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SUPERINTENDENT EFFECT ON STUDENT OUTCOMES: LEADERSHIP STYLE, EDUCATIONAL ATTAINMENT, AND EXPERIENCE

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SUPERINTENDENT EFFECT ON STUDENT OUTCOMES:
LEADERSHIP STYLE, EDUCATIONAL ATTAINMENT, AND EXPERIENCE

by

Casey L. Allen

A DISSERTATION

Presented to the Faculty of
The College of Education and Human Services
Department of Educational Studies, Leadership, and Counseling
at Murray State University

In Partial Fulfillment of Requirements
For the Degree of Doctor of Education
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Abstract

Superintendents with five years of experience (n=48) were surveyed on Full Range Leadership style, educational attainment, and years of experience to determine whether Kentucky school superintendents had an effect on student outcomes. Data was collected on each superintendent’s district Overall Accountability Score (OAS) to determine student performance. Using the district OAS as the dependent variable, independent t-tests were performed to compare high transformational leaders to low transformational leaders, high transactional leaders to low transactional leaders, and high laissez-faire leaders to low laissez-faire leaders. Again, using district OAS as the dependent variable, a t-test was performed to compare superintendents with Kentucky Rank I certification to superintendents who had completed a terminal degree. To measure the effect of experience, OAS was the dependent variable in a t-test was used to compare superintendents with up to 30 years of experience to superintendents with more than 30 years of experience. Finally, a one-way analysis of variance (ANOVA) was used to compare three groups of superintendent experience: up to five years of experience, six to ten years of experience, and over eleven years of experience. Results of all statistical analyses lacked significant results, indicating that superintendent leadership, educational attainment, and experience did not have a relationship to student outcomes. Discussion relates the outcomes of this study to existing research and literature on superintendent leadership, but also notes the challenges of quantifying superintendent effect when looking only at direct student outcomes.

Keywords: superintendent, leadership style, student outcomes, MLQ, Kentucky
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Chapter 1: Introduction

Overview

The role of the superintendent in public schools has existed for over a century, but the focus of the superintendent’s work has evolved significantly over that time. The transformation of the superintendent role has progressed from a teacher-scholar around the turn of the century, to the current role that encompasses a multitude of tasks such as human resources, finance, governmental relations, and public relations (Kowalski, 2005a; Browne-Ferrigno & Glass, 2005). Though the tasks of superintendents are varied, empirical data shows that effective school districts have superintendents who are involved at some level in curriculum and instruction (Peteresen & Barnett, 2005).

Educational leadership preparation programs have focused intently on specific topics such as school law, ethics, finance, and curriculum and instruction. Superintendents rate the value of such courses and the level of instruction with mixed levels of satisfaction (Levine, 2005). Observers from community and industry have suggested that educational administrators need to be taught less about instruction and more about business and corporate operations, and organizational management (Feuerstein, 2013). Educators have responded that educational leadership preparation should refocus on skills necessary to provide an adequate knowledge base for the individuals who will lead schools (Kowlaski, 2008).

Whether leading in business and industry, or in the educational setting, there has long been an interest in a leader’s style of leadership. One of the most studied and discussed leadership theories is the Full Range Leadership Theory (Northouse, 2016). Based on the preliminary work of Burns (1978) and refined by Bass (1985) and Bass and Avolio (2004), Full Range Leadership examines leader and follower relationships and divides them into transactional, transformational, and lassiez-faire styles.
Transactional leadership involves an exchange between the leader and the followers (Yahaya & Ebrahim, 2016). Followers are either motivated by reward or by avoiding punishment to achieve tasks set out by leaders. Northouse (2016) notes that leaders developing followers is not important to the transactional exchange; leaders making sure that goals are achieved via a transaction is the sole motivator.

Transformational leadership, contrasted with transactional leadership, focuses on the leader-follower relationship. Transformational leaders are inspirational, share a vision, and empower followers to grow as individuals to become better even as they help the organization reach its goal (Bass & Riggio, 2006). Burns (1978) notes that transformational leadership is a process instead of a set of behaviors. While a transactional leader has but a few choices on whether to offer reward or implement punishment, a transformational leader must connect to followers and find the motivation for them to meet goals.

Laissez-faire leadership is often characterized as nonleadership or an absence of leadership. Northouse (2016) explains that laissez-faire exemplifies characteristics most often associated with poor leadership. Peus, Braun, and Frey (2013) and Hackman and Johnson (2013) found value in laissez-faire leadership when dealing with highly motivated followers who were driven to achieve their goals.

Studies by Freeborough (2015) and Yahaya and Ebrahim (2016), support the idea that leadership, particularly transformational leadership, has a positive effect on organizational goal attainment and outcomes. Allen, Grigsby, and Peters (2015) and Day, Gu, and Sammons (2016) documented similar results in educational leadership: leadership affects outcomes, and transformational leadership is particularly effective. Educational leadership, in these studies, most often referred to building-level administrators, or principals.
A dearth of research exists linking superintendent leadership style to student learning. Research on educational leadership focuses primarily on principals. Waters and Marzano (2006) linked district-level leadership to student outcomes. Hough (2014) and Seashore-Louis (2015) found connections between district-level leadership and student outcomes, but none of these researchers studied connections to transformational leadership which had already been proven to yield results.

Statement of the Problem

Kentucky’s public school districts are faced with increasing levels of accountability. Closing performance gaps between high and low performing students is a national and state focus, and the expectation is that the solution will be found in each individual school district. As the leaders of those districts, Kentucky’s public school superintendents are faced with new challenges that require effective leadership to meet expectations of increasing student performance.

Turnover amongst Kentucky school superintendents has been significant over the last five years; a review of the Directory of Kentucky Public School Superintendents shows that 95 of the 173 superintendents, over half, are new to the superintendent role in their current school district within the last five years. As school boards search for new superintendents, the factors used to evaluate candidates become more important to identify characteristics that indicate a superintendent will successfully lead a district to high academic performance. Because leadership style has an effect on organizational outcomes, leadership style could be a factor used to identify a potentially successful superintendent.

Leadership affects performance, yet there is little or no research surrounding leadership styles of superintendents; particularly those in Kentucky. Research that does exist involving
superintendents rarely focuses on Full Range Leadership as the measurement. In order to better understand if, and to what extent, leadership style of top administrators in Kentucky school districts affects the performance of students in the district, more research must be done.

**Purpose of the Study**

The purpose of this study is to compare superintendent leadership on the Full Range scale, along with other qualities of the superintendent, with the academic performance of students from the same district. The Multifactor Leadership Questionnaire (MLQ) will be used to assess leadership styles of superintendents who have served their districts for at least five years, thus ensuring that any effect superintendent leadership may have on performance has had time to take effect. Demographic data about the superintendent will be collected as part of the study. Statistical analysis will be performed to compare the leadership styles and demographic data to student performance in an effort to identify significant relationships.

**Theoretical Framework**

The theoretical framework for this study originates in Burns (1978) work on leadership. Burns argued that leadership studies had focused too much on the idea of power as leadership. There is interplay, according to Burns, between power and conflict in a leader-follower relationship; power and leadership are not independent, but have a relationship.

Bernard Bass and Bruce Avolio refined Burns’ work on transactional and transformational leadership (Avolio & Bass, 1991; Bass & Avolio, 1993; Bass & Avolio, 1994). Bass (1998) found evidence that transformational leadership was powerful in the ability to move followers and raise their level of commitment. Bass and Avolio (2004) identified components of Full Range Leadership that can be measured by the MLQ. Using results from multiple studies,
Bass and Avolio developed multiple components to Full Range Leadership (Hunt, 1991; Smith & Peterson, 1988; Yukl, 1994; Yukl, 1999).

Stewart (2006) explains Full Range Leadership in terms of the dimensions of transactional leadership and the components of transformational leaderships. Transactional leadership includes the dimensions of contingent reward, management by exception - active, and management by exception - passive. Transformational leadership has four components: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

Laissez-faire leadership is accepted as the least effective form of leadership followed by the transactional styles of: management by exception - passive, management by exception - active, and contingent reward. The more effective forms of leadership, according to the theory, are the styles associated with transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

Use of the MLQ instrument will yield results that show how each respondent rates themselves on the various parts of Full Range Leadership. Making statistical comparisons between the ratings and the accountability performance in the respondents’ district will allow for comparisons to leadership style and performance.

**Research Questions and Hypotheses**

Questions that guided the research:

**Question 1.** Does a relationship exist between Kentucky school district superintendent leadership style, as measured by the Multifactor Leadership Questionnaire (MLQ), and the accountability performance of the school district, as measured by the Overall Accountability Score (OAS)?
\(H_0\). There will be no significant difference between the OAS of districts whose superintendents scored less than or equal to the 50\% percentile of the normed score on the transformational leadership styles compared to superintendents who scored greater than the 50\% percentile of the normed score on transformational leadership.

\(H_1\). There will be no significant difference between the OAS of districts whose superintendents scored less than or equal to the 50\% percentile of the normed score on the transactional leadership styles compared to superintendents who scored greater than the 50\% percentile of the normed score on transactional leadership.

\(H_2\). There will be no significant difference between the OAS of districts whose superintendents scored less than or equal to the 50\% percentile of the normed score on the laissez-faire leadership style compared to superintendents who scored greater than the 50\% percentile of the normed score on laissez-faire leadership.

**Question 2.** Does a relationship exist between Kentucky school district superintendent educational attainment and the accountability performance of the school district, as measured by the Overall Accountability Score (OAS)?

\(H_3\). There will be no significant difference between the OAS of districts whose superintendent’s highest level of educational attainment was 30 hours above a Master’s degree (Rank I) compared to superintendents who completed terminal degrees (PhD/EdD).

**Question 3.** Does a relationship exist between Kentucky school district superintendent educator job experience and the accountability performance of the school district, as measured by the Overall Accountability Score (OAS)?
There will be no significant difference between the OAS of districts whose superintendents have up to 30 years of educational job experience compared to those with over 30 years of experience.

There will be no significant difference between the OAS of districts whose superintendents whose years of service as a superintendent range from five years or less, six to ten years, and eleven or more years.

**Significance of the Study**

There is a lack of data comparing how Kentucky superintendents rate on the Full Range Leadership continuum with how students in their district perform. With a better understanding of Kentucky superintendent leadership style compared to performance, school district leaders and boards of education can make better decisions about implementing or developing transactional, transformational, or laissez-faire styles. A study of Kentucky superintendent leadership will also contribute to the body of knowledge and educational leadership and leadership’s impact on student performance.

**Definitions**

*Full Range Leadership*: leadership theory based upon the construct of three typologies of leadership behavior: transactional, transformational, and laissez-faire (Antonakis, Avolio, & Sivasubramaniam, 2003).

*Transactional Leadership*: an exchange process based on fulfillment of contractual obligations, typically represented as setting objectives, monitoring, and controlling outcomes (Antonakis et al., 2003).
**Transformational Leadership:** inspiring followers to commit to a shared vision and goals for an organization, challenging them to be innovative problem solvers, and developing followers’ leadership capacity (Bass & Riggio, 2006).

**Lassiez-faire Leadership:** taken from the French phrase meaning “let people do as they choose,” the leader abdicates responsibility, delays decisions, gives no feedback, and makes little effort to help followers satisfy their needs (Northouse, 2016).

**Academic Performance:** Overall Accountability Score for a Kentucky school district as derived from the Unbridled Learning Accountability model created by the Kentucky Department of Education. Overall Accountability includes measures of success on measurable outcomes for student and district performance (Kentucky Department of Education, 2012).

**Multifactor Leadership Questionnaire (MLQ):** the Multifactor Leadership Questionnaire (MLQ) is a survey instrument designed by Bruce Avolio and Bernard Bass for the purpose of measuring an individual’s strengths in the various dimensions of the Full Range Leadership model (Bass & Avolio, 2004).

**Authentic Leadership:** leadership style defined as multilevel, meaning it included the leader, follower, and context; focused on the four components of authentic leadership: balanced processing, internalized moral perspective, relational transparency, and self-awareness (Avolio, Walumbwa, & Weber, 2009).

**Superintendent Professional Growth and Effectiveness System (SPGES):** the evaluation system developed by the Kentucky Department of Education for introduction in the 2011-2012 academic year which established new professional performance standards for Kentucky public school superintendents (Kentucky Department of Education, 2013).
Summary

In Kentucky public school districts, the superintendent fills a pivotal leadership role. Superintendents are leaders of leaders. While they lead the districts, their followers are often leading others within the district. The style of leadership used by organizational leaders can have an effect on goal attainment and outcomes. The Full Range Leadership Theory creates a construct that categorizes multiple leadership dimensions. Research on Full Range Leadership suggests that leadership dimensions classified as transformational prove more effective at yielding results. To date, there is a dearth of research on Kentucky superintendents that measures their leadership on the Full Range continuum and compares it to how their school district performs.

Chapter two of this study presents literature on both the historical and contemporary roles of superintendents and superintendent preparation programs. Leadership styles are discussed with a focus on the Full Range Leadership Theory and the styles of transactional, transformational, and laissez-faire. Finally, the chapter will present evidence that supports the idea that leadership style can affect outcomes, both outside and within the field of education.
Chapter 2: Literature Review

The following review of literature investigates the topic of school district leadership, specifically the role of school superintendent, and whether leadership style in the role of the Kentucky superintendent can be connected with student achievement. To provide adequate background on the topic, the literature has been divided into the role and preparation of the superintendent, leadership styles and theories, measurement of leadership, measurement of student achievement in Kentucky, leadership’s effect on performance, and more specifically the effect of school leadership on student academic achievement.

Superintendent Role and Preparation

Though the role of school district superintendent has not always been present in education, the position did emerge early on in public education. Like many leadership roles, the superintendent role has changed over time as society and expectations have changed. In order to understand where the superintendent position is now, it is necessary to know the position’s beginnings and the transformations it has undergone.

**Historical perspective.** The role of school superintendent, at least in name, has existed for over 150 years. The position of superintendent, however, has changed significantly over time in terms of the scope of work (Kowalski, 2005a). The early function of the superintendent is cited primarily as a task-oriented, clerical position responding to the day-to-day operations of the schools and compiling reports (Grogan, 2002). Kowalski suggests the clerical role was short-lived in terms of the superintendent history, and serves as an outlier to the historical relevancy of the position (Kowalski, 2005b).

There is a documented evolution of the superintendent’s role in the United States. Johnson, Arumi, and Ott (2006) wrote that school district leaders of old were primarily
responsible for managing budgets, following governmental regulations, keeping the school board happy, and being the loudest cheerleaders at sporting events. Kowalski (2005a) perhaps provides the most succinct framework for conceptualizing the evolution of the role. He suggests that the role of superintendent should be viewed through the historical roles of the superintendent as: teacher-scholar (1850 to early 1900s), manager (early 1900s to 1930), democratic leader (1930 to mid-1950s), applied social scientist (mid-1950s to 1970s), and communicator (mid-1970s to present) (Kowalski, 2005a; Kowalski & Bjork, 2005).

During the time superintendents were considered teacher-scholars, superintendents were often viewed as master teachers whose role was to train and inspire new teachers, but also charged with acquiring needed supplies for instruction, revising curriculum, and developing a plan for pupil promotion (Kowalski, 2005b; Kowalski & Bjork, 2005). During this period, superintendents were viewed as part of the teaching profession and shielded from the politics of the role. School board members managed the organization (Kowalski, 2005a).

In the early 1900s, growth in population led to growth in school districts, particularly in urban areas; this gave birth to the role of superintendent as organizational manager. Kowalski and Bjork (2005) cite that growth in district size made it difficult for individuals trained primarily as teachers to fill the roles essentially fit for business managers. Universities began to offer school management courses that led to the separation of instructional tasks from business management duties. As managers, superintendents focused their efforts on budgets, operations, and facilities (Kowalski & Bjork, 2005).

United States’ economic depression in the 1930’s and a need for leadership skilled at politics and resource acquisition gave rise to the superintendent as a democratic leader (Kowalski & Bjork, 2005). The management era of the superintendent left many people with the feeling
that schools had become bureaucratic. Now, with the need to navigate the political arena in order to gain a share of the limited resources available, education was seen as the equalizer that would allow society to rebound from the devastating effects of the depression (Kowalski & Bjork, 2005).

By the 1950s, the democratic school leaders were seen as being disconnected from what was really going on in the schools. Growth of the social sciences led to the conceptualization as the superintendent as an applied social scientist: a leader who could use science and predictability to right social wrongs (Kowalski & Bjork, 2005). Researchers note that superintendent preparation became a focus during this period, with students of educational administration often required to focus on a scientific field of study, such as psychology, economics, political science, or sociology, when completing their terminal degrees (Kowalski, McCord, Petersen, Young, & Ellerson, 2011).

The final construct of superintendent as a communicator is suggested to have come from society’s transition from a manufacturing-based society to an information-based society (Kowalski & Bjork, 2005). Many aspects of school function and reform now center on school leadership’s ability to collaborate with stakeholders at all levels. The transformation of school superintendent as a communicator includes the move from communication as a means to simply report what is going on in the schools to the need to form relationships, understand expectations and communicate more often and more intensely than ever before (Kowalski et al., 2011).

**Current role of the superintendent.** In an attempt to define school leadership using accepted terminology more easily understood, some sources will cite the role of the school district superintendent as the Chief Executive Officer (CEO) of the school district (Meador, 2016). Simplifying the role into categorical job duties such as board liaison, finance manager,
operations manager, and lobbyist does not adequately describe the depth of the role or the skills required to do the job.

Evident in the review of literature related to the evolving role of the superintendent is the pressure put on the position by social and cultural change. To better understand the current role of the superintendent, Bjork, Glass, and Brunner (2005) continue with the same construct developed primarily by Kowalski (2005a) to carry the expectations forward. Bjork et al. (2005) found that 40% of superintendents say their boards still expect them to be the instructional leader of the school district, a role similar in nature to Kowalski’s teacher-scholar construct. Bjork et al. also indicated that 36% of superintendents believed that the primary role expected by their board was that of manager. Additionally, 95% of the superintendents involved in the study noted that they were the primary conduit of communication about district matters between the board of education and various community groups (Bjork et al., 2005).

Petersen and Barnett (2005) wrote that though external and internal pressures fluctuate, empirical evidence still supports the idea that superintendents in instructionally effective school districts were actively involved in curriculum and instruction. In addition to being active as instructional leaders, Browne-Ferrigno and Glass (2005) suggest superintendents still must focus on six major managerial tasks: governmental relations, district personnel, finances and budgets, facilities, contractual negotiations, and public relations.

Bjork and Gurely (2005) propose that just as the current superintendent must be a scholar and manager, so must the role of democratic leader remain. America’s socio-economic and political status require a democratic leader with an understanding of democratic values, politics, school board relations, and the dynamics to navigate macro- and micro-political levels of government. Fusarelli and Fusarelli (2005) state that the role of superintendent as a social
scientist is as important as it has ever been, as well. The responsibilities of superintendents have expanded, and so too has the need to reframe the superintendent role with an eye to redress social norms and right social injustices. Bjork, Browne-Ferrigno, and Kowalski (2014) note that a historical perspective on the role of the superintendent as well as current constructs looking toward the future, indicate a past relationship and a continuing relationship between the superintendent role and social, economic, and political conditions, as well as public expectations for schools and districts.

**Superintendent traits.** The American Association of School Administrators (AASA) has conducted surveys on school superintendents every decade since 1923. The 2010 Decennial Study consists of data collected from 1,867 superintendents across the nation from an estimated population of 12,600 (Kowalski et al., 2011).

**Characteristics of superintendents.** The modal superintendent was a married, white male between the ages of 56 and 60. The percentage of female superintendents was 24.1%. About half of the respondents (51%) said they planned on being a superintendent in 2015.

**Professional experiences.** Most superintendents follow a traditional career path (teacher and building-level principal positions). Most superintendents were satisfied with their jobs, schools, and employees. Most superintendents said they would follow the same career path if they had it to do over again. The level of job satisfaction expressed by superintendents remains very high.

**Elements of practice.** There are distinct differences in elements of practice between school systems based on size. The most important source for informing elements of their practice were peers in comparable school districts. Superintendents report that they frequently read research, and over 90% found it beneficial.
**Professional preparation.** Over three-fourths of surveyed superintendents (78.7%) responded that their academic preparation was good or excellent. Less than half (45.3%) had doctoral degrees, but 70% of superintendents in districts larger than 3,000 students held terminal degrees. Superintendents rated four courses as having the highest level of importance: school law, school finance, public relations, and human resource management. Most superintendents (83.3%) rated their continuing education as useful or very useful.

**Politics, mandates, standards, and governmental relations.** Superintendents saw reform movements as empowering increasing numbers of individuals. Superintendents willingly work with politically empowered individuals but were less likely to consider coalitions of like-minded individuals (unions) as an asset. Intensity of political action was associated with district size, with large districts reporting more political action than smaller districts. Community involvement and parent/family support was essential in forging district mission and visions. Regardless of the size of district, superintendents viewed employee groups as assets for building productive district culture. Charter and private schools were not viewed as liabilities for their district. Diversity was viewed as an asset, but also created negative racial tensions. Loss of local autonomy due to state and federal standards and assessments were seen as liabilities, not assets. Inadequate funding was a major problem.

**Kentucky superintendent data.** In December of 2008, the Kentucky Legislative Research Commission (LRC) approved a review of training requirements for superintendents, school board members, principals, and school council members. The data collected was published in a 2010 report prepared by LRC director Marcia Seiler, along with Ken Chilton, Keith White, Albert Alexander, Brenda Landy, Deborah Nelson, Sabrina Olds, and Pam Young.
Experience in role. Experience amongst Kentucky superintendents was spread evenly; 35% had fewer than four years’ experience, 33% had between four and seven years’ experience, and 32% had eight or more years’ experience.

Levels of education. A majority of Kentucky superintendents (62.7%) had a masters’ degree, while 18.7% reported having a doctorate.

Required training. Overall, 95% of superintendents responded that annual, mandated training requirements were appropriate. A larger number, 97%, felt like annual, mandated trainings they attended were useful or very useful in doing their job.

Superintendent preparation. As the role of the superintendent has changed over time, the programs that prepare school administrators have been called into question (Levine, 2005; Murphy, 2007; Quinn, 2007). Criticisms span from questioning the validity and value of the research produced through administrator programs (Murphy, 2007) to questioning the widely accepted content that forms the core of school administration programs nation-wide (Levin, 2005; Kowalski, 2008).

Though not reflected in the national or Kentucky superintendent surveys, some research indicates a growing dissatisfaction amongst educational administrators with the level of preparedness they achieved through the programs they attended (Sanders, 2005). Levine (2005) found that 500 schools in the United States offer degree-granting graduate programs for school administrators. Levine’s work states that admission standards for administrator programs has been on the decline since July of 2000; some programs have lower standards for educational administration program admission than other post-graduate program on the same campus.
indicating that graduates of the programs may not be attracting the best performers to lead schools or prepare students for success. Further, Levine found that faculty administrator preparation programs rarely have experience doing what they are teaching others to do; of faculty in administrator preparation programs, only 6% had filled the role of a principal in the past, and only 2% had been superintendents.

A continuation of criticism of administrator preparation content draws attention to the specific coursework. Levine (2005) surveyed principals to discover a list of courses and topics; Levine went on to publish the percent of practicing administrators who found the coursework relevant to the administrative role, as well as the percent of administrators who felt the courses were of high quality. The results showed that coursework taken by administrators was only deemed relevant 63% of the time, and instruction was only considered high in quality 56% of the time. Levine’s study included national surveys, so courses and topics were seen across many institutions. Topics like instructional leadership, school law, curriculum development, organizational change, ethics, and management of technology were included.

Criticism of administrator preparation programs is not the same, however. Feuerstein (2013) wrote of a need for stronger leader training beyond the managerial focuses that are seen in many institutions. School district leadership, Feuerstein claims, must be prepared to take on social injustice; a focus on a set curriculum devalues issues of social justice and makes preparation of school administrators rigid and eliminates empowered educators acting as moral agents of change. Feuerstein specifically mentions the efforts of the Eli and Edythe Broad Foundation. Managing Director of the Broad Foundation, Tim Quinn (2007), explained that school leaders need not be instructional experts any more than the CEO of a major corporation needs to be an expert user of the end product the company produces. Instead, Quinn states that
school superintendents would be just as well suited with business acumen, including: experience managing complex operations, leading change and culture, skills in visioning and accountability, and expertise in financial management. Instead of instruction, school law, and the other education specific course listings, the Broad Foundation trains superintendents on CEO leadership, corporate profit, connections (relationships), and organizational competence.

Kowalski (2008) investigated superintendent licensing and certification and came to a different conclusion than Feuerstein (2013). Kowalski acknowledged Levine’s (2005) work on stagnant course topics and ineffective instruction, but suggested a move toward a national curriculum and licensing program for school superintendents that centered on effective leadership. Kowalski suggests that a homogenous curriculum that could assure a superintendent has the knowledge and skills to perform. Universities should not be designing degree and licensing programs; instead, Kowalski recommends that the profession itself (and the practitioners within) be given authority to set and enforce licensing requirements.

Kowalski (2008) cites fields such as architecture, dentistry, medicine, and law as areas where standards boards do this work. This method of regulation would provide flexibility in core skills because the requirements could fluctuate as the practitioners experience it. Kowalski suggested that new licensing practice would help solve the current campus-based problems of low standards for admission, indifference to instructional leadership, the disjunction between theory and practice, inattention to practice-based research, and inadequate base of knowledge.

Kentucky superintendent course and training requirements. Persons qualified to hold superintendent positions in the state of Kentucky must meet statutory requirements (Seiler et al., 2010). Prior to being hired, a superintendent must be certified by the Educational Professional Standard Board (EPSB); EPSB certification requires completion of a university
Approved coursework listed in the Superintendent Preparation Program Guidelines produced by EPSB (Walters-Parker, Bell, & Graves, 2013) includes coursework on the topics of district leadership, instructional planning for student learning, management, and systems for change. Participants in university programs also must develop assessment plans, participate in field and mentoring experiences, and complete a capstone project.

Once a superintendent is hired, each individual has one year to complete required training in skills and knowledge required to fill the superintendent role. Training must cover the five subjects: core concepts of management, school-based decision making, Kentucky school law, Kentucky school finance, and school curriculum and assessment (Seiler et al., 2010).

**Leadership Styles**

The role of superintendent of school has transformed over time. There are have been periods of time when the role was considered managerial. Indeed, there are similarities between managerial roles and leadership roles; both managers and leaders deal with influence, working with people, and accomplishing goals (Northouse, 2016). Northouse (2016) summarizes: “Management is about seeking order and stability; leadership is about seeking adaptive and constructive change” (p. 13). An even simpler definition, credited to Grace Murray Hopper states, “You manage things; you lead people” (Hackman & Johnson, 2013, p. 12).

**Leadership theories.** As superintendent roles are valued more and more for leadership within the district, it becomes necessary to study leadership in detail to better understand the role. The following review explains some of the most-frequently cited leadership theories in
relation to the school superintendent role. A multitude of leadership theories and styles are evident in a review of the literature. In fact, one prominent researcher on school leadership, Kenneth Leithwood, coined the phrase “leadership by adjective” to describe the frustration and confusion of the development of so many different leadership theories (Leithwood, Day, Sammons, Harris, & Hopkins, 2006). For the purpose of this study, one leadership style which is mentioned often relating to superintendents and educational administrators will be reviewed: instructional leadership. In addition, a review of Full Range Leadership, encompassing transactional and transformational theories, will be completed. Finally, a review of authentic leadership will connect to transformational leadership.

**Instructional leadership.** Conversations about educational leadership theories often include instructional leadership in some form or fashion. The term instructional leadership evokes in many the feeling of a leader singularly focused on classroom instruction and student outcomes. Hallinger (2011) proposed that instructional leadership was an appropriate description of visionary and goal driven leadership when the vision and goals were relative to academic processes and goals with academic focus.

While research shows that superintendents often rank instructional leadership as a primary priority, similar research shows that most superintendents devote minimal time to true instructional leadership (Whitt, Scheurich, & Skrla, 2015). Some research establishes broad descriptions of instructional leadership: clear goal setting, self-confidence, tolerating ambiguity to name a few (Valentine & Prater, 2011).

Principal-specific instructional leadership qualities include: direct support of teaching staff, knowledge of curriculum and instruction, close supervision for classroom instruction, mentor or coaching relationships with teachers, design and procurement of staff development
activities, defining the school mission, and promoting school climate (Valentine & Prater, 2011; Heck & Hallinger, 2014; Marzano, Waters & McNulty, 2005). Because the overwhelming majority of research points to instructional leadership as a theory best applicable to building-level administrators, the focus of this research will be on theories that show effects at the organizational or district level.

**Full range leadership.** James Burns’ book, *Leadership* (1978), gave rise to leadership theories on transactional, transformational, and laissez-faire leadership. While Burns’ work was seminal in the study of literature, the ideas proposed were carried forward through the work of Bass (1985) and Bass and Avolio (2004) as researchers refined Burns’ work into the Full Range Leadership Model.

**Transactional leadership.** Transactional leadership may best be described as an exchange of one thing for another (Stewart, 2006; Yahaya & Ebrahim, 2016). Followers are motivated to perform as leadership requests in order to get the reward. Northouse (2016) notes that transactional leaders are not focused on the personal development of the employee or follower as that does not play into the actual transactional agreement. Burns (1978) original work stated that transactional leadership did not only relate to positive exchanges; the transaction may also relate to punishment for failure to meet performance expectations.

Within the transactional framework, Bass and Avolio (2004) identified multiple dimensions related to transactional leadership. The first dimension is contingent reward (Northouse, 2016). Contingent reward is an exchange between the leader and follower where the follower’s effort results in reward from the leader (Callow, Smith, Hardy, Arthur, & Hardy, 2009; Devine & Alger, 2012). While this method of leadership may seem basic, the follower does have incentive to meet the expectations of the leader because of the resulting reward.
The second dimension of transactional leadership is management by exception (Northouse, 2016). Management by exception is when the leader monitors the follower, then corrects the follower if necessary (Stewart, 2006). Management by exception is broken into two distinct categories: active and passive (Yahaya & Ebrahim, 2016); in these categories, the “active” and “passive” refer to the behaviors of the leader. Active management by exception involves leaders who take the initiative to monitor their followers’ behaviors and intervene when the mistakes or problems occur. Passive management by exception, then, is when leadership allows the work to be done before determining whether mistakes or errors have taken place. Leadership only intervenes in the sense that completed work is deemed insufficient. Both active and passive management by exception dimensions use negative reinforcement for work not done correctly or for expectations not met.

**Transformational leadership.** The transformational leadership style is one of the more popular styles discussed in educational leadership research (Northouse, 2016). Bass and Riggio (2006) define transformational leaders as those who stimulate and inspire followers to develop their own leadership capacity and to achieve extraordinary outcomes. Most researchers choose to juxtapose transformational leadership alongside transactional leadership so that the differences are apparent. Where transactional leadership is about an exchange in order to get a task done, transformational leadership is about inspiring followers to work toward a shared vision for the organization, and to encourage creativity, problem solving, and leadership growth within the followers in order to benefit all (Bass & Riggio, 2006).

Burns (1978) suggested that transformational leadership was a process instead of a specific set of behaviors. Transformational leaders, Burns noted, appeal to higher ideals, moral values, and empower followers to create change. According to Burns, there is a deeper
connection than just a transactional exchange; transformational leaders create deep levels of connection and commitment between leaders, followers, and the organizational vision.

A comparison between the research of Burns (1978) and Bass (1985) shows that Burns thought a leader was either transactional or transformational, which were opposite ends of a single continuum. Bass, on the other hand, felt that transactional leadership and transformational leadership were separate dimensions, and that a leader could demonstrate both dimensions in different amounts (Yahaya & Ebrahim, 2016).

Like transactional leadership, transformational leadership has been divided into multiple dimensions. The first dimension of transformational leadership is idealized influence (Northouse, 2016). Idealized influence, sometimes referred to as “charismatic leadership”, is described as leaders that act as a strong role model for how they want followers to behave (Northouse, 2016; Bass & Riggio, 2006). Followers both identify with the leaders and the shared vision and attempt to emulate the behaviors of the leader (Stewart, 2006).

Northouse (2016) wrote that transformational leaders in the idealized influence dimension are consistent and have high standards of moral and ethical conduct. Bass and Riggio (2006) agree with the morals and ethics of the idealized influence leader, but go on to note that strong idealized influence leaders are also often willing to take risks. Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008) wrote that idealized influence leaders put the needs of the followers above their own.

As a final clarification on the idealized influence dimension of transformational leadership, Northouse (2016) delineates between the ways that followers become influenced by the leader. Northouse suggests that followers can observe the nature of the leader, and the leader has exerted influence via action; Northouse calls this the behavioral component. However,
Northouse notes an attributional component that comes from the perceptions of the leader that are made by the followers. The attributional component is strongly related to the charisma of the leader which draws followers to the leader without them having seen evidence of the behaviors for themselves (Graybeal, 2015).

The second dimension of transformational leadership is called inspirational motivation (Bass & Riggio, 2006; Northouse, 2016). Both Bass and Avolio (2006), and Northouse (2016), use the term “team spirit” when referring to this dimension. Yahaya and Ebrahim (2016) cite the ability to stimulate enthusiasm, build followers’ confidence in the ability to perform tasks, and articulating a vision as inspirational motivation. Bass and Riggio (2006) explain that leadership utilizing inspirational motivation is capable of getting followers involved in envisioning an attractive future, creating clear expectations, and demonstrating a commitment to goals and the shared vision.

Transformational leadership’s third dimension is intellectual stimulation (Bass & Riggio, 2006; Northouse, 2016). Bass (1985) suggests that intellectual stimulation encourages followers to challenge their own beliefs and be creative in problem solving. Intellectual stimulation also has the hallmarks of no criticism for mistakes made during the creative problem solving process (Bass & Riggio, 2006). The leader using intellectual stimulation encourages followers to question assumption and reframe problems, while the leader is providing support for the followers’ needs (Walumbwa et al., 2008). Questioning the beliefs and values of the leadership are encouraged as well (Bass & Riggio, 2006; Northouse, 2016).

The fourth dimension of transformational leadership is individualized consideration, which is characterized by leadership paying attention to the needs of the followers, providing a supportive climate, and acting as coaches or mentors to develop and grow followers into leaders
(Bass & Riggio, 2006; Northouse, 2016). Development of relationships between leaders and followers is essential in individualized consideration, because leaders must know each follower in order to know their needs and personal development (Yahaya & Ebrahim, 2016). Nging and Yazdanifard (2015) associate individualized consideration with thoughtfulness, non-judgmental, and listening intently.

Northouse (2016) cites as a criticism of full range leadership, that transformational leadership covers a wide range of activities and characteristics, such as creating vision, motivating, being a change agent, and building trust. Northouse wrote that the broad theory makes it difficult to define exact parameters of transformational leadership.

Another critique by Northouse (2016) is transformational leadership theory treats leadership as if it were a trait that must be possessed and cannot be taught. If leadership is a trait possessed by a few, not only can it not be learned, but it makes the leader out to be elitist, operating above the followers needs. A connected criticism, then, is that the transformational leader is made out to be a hero, implying that the followers are incapable of doing great things without the leader’s involvement.

*Laissez-faire leadership.* The third and final leadership style associated with the Full Range Leadership Theory is laissez-faire leadership. Northouse (2016) states that laissez-faire is nontransactional; he states that laissez-faire falls so far away from transactional and transformational leadership that it may be considered nonleadership. When leadership styles are aligned with laissez-faire, the style is considered the least effective form of leadership. Northouse cites example behaviors of laissez-faire leadership as avoidance of responsibility, lack of feedback, and no effort to meet the needs of followers.
Antonakis and House (2014) cite laissez-faire leadership as characteristics that are most often associated with bad leadership. Yahaya and Ebrahim (2016), like Northouse (2016), classified laissez-faire not as a leadership, but an absence of leadership. Yahaya and Ebrahim state that feedback, rewards, and leader involvement are totally absent in laissez-faire type leadership.

Laissez-faire leadership may have qualities that lend itself to effectiveness in certain situations. Peus, Braun, and Frey (2013) assessed laissez-faire leadership as ineffective and passive while citing that instances of laissez-faire effectiveness are often ignored. Peus et al. referenced parts of their study involving highly talented, highly motivated followers that responded very well to laissez-faire leadership because the followers were given the freedom and autonomy to be as successful as they were self-driven to be.

Similarly, Hackman and Johnson (2013) criticized laissez-faire leadership for yielding less-productive results in most instances. However, the authors mention a positive form of laissez-faire leadership that offers follower autonomy, freedom to set their own goals, and provides leader feedback and guidance when requested by followers. Hackman and Johnson refer to this effective type of laissez-faire leadership as “guided-freedom,” but they make certain to clarify that this type of effective laissez-faire leader is rare, as are the knowledgeable and motivated followers that permit the success.

**Authentic leadership.** Authentic research is credited with originating from the work of Burns, Bass, and Avolio on transformational leadership (Northouse, 2016). In Bass and Riggio’s (2006) attempt to clarify the difference between authentic and transformational leadership, the authors suggest that transformational leaders may not always internalize the beliefs they share with followers; these pseudotransformational leaders, as they are called, may have motives other
than the best interest of the followers. Authentic transformational leaders, however, are true to themselves and true to others, and actually want a better future for those who follow them.

A growing sense of societal disapproval of public scandals and distrust may be the reason authentic leadership research has experienced a reemergence (Bird, Dunaway, Hancock & Wang, 2013; Northouse, 2016). Early work on authentic leadership by Avolio, Gardner, Walumbwa, Luthens, and May (2004) suggests that authentic leaders are able to take on societal and public policy issues.

Avolio et al. (2004) introduce ideas of authentic leaders knowing themselves, being able to build trust, create hope, and exhibit optimism in the followers of their organization. The outcome is increased commitment, job satisfaction, meaningfulness, and engagement with followers. The connection to transformational leadership is evident, but Avolio et al. emphasize authentic leadership’s characteristic of modeling high moral standards, honesty, and integrity.

Bird and Wang (2011) proposed that authentic leaders are future-oriented, and have a proclivity for action. Authentic leaders have passion for their purpose, but can still empathize with different types of people in different situations. Bird and Wang (2013) expounded on the four components of authentic leadership by introducing the concepts of: self-awareness, moral integrity, balanced processing, and relational transparency.

*Self-awareness* refers to a leader knowing themselves and who they are, knowing their own strengths and weaknesses, and the impact they have on others (Avolio, Walumbwa, & Weber, 2009; Northouse, 2016; Bird & Wang, 2013). Followers who feel like their leaders are more self-aware also tend to feel like the leader is authentic (Northouse, 2016).

Northouse (2016) refers to the *moral integrity* component as *internalized moral perspective*. The internalized moral perspective allows the authentic leader to be guided by an
internal sense of what is right and wrong, which limits the ability of outside influences to affect decision-making (Avolio et al. 2009; Northouse, 2016; Bird & Wang, 2013). Followers who see a leader with internalized moral perspective feel they are authentic because their actions are consistent with their expressed beliefs (Northouse, 2016).

Balanced processing refers to a leader’s ability to take in opinions and viewpoints objectively before making decisions (Avolio et al., 2009; Northouse, 2016; Bird & Wang, 2013). Bird and Wang (2013) also suggest that knowing the organizational processes and following them consistently fits under the heading of balanced processing as well. Northouse (2016) suggests that leaders with balanced processing are seen as authentic because they are open about their own perspectives, but are also open to the perspectives of others.

The final component of authentic leadership is relational transparency. Relational transparency refers to a leader being honest and open about what they feel, what their motives are, and how they feel about the opinions and motives of others (Avolio et al., 2009; Northouse, 2016; Bird & Wang, 2013). Leaders demonstrating relational transparency are interested in the success and development of others; relational transparency also is seen as empowering others to lead (Bird & Wang, 2013).

Unlike other leadership theories which are presented in terms of traits or behaviors that can be replicated or emulated in order to produce a certain style of leadership, authentic leadership can be difficult to learn. Evans (2007) wrote that you cannot manufacture authenticity—it simply is. Evans continued that all leaders have their personal experiences, basic philosophies, and ideas about human nature; typically that “wisdom” stays buried until the time when leaders call on it. Uncovering that wisdom and building leadership practice outward from that core is the key to authentic leadership.
Northouse (2016) critiques authentic leadership as a relatively new concept with substantial parts of the theory still not explained entirely and much of it without research on validity or supporting empirical data. Lack of research also gives rise to questions about whether authentic leadership can yield positive results. Northouse suggests that authentic leadership is appealing in theory, but research needs to prove that authentic leadership has a positive effect that can be measured to overcome such things as disorganization or technical incompetence.

**Measurement of Leadership**

The most commonly used instrument to measure transformational leadership, according to Northouse (2016), is the Multifactor Leadership Questionnaire. Northouse (2016) cites that the Authentic Leadership Questionnaire was developed for the purpose of measuring authentic leadership qualities and testing assumptions. Kentucky has recently implemented a new evaluation system for superintendents that takes into account leadership research on a variety of traits. An evaluation of the Superintendent Professional Growth and Effectiveness System will conclude this part of the literature review.

**Multifactor Leadership Questionnaire (MLQ).** According to Northouse (2016), the original MLQ was based on work done by Bass in 1985 involving business executives; the questionnaire validated through psychometric assessments and was established as the most widely-used instrument for measuring the Full Range Leadership Model. The 5x-Short Form of the MLQ, known as the MLQ (5x-Short) was developed through the work of Bass and Avolio starting in 1995 (Bass & Avolio, 2004). The MLQ (5x-Short) was formulated to assess transformational and transactional leadership styles (Yahaya & Ebrahim, 2016).

The MLQ (5x-Short) utilizes a five-point Likert scale to rate leadership characteristics; the larger the score, the more transformational the leader is perceived to be (Allen, Grigsby, &
Peters, 2015). Results from the MLQ (5x-Short) rate the components of both transactional and transformational leadership; transactional components are contingent reward, active management by exception, and passive management by exception. Transformational components measured are idealized influence behavior, idealized influence attribution, inspirational motivation, intellectual stimulation, and individualize consideration (Yahaya & Ebrahim, 2016).

Northouse (2016) notes some researchers have criticized the MLQ as a measure of transformational leadership. Some studies have indicated that the various factors of transformational leadership correlate highly with each other, indicating that they may not be distinct factors. In addition, some factors of transactional leadership correlate to factors of transformational, calling into question whether the factors are unique to one leadership style or the other.

Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008) studied authentic leadership in an attempt to validate the theory. The researchers found that the MLQ, while useful for transformational leadership identification, did not accurately capture the dimensions of authentic leadership.

**Authentic Leadership Questionnaire (ALQ).** The work of Walumbwa et al., (2008) led to the creation of the ALQ. Walumbwa and co-authors desired to provide a means for collecting empirical research on the topic of authentic leadership by creating a theory-driven, higher-order authentic leadership measure. The ALQ is a sixteen-item instrument that gives detailed measurements on the four factors of authentic leadership: self-awareness, internalized moral perspective, balanced processing, and relational transparency (Northouse, 2016).

A concern from the research indicates questions of validity of the ALQ. Just as the concept of authentic leadership lacks research and data, so too does the instrument in the current
stages. The ALQ may be a useful tool for practitioners trying to identify ethical and moral flaws, but continued use is needed for research applications (Walumbwa et al., 2008; Northouse, 2016).

**Superintendent Professional Growth and Effectiveness System (SPGES).** While leadership and leadership styles of superintendents may require questionnaires in order to determine classification, Kentucky has developed an evaluation for school superintendents that was introduced in the 2012-2013 school year (Kentucky Department of Education, 2013). The new evaluation system was designed to revisit and update standards by which school superintendents were evaluated, as well as to more clearly define expectations of the superintendent role.

The Kentucky Association of School Administrators (KASA) was sanctioned to develop and implement the new standards as a basis for the SPGES evaluation system (Kentucky Department of Education, 2013). In documentation on the Kentucky Department of Education (KDE) webpage, the intent of this work was explained as an effort to illustrate proficient performance indicators on behalf of school superintendents, new and veteran.

The standards for SPGES were developed using several different existing standards: North Carolina Standards for Superintendents (Young, 2013), work from the Wallace Foundation’s study *Making Sense of Leading Schools: Study for the School Principalship* (Young, 2013), and research from the Mid-continent Research for Education and Learning’s *School District Leadership that Works: The Effect of Superintendent Leadership on Student Achievement* (Young, 2013). In what the design team referred to as a synthesis of standards, KASA concluded that other resources were aligned with the new standards as well, including the work of the Interstate School Licensure Consortium (ISLLC) and the Standards for Quality School Systems published by AdvancED.
The resulting standards from the SPGES work can be found on the current Superintendent Summative Evaluation document; those standards encompass the topics of strategic leadership, instructional leadership, cultural leadership, human resources leadership, managerial leadership, collaborative leadership, and influential leadership. The entire document is located on the KDE website at http://education.ky.gov/teachers/PGES/SPGES/Pages/Early-Info.aspx:

**Strategic leadership.** Superintendents create conditions that result in strategically reimagining the districts’ vision, mission, and goals to ensure every student graduates from high school; is globally competitive in postsecondary education and the workforce, and is prepared for a productive life in the 21st century. They create a community of inquiry that challenges itself to continually repurpose by building on the districts’ core values and beliefs about the preferred future, and then developing a vision that reflects that future.

**Instructional leadership.** The core business of school superintendents must always be teaching and learning in a system committed to shared values and beliefs, and challenging, equitable educational programs and learning experiences for all students. The moral imperative of school district leadership is to create and sustain schools where all students learn, where performance gaps are systematically eliminated over time, and where the primary goal of the adults in the system is to ensure that every student graduates from high school college-and-career ready, prepared for a productive life in the 21st century.

Effective superintendents facilitate the stewardship of learning by creating professional learning communities focused on highly engaging, relevant instruction, and improved student learning. They set specific achievement targets for schools and students and monitor those
targets, ensuring consistent use of research-based best instructional practices in all schools and classrooms.

**Cultural leadership.** Superintendents understand and act on the important role a system’s culture has in the exemplary performance of all schools. They understand the people in the district and community, how they came to their current state, and how to connect with their traditions in order to move them forward to support the district’s efforts to achieve individual and collective goals. While supporting and valuing the history, traditions, and norms of the district and community, a superintendent must be able to “reculture” the district, if needed, to align with the district’s goals of improving student and adult learning and to infuse the work of the adults and students with passion, meaning, and purpose.

**Human resources leadership.** Superintendents ensure the district is a professional learning community with processes and systems in place that result in recruitment, induction, support, evaluation, development, and retention of a high-performing, diverse staff. Superintendents use distributed leadership to support learning and teaching, plan professional development, and engage in district leadership succession planning.

**Managerial leadership.** Superintendents ensure the district has processes and systems in place for budgeting, staffing, problem-solving, communicating expectations, and scheduling that organize the work of the district and give priority to student learning and safety. The superintendent must solicit resources (both operating and capital), monitor their use, and assure the inclusion of all stakeholders in decisions about resources so as to meet the 21st century needs of the district.

**Collaborative leadership.** Superintendents, in concert with the local board of education, design structures and processes that result in broad community engagement with support for and
ownership of the district’s vision. Acknowledging that strong schools build strong communities, superintendents proactively create—with school and district staff—opportunities for parents, community members, government leaders, and business representatives to participate with their investments of resources, assistance, and goodwill.

*Influential leadership.* Superintendents promote the success of learning and teaching by understanding, responding to, and influencing the larger political, social, economic, legal, ethical, and cultural context. From this knowledge, superintendents work with the board of education to define mutual expectations, policies, and goals to ensure the academic success for all students.

**Measurement of Student Achievement in Kentucky**

The measurement of student achievement in the state of Kentucky has varied over time depending on the state’s accountability system. Kentucky’s current accountability system is based on 2009 legislation then known as Senate Bill 1 (Kentucky Department of Education, 2012). The Kentucky Board of Education (KBE) and the Kentucky Department of Education (KDE) used Senate Bill 1 as the basis for regulation that created a new system of accountability and fundamentally changed the way student achievement had been measured in the state. Senate Bill 1 grew into the current iteration by the passing of regulations that defined and clarified the way students would be assessed in Kentucky, and the way schools and districts would be held accountable. The end result was named the Unbridled Learning Accountability Model.

**Unbridled Learning Accountability Model.** The KBE desired for the new accountability and assessment model to be balanced amongst all aspects of what goes on in schools and districts. To do this, accountability would be determined by performance in four priority areas: next-generation learners (students), next-generation professionals (teachers), next-
generation instructional support systems (program reviews), and next-generation districts. Measurements of performance amongst students, teachers, and program reviews would feed into a larger score which would be the school and district measurement (Kentucky Department of Education, 2012).

**Next-generation learners.** Calculations for next-generations learners required complicated formulas. The state wanted a focus on college and career readiness, but also needed a model that would include measurements to hold all schools accountable for improving student learning each year. All schools (elementary, middle, and high) would measure student achievement in the areas of reading, math, science, and social studies. All schools would measure success of students who fall into the groups of students who traditionally score lowest on tests: minority students, special needs students, students from households living in poverty, and limited English proficiency students; the state referred to these students as “gap” students. The final piece of achievement for all schools would be the measure of growth; these measurements took into account the number of students who made typical or high ranges of growth between testing cycles (Kentucky Department of Education, 2012).

Middle schools and high schools would have the added next-generation learning measurements of college readiness. Unbridled Learning called for measurements of students meeting college-ready benchmarks on testing at the eighth, tenth, and eleventh grade levels. Kentucky utilized a testing series known as the Educational Planning and Assessment System (EPAS) from the ACT testing company (Kentucky Department of Education, 2012).

Unbridled Learning required high schools to measure career readiness and graduation rate, to complete the next-generation learners section of accountability. Career readiness was a measurement of both academic benchmarks and industry certification (Kentucky Department of
Education, 2012). Graduation rate was a school and district score that was measured solely on the graduation rate of the group of seniors during the year of accountability.

**Next-generation professionals.** Performance of next-generation professionals was measured by the school or district’s percentage of teachers who were evaluated as effective (Kentucky Department of Education, 2012).

**Next-generation instructional support systems.** Performance of next-generation instructional programs and support was measured by the degree to which schools and districts implemented programs in non-tested areas, such as health and practical living, arts and humanities, and writing.

**Next-generation districts.** While complicated, the Unbridled Learning model took many measurements into account in coming up with a single accountability measure for a school district. The model was designed as a more comprehensive system of measuring student achievement than just testing alone. Academic performance of students was one of those pieces, but not the only piece.

Unbridled Learning still weighted the value of student performance heavily, with the next-generation learner score comprising 70% of school and district accountability. Unbridled Learning used next-generation instructional support systems for another 20% of the total accountability score, and next-generation professionals for the final 10% of accountability (Kentucky Department of Education, 2012).

**Overall accountability score.** The Unbridled Learning accountability model uses a formula that includes data from Next Generation Learners, Professionals, Support Systems, and Districts to produce a single score for each school district. In order to measure student success across districts in the state of Kentucky, this single measure from Unbridled Learning, the
Overall Accountability Scores, will provide the study a single number to compare across districts. The Overall Accountability Score is readily available for all Kentucky school districts, with the most recent data being for the 2015-16 school year (Kentucky Department of Education, 2012).

**Leadership Effect on Outcomes**

There has been a long-standing assumption that leadership affects outcomes, in business, industry, and even education. This section of the literature review will focus on research that links leadership to outcomes in business and industry, then identifies research that focuses on educational leadership and student outcomes.

**Leadership effect on outcomes in non-educational fields.** Determining whether different leadership styles or characteristics result in increased outcomes has a twofold purpose. First, if leadership affects outcomes then the study of leadership styles is validated. Second, if researchers can associate specific styles or characteristics with increased outcomes, then organizations can focus on hiring individuals into leadership positions, or growing leaders within the organization, with a focus on outcome-producing leadership styles.

Studies that have focused on transformational leadership and looking for effect on outcomes span many organizations. Research by Callow, Smith, Hardy, Arthur, and Hardy (2009) focused on competitive ultimate Frisbee teams. The sport and teamwork aspect of the organization provided a noneducational backdrop for a discussion of transformational leadership. Not only were high-performance players assessed as part of the research, but low-performance groups were as well; this gave the study an opportunity to look at outcomes on one group already successful and another needing more work. The result of the study showed that transformational leadership had positive results on team cohesion and the level of performance of the team.
Callow et al. (2009) showed that there were exceptions to the effects of transformational leadership between high- and low-performers. For instance, inspirational motivation had more effect on low-performers than high-performers. The authors suggest that team goals and teamwork may mean more to younger players than to experienced players already performing at high levels. Another dimension of transformational leadership, individual consideration, was more effective with the high-performing group than the low-performing group. The study also found that more experienced athletes likely valued an individual focus on improvement.

Freeborough (2015) published work comparing transformational leadership in the field of nonprofit organizations. Freeborough’s work deviated from the business and industry focus which often placed profits high on the outcomes measured; Freeborough, instead, looked at volunteers, governing boards, and funding. Results of the study suggest that transformational leadership had a significant positive relationship on employee engagement and raised followers to higher levels of potential. The study also indicated that intellectual stimulation, a dimension of transformational leadership, resulted in a higher number of volunteers and employees, job satisfaction, and organizational commitment.

Freeborough (2015), like Callow et al. (2009), found some exceptions to the effects of transformational leadership. Age was a determining factor as to whether inspirational motivation, intellectual stimulation, and individualized consideration were effective. Education of employees and volunteers altered whether idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration were rated as effective. Finally, the number of direct reports a leader had affected the outcomes of idealized influence and inspirational motivation in the study. Freeborough concludes, like Callow and his peers, that
factors that define followers have an influence over whether the dimensions of transformational leadership are effective within the group.

In a literature review of leadership styles’ effect on organizational commitment, Yahaya and Ebrahim (2016) compile multiple studies that provide empirical evidence that leadership affects outcomes. The studies came from around the world and relate to a broad spectrum of organizations and industries. Camps and Rodriguez (2011) studied universities in Costa Rica; the study found transformational leadership increased employee self-perceptions of themselves, their commitment to the organization, and job performance. Transformational leaders made employees feel as if they were trusted and that the organization had invested in them, which led to higher employee performance (Camps & Rodriguez, 2011).

A study from the Netherlands involving two private companies found that transformational leaders positively affected work engagement of subordinates and boosted optimism (Tims, Bakker, & Xanthopoulou, 2010). Research involving 91 companies from Germany found that transformational leadership significantly related to follower performance and innovation (Boerner, Eisenbeiss, & Griesser, 2007). A study focused on the Canadian military found that transformational leadership significantly predicted effective outcomes at all ranks in the military (Ivey & Kline, 2010).

Research from the health care setting found that idealized influence, intellectual stimulation, individualized consideration were correlated with extra effort, satisfaction, and leader effectiveness (Snodgrass & Shachar, 2008). Retail banks in Macau were the setting for a study on transformational leadership, team performance, and service quality. The results found that intellectual stimulation was highly correlated to performance and quality by encouraging
followers to question assumptions and norms, thus increasing team performance and service quality (Lee, Cheng, Yeung, & Lai, 2011).

**Educational leadership effect on student outcomes.** The previous section supports the idea that many different businesses and industries can show improved outcomes through leadership styles, particularly transformational. In some studies within the following literature review “educational leadership” refers only to the school principal. As the administrator responsible for the instruction in the classroom, the principal has a valuable role. The superintendent, however, has a role that impacts the entire school district. Finding evidence of leadership positively affecting outcomes in an educational setting is the final part of the review of literature. To organize the work, research will be presented on evidence that both school-level administrators and district-level administrators can affect outcomes.

**Principal effect on student outcomes.** Gentilucci and Muto (2007) cited difficulty in relating principal leadership to student performance because of the many variables found in schools. The authors found that a principal’s ability to affect outcomes is often indirect in nature; the theme of administrators exerting an indirect force on outcomes is a common theme in the literature. The principal, in essence, becomes the influence on the things that influence outcomes.

Goddard and Miller (2010) compiled research to evidence a link between leadership and student learning. The evidence supported the idea that principal leadership had a compounded effect over time; much like Gentilucci and Muto (2007), Goddard and Miller found that the principal’s effect on learning was indirect. In a reciprocal fashion, the positive effects of leadership initiated by the principal supported the principal’s leadership efficacy in the future.
Continuing the idea that principal effect on learning is indirect, Bass and Riggio (2006) suggest that transformational principals give followers the skills to be successful through their leadership style. A transformational leader will teach followers to handle stress better, implement change, and how to become leaders themselves.

Seashore-Louis, Leithwood, Wahlstrom, and Anderson (2010) compiled a report concerning school leadership and student learning. Instead of focusing on leadership style, their report isolated behaviors of leaders that are suspected to affect student learning. A summary on principal effectiveness suggests that the principal’s influence on school climate and casting a vision are leadership priorities.

Bruggencate, Luyten, Scheerens, and Sleegers (2012) found a connection between the school leader and student outcomes. This study reinforced that leadership is most effective when taking into account the context of the school and followers. Bruggencate et al. wrote of “mediated” effects to describe what other researchers had called indirect; this study suggests that leadership had an effect on outcomes at multiple levels: school level, teacher level, and student level.

Allen, Grigsby, and Peters (2015) built upon previous research. Their study supported the idea that principal leadership had indirect influence on student learning that was exhibited in the campus climate, trust between principal and teachers, and principals who modeled skills needed by teachers and students to be successful.

The most recent evidence of principal leadership affecting student outcomes is found in the work of Day, Gu, and Sammons (2016). The trio of researchers specifically studied the effect of transformational and instructional principal leadership and how practitioners positively affect outcomes in their buildings. Reinforcing much of the previous work, Day et al.
summarized that effective school leaders were driven by common values that were based on morals and ethics. Effective leaders cast a clear vision that included long- and short-term goals. These leaders were respected and trusted by staff and parents, and worked to build trust and relationships persistently. Finally, principal leaders were most effective when building the leadership capacities of others.

Though research consistently shows that school-level leadership, that of the building principal, has an effect on student outcomes, the effect is often found to be indirect and with varying levels of significance (Gentilucci & Muto, 2007; Goddard & Miller, 2010). Marzano, Waters, and McNulty (2005) conducted a meta-analysis for the purpose of establishing not only a relationship between leadership and outcome, but a numerical significance. Through consideration of 69 studies involving an estimated 14,000 teachers and 1,400,000 students, the data indicated a 0.25 correlation between school leadership and student performance.

Superintendent effect on student outcomes. The final section of the literature review includes available evidence that superintendent leadership has some effect on student learning. While research on the principal was ample, research specifically about superintendent leadership and student learning was more limited. The process of finding superintendent research was made more tedious by the fact that some researchers chose to combine data on all educational leaders. For the purposes of this review, research will be clarified as to whether data reflects only superintendents or the term educational leadership (which may lack definition in the research work).

Early research by Leithwood, Seashore-Louis, Anderson, and Wahlstrom (2004) cites the disparity in research focused solely on superintendents. Using primarily interview data going back to the 1980’s, the authors propose three leadership practices that respond to the need to
affect student learning: capturing the attention of school personnel, capacity building, and pushing the implications of state policies into schools and classrooms. Leithwood et al. suggest that the superintendent is best poised to carry out these tasks by engaging principals, providing for a strong, systematically aligned professional development program, and encouraging participation in data use and implementing changes.

Waters and Marzano (2006), who connected principal leadership to student outcomes, were able to do the same between superintendent leadership and student outcomes. The meta-analysis, similar to the work of the individual authors, summarized their study in four findings. Finding one of the studies indicated that district-level school leadership does have a statistically significant relationship (positive correlation of 0.24) with student learning. Finding two stated that the most effective superintendents focus their efforts on setting and monitoring district goals for achievement and instruction, and aligning board support and resources to those goals. Finding three stated that the longer a superintendent is in a district, the stronger the superintendent’s effect on student achievement. And finally, finding four indicated that despite the value of superintendent leadership, schools perform better when they operate with autonomy. The authors note that this finding appears counter to the claim that leadership affects outcome, but explain that superintendent leadership can provide autonomy to schools while setting and monitoring clear goals for the school to meet (Waters & Marzano, 2006).

Leithwood et al. (2006) clarify that research from their study includes educational leaders from primary and secondary schools (principals), but also district leaders. The research concludes that certain leadership practices amongst all educational leaders build effective teachers. Educational leaders who set direction, develop people, and distribute leadership will have the largest effect on teachers, who in turn directly affect learning.
Leithwood, Day, Sammons, Harris, and Hopkins (2008) again put school and district leaders into the same category. The authors’ review of multiple sources of data determined, amongst other things, that school leadership is second only to classroom teaching as an influence on pupil learning. Leithwood et al. also determined that successful educational leaders practiced similar basic leadership skills, but that each leader’s success was determined by how they carried out leadership. Leithwood et al. concluded that leadership’s effect on learning was indirect, and was most effective when distributed amongst a wide group.

Devono and Price (2012) conducted research that took into account the opinions of superintendents, principals, and teachers in West Virginia. Using a questionnaire the researchers developed, it was determined that superintendents and principals alike found the most important leadership role for affecting student learning was articulating a mission and establishing direction and priorities for the district.

Leithwood and Sun (2012) conducted a meta-analysis of research to specifically study the effects of transformational school leadership. One part of their research focused on transformational school leadership’s effect on multiple outcomes, including achievement. The result showed that transformational leadership had a small but significant positive effect on student achievement.

Hough (2014) studied superintendent effect on learning by giving a Leadership Empowerment Behavioral Questionnaire (LEBQ). Results showed that overconfidence by superintendents negatively affected job performance, and interpersonal communication tends to be overestimated as a strength. A measurement from the study found that superintendents with high levels of humility typically were more effective over the length of their career. Another
connection in the study was the determination that a superintendent’s effectiveness could account for 5.0% to 7.8% of the district’s achievement scores.

Seashore-Louis (2015) returns to previous research in looking for the link between leadership and learning. Seashore-Louis cites data from work done for the Wallace Foundation studies on leadership for learning in the United States. The author notes that obviously teaching matters in determining the success of students; however, the work of teachers is shaped significantly by the variables found in each school. Leadership, Seashore-Louis suggests, impacts the support and work environment that make teachers more productive. Seashore-Louis goes on to cite that school leaders are most effective when there is an instructional focus, leadership is shared, and the culture is one of support for student learning.

Summary

The role of the superintendent in public school districts has changed over time; however, the position is now firmly established as the primary leader of the district. Kentucky superintendents, facing decreasing funding and increasing accountability under state and federal legislation, have experienced a high rate of turnover over the last five years. Public school districts are looking for leadership to fill the void left as veterans retire. Superintendent preparation programs are providing mixed results on preparing leadership for those vacancies.

Leaders come in many forms. Full Range Leadership is one of the most common leadership models studied. Full Range Leadership includes transactional leaders who trade rewards for effective work or punishment for ineffective work. Transformational leadership inspires followers to meet the goals of the organization. Laissez-faire leadership is typically the least effective for both outcomes and followers. The Multifactor Leadership Questionnaire was developed to assess Full Range Leadership in leaders.
Leadership does have an effect on outcome. Though school district leadership is often found to have indirect effect on student outcomes, there are documented relationships between leadership and outcomes. This study will assess leadership style of Kentucky school public school superintendents to determine if the leader’s classification on the Full Range Leadership model can be positively related to how students perform in the superintendent’s district.
Chapter 3: Methodology

This chapter describes the research design and methodology used to complete the study. Using quantitative study design, this study collected leadership style and demographic data from Kentucky school superintendents and compared the collected data to the OAS used by the Kentucky Department of Education (KDE) to assess school district performance. The study sought to identify factors of leadership that affected district success.

Purpose of the Study

The purpose of this quantitative study was to compare superintendent self-reported leadership scores on the Full Range Leadership scale, along with demographic categorical data of the superintendent, with the district’s success as measured by the OAS. The Multifactor Leadership Questionnaire (MLQ) was used to assess leadership styles of superintendents who served their districts for five years prior, thus ensuring that any effect superintendent leadership may have on performance had time to take effect. Other demographic data about the superintendent was collected at the same time: gender, age, race, years of service as a superintendent, total years of service, educational attainment, and prior educational roles. Statistical analysis was performed to compare the leadership styles and demographic data to student performance in an effort to identify significant relationships.

Research Questions and Hypotheses

Question 1. Does a relationship exist between Kentucky school district superintendent leadership style, as measured by the MLQ, and the accountability performance of the school district, as measured by the OAS?

H₀. There will be no significant difference between the OAS of districts whose superintendents scores less than or equal to the 50% percentile of the normed score on the
transformational leadership styles compared to superintendents who scored greater than the 50% percentile of the normed score on transformational leadership.

**H1.** There will be no significant difference between the OAS of districts whose superintendents scores less than or equal to the 50% percentile of the normed score on the transactional leadership styles compared to superintendents who scored greater than the 50% percentile of the normed score on transactional leadership.

**H2.** There will be no significant difference between the OAS of districts whose superintendents scores less than or equal to the 50% percentile of the normed score on the laissez-faire leadership style compared to superintendents who scored greater than the 50% percentile of the normed score on laissez-faire leadership.

**Question 2.** Does a relationship exist between Kentucky school district superintendent educational attainment and the accountability performance of the school district, as measured by the OAS?

**H3.** There will be no significant difference between the OAS of districts whose superintendents highest level of educational attainment was 30 hours above a Master’s degree (Rank I) compared to superintendents who completed terminal degrees (PhD/EdD).

**Question 3.** Does a relationship exist between Kentucky school district superintendent educator job experience and the accountability performance of the school district, as measured by the OAS?

**H4.** There will be no significant difference between the OAS of districts whose superintendents have up to 30 years of educational job experience compared to those with over 30 years of experience.
**H5.** There will be no significant difference between the OAS of districts whose superintendents whose years of service as a superintendent range from five years or less, six to ten years, and eleven or more years.

**Population**

This study focused on educators who fill the school superintendent role in Kentucky public school districts. There are 173 public school districts in the state of Kentucky, comprised of both county and independent districts. Each Kentucky school district has a superintendent position, therefore the target population was 173.

For the purposes of this study, the researcher focused on Kentucky public school superintendents who were in their current districts for five years prior to this study. Setting criteria of five years in the superintendent’s current district ensured that any effect that leadership style had on student outcomes had time to take effect. The Kentucky Association of School Administrators (KASA) publishes an annual Directory of Kentucky Public School Superintendents. Each annual directory identifies the sitting superintendents and how long each one has been in their current district. At the date of publication of the 2016-2017 directory, 78 Kentucky public school superintendents had been in their current district since the 2011-2012 school year. Just prior to the data collection for this study, two of the 78 individuals retired from their roles and no longer had access to their district email accounts. Consequently, the sample size for the study was 76.

**Sampling Procedures and Participants**

Nonprobability sampling was used to select the participants for the study, which does not guarantee that the sample is representative of the group. With a population of 173 and a sample that met the criteria of five years in the current school district of 76, all members of the sample
were invited to participate in the study. Of the 76 invitations, 50 participants began the survey; 48 individuals completed the entire survey. The 48 responses represent 63.2% of those invited and 27.8% of the total population of school superintendents in Kentucky.

Gender distribution of study participants was 77.1% male and 20.8% female; one participant did not respond to the gender question, thus accounting for 2.1% of the participant population. This compared similarly with the gender distribution of Kentucky superintendents at the time of the study; that distribution was 82.1% male and 17.9% female. All participants in the study identified as “white” on the demographic question concerning race. At the time of the study, the population of Kentucky superintendents identified as “white” at a rate of 98.3%.

The survey collected ages of participants in five-year increments. Participant ages ranged from the 36-40 years of age category up to 71-75 years of age. The majority of participants, 85.4%, fell into four primary age categories 41-45, 46-50, 51-55, and 56-60.

A summary of the participant demographics, including gender, age, and race, can be found in Table 1.
Table 1

Participant Demographics

<table>
<thead>
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</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>Female</td>
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<table>
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<tr>
<th>Age</th>
<th>Number</th>
<th>Percent</th>
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</thead>
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</tr>
<tr>
<td>41-45</td>
<td>4</td>
<td>8.33</td>
</tr>
<tr>
<td>46-50</td>
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<td>37.50</td>
</tr>
<tr>
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<tr>
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<tr>
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<td>4.17</td>
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<tr>
<td>66-70</td>
<td>2</td>
<td>4.17</td>
</tr>
<tr>
<td>71-75</td>
<td>2</td>
<td>4.17</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
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<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

Confidentiality and Anonymity

Confidentiality of data was maintained by storing electronically collected data on a USB storage device at the researcher’s residence in a fire-rated safe with a combination lock. The survey and MLQ instrument were administered and housed via Survey Monkey. Survey Monkey uses industry-standard security protocols to protect data transmission between the respondents’ computers and survey provider servers (https://www.surveymonkey.com/mp/policy/security/).

Anonymity was ensured by using an email invitation collector to send and track participants' responses. Data were additionally stored on a password protected computer at the Ballard County Board of Education and are presented in aggregate form with no identifying information.
**Instrumentation**

Upon approval from Murray State University’s Institutional Review Board (see Appendix A), the instrument used to collect data on superintendent leadership was the MLQ (5x-Short) form. The MLQ was developed by Bruce Avolio and Bernard Bass, and has been used to measure individuals’ range of leadership in scholarly research since 1995 (Bass & Avolio, 2004). The MLQ instrument measures a leader’s reliance upon three main leadership styles: transactional, transformational, and laissez-faire. The three main leadership styles comprise the Full Range Leadership model. The MLQ identifies participants’ use of various dimensions within the three main styles. Transactional leadership includes the dimensions of contingent reward, management-by-exception active, and management-by-exception passive; transformational leadership includes the dimensions idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

The MLQ (5x-Short) form consists of 45 items that the leader scored on a five point scale ranging from “0 = not at all” up to “4 = frequently, if not always.” A representative sample of the questions can be found in Appendix C. Respondents answered the degree to which the listed behavior matched their own behavior. Participant results show a score for each of the five subscales of transformational leadership, a score for each of the three subscales of transactional leadership, and a score for laissez-faire leadership (Bass & Avolio, 2004).

The MLQ is a well-established instrument in the field of leadership research; the instrument itself has been extensively researched and validated. Bass and Avolio (2004) note the MLQ’s use in thousands of research programs and dissertations. Antonakis, Avolio, and Sivasubramaniam (2003) found the MLQ (5x-Short) form as a valid and reliable instrument in measuring all the components of the Full Range Leadership model. In addition, Bass and Avolio
(2004) cite multiple studies in a variety of countries and across multiple industries that support the external validity of the MLQ.

**Data Collection**

This study evaluated whether there was a difference between two independent groups on a continuous dependent variable, and whether the difference was statistically significant. The two groups were determined by using the leadership style of the school superintendent, as measured by the MLQ. The dependent variable in this study was the measure of school district success. For the purpose of this study, the measure used was the OAS calculated using the KDE’s accountability system. The OAS takes into account all components of accountability, including student achievement.

Data for this study was collected using the online, web-based survey collector Survey Monkey. Of the 78 current Kentucky public school superintendents who met the criteria of having been superintendents in the current district for four or more years, 76 were included in the sample. Per the approved IRB protocol, the sample group was sent an email invitation explaining the research project and requesting their approval on an Informed Consent document (Appendix B). The first round of email invitations were sent using the Survey Monkey survey collector which tracked responses; this allowed for follow-up reminders sent directed only to those who did not respond the first time. The second and third reminders were sent to the participants’ school email addresses with a weblink that would take the participants directly to the survey. The survey was open for one month with reminders sent at the two-week and three-week period.

Participants were asked to provide demographic data: gender, age, and race. Participants were then asked to provide categorical data that can be used in the study to compare the
respondents across different stages of their career and with different background experiences: number of years in education, number of years as a superintendent, highest level of educational attainment, and prior roles in school districts. Finally, participants were asked to enter their district’s OAS; having participants enter this data themselves helped ensure confidentiality and anonymity of the survey. Participants were able to give the researcher all needed data for the study without giving their name or the name of their district.

The OAS is located by accessing the KDE’s webpage and going to the subpage on School Report Cards. For convenience, participants were sent a summary that include all districts’ Overall Accountability Scores. Participants were instructed to use the summary to locate their district’s score and enter it into the survey. Overall Accountability Scores for the 173 public school districts ranged from a low of 50.1 to a high of 85.6; these numbers represent a score based on calculations in the accountability formula established by the state. Numbers that are factored into the calculation include achievement scores from student tests at the schools within the district; gap and growth calculations derived from student achievement tests; college and career readiness scores based on achievement and certificate attainment; graduation rates; and program review data in the areas of Arts and Humanities, Practical Living, Writing, and Kindergarten through 3rd grade performance (Kentucky Department of Education, 2012).

Upon completion of the demographic and district data, participants took the MLQ (5x-Short) survey using the Survey Monkey data collection tool. The 45-question short form was estimated to take 15 minutes to complete. Participants rated the degree to which their behavior compared to the behavior listed on the instrument by scoring each item on a 5-point Likert scale ranging from “0 = not at all” up to “4 = frequently, if not always.”
Upon completion of the survey, scores were calculated using exported Survey Monkey data and scoring rubrics found in the MLQ manual. Once data collection closed, the information entered by participants comprised the complete data sets needed for statistical analysis. A sample of the MLQ questions is provided in Appendix C. The copyright owners for the MLQ, Mind Garden, Inc., do not give permission for a proposal, thesis, or dissertation to reproduce the MLQ in its entirety. The sample MLQ format follows the Permission to Reproduce document located in Appendix D.

Data Analysis

Data obtained through the online instrument administration included demographic data, district accountability performance data, and individual participant leadership style data. Descriptive statistics showed the demographic and categorical variables of the respondents on the survey: gender, age, race, years in education, years as a superintendent, highest level of educational attainment, and prior roles in school districts.

This study used IBM SPSS Statistics to perform multiple independent-sample t-tests with a purpose of evaluating whether there was a difference between two independent groups on a continuous dependent variable, and whether the difference was statistically significant. The goal of the t-test analysis is to look for statistical support that the difference between two groups is the result of a statistical probability rather than a random occurrence (Kim, 2015). The first assumption of the independent-samples t-test is that there is one continuous dependent variable. The dependent variable in this study was the measure of school district success. For the purpose of this study, the measure used was the OAS calculated using the KDE’s accountability system. The OAS takes into account all components of accountability, including student achievement.
The t-test also requires an independent variable that consists of two categorical, independent groups (Laerd, 2015). Two groups were created by using MLQ data and coding superintendents who scored at or below the 50th percentile on the transformational leadership styles. Using all five of the transformational styles, superintendents who scored at or below the 50th percentile on four of the five categories were coded as a low transformational leader and the others were coded as high transformational leaders. The t-test was then used to compare the OAS of low transformational superintendents to the superintendents who scored high on transformational leadership.

This process was next completed for transactional leadership. Two groups were created by coding each superintendent as high transactional or low transactional based on whether their scores were at or below the 50th percentile or above the 50th percentile of MLQ data on all three categories of transactional leader. A t-test then compared the OAS of the two groups to evaluate differences. Finally, the same process was followed for coding superintendents as low laissez-faire and high laissez-faire. A t-test evaluated differences in performance between those two groups.

Research question two looked for relationships between the participants’ highest level of academic attainment and the accountability score for their district. All participants fell into one of two groups: master’s degree plus 30 hours, or terminal degree. An independent t-test was performed using the two groups of educational attainment as the independent variable with two categorical groups. The accountability score was then the dependent variable.

Finally, research question three investigates relationships between superintendent job experience and accountability results. The research question required two analyses. First, superintendent respondents were divided into two groups: those with 16 to 30 years of
experience in education, and those with more than 30 years in education. The first group, 16-30 years in education, included 31 of the participants. The second group, 30 or more years, included 17 of the respondents. These two groups comprised the two categorical groups in a t-test that was analyzed against the accountability score.

The final analysis compared groups of participants divided by years of experience as superintendents. Responses for this analysis fell into three categories: superintendents with zero to five years of experience, superintendents with six to 10 years of experience, and superintendents with 11 or more years of experience. The first group, zero to five years, was a group of 12; the second group, six to 10, was a group of 24, and the final group, 11 or more, was a group of 12. Because there were three independent categorical groups, this analysis was performed using a one-way analysis of variance (ANOVA).

The ANOVA is used to determine if there are statistically significant differences between two or more independent groups as tested against the OAS as the dependent variable; when there are only two groups, the t-test is used most often, as in our prior analyses. When there are three or more groups, the one-way ANOVA is preferred. An ANOVA test will analyze the variability in data in order to infer the equality amongst multiple populations. Using the ANOVA analysis allows the researcher to interpret outcomes and determine the influence of specific factors on an overall process (Ostertagova & Ostertag, 2013).
Chapter 4: Results

This chapter presents the results of the study by summarizing the survey and demographic data. Each research question and hypothesis will then be presented with supporting data from the study that has been analyzed to adequately address each hypothesis. For the purposes of narrowing data specifically to the research questions, the data presented will be on the topics of: Multifactor Leadership Questionnaire (MLQ) survey results, superintendent educational attainment, and superintendent years of service in education and years of service as a superintendent. The survey data will also include descriptive statistics on the reported Overall Accountability Score (OAS) of each survey participant.

Survey Data

Participants responded to the 45-question MLQ to measure how they perceived their own behaviors to compare to behaviors consistent with Transformational Leadership, Transactional Leadership, and Laissez-faire Leadership. Participants answered each question independently; however, certain questions were grouped together and scored to determine the participant’s comparison to each leadership subgroup. Mind Garden Incorporated, copyright holder for the MLQ, limited the reproduction of the MLQ in its entirety. Per the Permission to Reproduce agreement (Appendix D), only samples of the MLQ questions are provided in this study.

The MLQ sample questions in Appendix C are associated with the following Full Range Leadership characteristics:

Question 1 is an example of a question used to determine the participants’ behaviors compared to the transactional characteristic of contingent reward: “I provide others with assistance in exchange for their efforts.”
Question 2 is an example of a question used to determine the participants’ behaviors compared to the transformational characteristic of intellectual stimulation: “I re-examine critical assumptions to question whether they are appropriate.”

Question 3 is an example of a question used to determine the participants’ behaviors compared to the transactional characteristic of management by exception—passive: “I fail to interfere until problems become serious.”

Question 4 is an example of a question used to determine the participants’ behaviors compared to the transactional characteristic of management by exception—active: “I focus attention on irregularities, mistakes, exceptions, and deviations from standards.”

Question 5 is an example of a question used to determine the participants’ behaviors compared to laissez-faire leadership: “I avoid getting involved when important issues arise.”

**Transformational leadership.** There are five subscales for Transformational Leadership: Idealized Influence - Attributes, Idealized Influence - Behaviors, Inspirational Motivation, Intellectual Stimulation, and Individual Consideration. Results are presented for each subscale below:

**Idealized influence - attributes (IIA).** The MLQ used questions 10, 18, 21, and 25 to measure each participant’s self-reported behaviors to the transformational subcategory of idealized influence—attributes. The participant responses, mean scores, and overall mean for the subscore for the questions associated with idealized influences—attributes appear in Table 2.
Table 2

**Idealized Influence – Attributes (IIA)**

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<tr>
<th>Questions</th>
<th>Not at All</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Frequently, if not Always</th>
<th>Mean</th>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Idealized influence – behaviors (IIB).** The MLQ used questions 6, 14, 23, and 34 to measure each participant’s self-reported behaviors to the transformational subcategory of idealized influences—behaviors. The participant responses, mean scores, and overall mean for the subscore for the questions associated with idealized influences—behaviors appear in Table 3.

Table 3

**Idealized Influence – Behaviors (IIB)**

<table>
<thead>
<tr>
<th>Questions</th>
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<th>Once in a While</th>
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<td>0</td>
<td>0</td>
<td>13</td>
<td>35</td>
<td>3.67</td>
<td>0.59</td>
</tr>
<tr>
<td>Question 23</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>35</td>
<td>3.73</td>
<td>0.44</td>
</tr>
<tr>
<td>Question 34</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>28</td>
<td>3.57</td>
<td>0.49</td>
</tr>
<tr>
<td>IIB - Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.60</td>
<td>0.39</td>
</tr>
</tbody>
</table>

**Inspirational motivation (IM).** The MLQ used questions 9, 13, 26 and 36 to measure each participant’s self-reported behaviors to the transformational subcategory of inspirational motivation. The participant responses, mean scores, and overall mean for the subscore for the questions associated with inspirational motivation appear in Table 4.
Table 4

**Inspirational Motivation (IM)**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Not at All</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Frequently, if not Always</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 9</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>12</td>
<td>30</td>
<td>3.52</td>
<td>0.68</td>
</tr>
<tr>
<td>Question 13</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>14</td>
<td>31</td>
<td>3.58</td>
<td>0.61</td>
</tr>
<tr>
<td>Question 26</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>21</td>
<td>23</td>
<td>3.35</td>
<td>0.72</td>
</tr>
<tr>
<td>Question 36</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>29</td>
<td>3.61</td>
<td>0.49</td>
</tr>
<tr>
<td>IM - Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.50</td>
<td>0.49</td>
</tr>
</tbody>
</table>

**Intellectual stimulation (IS).** The MLQ used questions 2, 8, 30, and 32 to measure each participant’s self-reported behaviors to the transformational subcategory of intellectual stimulation. The participant responses, mean scores, and overall mean for the subscore for the questions associated with intellectual stimulation appear in Table 5.

Table 5

**Intellectual Stimulation (IS)**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Not at All</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Frequently, if not Always</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 2</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>17</td>
<td>24</td>
<td>3.33</td>
<td>0.79</td>
</tr>
<tr>
<td>Question 8</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>14</td>
<td>31</td>
<td>3.52</td>
<td>0.65</td>
</tr>
<tr>
<td>Question 30</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>26</td>
<td>22</td>
<td>3.45</td>
<td>0.50</td>
</tr>
<tr>
<td>Question 32</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>26</td>
<td>19</td>
<td>3.33</td>
<td>0.59</td>
</tr>
<tr>
<td>IS - Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.38</td>
<td>0.47</td>
</tr>
</tbody>
</table>

**Individual consideration (IC).** The MLQ used questions 15, 19, 29, and 31 to measure each participant’s self-reported behaviors to the transformational subcategory of individual consideration. The participant responses, mean scores, and overall mean for the subscore for the questions associated with individual consideration appear in Table 6.
Table 6

<table>
<thead>
<tr>
<th>Questions</th>
<th>Not at All</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Frequently, if not Always</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 15</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>21</td>
<td>17</td>
<td>3.10</td>
<td>0.79</td>
</tr>
<tr>
<td>Question 19</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>14</td>
<td>31</td>
<td>3.55</td>
<td>0.64</td>
</tr>
<tr>
<td>Question 29</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>26</td>
<td>22</td>
<td>3.42</td>
<td>0.64</td>
</tr>
<tr>
<td>Question 31</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>26</td>
<td>19</td>
<td>3.47</td>
<td>0.61</td>
</tr>
</tbody>
</table>

| IC - Overall | | | | | | 3.38 | 0.41 |

**Transactional leadership.** There are three subscales for Transactional Leadership:

Contingent Reward, Management by Exception - Active, and Management by Exception - Passive. Results are presented for each subscale below:

**Contingent reward (CR).** The MLQ used questions 1, 11, 16, and 35 to measure each participant’s self-reported behaviors to the transactional subcategory of contingent reward. The participant responses, mean scores, and overall mean for the subscore for the questions associated with contingent reward appear in Table 7.

Table 7

<table>
<thead>
<tr>
<th>Questions</th>
<th>Not at All</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Frequently, if not Always</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>15</td>
<td>25</td>
<td>3.22</td>
<td>1.02</td>
</tr>
<tr>
<td>Question 11</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>24</td>
<td>3.41</td>
<td>0.64</td>
</tr>
<tr>
<td>Question 16</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>28</td>
<td>12</td>
<td>3.09</td>
<td>0.74</td>
</tr>
<tr>
<td>Question 35</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>16</td>
<td>31</td>
<td>3.63</td>
<td>0.52</td>
</tr>
</tbody>
</table>

| CR - Overall | | | | | | 3.34 | 0.50 |

**Management by exception – active (MEA).** The MLQ used questions 4, 22, 24, and 27 to measure each participant’s self-reported behaviors to the transactional subcategory of management by exception—active. The participant responses, mean scores, and overall mean
for the subscore for the questions associated with management by exception—active appear in Table 8.

Table 8

Management by Exception – Active (MEA)

<table>
<thead>
<tr>
<th>Questions</th>
<th>Not at All</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Frequently, if not Always</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 4</td>
<td>1</td>
<td>7</td>
<td>20</td>
<td>16</td>
<td>4</td>
<td>2.29</td>
<td>0.90</td>
</tr>
<tr>
<td>Question 22</td>
<td>12</td>
<td>14</td>
<td>14</td>
<td>5</td>
<td>3</td>
<td>1.47</td>
<td>1.16</td>
</tr>
<tr>
<td>Question 24</td>
<td>20</td>
<td>14</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>1.14</td>
<td>1.25</td>
</tr>
<tr>
<td>Question 27</td>
<td>10</td>
<td>12</td>
<td>15</td>
<td>7</td>
<td>4</td>
<td>1.63</td>
<td>1.19</td>
</tr>
<tr>
<td>MEA - Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.63</td>
<td>0.86</td>
</tr>
</tbody>
</table>

Management by exception – passive (MEP). The MLQ used questions 3, 12, 17, and 20 to measure each participant’s self-reported behaviors to the transactional subcategory of management by exception—passive. The participant responses, mean scores, and overall mean for the subscore for the questions associated with management by exception—passive appear in Table 9.

Table 9

Management by Exception – Passive (MEP)

<table>
<thead>
<tr>
<th>Questions</th>
<th>Not at All</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Frequently, if not Always</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 3</td>
<td>14</td>
<td>17</td>
<td>11</td>
<td>3</td>
<td>3</td>
<td>2.29</td>
<td>0.90</td>
</tr>
<tr>
<td>Question 12</td>
<td>32</td>
<td>14</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0.37</td>
<td>0.56</td>
</tr>
<tr>
<td>Question 17</td>
<td>13</td>
<td>12</td>
<td>13</td>
<td>6</td>
<td>4</td>
<td>1.53</td>
<td>1.25</td>
</tr>
<tr>
<td>Question 20</td>
<td>36</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0.37</td>
<td>0.77</td>
</tr>
<tr>
<td>MEP - Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.88</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Laissez-faire leadership. Laissez-faire leadership has no subscales in the MLQ. The laissez-faire style of leadership was scored using five questions on the MLQ: questions 5, 7, 28 and 33. The participant responses, mean scores, and overall mean for the subscore for the questions associated with laissez-faire appear in Table 10.
Table 10

*Laissez-faire (LF)*

<table>
<thead>
<tr>
<th>Questions</th>
<th>Not at All</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Frequently, if not Always</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 5</td>
<td>42</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.17</td>
<td>0.62</td>
</tr>
<tr>
<td>Question 7</td>
<td>36</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0.35</td>
<td>0.74</td>
</tr>
<tr>
<td>Question 28</td>
<td>41</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0.15</td>
<td>0.41</td>
</tr>
<tr>
<td>Question 33</td>
<td>36</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0.27</td>
<td>0.49</td>
</tr>
<tr>
<td>LF - Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.23</td>
<td>0.31</td>
</tr>
</tbody>
</table>

**Educational attainment.** Educational attainment of participants fell into only two categories: Master’s degree plus an additional 30 credit hours, known in Kentucky as “rank one”; and a terminal degree such as a PhD, EdD, or other professional terminal degree. Of the 48 survey participants, 75% had the Master’s plus 30 credit hours, while 25% had terminal degrees. The number of participants who identified each category and the corresponding percentage representation of the total group appear in Table 11.

**Years of experience.** Study participants had worked in education from 16-20 years up to 40+ years. The majority of participants, 79.2%, fell into the categories of 21-25, 26-30, and 31-35 years of public education experience. Participants also reported on their own years as a superintendent. The results were much less spread out with nearly half of the participants, 47.9%, falling into the five-year range of 6-10 years. The number of participants who identified each category and the corresponding percentage representation of the total group appear in Table 11.
Table 11

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s Degree plus 30 hours (Rank I)</td>
<td>36</td>
<td>75</td>
</tr>
<tr>
<td>PhD, EdD, or other terminal degree</td>
<td>12</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years in Public Education</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>3</td>
<td>6.25</td>
</tr>
<tr>
<td>21-25</td>
<td>14</td>
<td>29.17</td>
</tr>
<tr>
<td>26-30</td>
<td>14</td>
<td>29.17</td>
</tr>
<tr>
<td>31-35</td>
<td>10</td>
<td>20.83</td>
</tr>
<tr>
<td>36-40</td>
<td>3</td>
<td>6.25</td>
</tr>
<tr>
<td>40+</td>
<td>4</td>
<td>8.33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years as a Superintendent</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>12</td>
<td>25.00</td>
</tr>
<tr>
<td>6-10</td>
<td>23</td>
<td>47.92</td>
</tr>
<tr>
<td>11-15</td>
<td>10</td>
<td>20.83</td>
</tr>
<tr>
<td>16-20</td>
<td>2</td>
<td>4.17</td>
</tr>
<tr>
<td>21-25</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>26-30</td>
<td>1</td>
<td>2.08</td>
</tr>
</tbody>
</table>

**Overall accountability score.** Participants reported their own district OAS for the purposes of analysis. Reported scores (n=48) ranged from a low of 63.1 to a high of 85.6. OAS data had a mean score of 71.3 and a median OAS of 70.6.

**Analysis**

**Question 1.** Does a relationship exist between Kentucky school district superintendent leadership style, as measured by the Multifactor Leadership Questionnaire (MLQ), and the accountability performance of the school district, as measured by the Overall Accountability Score (OAS)?

To complete the analysis necessary to address the topics in Research Question 1, the results of the MLQ and the MLQ Manual were needed. Using percentiles for self-ratings, each respondent to the survey was compared to the 50th percentile in each of the leadership subscales. A participant who scored at or below the 50th percentile in four out of five transformational
leadership subscales was considered “low transformational” and coded as a “1” for the purposes of analysis in SPSS. A participant who scored above the 50th percentile in three, four, or five of the subscales was considered “high transformational” and was coded as a “2” for analysis. Independent-samples t-test then was performed to compare low and high transformational superintendents to their district’s OAS.

The same steps were done for transactional leadership with “low transactional” leaders scoring less than or equal to the 50th percentile on two out of three of the transactional subscales. Low transactional leaders were coded as “1” and participants scores two out of the three or higher on transactional subscales were considered “high” and were coded as “2.” Since laissez-faire had no subscales, all participants were coded as a “1” or “2” depending on whether they scored less than or equal to the 50th percentile or above the 50th percentile. Results for each hypothesis follow.

\[ H_0. \] There will be no significant difference between the OAS of districts whose superintendents scores less than or equal to the 50th percentile of the normed score on the transformational leadership styles compared to superintendents who scored greater than the 50th percentile of the normed score on transformational leadership.

An independent-samples t-test was conducted to determine if there were differences in the OAS of superintendents who scored less than or equal to the 50th percentile of transformational leadership scores compared to superintendents who scored greater than the 50th percentile. There was no significant difference in the scores of superintendents less than or equal to the 50th percentile \((M=71.19, \ SD=4.39)\) and superintendents above the 50th percentile \((M=71.37, \ SD=5.26)\); \(t(46) = -0.101, \ p=0.920\). With no statistically significant difference
between the means ($p=0.920$), the study failed to reject the null hypothesis. A summary of data analysis for $H_0$ can be found in Table 12.

Table 12

<table>
<thead>
<tr>
<th>Transformational Leadership Score</th>
<th>95% CI for Mean Difference</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥50th %ile</td>
<td>M 71.19, SD 4.39, n 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;50th %ile</td>
<td>M 71.37, SD 5.26, n 37</td>
<td>-3.69, 3.34</td>
<td>46</td>
</tr>
</tbody>
</table>

* $p=0.920$

$H_1$. There will be no significant difference between the OAS of districts whose superintendents scores less than or equal to the 50% percentile of the normed score on the transactional leadership styles compared to superintendents who scored greater than the 50% percentile of the normed score on transactional leadership.

An independent-samples t-test was conducted to determine if there were differences in the OAS of superintendents who scored less than or equal to the 50th percentile of transactional leadership scores compared to superintendents who scored greater than the 50th percentile. There was no significant difference in the scores of superintendents less than or equal to the 50th percentile ($M=70.91$, $SD=5.19$) and superintendents above the 50th percentile ($M=71.97$, $SD=4.85$); $t(46)=-0.711$, $p=0.481$. With no statistically significant difference between the means ($p=0.481$), the study failed to reject the null hypothesis. A summary of data analysis for $H_1$ can be found in Table 13.
Table 13

*Descriptive Statistics and t-test for OAS by Transactional Leadership Score*

<table>
<thead>
<tr>
<th>Transactional Leadership Score</th>
<th>95% CI for Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥50&lt;sup&gt;th&lt;/sup&gt; %ile</td>
<td>&lt;50&lt;sup&gt;th&lt;/sup&gt; %ile</td>
</tr>
<tr>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>----</td>
<td>-----</td>
</tr>
<tr>
<td>OAS</td>
<td>70.91</td>
</tr>
</tbody>
</table>

* p=0.481

**H<sub>2</sub>** There will be no significant difference between the OAS of districts whose superintendents scores less than or equal to the 50<sup>th</sup> percentile of the normed score on the laissez-faire leadership style compared to superintendents who scored greater than the 50<sup>th</sup> percentile of the normed score on laissez-faire leadership.

An independent-samples t-test was conducted to determine if there were differences in the OAS of superintendents who scored less than or equal to the 50<sup>th</sup> percentile of laissez-faire leadership scores compared to superintendents who scored greater than the 50<sup>th</sup> percentile. There was no significant difference in the scores of superintendents less than or equal to the 50<sup>th</sup> percentile (M=71.41, SD=5.07) and superintendents above the 50<sup>th</sup> percentile (M=70.56, SD=5.19); t(46)=0.357, p=0.723. With no statistically significant difference between the means (p=0.723), the study failed to reject the null hypothesis. A summary of data analysis for **H<sub>2</sub>** can be found in Table 14.

Table 14

*Descriptive Statistics and t-test for OAS by Laissez-Faire Leadership Score*

<table>
<thead>
<tr>
<th>Laissez-faire Leadership Score</th>
<th>95% CI for Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥50&lt;sup&gt;th&lt;/sup&gt; %ile</td>
<td>&lt;50&lt;sup&gt;th&lt;/sup&gt; %ile</td>
</tr>
<tr>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>----</td>
<td>-----</td>
</tr>
<tr>
<td>OAS</td>
<td>71.41</td>
</tr>
</tbody>
</table>

* p=0.723
**Question 2.** Does a relationship exist between Kentucky school district superintendent educational attainment and the accountability performance of the school district, as measured by the Accountability Performance Overall Score (OAS)?

In order to analyze this question and the corresponding hypothesis, the information required was the self-entered data on educational attainment. Every participant fell into one of two categories: Master’s degree plus 30 additional credit hours (Rank I); or PhD, EdD, or other terminal degree. Participants with Rank I were coded as “1” and participants were terminal degrees were coded as “2.” An independent-samples t-test was then performed to compare the OAS of superintendents with Rank I compared to superintendents with terminal degrees.

**H3.** There will be no significant difference between the OAS of districts whose superintendent’s highest level of educational attainment was 30 hours above a Master’s degree (Rank I) compared to superintendents who completed terminal degrees (PhD/EdD).

An independent-samples t-test was conducted to determine if there were differences in the OAS of superintendents who had Master’s degrees plus 30 credit hours compared to superintendents who had terminal degrees. There was no significant difference in the scores of superintendents with Master’s degree plus 30 hours (M=71.72, SD=5.17) and superintendents with terminal degrees (M=70.16, SD=4.59); t(46)= 0.928, p=0.358. With no statistically significant difference between the means (p=0.358), the study failed to reject the null hypothesis.

A summary of data analysis for H3 can be found in Table 15.
Question 3. Does a relationship exist between Kentucky school district superintendent educator job experience and the accountability performance of the school district, as measured by the Overall Accountability Score (OAS)?

In order to analyze data relative to Research Question 3 and the hypotheses that follow, the data needed included the self-reported years of service in education and years as a superintendent. Looking first at experience in education in general ($H_4$), participants who had between zero and 30 years of experience were coded as “1,” while participants with over 30 years of experience were coded “2.” An independent-samples t-test was then performed to compare the OAS of superintendents with 0-30 years of experience compared to superintendents with 31 or more years of experience.

In $H_5$, the participants’ years as superintendents aligned more readily into three groups: up to five years of experience, six to ten years of experience, and eleven or more years of superintendent experience. Because there were more than two independent groups, a one-way ANOVA was performed to look for significant variations in the OAS between three groups of superintendent experience.

$H_6$. There will be no significant difference between the OAS of districts whose superintendents have up to 30 years of educational job experience compared to those with over 30 years of experience.
An independent-samples t-test was conducted to determine if there were differences in the OAS of superintendents who had up to 30 years of experience compared to superintendents who had over 30 years of experience. There was no significant difference in the scores of superintendents with up to 30 years of experience (M=71.18, SD=4.69) and superintendents with over 30 years of experience (M=71.60, SD=5.74); t(46)= -0.276, p=0.784. With no statistically significant difference between the means (p=0.784), the study failed to reject the null hypothesis.

A summary of data analysis for H4 can be found in Table 16.

Table 16

<table>
<thead>
<tr>
<th>Educator Experience</th>
<th>Up to 30 Years</th>
<th>Over 30 Years</th>
<th>95% CI for Mean Difference</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
</tr>
<tr>
<td>OAS</td>
<td>71.18</td>
<td>4.69</td>
<td>31</td>
<td>71.60</td>
<td>5.74</td>
</tr>
</tbody>
</table>

* p=0.784

H5. There will be no significant difference between the OAS of districts whose superintendents whose years of service as a superintendent range from five years or less, six to ten years, and eleven or more years.

A one-way ANOVA was conducted to compare the OAS of superintendents with up to five years of superintendent experience (n=12), six to ten years of superintendent experience (n=24), and eleven or more years of superintendent experience (n=12). Superintendent participants with up to five years superintendent experience had a mean OAS of 70.53 (SD=5.00). Participants with six to ten years of superintendent experience had a mean OAS of 70.70 (SD=4.88). Participants with eleven or more years of experience had a mean OAS of 73.38 (SD=5.22). There was not a significant effect of superintendent experience on OAS at the
p<0.05 level for the three levels of experience [F(2, 45)=1.36, p=0.267], the study failed to reject the null hypothesis. A summary of data analysis for $H_5$ can be found in Table 17.

Table 17

<table>
<thead>
<tr>
<th>Years of Superintendent Experience</th>
<th>One-Way Analysis of Variance (ANOVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of Squares</td>
</tr>
<tr>
<td>Between Groups</td>
<td>67.86</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1121.35</td>
</tr>
<tr>
<td>Total</td>
<td>1189.22</td>
</tr>
</tbody>
</table>
Chapter 5: Discussion

The purpose of this study was to compare superintendent leadership on the Full Range Leadership scale, along with other qualities of the superintendent, with the academic performance of students from the same district. The Multifactor Leadership Questionnaire (MLQ) was used to assess leadership styles of superintendents who have served their districts for at least five years, thus ensuring that any effect superintendent leadership may have on performance has had time to take effect.

Of the 173 superintendents in the state of Kentucky, 76 superintendents met the five-year requirement and were invited to attend. The survey was administered electronically using the online survey collector, Survey Monkey. Fifty superintendents began the survey, but 48 individuals ultimately completed the entire survey. Survey participant demographics were very similar to the demographics of the target population.

Summary of Findings

Research Question 1 posed whether a relationship existed between Kentucky school district superintendent leadership style and the performance of students. Using the MLQ to measure leadership style and the OAS of each district to measure performance, three null hypotheses were presented to address each of the three main learning styles measured by the MLQ: Transformational Leadership ($H_0$), Transactional Leadership ($H_1$), and Laissez-faire Leadership ($H_2$).

Independent-sample t-tests were performed for each of the hypotheses. $H_0$ compared low transformational leaders to high transformational leaders and analysis showed that there was no significant difference between the OAS of those two groups. $H_1$ compared low transactional leaders to high transactional leaders and analysis showed that there was no significant difference
between the OAS of those two groups. Finally, \( H_2 \) compared low laissez-faire leaders to high laissez-faire leaders and results again showed no significant difference in the OAS of the two groups. Therefore, this study does not show a relationship between superintendent leadership and student performance.

Research Question 2, \( H_3 \), looks for a relationship between superintendent educational attainment and district performance. Participants identified themselves as either having a Master’s degree plus 30 credit hours, or as holders of a terminal degree such as a PhD or EdD. An independent-sample t-test was again used to compare two groups based on participant response. Analysis showed no significant difference between the OAS of superintendents with a Master’s plus 30 hours compared to superintendents with terminal degrees. This study, then, does not indicate a relationship between educational attainment and district performance.

The last research question, Research Question 3, questions whether a relationship exists between superintendent job experience and district performance. \( H_4 \) compares participants with up to 30 years of experience to participants with over 30 years of experience. An independent-sample t-test was used for analysis and there was no significant difference between the OAS of superintendents with up to 30 years of experience as compared to superintendents with over 30 years of experience.

A second hypothesis for Research Question 3, \( H_5 \), was posed to compare participants’ experience as a superintendent. Participant responses compared best in three groups: superintendents with up to five years of experience, superintendents with six to ten years of experience, and superintendents with eleven or more years of experience. Because there were three groups to compare against the OAS as the dependent variable, a one-way analysis of variance (ANOVA) was used for the analysis. Though superintendents with eleven or more
years of experience did have a slightly higher OAS (M=73.38) compared to those with up to five years of experience (M=70.53) and the six to ten year group (M=70.70), the analysis results showed that the variation was not statistically significant. H₄ and H₅ analysis suggest that there is not a relationship between superintendent job experience and district performance in this study.

**Interpretations**

**Leadership.** The review of related literature showed that, historically, leadership did affect outcomes. Outside of educational fields, leadership not only affected outcomes, but transformational leadership was demonstrated to have a significant positive effect on performance, follower attitudes, satisfaction, and work ethic, and produced results (Callow, Smith, Hardy, Arthur, & Hardy, 2009; Freeborough, 2015; Yahaya & Ebrahim, 2016; Camps & Rodriguez, 2011; Tims, Bakker, & Xanthopoulou, 2010; Boemer, Eisenbeiss, & Grieser, 2007; Ivey & Kline, 2010; Snodgrass & Shachar, 2008; Lee, Cheng, Yeung, & Lai, 2011).

Within the field of education, research also supports the suggestion that leadership, in the form of school administration, has an effect on student performance. Research by Bass and Riggio (2006) supports the ideas that transformational leadership prepared other school leaders to produce results. Day, Gu, and Sammons (2016) studied transformational leadership specifically and came to the conclusion that leaders exhibiting transformational leadership qualities had positive affected outcomes in their schools. Because the results of this study do not support previous research, detailed discussion about why there is an apparent disconnect is warranted.

**Instrumentation.** While the MLQ has been validated and used extensively in leadership research, the use of the MLQ in this study could account for results varying from previous
results. For this purpose of this study, the MLQ Self Rating form was used exclusively. This means that participants in the study scored their own behaviors in comparison to behaviors on the Full Range Leadership Theory continuum. Results in this study show that participants aligned their behaviors most often with behaviors associated with transformational leadership. Out of nine possible subcategories in the Full Range Leadership model, the top four all came from transformational leadership.

While it is possible that all 48 participants in the study were true transformational leaders, it is also possible that school administrators are aware of the terminology and research that supports the idea that the best leaders are transformational leaders. In other words, since each participant was rating themselves, it is possible that some scored themselves higher on transformational behaviors than what they actually exhibit. This study utilized the MLQ leader form, which was a self-assessment by each participant. Mind Garden also has an MLQ rater form that is designed to be taken by the employees who work for leaders. If the rater form had been administered to the subordinates of the, it is possible that scores would not have been so heavily weighted toward transformational leadership. That difference could have resulted in analysis results that would show statistically significant relationships.

**Variables.** For the purpose of this quantitative study, specific numbers were needed to support the variables of both leadership and student achievement. Full Range Leadership was selected as the leadership model based on a review of literature that identified both the Full Range Leadership model and the specific leadership style of transformational as the most current leadership model and style used in current educational research (Northouse, 2016; Yahaya & Ebrbrahim, 2016). There are, however, other leadership theory models and styles that could have been used that might have yielded different results. Literature indicated that instructional
leadership and authentic leadership were both commonly used when discussing educational administration leadership styles. The question remains as to whether a different model or style of leadership measured in the superintendents might have produced different results in this study.

The review of literature identified researchers that had abandoned the notion of identifying a specific leadership style to associate with effective school leader behaviors. Instead, those researchers looked at specific behaviors of educational leaders without considering a leadership model or specific style that the behaviors were associated with. In doing so, those researchers found positive relationships between the behaviors and outcomes (Seashore-Louis, Leithwood, Wahlstrom, & Anderson, 2010; Marzano, Waters, & McNulty, 2005). Taking that approach might have identified specific behaviors of Kentucky superintendents that resulted in high performance. By comparing behaviors within a model or style, it is possible that this study fails to identify successful behaviors in lieu of attempting to identify successful leadership styles.

There also is a possibility that leadership was not the strongest independent variable to analyze in this study. Literature indicated a strong link between the culture of an organization and the organizational results. While one may establish a link between the leadership style of the organizational leader and the culture that results, it may also have been valuable to simply measure the culture within the organization and compare that to the student outcomes. In other words, culture may have been a better indicator of success than leadership style.

**Role of the superintendent.** In hindsight, the role of the superintendent itself might have been a factor that limited a statistical relationship to student outcomes. Related literature did find that it was difficult to isolate contributing factors to student success simply because there were so many variables in play (Gentilucci & Muto, 2007). Building-level administrators have greater access and interactions with students than superintendents do, and the principal’s
influence on student learning was often characterized as “indirect” (Bruggencate, Luyten, Scheeerens, & Sleegers, 2012; Allen, Grgisby, & Peters, 2015). If the school principal’s effect on students is to “influence the things that influence outcomes” as stated by Gentilucci and Muto, then the effect of a school district superintendent, another level removed, is even more difficult to define.

Similar to building-level administrators, research on superintendent leadership showed that a superintendent’s effect on outcomes was often indirect (Leithwood, Day, Sammons, Harris, & Hopkins, 2008). If principals were influencers of things that influence outcomes, then a superintendent’s lack of connection and access to students surely must affect the statistical relationship of something as specific as superintendent leadership style to student outcomes. Multiple researchers noted that a superintendent’s leadership had the strongest effect on the behaviors of other administrators (Leithwood, Seashore-Louis, Anderson, & Wahlstrom, 2004; Waters & Marzano, 2006). For the purposes of this study, perhaps a more effective approach would have been to measure how effectively a superintendent is able to develop leaders, set direction for the district, and articulate a vision (Leithwood et al., 2008; Devono & Price, 2012).

A final point of discussion on the variation between research on leadership’s effect on outcomes and the results of this study is the continuously changing role of the superintendent. Kowalski (2005a) presented a framework for understanding the superintendent’s role over time. The framework progressed from the 1800’s up to present times, with the role beginning with teacher-scholar and transitioning to a manager. The manager then became a democratic leader, which then became an applied social scientist. In Kowalski’s framework, the social scientist finally became a communicator. Interestingly, Kowalski’s framework was from a 2005 publication that leaves roughly 40 years since the last transformation of the superintendent role.
While superintendents still want to be considered instructional leaders, surveys of superintendents indicate that the position is becoming more political in nature and requires the skills of corporate CEO’s (Kowalski, McCord, Petersen, Young, & Ellerson, 2011; Quinn, 2007). There is potential that superintendent interaction with students is coming to a low point historically. The study of a P-20 continuum includes pK-12 education, postsecondary education, and the workforce all working together to sustain the community through economic growth. In the P-20 continuum, the superintendent fills the role of an educational organization leader and community leader. The superintendent must create partnerships and that not only benefit the educational organization and students, but also benefit the students and community into the future as the students become members of the workforce.

In considering this potential shift in the superintendent’s role, it is important to understand that the leadership required to be an educator, manager, democratic leader, social scientist, and communicator may not all fit the same mold. As the superintendent moves into political and community leadership roles, the transformational leadership style that superintendents have been told is necessary for success may not yield the same results. Building partnerships that look for shared opportunities and benefits has an implied sense of transactional leadership. Interestingly, this study may be linking the superintendent leadership to a much too specific outcome in expecting the student outcomes to show a relationship to the superintendent’s style.

**Educational attainment.** Literature indicated a mixed response from superintendents both nationally and from Kentucky on the value and adequacy of required education courses. Nationally, 78.7% of superintendents in the 2010 Decennial Study indicated that their academic preparation was good or excellent. In the same study, 83.3% indicated that continuing education
was useful or very useful. However, only 45.3% pursued terminal degrees (Kowalski et al., 2011). A 2010 report on just Kentucky superintendents showed that only 18.7% had terminal degrees, yet 95% of them felt like trainings and continuing education were important (Seiler et al., 2010).

This study found no significant difference in the OAS of school districts led by a superintendent with Rank I certification versus a terminal degree. Evidence in the literature also suggests a wide disparity amongst the topics of PhD and EdD programs as opposed to the required courses for Rank I certification to be a superintendent in Kentucky. For instance, all programs that grant Kentucky superintendent certification must focus on approved coursework in the topics school district leadership, instructional planning for student learning, management, and systems for change (Walters-Parker, Bell, & Graves, 2013). Compare this with graduate programs that grant degrees, and the areas of specialty can vary greatly. In addition, Levine (2005) found that admission standards for educational graduate degrees had been lowered by degree granting institutions to a point where it was easier to get into those programs than other post-graduate programs on the same campus. While every superintendent in Kentucky must have minimum coursework to earn superintendent certification, it may not be a surprise that a terminal degree showed no significant statistical advantage to student outcomes.

**Experience.** Goddard and Miller (2010) noted in their research that an administrator’s effect on student performance compounded over time. A leader’s efforts and positive outcomes today support the educational leader’s efforts into the future. This evidence supports the notion that good leaders both need time for their leadership to take effect, and raises the question of whether high performing school districts have superintendents who have more experience than others.
Results for H4 may not be surprising since they indicate that time in education up to 30 years of experience shows no significant difference from time in education with over 30 years of experience. For the purposes of this study, participants were not required to distinguish between how many years of experience were as a teacher versus years as an administrator. Without guidance on the survey, some participants might have included time in classified roles or potentially any other number of positions that may not yield comparable experience as a classroom teacher.

The results of this study showed no statistically significant difference in the means of the OAS of superintendents with up to five years of experience, six to ten years of experience, or eleven or more years of experience. While the statistics noted the lack of significance, there was an obvious difference in the means. Superintendents with six to ten years of experience (M=70.70, SD=4.88) had a modest 0.24% increase over superintendents with up to five years of experience (M=70.53, SD=5.00). However, superintendents with eleven or more years of experience (M=73.38, SD=5.22) outperformed the six to ten year group by 3.79%. Though not significant statistically, results here may represent practical significance. If students perform better in districts where the superintendent has more experience in that role, then superintendent experience becomes the factor boards of education should look for in filling superintendent vacancies. These numbers may warrant a more detailed review.

Limitations

There were several limitations to this study, beginning with the representation of the total population. The 48 participants came from a group of 76 superintendents who met the criteria of having been on the job for four or more years since the last reported state accountability scores; that resulted in superintendents having five or more years of experience in their district. The
participant number represented only 27.8% of the superintendents in the state. While the criteria of having been in the district four years prior to the most recent score release did ensure that the superintendent’s leadership had any effect it was going to have, it also limited the participants which could have affected representation.

Another limitation of the study was the dependent variable used in the analysis. This study used each district’s Overall Accountability Score (OAS) as the measure of student performance. The OAS is calculated with formula from the Kentucky Department of Education and takes into account many measures. OAS does include, specifically, the academic scores of school district students on tests of content knowledge; these include standardized test scores in Reading, Math, Science, and Social Studies. However, the OAS also takes into account measures deemed relevant by the state that may not be direct indicators of individual student success. Examples of those measures include Gap, Growth, and Graduation Rate. While the additional measures are valuable to determining the success of a school or district, one may argue that they are less accurate for measuring individual student success. In addition, the OAS was a manually entered data point by each of the participants; inadvertently entering the wrong OAS by participants would have resulted in the wrong dependent variable in each one of the analyses.

While the Multifactor Leadership Questionnaire (MLQ) has been used for many years in studies on Full Range Leadership Theory, there are limitations associated with the instrument as well. In this study, the Leader Form of the MLQ was the sole form used to measure leadership. The Leader Form is a self-assessment performed by the participant in which they rate themselves. There is also a Rater Form available that requires others within the organization, followers if you will, to rate the leader on the MLQ. Because Full Range Leadership, and more
specifically the style of Transformational Leadership, is commonly discussed among leadership, it is possible that self-rating forms were not as accurate as Rater Forms of the MLQ. Superintendents very likely have not only heard of Transformational Leadership, but many likely have studied the behaviors associated with it. When self-rating on the MLQ, it is possible that participants rated themselves higher in Transformational Leadership behaviors that they know are associated with successful leaders.

**Research Recommendations**

Based on the results of this study, there are a few recommendations for future consideration. As has been discussed in this chapter, including a leadership rating score from people who work directly under the leader would provide a more robust description of the leadership style of the individual. Failing to do so puts all reliance on the leader to answer accurately how their behaviors compare.

Continuing to review relevant literature as it is published, a future researcher may decide to evaluate student academic performance against some standard other than leadership. As was noted in this chapter, organizational culture has been identified as a variable that affects outcomes. Future researchers may also choose to assess other leadership styles beyond the Full Range Model, or they may choose a dependent variable that is deemed more appropriate to determine superintendent effect.

Due to the variation in the means of the groups analyzed in H₅ (superintendent years of experience), there may be value in focusing a study on the effects of superintendent experience on the same or other outcomes. Though the variation in the means was not statistically significant on student outcomes as measured by the OAS, there may be other factors that show a statistical significance that school district and communities could benefit from knowing.
Practical Application

Though this study failed to identify a statistically significant relationship between superintendents and student outcomes using the variables of leadership style, educational attainment, and experience, there is practical significance to be extruded from the study. Results of this study and information from related literature give rise to suggestions for ways that superintendents may maximize their value in a school district. Two areas where this practical application may best be applied are in the focus of the superintendent’s work and the skills required to be a successful superintendent.

Using the framework for understanding the superintendent role from Kowalski (2005a), there are many different facets to the superintendent role. Superintendents indicate that instructional leadership is an important role on their list. However, overall results of this study may serve as an indication that the superintendent is not as integral to the success of students in the district as many think. While the superintendent role may be valuable, it is likely most valuable in creating a setting where other leaders, building administrators for instance, can interact with teachers and students and have a more profound effect on the educational outcomes of students. By interacting with partners, communicating needs and goals, and procuring valuable resources, a superintendent can positively affect the district; however, those specific tasks do not appear relative to the actual student outcomes themselves. Knowing this practical information, a superintendent can effectively refocus their work on tasks that yield higher returns for the district.

Though related literature indicated that transformational leadership produced results, this study indicated that superintendents who were high in transformational leadership did not have students who performed at a statistically significantly higher level than low transformational
superintendents. In fact, differences in any of the leadership style showed no significant
difference. This begs the question as to what skills, then, are valuable for a superintendent to be
successful. If a superintendent’s most effective tasks are to be a communication conduit with
and between the board of education and the community, then communication would obviously
be a valued skill. If resource procurement, budgets, and negotiations are tasks required for
success in the current superintendent role, then operating from a more transactional mindset is
more valuable than would be transformational. The fact that the superintendent role continues to
grow and include so many different needed skills indicates the need for superintendents who are
capable of maneuvering in many different settings and in different frames.

In summary, superintendents and boards of education should spend time reflecting on the
tasks that yield results and sharpening the skills that are required to complete those tasks. This
study did not support the belief that a strong transformational leadership style should be the
current focus of school district leaders.

**Conclusion**

This study provides needed insight into the role of Kentucky school district
superintendent. While the results failed to show a statistically significant relationship between
Kentucky superintendents’ leadership styles, educational attainment, and years of experience
compared to the Overall Accountability Score for their respective districts, the study helps to
highlight the complexity of the superintendent position.

Superintendents take on many roles that require a broad set of skills and abilities. As the
organizational leader who manages the P-20 continuum from primary to grade 12, there is little
doubt that the Kentucky school superintendent holds a very valuable place in connecting P-20
processes in communities across the Commonwealth. Continued research on the characteristics
of effective, high-performing school superintendents can only further support and growth in our schools and communities.
References


*International Journal of Educational Leadership Preparation, 10*(2), 1-22.


http://doi.org/10.1016/j.leaqua.2014.04.005


http://doi.org/10.1016/S1048-9843(03)00030-4


http://bul.sagepub.com/cgi/doi/10.1177/0192636507303738


http://dx.doi.org/10.3402/nstep.v1.30321


Appendix A

Institutional Review Board Approval

Murray State University

Institutional Review Board

928 Wells Hall
Murray, KY 42071-3218
270-809-2850 - irb@msu.murraystate.edu

TO: Randal Wilson
   Educational Studies Leadership and Counseling

FROM: Institutional Review Board
      Jonathan Baskin, IRB Coordinator

DATE: 4/4/2017


The IRB has completed its review of your student's Level 1 protocol entitled Connecting Kentucky Superintendent Leadership to District Accountability Performance. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.

Your stated data collection period is from 3/27/2017 to 12/8/2017.

If data collection extends beyond this period, please submit an Amendment to an Approved Protocol form detailing the new data collection period and the reason for the change.

This Level 1 approval is valid until 4/3/2018.

If data collection and analysis extends beyond this date, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 4/3/2018. You must reapply for IRB approval by submitting a Project Update and Closure form (available at murraystate.edu/irb). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.

Opportunity afforded
murraystate.edu
Appendix B
Informed Consent

Study Title: Connecting Kentucky Superintendent Leadership to Accountability Performance

Investigator: Casey L. Allen

Faculty Mentor: Dr. Randal Wilson; Educational Studies, Leadership, and Counseling; (270) 809-3168

You are being invited to participate in an online survey research study conducted through Murray State University. As such, I am providing the following information so that you may make an informed decision on whether you would like to participate:

The purpose of this study is to identify relationships between Kentucky public school superintendent leadership qualities and accountability scores in the participants’ school districts. This survey should take approximately 20 minutes to complete. There are no anticipated benefits because you participated in this research study. However, your participation will help to increase our understanding of the impact of school superintendents.

Your participation is strictly voluntary and you are free to withdraw/stop participating at any time. You may discontinue participation by exiting this page or closing your internet browser.

All of your responses will remain anonymous, meaning no one will know which answers are yours. All data will be secured on a password protected computer owned by the investigator. However, we are unable to guarantee the security of the computer on which you choose to enter your responses. Information (or data) you enter, and websites you visit online can be tracked, captured, corrupted, lost, or otherwise misused.

Although your responses will remain anonymous, your data/answers may be combined with the data/answers of others and submitted for presentation at conventions or publications in scholarly journals.

This project has been reviewed and approved by the Murray State University Institutional Review Board (IRB) for the Protection of Human Subjects. If you have any questions about your rights as a research participant, you should contact the MSU IRB Coordinator at (270) 809-2916 or msu.irb@murraystate.edu.
Appendix C

Sample Questions from MLQ

Multifactor Leadership Questionnaire
Leader Form

For use by Casey Allen only. Received from Mind Garden, Inc. on December 5, 2016

My Name: ___________________________ Date: __________________
Organization ID #: ___________________ Leader ID #: ___________________

This questionnaire is to describe your leadership style as you perceive it. Please answer all items on this answer sheet. If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits you. The word “others” may mean your peers, clients, direct reports, supervisors, and/or all of these individuals.

Use the following rating scale:

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Once in a while</th>
<th>Sometimes</th>
<th>Fairly often</th>
<th>Frequently, if not always</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

1. I provide others with assistance in exchange for their efforts .................................. 0 1 2 3 4
2. I re-examine critical assumptions to question whether they are appropriate............... 0 1 2 3 4
3. I fail to interfere until problems become serious .......................................................... 0 1 2 3 4
4. I focus attention on irregularities, mistakes, exceptions, and deviations from standards ... 0 1 2 3 4
5. I avoid getting involved when important issues arise ....................................................... 0 1 2 3 4

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Appendix D

MLQ Permission to Reproduce

For use by Casey Allen only. Received from Mind Garden, Inc. on April 7, 2017

mind garden
www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her research:

Instrument: *Multifactor Leadership Questionnaire*

Authors: Bruce Avolio and Bernard Bass

Copyright: 1995 by Bruce Avolio and Bernard Bass

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

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