While the study did not indicate that superintendent longevity was a predictor of improved student achievement, the findings regarding socioeconomic status and enrollment are important and add to the body of knowledge in the area of school improvement.

Implications for Policy and Practice

Understanding the role leadership plays in school improvement is critical to improving education. District level leadership in schools has recently received more attention by education researchers (Marzano & Waters, 2009). Much has been written about the importance of the classroom teacher and the building principal in the process of educating students. The need to understand the role of district level leadership is necessary to design and implement systems to improve education.

The findings of this study indicated that superintendent longevity was not a statistically significant predictor of student achievement while enrollment and socioeconomic status were statistically significant predictors. The goal of this study was not to examine the issue of superintendent longevity. Instead, this study examined the relationship between superintendent longevity and student achievement. The results should not lead one to suggest that superintendent longevity in a district is not desirable, nor does it suggest implementing policies to create more longevity. Superintendent longevity is still an important issue in education because of the role leadership plays in improving schools. Leadership

is needed in schools for problems that do not have easy answers (Fullan, 2001). Improving student achievement is a complex and multi-faceted process that cannot be accomplished easily or quickly. Turnover in leadership positions presents an enormous problem because of the changes in direction and lack of follow through that come from frequent turnover of leadership (Fullan, 2001).

The major finding of this study was that socioeconomic status is a significant predictor of student achievement. Several researchers referenced and discussed in chapter 2 of this study support this finding. We know that there are schools that are successfully educating students from low socioeconomic backgrounds (Reeves, 2003). District leaders must study the school districts where students from low socioeconomic backgrounds are achieving at high levels and make changes to properly educate students all districts.

As politicians, policy makers, school board members and communities discuss education reform, it is important to study the makeup of the students in our schools. Student populations in schools, especially in rural areas of Iowa, are different from the past. Researchers have studied what works to educate students from low socioeconomic backgrounds (Reeves, 2003, McGee, 2004) and we need to look closely at that research when designing education reform at the federal, state and local levels.

Recommendations for Future Research

Additional research should be conducted using a similar design but with a longitudinal approach. This study used one year of data from school districts.

Researching districts over a longer period of time might add to the existing research on the topic. Identifying districts that have shown steady improvement over a period of time compared to districts that have not shown improvement should be considered.

Student achievement for this study was based on ITBS and ITED scores. Using ACT scores or other district assessments should be given consideration. Furthermore, using a growth model rather than proficiency scores should be considered as another way to measure student achievement in school districts in future studies.

This study did not take into account leadership behaviors exhibited by superintendents. Identifying districts that have had stability in the superintendent position and identifying the leadership characteristics that are exhibited and the relationship to student achievement would further enhance research on the topic.

This study was conducted in the state of Iowa where rural school districts are common and there are few urban areas. Future research should use a similar research design but include more school districts in other states. A mixture of urban and rural states might result in different outcomes.

Final Thoughts

The role of the superintendent is complex and often misunderstood by the public (Marzano & Waters, 2009). Stability in leadership positions can provide benefits to a school organization. While the results of this study did not establish longevity was not a predictor of student achievement in Iowa, Marzano and

Waters (2009) found that district leadership does impact student achievement. School leadership is a complex issue and this study focused on one aspect of leadership. Continued research on the impact of quality, sustained leadership in a school district is needed. Understanding how a district benefits or does not benefit can help improve the educational system in this county.

Poverty in this country has an impact on many aspects of our society. The results of this study are supported a large body of research on the impact of poverty on student achievement. Unfortunately, policy makers do not always consider poverty as they consider education reform initiatives. Findings of this study and many others show that a students' socioeconomic background is a strong predictor of achievement. As educators, school boards and policy makers consider ways to improve education, the socioeconomic status of students must be considered as a part of any reform initiative. Poverty is real educational issue that needs attention.

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